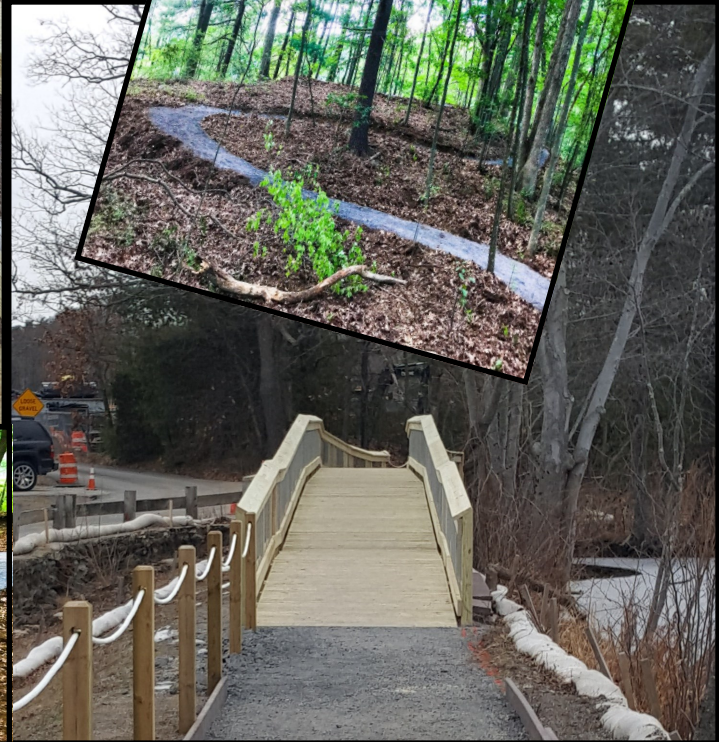


CAPITAL IMPROVEMENT PLAN FY2019—FY2023 OFFICE OF THE TOWN MANAGER



Executive Summary

Section 1

EXECUTIVE SUMMARY

The Recommended Capital Plan

The Town Charter requires that the Town Manager, after consultation with the Board of Selectmen, submit in writing to the Board of Selectmen a careful, detailed estimate of the recommended capital expenditures showing specifically the amount necessary to be provided for each office, department and activity and a statement of the amounts required to meet the debt service requirements or other indebtedness of the Town. This plan includes the proposed FY2019 Capital Budget, which is recommended to the Finance Committee and ultimately to Town Meeting for consideration. The projects presented for FY2020-FY2023 reflect an assessment by municipal departments and the School Committee of future capital needs and are primarily shown for planning purposes. While many of these projects may ultimately be recommended for funding, the plan is a fluid one, and projects may be added and deleted from the list as circumstances change. The proposed financing plan for the recommended FY2019 capital budget is shown in Table 1.

Table 1

Fund	Cash	Debt	Other	Total
General Fund	\$9,183,869	\$72,511,000	\$1,855,000	\$83,549,869
Community Preservation Fund	\$2,820,000			\$2,820,000
Solid Waste Enterprise	\$345,360	\$645,000		\$990,360
Sewer Enterprise	\$2,301,111			\$2,301,111
Water Enterprise	\$3,311,048			\$3,311,048
Total (all funds)	\$17,961,388	\$73,156,000	\$1,855,000	\$92,972,388

FY2019 Highlights

A capital expenditure is defined by the Needham General By-laws as the acquisition, construction, renovation, betterment, or improvement involving land, public buildings and facilities; water and sewer system laterals, mains and appurtenances; and equipment or vehicles; provided that the cost is \$25,000 or more and the improvement will have a useful life of five years or more; or any planning, feasibility, engineering or design study in preparation for such capital expense. The FY2019 Capital Plan

includes continued focus on the buildings in the facility financing plan proposed for renovation and/or reconstruction in the near future: replacement of the Hillside School, Rosemary Recreation Complex, Public Safety Building, Fire Station #2, DPW Complex, Needham High School, Emery Grover, and the Memorial Park Complex. The Williams School, the Rosemary Recreation Complex, and the High School classroom addition projects have all been funded and are underway. Construction funding for the Public Safety Buildings, Fire Station #2, and the Memorial Park building is proposed for FY2019. The replacement of the DPW fueling station is complete, and funding for the design and construction of a storage facility on Central Avenue is also proposed for FY2019. Finally, additional feasibility funding for the Emery Grover Building is proposed for FY2019. FY2019 is the first year in which the consolidation of building maintenance functions from Public Facilities to the Department of Public Works is presented in the Capital Improvement Plan.

Capital Planning 101

Capital Improvement Plan

The Capital Improvement Plan (CIP) is a multi-year tool used to coordinate the financing and timing of major public improvements for the Town of Needham. It contains a list of capital projects proposed for the Town within the next five years and reflects the recommendations of citizens, boards, commissions, and staff from each of the Town departments. The CIP identifies each proposed project and presents a summary description, estimate of cost, method of financing, and a schedule of implementation. Capital planning helps ensure that the community is positioned to:

- preserve and improve its basic infrastructure through construction, rehabilitation and maintenance;
- maximize the useful life of capital investments by scheduling major renovation, rehabilitation, or replacement at the appropriate time in the life-cycle of the facility or equipment;
- identify and examine current and future infrastructure needs and establish priorities among projects so that available resources are used to the community's best advantage; and
- improve financial planning by balancing needs and resources and identifying potential fiscal implications.

Operating Budget and Capital Budget

The Town's capital budget and operating budget are developed separately but are closely linked. The annual operating budget provides for general municipal service delivery, including personnel, supplies and other contractual services, and certain capital equipment. Most appropriations in the annual operating budget are for a single fiscal year. In contrast, the capital budget is a multi-year budget designed to expend monies which add to the physical assets of the Town. Capital projects typically require expenditures which take place beyond a single fiscal year, funding with debt because of significant costs to be shared by current and future beneficiaries, systematic acquisition over an extended period of time in order to implement major operating systems or programs, and scheduled replacement or maintenance of specific elements of physical assets.

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Notwithstanding the differences between the two, the operating and capital budgets are closely interwoven inasmuch as operating costs related to capital projects are estimated and incorporated into the operating budget. Many capital projects will have an impact on operating costs once constructed. Town practice is to project the net effect a capital project will have on the operating budget. While maintenance and repair costs may be lower in a new facility, larger and more modern facilities are often more costly to operate. In addition, since many capital projects are financed through municipal debt, repayment of that debt becomes part of the operating budget and is incorporated into the Town's forecasting models. The necessity to incur some degree of debt in order to finance the CIP carries with it the burden to effectively manage that debt within the Town's financial resources.

Best Practices

The following best practices have been used in the development of the FY2019 operating and capital budgets:

1. Current revenues must be sufficient to support current expenditures.
2. The operating and capital budgets must be developed in conformance with the Town's comprehensive financial policies and must not be reliant on one-time revenue or unsustainable practices.
3. The five year Pro Forma budget must be updated on an annual basis to ensure that the underlying assumptions are adjusted based upon changing conditions and data.
4. Debt must not be used to fund on-going operating expenses, and will only be issued for capital improvements greater than \$250,000 with a useful life of five years or more.
5. The use of Free Cash to fund operations will be minimized by limiting such use to no more than 2% of the prior year's appropriated operating budget, or the actual turn back, whichever is lower.
6. Adequate contingency funds must be maintained.
7. Sufficient maintenance and replacement funds will be allocated to ensure that capital facilities and equipment are properly maintained.
8. The operating and capital budgets must be resilient – allowing the Town to maintain existing service levels, withstand typical local and regional economic disruptions, and meet the demands of natural growth, decline, and change.
9. The operating and capital budgets must be sustainable – meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Budget Priorities

The primary goal of the Board of Selectmen in consideration of the FY2019 operating and capital budgets is the maintenance and optimization of existing Town services. In addition, mindful of the availability of revenue for appropriation, the Board has set the following priorities for FY2019:

1. Support for items that contribute to the achievement of Townwide goals and objectives.
2. Support for a five to ten year plan for the renovation, reconstruction and/or preservation of the Town's capital assets in the most prudent, realistic, and efficient manner.

3. Support for initiatives that contribute to financial sustainability, including the maintenance of a debt service plan that balances capital needs with the Town's ability to pay, identification of alternative funding sources for traditional cash capital needs, evaluation of financing alternatives, and alignment of capital and maintenance needs with appropriate funding sources.
4. Support for initiatives aimed at achieving greater coordination and efficiency among Town departments, and providing adequate resources to address identified service delivery and general administrative needs of the Town in a cost effective manner.
5. Commitment to ensure that not all identified recurring funds are committed for on-going expenses in order to reserve capacity for identified priorities in FY2020 and FY2021 (such as full-day kindergarten and public safety staffing).

Financial Benefits of Capital Planning

Needham's capital planning initiatives have contributed to the successful achievement and maintenance of its AAA bond rating from Standard and Poor's. This bond rating places Needham in the top tier of communities in Massachusetts and allows the Town to borrow at a lower interest rate. Investors and bond rating agencies stress the value of a CIP for a municipality seeking to borrow funds. The absence of a rational, long-term planning instrument would weigh against the bond rating assigned to Needham by rating agencies and the result would be higher interest rates on bond issues and the diversion of tax dollars to pay for the interest on loans. Another financial benefit of the capital planning process is the avoidance of poorly timed projects. Good planning can ensure that capital improvement efforts are coordinated. In addition, significant savings can accrue to taxpayers when major capital financing is coordinated so that bond issues are sold infrequently, and at times during the economic cycle when the Town can take advantage of low interest rates.

Development of the CIP

The process for preparing the FY2019 - FY2023 Capital Improvement Program and its associated FY2019 Capital Budget involves active participation by the Town Manager, Assistant Town Managers, and requesting departments, boards, committees and commissions. The Capital Budget is prepared in the context of a five-year determination of need by departments and the School Committee, in conjunction with the Town's overall financial capacity to affordably accommodate the required debt service payments. Projected debt service payments and budgetary impacts are forecast annually to help ensure affordability and sustainability of the Capital Improvement Program. The Town's Capital Improvement Policies provide guidance for assessing the capital needs of the Town. These policies, included in Section 6, define capital projects as those items requiring the expenditure of at least \$25,000 and having a useful life of more than five years. Recommended capital project requests are prioritized using the following criteria:

- the project is required to comply with State and/or Federal accessibility standards;
- the project is necessary to protect the health and safety of people; and
- the project is necessary to maintain an existing capital facility, or operation of equipment used in providing Town services.

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In addition to the criteria listed above, the Town has a long practice of funding the systematic replacement of obsolete or worn-out equipment, and those items requested for the improvement of operating efficiency and the equitable provision of services.

The development of the CIP occurs over the following approximate timeframe:

Late Summer — Following Town Meeting, departments are provided with their previously submitted five year requests for review, update and the addition of the next fifth year. While requests for each year should remain the same as in the initial request, there are occasionally changed circumstances which necessitate alterations to the requests. This information is returned to the Town Manager and staff for review. Also in the summer, the Assistant Town Manager/Finance Director develops and presents a pro forma budget for the ensuing five year period. The pro forma budget is the basis for the determination of the amount of revenue available to support the CIP.

Autumn — The Town Manager and staff meet with each department to gain a better understanding of each request.

Late Autumn/Early Winter — The Assistant Town Manager/Finance updates the preliminary debt schedules and financial forecasts in order to provide context to the Capital Budget as well as the five-year Capital Improvement Plan, and the Town Manager presents the Board of Selectmen with a proposed five-year plan.

January — The Town Manager transmits the Capital Improvement Plan, along with any recommendations made by the Board of Selectmen, to the Finance Committee by the first Tuesday after the first Monday in January.

January/February/March — The Finance Committee reviews each project in the capital budget and makes recommendations on items included in the Town Meeting Warrant.

May — The capital budget is presented to Town Meeting for approval.

Financing of Capital Projects

The number of capital projects to be funded must be considered in the context of the total operating budget, capital budget needs, and revenue growth. Capital improvement projects are funded through current receipts, reserves, and/or other funds such as grants.

Current Receipts — Current receipts include property tax revenue, local receipts (such as fees and charges), and state aid. This plan includes no projects to be funded from current receipts.

Free Cash — Free Cash is a function of actual revenue collections in excess of estimates and expenditures less than appropriations. Because Free Cash should not be relied upon as a recurring revenue source, the Town's practice is not to rely upon it as an operating revenue source. In this plan, we have continued the effort to minimize the Town's reliance on free cash

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to support on-going operations by limiting such use to no more than 2% of the prior year's appropriated operating budget, or the actual turn back, whichever is lower. The recommended plan includes \$9,183,869 to be funded from Free Cash.

Capital Improvement Fund – In 2004, the Town created a General Fund Cash Capital Equipment and Facility Improvement Fund (CIF). The purpose of the CIF is to allow the Town to reserve funds to use for general fund cash capital. The CIF may be used in future years to fund the acquisition of new equipment, the replacement of existing equipment, and building and facility improvements which cost less than \$250,000, for which the Town may borrow for a period of five years or more. Projects must be included in the CIP in order to be eligible for funding through the CIF. This plan includes no projects to be funded from the Capital Improvement Fund.

Capital Facility Stabilization Fund – In 2007, the Town created a Capital Facility Stabilization Fund to allow the Town to reserve funds for design, maintenance, renovation or reconstruction relating to the structural integrity, building envelope or MEP (mechanical, electrical, plumbing) systems of then existing capital facilities. For this purpose, capital facility refers to any building or structure which is located on Town property and is under the jurisdiction of the Town Manager, including any Town-owned building, structure, room, or space within a building, facility, park or plaza, open space, driveway, landscaped area, or other physical improvements under the administrative control of the Town. This plan includes no projects to be funded from the Capital Facility Stabilization Fund.

Athletic Facility Improvement Fund – In 2012, the Town created an Athletic Facility Improvement Fund to reserve funds for the design, maintenance, renovation, reconstruction, or construction of athletic facilities. For the purpose of the fund, athletic facilities include any Town-owned building, structure, pool, synthetic turf and natural grass turf playing field or ball diamond, and associated grounds and parking areas whose primary purpose is for organized athletic events for Needham children, adults, and school teams. This plan includes \$1,855,000 to be funded from the Athletic Facility Improvement Fund for FY2019.

Debt Service Stabilization Fund – The November 2, 2015 Special Town Meeting approved the establishment of a Debt Service Stabilization Fund to set aside funds to be available as necessary to pay certain debt obligations. This fund is intended to be part of the Town's overall planning strategy for addressing capital facility needs. The fund would provide added flexibility to maintain the Town's capital investment strategy by smoothing out the impact of debt payments in years when the debt level is higher than is typically recommended. The fund would also be beneficial at times when interest rates are higher than expected. The plan for the fund is designed to ensure that the monies are not depleted in a single year, and that the amount available for appropriation is known before the budget year begins. All appropriations to and from the fund require Town Meeting action. This plan includes no projects to be financed through use of the Debt Service Stabilization Fund.

Retained Earnings – Three of the Town's operations – water, sewer, and solid waste – are accounted for as enterprise funds. The revenues and expenditures of these operations are not commingled with those generated by general fund operations. Generally, each enterprise will generate surplus funds on an annual basis. The Board of Selectmen's retained earnings policies are included in Section 6. The policies contain reserve targets to ensure liquidity and stability of operations. Surplus funds

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above the target are considered available for appropriation. This plan includes \$5,957,519 in funding from the enterprise fund retained earnings accounts for fiscal year 2019 (RTS - \$345,360, Sewer - \$2,301,111, and Water - \$3,311,048).

Debt – The Board of Selectmen’s debt management policies (Section 6) provide guidance in translating capital expenditures into annual debt service. Section 2 of this plan contains a graphic presentation of the Town’s current debt service and a calculation of the Town’s debt burden (annual debt service as a percent of total Town revenues). The figures used in calculating the debt burden are derived from the Town’s long-term debt service schedule that is also included in Section 2. This plan includes a recommendation for \$73,156,000 in projects to be funded through General Fund debt (of which \$65,405,000 is in excluded debt) and \$645,000 to be funded through Enterprise Fund debt (RTS) for fiscal year 2019.

Community Preservation Fund – The Community Preservation Act (CPA) allows cities and towns to raise monies through a surcharge on the tax levy. These funds may then be used to acquire, create and preserve open space, acquire and preserve historic resources, create, preserve and support community housing, and acquire, create and preserve land for recreational use. The CPA also provides for matching funds from the Commonwealth. The CPA requires that each fiscal year Needham must spend, or set aside for later spending, at least 10% of the annual revenues in the Community Preservation Fund for each of three CPA target areas: open space (but not including land for recreational use), historic resources, and community housing. The remaining 70% may be appropriated at the Town’s discretion as long as it is used for the three target areas or recreation. The statute also permits the Town to appropriate up to 5% of the annual revenue estimate for the administrative expenses of the Community Preservation Committee (CPC). Projects submitted for inclusion in the CIP that qualify for CPA funding are forwarded to the CPC for its consideration. This plan includes a recommendation for \$2,820,000 in projects contingent upon Community Preservation Funding cash for FY2019.

Other Available Funds – An Available Fund is actual monies which have become available and may be used to fund expenditures. Monies may become available after a project is completed and the cost was less than appropriated, monies that were previously set aside for future expenditure (e.g., stabilization fund), or monies that are received by the Town but must be specifically identified as a funding source in the Town Meeting motion. An available fund may be restricted to certain purposes (e.g. surplus bond proceeds, special stabilization funds, sale of surplus real estate, grants), or may be non-restricted and hence can be appropriated for any legal purpose. Some Available Funds carry over from year to year and others expire at the end of the fiscal year and close out to fund balance. This plan includes no projects to be funded from Other Available Funds in fiscal year 2019, other than the previously mentioned use of the Athletic Facility Improvement Fund.

The CIP Is a Flexible Planning Tool

While much of the Town’s budget and financial planning efforts are by necessity focused on one or at most two year intervals, capital planning helps to focus attention on the Town’s long-term objectives and financial capacity, and the balance between operating and capital needs. The Town is often faced with the option of reducing its capital plan in order to balance the operating budget. Having a formal and accepted plan helps to maintain a consistent level of spending for capital needs, barring extraordinary circumstances. Individual projects are evaluated against long-term objectives and in relationship to each other.

By strategically programming capital projects, the Town can maintain a tolerable level of debt service, and prevent unexpected changes in debt service payments.

Investment in Real Property, Facilities and Infrastructure

Asset preservation – committing necessary resources to preserve, repair, or adaptively re-use current assets – is a high priority for the Town in order to keep the its physical plant and infrastructure in reliable operating condition. While significant investment in many capital facilities is still required or overdue, the Town of Needham has made an extraordinary investment in public infrastructure during the past decade. The Town’s success in this area is a direct result of continued and sustained focus on asset evaluation, needs assessment, careful planning, and prioritization. The need for this level of investment in facilities and infrastructure is generally attributable to three factors – the age of the community and its infrastructure and assets, the built environment and amount of lane miles of roadway, and the growth in school age population after the Second World War that resulted in a building boom from 1951 to 1960. After the advent of Proposition 2½ in 1982, the community found it difficult to make necessary investment in its array of school facilities. This resulted in a need for complete replacement or rehabilitation of the entire system beginning in the mid-1990s and continuing today. Finally, based on adoption of and changes to the Community Preservation Act, the Town has made a truly remarkable investment in athletic facility, parks, and recreational amenities including Walker Gordon Field, Greene’s Field and Playground, Newman Fields, Eastman Trail, the Rail Trail, the all-abilities trail around the Needham Reservoir, and the reconstruction of the Rosemary Pool and Recreation Complex. Table 2 shows the Town’s investment in facilities and infrastructure over the past five years.

Table 2

Description	2014	2015	2016	2017	2018	Total	Average
Municipal Facilities	\$2,771,500	\$105,779	\$90,000	\$649,000	\$6,126,000	\$9,742,279	\$1,948,456
Townwide Facilities and Community Services	\$951,828	\$750,219	\$3,513,323	\$756,154	\$17,202,000	\$23,173,524	\$4,634,705
Public Works Infrastructure Program	\$600,000	\$1,760,000	\$3,453,500	\$1,700,000	\$2,011,000	\$9,524,500	\$1,904,900
School Facilities	\$4,292,276	\$200,000	\$9,368,000	\$58,791,714	\$15,168,000	\$87,819,990	\$17,563,998
Drains, Sewer, and Water Infrastructure	\$7,670,900	\$1,283,050	\$2,320,500	\$375,860	\$2,900,000	\$14,550,310	\$2,910,062
Total Appropriations	\$16,286,504	\$4,099,048	\$18,745,323	\$62,272,728	\$43,407,000	\$144,810,603	\$28,962,121

Investment in Equipment, Technology and Fleet

The position of the Town with respect to its equipment and technology capital investment is also positive. Major categories of this capital spending include Public Safety, Public Works, and Public Facilities fleet and equipment, School and Town-wide technology, and School copiers and equipment. Table 3 shows the Town's investment in these categories of capital spending for the five year period FY2014 through FY2018.

Table 3

Description	2014	2015	2016	2017	2018	Total	Average
All Other Functions	\$146,250		\$30,645			\$176,895	\$35,379
Public Facilities & Works	\$480,100	\$29,797	\$144,000	\$120,000	\$162,000	\$935,897	\$187,179
Public Safety	\$27,500				\$167,872	\$195,372	\$39,074
Public School	\$176,145	\$112,000	\$108,145	\$45,000	\$45,000	\$486,290	\$97,258
Equipment	\$829,995	\$141,797	\$282,790	\$165,000	\$374,872	\$1,794,454	\$358,891
All Other Functions	\$30,000	\$130,000	\$30,000		\$145,000	\$335,000	\$67,000
Public Facilities & Works		\$33,000	\$129,500			\$162,500	\$32,500
Public Safety		\$408,615				\$408,615	\$81,723
Public School	\$633,800	\$679,325	\$403,000	\$347,080	\$510,290	\$2,573,495	\$514,699
Technology	\$663,800	\$1,250,940	\$562,500	\$347,080	\$655,290	\$3,479,610	\$695,922
All Other Functions				\$87,353		\$87,353	\$17,471
Public Facilities & Works	\$1,011,000	\$343,572	\$1,146,902	\$730,618	\$640,433	\$3,872,525	\$774,505
Public Safety	\$94,242	\$248,267		\$137,877	\$224,677	\$705,063	\$141,013
Public School					\$99,611	\$99,611	\$19,922
Fleet	\$1,105,242	\$591,839	\$1,146,902	\$955,848	\$964,721	\$4,764,552	\$952,910
Total Appropriations	\$2,599,037	\$1,984,576	\$1,992,192	\$1,467,928	\$1,994,883	\$10,038,616	\$2,007,723

Project Summaries – Recommended Projects for Fiscal Year 2019

GENERAL GOVERNMENT

TOWN OFFICE FURNITURE REPLACEMENT

The renovated Town Hall opened in October, 2011, and the Public Services Administration Building opened in February, 2010. Furniture in heavy use is in need of replacement. Furniture scheduled to be replaced in FY2019 includes the Selectmen's Chambers conference table and chairs, and furniture in poor and fair condition at the Public Services Administration Building. *(Submitted by: Office of the Town Manager)*

The Town Manager's recommendation for Town Offices Replacement Furniture is \$25,000 to be funded by Free Cash.

TOWN MULTI-FUNCTION PRINTER DEVICES

This funding will allow for the replacement of multi-function printers throughout the four primary Town locations (Town Hall, Public Services Administration Building, Public Safety, and Center at the Heights) that are obsolete or as part of a planned schedule replacement. In all there are nine of these devices between the buildings with only three of the devices not purchased during a capital project. Though several of these devices are currently over six years old, with one over eight, only one has reached 50% of the anticipated life cycles for each model according to the manufacturer estimated cycles per year. Based on the current usage, the expected life of these devices is between ten and twelve years. However the manufacturer of these devices does not guarantee the availability of parts or consumables past seven years. The cycle for replacement of these multi-function printers is therefore seven years. *(Submitted by: Information Technology Department)*

The Town Manager's recommendation for Town Multi-Function Printer Devices is \$35,600 to be funded by Free Cash in the Tier 2 category.

NON-PUBLIC SAFETY DATA CENTER SERVERS AND STORAGE UNITS

This funding is for the replacement of hardware within the three Town of Needham data centers. Phase 1 of the project, which is taking place in the current fiscal year (FY2018), includes the replacement of four servers, two storage units, and four switches. Phase 2 of the project will be the replacement of six servers, two storage units, and four switches. Data Center 1 is housed at the Town Hall, Data Center 2 is housed at the Public Services Administration Building, and Data Center 3 is housed at the Center at the Heights. Data Center 1 is the primary data center where the Town Departments access files and programs, the Internet, and network and Internet security takes place. The six servers at Town Hall are physical servers; however three of them maintain and support upwards of 50 virtual servers with corresponding data maintained on the storage units. The other

three are for specific software functions. The servers, storage unit, and switches at the Public Services Administration Building act as fail safe in case of the Town Hall's network and infrastructure going offline. The server and storage at the Center at the Heights is where backup data is housed and from there certain segments of the data are migrated off site. All replacements would be comparable to the current devices being used. Maintaining this hardware at a level that will support the needs of the Town Departments is critical to the Town's business continuity strategy. As equipment gets older it becomes more difficult to maintain the same level of quality and performance as when initially installed, and this directly affects the day-to-day operations of the Town. Unless circumstances require otherwise, FY2019 funding will be for Data Center 1 and Data Center 2 hardware replacement. *(Submitted by: Information Technology Department)*

The Town Manager's recommendation for Non-Public Safety Data Center Servers and Storage Units is \$180,000 to be funded by Free Cash.

PUBLIC SAFETY

PERSONAL PROTECTIVE EQUIPMENT - BUNKER GEAR

This funding is part of an annual program begun in FY2018 to replace Personal Protective Equipment ("PPE" or "bunker gear") for 20% of all firefighting personnel on an annual basis. This is to ensure the life span of the equipment does not exceed the ten year guideline. Ensembles issued prior to the recent purchase of a second set of PPE are approaching this time frame. Bunker gear includes boots, firefighting pants and coat. Firefighting personnel regularly work in toxic environments caused by spills, chemical releases and the products of combustion. Numerous studies have found the number of carcinogens and other toxins associated with the fire ground to be extremely high. Further, the toxicity of these carcinogens appears to be much greater and more concentrated today, due to the widespread use of synthetic and petroleum based building materials and furnishings found in modern construction. These unhealthy contaminants, chemicals, toxins and carcinogens adhere to firefighters' bunker gear, thus creating a lingering exposure concern for not only the firefighters, but to members of the public they serve, as they respond to calls for service. Current safety practices dictate that firefighters be issued two sets of PPE, so that once contaminated the equipment can be washed in extractors and dried in dryers designed specifically for that purpose. Maintaining a second set of PPE allows for contaminated equipment to be washed and dried properly, while allowing personnel to remain available to respond to calls. *(Submitted by: Fire Department)*

The Town Manager's recommendation for Personal Protective Equipment is \$43,424 to be funded by Free Cash.

POLICE USE-OF-FORCE TRAINING SIMULATOR

This funding will support the acquisition of an interactive Use-Of-Force training simulator, which will provide a platform for realistic, stress-induced training. The system provides scenarios that enhance marksmanship skills and improve decision-

making for the appropriate selection of force to be used. The simulator provides trainees with the ability to practice posture, verbalization, soft hand skills, impact weapons, chemical spray and lethal force. The system also provides a means for officers to practice de-escalation skills. Each trainee's scenario and reaction can be analyzed and then reviewed for training purposes. The system is portable and can be easily customized to meet the needs of the Department. The benefit of having an effective, realistic training program is to enhance public safety as well as reduce liability risks. *(Submitted by: Police Department)*

The Town Manager's recommendation for Police Use-Of-Force Training Simulator is \$47,000 to be funded by Free Cash.

PUBLIC SAFETY COMPLEX/STATION #2

The Public Safety Building, located at the intersection of Chestnut Street and School Street, opened in 1931, and was renovated in 1988-1989. Fire Station #2, located at the intersection of Highland Avenue and Webster Street, opened in 1949 and was also renovated in 1988-1989. The amount of space that was originally allocated within both buildings for the Police and Fire Departments is no longer sufficient to accommodate changes in operations, changing personnel needs, technology upgrades, and security improvements, and neither station is fully accessible for individuals with limited mobility.

In 1950, 19 years after the station opened, the Police Department had 25 sworn officers and responded to 1,774 calls. By 2015, the number of sworn officers was 49 and call volume had increased to 31,610. The proposed program meets many deficiencies identified in the Police Department, including the lack of adequate locker facilities for female officers, evidence and property storage, interview rooms and interview recording technology, public meeting space, records storage, dispatch areas, patrol and administrative office space, and report writing space. The prisoner holding cells are outdated and inadequate, and the current prisoner booking area is unsafe due to its size and configuration. The building lacks the ability to handle technology improvements due to available space needed, while the roof continues to leak into the records/server room on the second floor. The current climate control only works sporadically throughout the building creating numerous temperature variations. In 1950, the Fire Department had 27 firefighters. Call volume data is not available for 1950, but the Department responded to 600 calls in 1960. By 2015, the number of sworn firefighters was 64 and the Department responded to 3,915 calls. The proposed program meets many deficiencies identified in the Fire Department, including apparatus bays that are too small for modern fire trucks, insufficient area for performing equipment maintenance and repair, lack of facilities for storing and cleaning turnout gear, minimal existing office space, inadequate facilities for firefighter support such as bunkrooms, toilets and showers, and insufficient storage space for files and equipment.

The November 2, 2015 and February 10, 2016 Special Town Meetings and the 2017 Annual Town Meeting approved a total of \$390,000 in funding for feasibility studies and schematic design. The October 2, 2017 Special Town Meeting approved an appropriation of \$3,750,000 for full design of the project, which will be presented to the fall, 2018 Special Town Meeting for construction appropriation, and to the voters at the November 6, 2018 State election for debt exclusion funding. *(Submitted by: Police and Fire Departments)*

The Town Manager's recommendation for Public Safety Complex/Station #2 is \$65,405,000 to be financed by Excluded Debt.

PUBLIC SAFETY MOBILE DEVICES

This funding will replace laptops and tablets that are used in the Needham Police and Fire Department Vehicles. The hardware is used to access multiple applications during daily operations. The hardware communicates with the Public Safety CAD software as well as State and Federal databases. The devices themselves are hardened military specification hardware manufactured for above normal use in more intensive environments than normal off the shelf hardware. *(Submitted by: Information Technology Department)*

The Town Manager's recommendation for Public Safety Mobile Devices is \$35,000 to be funded by Free Cash.

PUBLIC SCHOOLS

BUILDING MANAGEMENT SYSTEM UPGRADE

The Town maintains a Building Management System (BMS) to manage the heating and cooling in all major facilities in Town. All of the buildings constructed since 2009, with the exception of the Newman School, are on the same system. These systems consist of internal sensors in the HVAC components and a backend software product that allows Building Maintenance staff to review and diagnose HVAC issues remotely as well as on-site. This system is critical to the maintenance of healthy air temperatures in the building. This funding will standardize all of the BMS so that only one system is in use. (A part of the Newman School will need to remain on a separate system because of the devices installed at the time of renovation.) This conversion will allow for greater standardization and will change the manner in which HVAC data is communicated. Currently, there are computer interfaces talking to devices within the building and then communicating this information to an outside computer for management. This new software would create a virtualized environment where the software would only be on the back end and no longer on the devices. This will eliminate unnecessary redundancy and help to improve tracking. This will also allow all of the Town's buildings to integrate with the Town's afterhours permitting system, which will reduce the amount of time it takes staff to input irregular schedules and ensure appropriate temperature for afterhours events. Unless circumstances require otherwise, in FY2019 the Town will upgrade the Front End Software and complete the conversion of the Pollard, Broadmeadow, Library, Mitchell, and Eliot Schools. *(Submitted by: Department of Public Works/Building Maintenance)*

The Town Manager's recommendation for Building Management System Upgrade is \$102,000 to be funded by Free Cash in the Tier 2 category.

EMERY GROVER FEASIBILITY STUDY REFRESH

Numerous Facilities Master Plans have indicated that the Emery Grover School Administration Building is in need of additional office and storage space, as well as extensive repair and modernization. The needed scope of renovation includes reorganizing office and meeting spaces, making the building fully ADA accessible, removing remaining asbestos and lead paint, and replacing deteriorating systems, including: windows, HVAC, electrical and plumbing. These renovations would allow for a more efficient use of space, as well as full utilization of all four floors and full handicapped accessibility. A feasibility study was conducted in August 2013 by DesignLAB Architects, which identified several options: renovation of the existing building, the purchase/renovation of commercial property, and new construction on an alternate Town-owned parcel. This request is to conduct a "refresh" of the original study, to focus exclusively on a project to renovate/reconstruct the Emery Grover Building at the Highland Avenue location, rather than the alternate options of purchasing/renovating commercial property or new construction on another Town-owned parcel. The study will include an updated project budget and schedule, address temporary relocation requirements, and identify any building code changes that will be needed to accommodate the projected use. In addition, the study will include the assessment of swing space options including timelines and project budget for the swing space. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for Emery Grover Feasibility Study Refresh is \$70,000 contingent on Community Preservation Funding.

MITCHELL SCHOOL LOCKER REPLACEMENT

The current lockers at the Mitchell School are in need of repair. They are not appropriately sized for the school age population at the Mitchell and are broken. This request is to replace the existing lockers with lockers that are better suited for elementary school children. The Mitchell School is not scheduled to be renovated for at least ten years and this would help to improve the appearance as well as the functionality of the school. There are three different types of lockers at the Mitchell. One set require two students to share each locker. One set is too narrow to store backpacks. This results in the locker doors remaining open, which is dangerous in the hallways. The last set just needs refurbishment. The replacement lockers would be stacked on top of each other in order to accommodate wider lockers. These lockers would be easier for elementary aged students to store their backpacks and other items, and will be easier to open and close. This project will allow each student to have his or her own locker. *(Submitted by: Department of Public Works/Building Maintenance)*

The Town Manager's recommendation for Mitchell School Locker Replacement is \$70,000 to be funded by Free Cash in the Tier 2 category.

POLLARD BLUE AND GREEN GYM UPDATES

The Pollard gyms were identified in the feasibility study conducted in 2011 as in need of upgrade, and have been identified by the Director of Athletics as in need of improvement. These improvements consist of replacing the present rubber flooring with

another material that is more appropriate for basketball use, upgrading lighting, and installing mats along the side of the gym for safety. Lighting upgrades were completed under the Energy Efficient Upgrades request in FY2016. In FY2019, this funding will allow the Town to replace the flooring in the Blue and Green Gyms. The present rubber flooring is not ideal for basketball use and this building is used frequently by both school and community basketball groups due to its size. The rubber flooring will be replaced by a new type of flooring that would have the same bounce as wood flooring required for basketball usage, but does not have the ADA/MAAB accessible issues that wood flooring presents. Additionally, work will be done to improve the functionality and safety of both gyms. In the Blue Gym, the siding will be removed and replaced. The Blue Gym will also be painted to brighten the area. Backboards and winch mechanisms on the basketball hoops will be replaced and winch mechanisms will be installed on hoops that do not currently have them. Padding will also be installed behind all backboards. In the Green Gym, two sections of pull out seating, approximately 15'x15' each, will be installed in order to accommodate classes. This is a multi-year project with further improvements planned for future years. *(Submitted by: Department of Public Works/Building Maintenance)*

The Town Manager's recommendation for Pollard Blue and Green Gym Upgrades is \$540,000 to be funded by Free Cash.

POLLARD PHASED IMPROVEMENTS FEASIBILITY STUDY

This is a project to study the feasibility of phasing identified improvements at the Pollard School over multiple years, for the purpose of best addressing the needs of that facility in the most timely and economically feasible manner possible. Additionally, the study will evaluate the current condition of the Pollard modular classrooms and develop recommendations (as needed) for extending their useful life until such time as they can be replaced with permanent construction. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for Pollard Phased Improvements Feasibility Study is \$65,000 to be funded by Free Cash.

SCHOOL COPIER REPLACEMENT

In May of 2003, Town Meeting authorized \$60,000 in first year funding to establish a replacement cycle for school photocopiers. School photocopiers are located in all the schools and the administration building, and are used both by administrative and teaching staff. Teachers use the machines to reproduce classroom materials, including homework sheets, exams, teaching packets, etc. Currently the School Department owns 47 copy machines. The FY2019 request replaces six copy machines. Copier replacement is planned on a cycle analysis, which projects when a copier should be replaced based on actual usage and the manufacturer's total estimated capacity. Copiers which are heavily used are replaced more frequently than copiers that are lightly used. A seven-year maximum is assumed for most machines, even if they have not yet reached maximum copy allowances, given the additional operating expense associated with servicing and maintaining older equipment, as well as the difficulty in obtaining replacement parts. This analysis assumes that copiers are re-deployed around the District as needed, to match copier use with equipment capacity. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Copier Replacement is \$84,190 to be funded by Free Cash.

SCHOOL FURNITURE

This request continues the replacement cycle for school furniture in poor and fair condition at the Schools. Furniture at the Pollard Middle School is 25-30+ years old and in a state of disrepair after decades of heavy use. In FY2005 Town Meeting approved funding of \$20,500 to begin the replacement of furniture in poor condition. By FY2015, all furniture in 'poor' condition was replaced in the schools. In FY2019 \$30,500 is proposed for the resurfacing of cabinets in three Pollard science classrooms and installation of new counters in four Pollard science classrooms, and \$30,000 is proposed for the purchase of classroom furniture for Needham High School. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Furniture is \$60,500 to be funded by Free Cash.

SCHOOL PHONE SYSTEM REPLACEMENT

The telephone system currently in use by the School Department consists of eight separate phone systems of varying ages from five to over 15 year old (estimated.) The systems employ manufacturer discontinued equipment, are unstable and are in constant need of repair. The phone systems in three buildings - Hillside, Mitchell and Emery Grover - have occasionally failed, leaving the buildings with no phone access. All systems require frequent repairs, which can only be performed by a contract technician via a technical service maintenance appointment. The existing system, in addition to being old and unstable, runs on antiquated PBX technology that uses traditional Verizon POTS (copper) lines for external calls and Centrex to connect internally within a network of Town departments. This type of system supports a limited number of concurrent external connections per building and a limited number of concurrent Centrex connections per building; when concurrent lines are maximized within a building, users receive a busy signal until a line becomes available. Accessibility of the current voicemail system also is a concern particularly for teachers who transition to different classrooms and locations throughout the day; their voicemail is only available from their "home" location. This request would replace the antiquated PBX system with a new phone system that would combine all of the buildings into a unified IP-based phone system. The new system would utilize the Town's fiber network and pooled SIP trunks to reduce overall cost while maintaining a secure, robust and reliable phone system. It would allow for tiered user licenses that are customized to roles and responsibilities. The School Department will assume responsibility for managing the new technology-based system from the Public Works/Building Maintenance Division. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Phone System Replacement is \$319,000 to be funded by Free Cash.

SCHOOL TECHNOLOGY REPLACEMENT

This request is for funding to replace School Department technology, including computers, printers, IWBs, servers, laptop carts, and specialized instructional labs. The request reflects the decision in FY2017 to move Digital Learning Devices (DLDs) and staff laptops to the operating budget, as well the new classroom technology standard. In FY2017, funding for devices with a lifespan of fewer than five years was shifted to the operating budget. These devices included Digital Learning Devices (DLDs) such as iPads and Chromebooks, and laptops. The FY2019 submitted request is for \$303,600 and consists of computer hardware (computer labs, desktops, TV studio, interactive white boards, and video displays) in the amount of \$190,600 and infrastructure (servers, network hardware, and wireless infrastructure and access points) in the amount of \$113,000. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Technology Replacement is \$303,600 to be funded by Free Cash.

PUBLIC WORKS

TRAFFIC IMPROVEMENTS

This funding would support projects that are recommended by the DPW and the Traffic Management Advisory Committee (TMAC). These recommendations include items such as permanent speed monitoring devices, traffic calming measures, and school zone enhancements. The proposed funding will support one or two construction-related requests per year, such as 500 feet of roadway granite curb installation, two school zone installations, two average traffic calming installations, several radar sign installations or sign and/or pavement markings. Unless circumstances require otherwise, FY2019 funding is proposed for the installation of granite curbing on Paul Revere Road and Brookline Street. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Traffic Improvements is \$50,000 to be funded by Free Cash.

DPW BOILER REPLACEMENT/470 DEDHAM AVENUE

This funding will support design of the replacement of the DPW/470 Dedham Avenue boiler with two high efficiency condensing boilers. The increase to two boilers is based on both the need for redundancy in the heating season and the desire to improve energy efficiency. The boiler at the DPW was installed in 1961 and is past its useful life. This piece of equipment has required a number of repairs in order to maintain it in working order. A new boiler will improve the energy efficiency of heating the DPW. Installing two units will ensure that if one unit needs repair during the heating season, the building will have sufficient heat to prevent the pipes from freezing. The new boiler will be designed for natural gas and will increase the energy efficiency of the heating systems at the DPW. This project may be eligible for energy efficiency rebates to offset the cost of buying a more

efficient model. The project includes the upgrade of heat piping throughout the building with the assumption that the building will need to remain in use for the foreseeable future. *(Submitted by: Public Works/Building Maintenance)*

The Town Manager's recommendation for DPW Boiler Replacement 470 Dedham Avenue is \$34,000 to be funded by Free Cash in the Tier 2 Category.

DPW CENTRAL AVENUE STORAGE FACILITY

The recently completed DPW relocation feasibility study determined that all of the vehicle storage required to fulfill DPW operations programming needs cannot fit on the existing site (470/484 Dedham Avenue). The existing site has been approved by the Board of Selectmen as the preferred site for the ultimate reconstruction of the facility. Weston & Sampson evaluated many options and locations, recommending that a storage facility be constructed in a remote location. After reviewing recommendations with the PPBC and Board of Selectmen, Weston & Sampson has recommended that the facility be located at the RTS. The storage facility will address the needs of a modernized DPW facility and organization, including providing shelter for Town equipment which will increase its service life. The feasibility process included the development of a comprehensive vehicle and equipment list, including towed, ride-on, and small portable equipment along with classified storage type (i.e. garaged vs. covered), and presented equipment storage scenarios. This request will fund the design and construction of the facility to expedite the project, as the facility may be used to support off-site storage needs for the Fire Station #2 reconstruction project as well. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for DPW Central Avenue Storage Facility is \$7,900,000 to be funded by Free Cash in the amount of \$1,382,000, General Fund Debt Financing in the amount of \$3,788,000, and Water & Sewer Enterprise Fund Retained Earnings in the amount of \$2,730,000.

HILLCREST RADIO REPEATER BUILDING REPLACEMENT

This funding will support the replacement of the failing building at the base of the Birds Hill Water Tower on Hillcrest Road. The building houses radio equipment and related support components used by the following departments: Fire, Police, DPW, School Transportation, and Emergency Management. The new building will house some existing equipment, some new equipment, and a back-up generator. The current building, which was built with cement blocks, is deteriorating and has several water leaks in both the walls and the roof. There has also been damage to the building and its contents from animals. Additionally, the steel entrance door exhibits rust and rot. The current building size is 8'X10' and the proposed replacement building would be 8'X12', placing the back-up power generator in a separate room, as well as allowing modest room for future expansion. The building plays a critical role in the Town's public safety communication network. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Hillcrest Radio Repeater Building Replacement is \$136,000 to be funded by Free Cash.

PUBLIC WORKS INFRASTRUCTURE PROGRAM

The Public Works Infrastructure Program allows the Department of Public Works to make improvements and repairs to Town infrastructure, including but not limited to roads, bridges, sidewalks, intersections, drains, brooks, and culverts. Each program is detailed below.

Street Resurfacing

This Program is essential to maintaining the structural and surface integrity of the Town's approximately 279 lane miles of accepted streets. The Town targets 17 lane miles per year to achieve a desired life cycle of 15 to 20 years. The primary strategy of this program is asphalt paving and incidental work. Incidental work may include asphalt berm curb, new grass shoulders, corner reconstruction including handicapped ramps, minor drainage improvements, street sign replacement, traffic markings, and signs. Applying this repair strategy in a timely manner will extend the useful life of the roadway for up to 15 years. Installing a monolithic asphalt berm curb better defines the edge of road, improves drainage and protects the shoulder from erosion. The Town targets roads with a Pavement Condition Index (PCI) of below 70 for resurfacing or specialized treatment. The Town targets a PCI of 60 or below for repair/renovation. The Town's goal is to maintain its roadway network at an average PCI rating of 75. Target funding for street resurfacing in FY2019 is \$820,000.

Traffic Signal & Intersection Improvements

This Program will fund traffic signal improvements, intersection improvements, and new traffic signal installations where none currently exist. In FY2019, DPW will evaluate intersection prioritization for future projects.

Sidewalk Program

This Program funds improvements to the network of sidewalks throughout the community. There are over 160 miles of accepted sidewalks in Needham. Over half of the Town's sidewalks do not comply with current standards and require significant improvements, including the installation of handicapped ramps. Sidewalk improvements must comply with Federal and State laws and construction standards. The target funding for FY2019 is \$500,000.

Storm Drain Capacity Improvements

This Program provides funding to improve roadway drainage capacity. The Town's Stormwater Master Plan identified a number of areas throughout Needham where improvements are required to resolve flooding problems and illicit discharge. Since the issuance of the Stormwater Master Plan numerous multi-unit developments have been built or planned in the Town of Needham. These developments include new roads with drainage structures and roof or sump connections that are then connected to existing Town systems. These new connections have increased the load on the Town's drainage system and caused flooding in some areas. Due to extensive drainage repairs that were required on Greendale Avenue, funds for FY2018 were diverted to that project. Unless circumstances dictate otherwise, FY2019 funding of \$103,500 is planned for engineering and design for Ardmore Road and Hunnewell Street.

Storm Drain System Repairs

This Program provides funding to repair failing storm drainage infrastructure within Town easements that have been discovered through investigation work. These projects will include the replacement of existing culverts that have deteriorated over time and are restricting flow. This work will eliminate flooding and capacity issues in the immediate vicinity. This project will provide funding over five years for the Drains Division to address small projects related to the Labor Day 2013 storm drainage remediation. Unless circumstances dictate otherwise, FY2019 funding in the amount of \$100,000 is targeted for engineering and design for 470 South Street.

Brooks and Culverts – Repair and Maintenance

It is the intention of the DPW to address the issue of poorly draining brooks, streams, waterways, and culverts throughout the Town that have been severely damaged by heavy rains/storms in the past. Flooding has caused the failure of retaining walls, resulting in extensive erosion and silt deposits in brooks and streams. The silt has provided a medium for vegetation and affected the flow of water, and the situation has resulted in the loss of useable abutting property and flooded basements. The Environmental Protection Agency (EPA) is currently finalizing stronger requirements for stormwater and permitting under the NPDES permit. Unless circumstances require otherwise, FY2019 funding is planned for construction in Meredith Circle.

Roadway Reconstruction

Town evaluates the sight distance, drainage, handicap ramps, sidewalks, subsurface utilities, public utility poles and overhead utilities of all roads. The physical condition of roads to be considered for full reconstruction includes shape, foundation and traffic volume. This is a multi-year process requiring surveying, designing, utility evaluation and construction. Some of the roads that may be targeted for full reconstruction in the future include: Marked Tree Road, Nehoiden Street, Kingsbury Street, sections of Central Avenue, and Webster Street from Dedham Avenue to South Street. No funding is allocated to the Roadway Reconstruction category in FY2019.

Bridge Repairs

Surrounded on three sides by the Charles River, the Town jointly maintains a number of bridges with neighboring communities. The Massachusetts Bridge Inspection Program has identified a number of bridges that have some level of deficiency and has recommended repairs. This Program is essential to improve the structural and/or surface integrity of all bridges throughout Needham. No funding is proposed for this category in FY2019.

Guardrail

Many of the Town's guardrails are noncompliant and the DPW is preparing a plan internally to systematically upgrade existing guardrails to make them both compliant and aesthetically pleasing. No funding is proposed for this category in FY2019.
(Submitted by: Department of Public Works)

The Town Manager's recommendation for Public Works Infrastructure Program is \$1,773,500 - \$1,523,000 to be funded by Free Cash and \$250,000 to be financed by General Fund Debt.

STREETLIGHT CONVERSION TO LED

This funding will allow the Town to convert its network of streetlights to Light Emitting Diodes (LED). The Department conducted a Streetlight Pilot Program in the spring of 2017, testing existing streetlights against LED streetlights. The existing lights are High Pressure Sodium (HPS) lights, which were considered the most energy efficient lighting types for their purpose in the early 2000s. Currently, LEDs are considered the more energy efficient lighting type. Of the three LED streetlight models piloted, two received higher average ratings than the existing HPS streetlights by the Town residents who completed the online survey. The Metropolitan Area Planning Council (MAPC) conducted an estimate for the conversion of all of the Town's existing Cobra head streetlights, determining that there are 2,521 existing streetlights that need to be converted. The Town's energy savings would be approximately 393,296 kWh annually. LED lights will be warrantied for ten years, and the only costs for maintenance to the Town will be labor to address any issues, pole transfers, new lights, and the cost of knockdowns. Other Massachusetts towns and cities with comparable streetlight inventories that have participated in the MAPC LED conversion program have secured maintenance contracts valued at an average of \$0.53 per streetlight per year, while Needham currently pays \$14.24 per streetlight per year for its existing streetlight maintenance contract. Though not all Town-owned streetlights are eligible for LED conversion under the MAPC program, total maintenance savings for those that are eligible for conversion could exceed \$30,000 per year. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Streetlight Conversion to LED is \$685,000 to be funded by Free Cash in the Tier 2 Category.

WATER QUALITY IMPROVEMENTS/ROSEMARY LAKE SEDIMENT REMOVAL

The Town entered into a Memorandum of Understanding (MOU) with the Environmental Protection Agency (EPA) to commence a Town-wide investigation of stormwater discharge to address the discharge of pollutants through stormwater into the Charles River Basin and other water bodies. Incorporated into this plan are improvements to the Stormwater Drainage System to upgrade the quality of the water discharged into the Charles River in Needham. This request is to support action items identified in the MOU. When the 2003 EPA National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit took effect, it incorporated several requirements identified in the MOU. There were a number of projects proposed to manage stormwater quality effectively. The second permit to be issued by the EPA will take effect July 1, 2018, pending on-going litigation. This request for funding increased from the previous year because during the design process, it was determined that the depth of the sediment that needs to be removed is greater than what was originally estimated. This has increased the cubic yardage of sediment product that needs to be disposed. Funding for the construction portion of the Rosemary Lake Sediment Removal was delayed a year from FY2018 to FY2019. Analysis of Wildwood Drive pond was added to FY19 to address

concerns over the condition of the pond and its capacity to handle Town stormwater. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Water Quality Improvements (Rosemary Lake Sediment Removal) is \$2,400,000 contingent on Community Preservation Funding, and \$25,000 to be funded by Free Cash in the Tier 2 category.

ENERGY EFFICIENCY UPGRADE IMPROVEMENTS

An energy efficiency study was conducted for ten municipal buildings in 2011. The results of this study illustrate that if the Town makes an initial investment in selected and recommended energy upgrades, the cost of these upgrades will pay for themselves within ten years. Unless circumstances require otherwise, FY2019 funding will be allocated to installing a bi-lighting system in the hallways at the Pollard Middle School (\$7,000), retro-commissioning the HVAC system at the Eliot School (\$57,000), and installing a bi-lighting system in the hallways at the High Rock School (\$7,000). *(Submitted by: Public Works Building Maintenance)*

The Town Manager's recommendation for Energy Efficiency Upgrade Improvements is \$71,000 to be funded by Free Cash.

COMMUNITY SERVICES

ATHLETIC FACILITY AND RECREATION IMPROVEMENTS /DESIGN FOR TURF REPLACEMENT

The Department of Public Works and Park and Recreation have developed a maintenance plan for all fields, which includes new construction, total reconstruction, partial renovation, irrigation, drainage improvements, and equipment replacement or repair (bleachers, fences/backstops, player benches, and miscellaneous equipment) for multi-use fields and ball diamonds. This request is for the design of the removal of the existing turf carpet, re-grading, and installation of new artificial field turf at DeFazio and Memorial Park. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Athletic Facility and Public Recreation Improvements/Design for Turf Replacement is \$55,000 to be funded through the Athletic Facility Improvement Fund.

LIBRARY FURNITURE REPLACEMENT

The renovated library has been open to the public for more than eleven years, and, due to heavy use, the furniture is beginning to show wear and tear. Both public and staff computer chairs are slowly breaking and the covering on the arms is splitting. Some of the mesh on the Community Room stackable chairs is unraveling, the backs are separating from the frames, and food has been caught in the mesh and proven difficult to remove. The forty-two cloth public arm chairs are also showing wear from

heavy use, particularly on the arms. The thirty-eight leather public arm chairs are also beginning to show wear. *(Submitted by: Needham Public Library)*

The Town Manager's recommendation for Library Furniture Replacement is \$43,970 to be funded by Free Cash.

MEMORIAL PARK BUILDINGS AND GROUNDS IMPROVEMENTS

Winter Street Architects performed a feasibility study on the Memorial Park Building in 2016, and after design funds were approved at the May 2017 Annual Town Meeting, Winter Street continued to move forward with design documents, under the charge of the PPBC. The design is for a new two-story building which will be fully handicap accessible, and constructed in accordance with the building code. The building will enhance programs held at the park, and promote synergy among the other nearby Town facilities. The building will be a service point for High School athletics and other community activities, while keeping the focus on the site and its history. The first floor will have spaces for Needham High School home teams to meet, and a separate room for visiting teams. These rooms have been designed in a flexible manner so that they can be used for other community activities. The facility will include a concession room, restrooms for park users, and a small number of restrooms for team use. Storage will be available for the DPW Parks and Forestry Division, as well as for groups using the fields at Memorial Park. The second floor will have meeting space for the Trustees and other community groups, as well as a room for larger meetings. *(Submitted by: Memorial Park Trustees)*

The Town Manager's recommendation for Memorial Park Buildings and Grounds Improvements is \$5,900,00, \$1,032,000 to be funded from Free Cash, \$1,800,000 to be transferred from the Athletic Facility Improvement Fund, and \$3,068,000 in General Fund debt financing.

PUBLIC PLAYGROUNDS

The Town of Needham has 18 public playground locations: Broadmeadow (2), Eliot (2), Hillside (2), Mitchell (1), Newman (3), Claxton, Cricket, DeFazio, Greene's, Mills, Perry, Riverside, and Walker-Gordon. This funding will allow the upgrade of public playgrounds depending on need and condition. Projects under consideration for FY2019 funding include the Mitchell, Broadmeadow and Eliot Schools, Perry Park, and ADA improvements at Greene's Field. *(Submitted by: Park and Recreation Department)*

The Town Manager's recommendation for Public Playgrounds is \$300,000 contingent on Community Preservation funding.

ROSEMARY LAKE CAMP AND TRAIL

The three remaining buildings at the Rosemary Camp property are subject to vandalism and must be removed for safety reasons. The two smaller buildings were formerly latrines, and need to be decommissioned as part of demolition. The shelter building is not insulated and the electrical source was disconnected almost twenty years ago when a fourth building was lost in

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a fire. A future project will include trail amenities and the installation of an open air picnic shelter and picnic tables installed on a concrete base to minimize vandalism. This area would be available for use by trail walkers as well as any programs offered by Park and Recreation or other Needham organizations. *(Submitted by: Park and Recreation Department)*

The Town Manager's recommendation for Rosemary Lake Camp and Trail is \$50,000 subject to Community Preservation funding.

GENERAL FUND FLEET REPLACEMENT PROGRAM

The Town's fleet replacement program was established in FY2015. The program includes a budget and schedule for the Town's rolling stock fleet of appropriately 220 vehicles, trailers, and large specialized attachments and the School Department fleet of 14 vans and buses. General purpose vehicles include pickup trucks, a variety of sedans, SUV's, vans, and police vehicles (87). They comprise approximately 39 percent of the entire fleet. General purpose vehicles are utilized in every department and are relatively inter-changeable. The replacement of these vehicles can proceed on a regular schedule and should be part of the of the Town's recurring costs. The Town relies on a number of trailers for the purpose of moving tools and equipment, hauling trash and debris, and transporting special equipment. The Town has 47 trailers which represents approximately 23 percent of the fleet. Specialized, high value vehicles and snow and ice equipment comprise the other 38 percent of the fleet. These vehicles and equipment are just as integral to Town operations as the general purpose vehicles, but serve the unique purposes of specific departments or divisions. Included in this group are the high value vehicles such as ambulances, large dump trucks, fire engines, street sweepers, and others for which appropriations need to be planned. *(Submitted by: Multiple Departments)*

GENERAL FUND CORE FLEET REPLACEMENT

UNIT	DIVISION	YEAR	REPLACEMENT	AMOUNT
1	Administration	2011	Passenger Vehicle	\$33,616
44	Engineering	2011	Passenger Vehicle	\$33,616
46	Engineering	2011	Passenger Vehicle	\$33,616
4	Fleet	2006	Work Truck Class 3	\$82,671
65	Parks & Forestry	2015	Ford F350 Work Truck Class 3	\$66,037
301	Parks & Forestry	2009	Work Van	\$34,069
702	Building Maintenance	2001	Work Truck Class 2	\$45,765
Van 4	Schools	2011	Transport Van	\$48,776
Van 5	Schools	2011	Transport Van	\$48,776
Total				\$426,942

GENERAL FUND FLEET REPLACEMENT – SPECIALIZED EQUIPMENT

UNIT	DIVISION	YEAR	REPLACEMENT	AMOUNT
55	Highway	2011	Ford F550	\$142,495
107 (Tier 2)	Highway	2008	Sidewalk Plow	\$190,811
181 (Tier 2)	Highway	2012	Street Sweeper	\$264,101
38 (Tier 2)	Parks & Forestry	2007	Work Truck Class 6	\$202,169
183 (Tier 2)	Parks & Forestry	2007	Trailer	\$25,722
E02	Fire	1999	Fire Engine	\$840,163
Total				\$1,665,461

REPLACEMENT SNOW AND ICE EQUIPMENT

UNIT	DIVISION	YEAR	REPLACEMENT	AMOUNT
76	Highway	2006	Skid Steer Loader	\$122,182

The Town Manager’s recommendation for General Fund Core Fleet Replacement is \$426,942 to be funded by Free Cash.

The Town Manager’s recommendation for General Fund Specialized Equipment is \$1,272,481 to be funded by Free Cash in the Tier 1 category and \$392,980 to be funded by Free Cash in the Tier 2 category.

The Town Manager’s recommendation for General Fund Snow & Ice Replacement is \$122,182 to be funded by Free Cash.

RECYCLING AND TRANSFER STATION (RTS) ENTERPRISE FUND

SMART TECHNOLOGY TRASH CANS

The Town has been investigating long term strategies for reducing public litter. Over the past year, the DPW has met with vendors to review a Town-wide deployment of waste management receptacles. These receptacles have two compartments, one for recycling and one for trash, with solar powered compactors, and technology that provides an alert when the receptacles are full. The Town is pursuing a pilot program to deploy these receptacles at two recreational facilities around Town. This deployment will include 12 trash and recycling receptacles. Eleven receptacles will be solar powered compactors and one will be a solar powered non-compactable receptacle. The solar powered compactors will be deployed in areas of high trash volume and

the non-compactable receptacle will be deployed in an area that is not prone to substantial trash generation. The receptacles will be purchased by the Town and their impact on reducing overflowing trash and minimizing odors will be monitored. There is a potential in the future to either purchase or lease additional receptacles. The 12 trash and recycling receptacles being purchased under this pilot program may also be incorporated into a lease program in the future. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Smart Technology Trash Cans is \$100,000 to be funded by RTS Enterprise Fund Retained Earnings.

RECYCLING AND TRANSFER STATION PROPERTY IMPROVEMENTS

This funding will enable the Town to make improvements to the Recycling & Transfer Station (RTS) facility to increase efficiency, comply with regulatory requirements, and improve the facility function. The Town's design consultant conducted two evaluations in 2016 on the roof and structure of the 1998 building. Emergency structural repairs were made to address immediate safety concerns in the building, including cleaning and painting of the steel framing, and repairs to the fire protection system. The remaining structural repairs that must be addressed include miscellaneous repairs to the pre-engineered metal framing, additional repairs to the fire protection system, additional cleaning and painting of the steel framing, roof repair, installation of a fall protection/warning system at tipping pit, replacement of the steel approach at tipping pit, and repair of the slab-on-grade. This funding will support the design, engineering and construction of these items. *(Submitted by Department of Public Works)*

The Town Manager's recommendation for RTS Property Improvements is \$645,000 to be financed by RTS Enterprise Fund debt.

FLEET REPLACEMENT – SPECIALIZED EQUIPMENT

Unit	Division	Year	Replacement	Amount
143	RTS	2010	Large Tractor Loader	\$245,360

The Town Manager's recommendation for RTS Specialized Equipment is \$245,360 to be funded by RTS Enterprise Fund Retained Earnings.

SEWER ENTERPRISE FUND

SEWER MAIN EXTENSION ZONES I AND II

The Massachusetts Department of Environmental Protection designates certain sensitive areas for aquifer protection. The Zone I and Zone II aquifer protection areas for the Charles River Wellfield include homes with private septic systems. Zone I includes land within a 400 foot radius of existing or potential public water supply wells, and Zone II includes the area of an aquifer that, given the most severe pumping and recharge conditions that can be realistically anticipated, would potentially be affected by nearby septic systems. All three of Needham's wells are located in an area that is vulnerable to contamination from nearby septic systems. Extending the sewer main will enable access to homes within Zones I & II and reduce the risk of contamination. This funding will support the installation of a new sewage pumping station and extension of the sewer main in Winding River Road. With this new service, the Town will provide sewer service for one critical home on a private septic system. This service will extend 712 feet up Winding River Road, allowing additional homes to connect to the sewer system through a betterment program. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Sewer Main Extension Zone I and II is \$690,000 to be funded by Sewer Enterprise Fund Retained Earnings.

SEWER MAIN REPLACEMENTS

The Greendale Avenue/Route 128 sewer interceptor is in need of rehabilitation/replacement. The existing sewer line is deteriorating and in need of rehabilitation/replacement. This funding will replace or reline 12,000 feet (2.25 miles) of 18 inch reinforced concrete gravity sewer main running through Town property in the Right of Way from Greendale Avenue near Cheney Street towards Route 128, and along the Route 128 Right of Way to Great Plain Avenue. This interceptor sewer collects and conveys waste water from numerous sewer lines. FY2019 funding will be allocated to a feasibility study for this project.

The Town Manager's recommendation for Sewer Main Replacements is \$330,000 to be funded by Sewer Enterprise Fund Retained Earnings.

SEWER SYSTEM INFILTRATION & INFLOW (I/I) REMOVAL

The Town recently completed a study identifying priority areas for inflow and infiltration removal for the next ten years. The Town of Needham, along with numerous other communities, is under Administrative Orders from the Department of Environmental Protection (DEP) to identify and remove Infiltration and Inflow (I/I) in existing sewer systems. Infiltration is defined as groundwater or storm water runoff that enters the system through deteriorated pipe or manhole structures that need to be repaired. Inflow is defined as clean, non-septic water, which is introduced to the system. This water is generally produced by residential sump pumps that drain basements. Unless circumstances require otherwise, this funding will support the design of the removal of the remaining locations of identified infiltration in the system.

The Town Manager's recommendation for Sewer System Infiltration and Inflow Removal is \$205,000 to be funded by Sewer Enterprise Fund Retained Earnings.

CORE FLEET REPLACEMENT

Unit	Division	Year	Replacement	Amount
28	Sewer	2001	Light Work Truck Class 3	\$64,247
94	Sewer	2014	Light Work Truck Class 2b	\$67,864
Total				\$132,111

(Submitted by: Department of Public Works)

The Town Manager's recommendation for Sewer Core Fleet Replacement is \$132,111 to be funded by Sewer Enterprise Fund Retained Earnings.

WATER ENTERPRISE FUND

BIRDS HILL WATER TANK

The water tank located at Birds Hill ensures that the Town is able to maintain proper operating system pressure of the water distribution system. The tank is filled through one central pipe at the bottom of the tank — and this is also how the tank is drained. The movement of water is therefore predominately at the bottom of the tank. This tank is 100 feet in diameter at the foundation and is 45 feet in elevation. This funding will allow the Town to install a mixing valve that will circulate water throughout the tank. The improved circulation will assist in maintaining chlorine levels inside the tank, improving water quality.

(Submitted by: Department of Public Works)

The Town Manager's recommendation for Birds Hill Water Tank is \$340,000 to be funded by Water Enterprise Fund Retained Earnings.

WATER DISTRIBUTION SYSTEM IMPROVEMENTS

Water System Rehabilitation

Through the Water System Rehabilitation Program, the Town's water infrastructure is continually evaluated to assess functionality and performance, and to identify areas in need of repair. Water infrastructure requires ongoing attention and periodic replacement, and portions of the Town's water infrastructure are 75+ years old and approaching the end of their useful

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life. A diligent rehabilitation program encompassing maintenance, repair, and replacement ensures a continual supply of water to the public. The Department of Public Works prioritizes replacement of water pipes based upon pipe condition, water break history, and adequacy of water flow to fire hydrants. Unless circumstances require otherwise, the FY2019 funding will support the replacement of 8 inch water mains on Bennington Street from High Street to Concord Street (unlined) and on Country Way (unlined).

Water Main Replacement

This request is to replace a total of 11,500 linear feet of 14" water main. The existing water line dates from 1936-1939 and is cast iron with bitumastic or coal tar liner. The water quality in areas serviced by this line is a concern, as the lining of these pipes breaks down over time causing discoloration in the water. In 2008, the Town began addressing areas served by this type of piping, which at the time was approximately 19,000 linear feet. The 14" water main was relined from the Charles River Water Treatment Facility to Grove Street. In 2010, the second phase of this project replaced the 14" water main with a new 16" water main extending from Grove Street to Central Avenue. In FY2016, the Town replaced the water main in Oak Street from Maple Street to Chestnut Street and in Chestnut Street from Oak Street to School Street. Unless circumstances require otherwise, FY2019 funding will be allocated to the construction of the remaining 11,500 linear feet of water main to be replaced from the intersection of Pine Street to Marked Tree Road to Oak Street, and Maple Street. The 14 inch water main will be replaced by a 16 inch water main. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Water Distribution System Improvements is \$830,000 to be funded by Water Enterprise Fund Retained Earnings.

WATER SPECIALTY EQUIPMENT

Unit	Division	Year	Replacement	Amount
14	Water	2009	Heavy Duty Truck Class 7	\$239,404
22	Water	2009	Medium Work Truck Class 4	\$115,644
Total				\$355,048

(Submitted by: Department of Public Works)

The Town Manager's recommendation for Water Specialty Equipment is \$355,048 to be funded by Water Enterprise Fund Retained Earnings.

Capital Recommendations and Funding Sources

Section 2

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**FY2019
Capital Budget
Funding Recommendations**

Title	Code*	Submitting Department	Cat*	2019 Department Request	Cash Capital All Tiers	Debt	Other Funding Source	No Action	Note	Page
Athletic Facility and Public Recreation Improvements (Claxton Field Lighting)	M	Public Works	3	510,000				510,000	Insufficient Details	3-040
Athletic Facility and Public Recreation Improvements (Design for Turf Replacement)	M	Public Works	3	55,000			55,000		Funding from AFIF	3-040
Building Management System Upgrade	M	Public Works	1	102,000	102,000					3-067
DPW Boiler Replacement 470 Dedham Avenue	M	Public Works	2	34,000	34,000					3-071
DPW Central Avenue Storage Facility	M	Public Works	2	7,900,000	1,382,000	3,788,000			Refer to the Sewer and Water Enterprise sections for their allocated shares.	3-043
Energy Efficiency Upgrade Improvements	M	Public Works	2	71,000	71,000					3-077
Facility Assessment for Sustainable Building Management	MB	Public Works	2	100,000				100,000	Pending Results from Other Study	3-079
Hillcrest Radio Repeater Building Replacement	N	Public Works	2	136,000	136,000					3-059
Library Furniture Replacement	M	Library	1	43,970	43,970					3-097
Memorial Park Buildings and Grounds Improvements	M	Town Manager	2	5,900,000	1,032,000	3,068,000	1,800,000		\$1.8M from AFIF; CPA funding if available would reduce the amount to be funded by Debt.	3-119
Mitchell School Locker Replacement	N	Public Works	2	70,000	70,000				First time request	3-087
Non-Public Safety Data Center Servers and Storage Units	P	Finance	1	180,000	180,000					3-007
Personal Protective Equipment	M	Fire	1	43,424	43,424					3-036
Police Use-Of-Force Training Simulator	M	Police	1	47,000	47,000					3-032
Pollard Blue & Green Gym Upgrades	M	Public Works	2	540,000	540,000					3-091

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**FY2019
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Funding Recommendations**

Title	Code*	Submitting Department	Cat*	2019 Department Request	Cash Capital All Tiers	Debt	Other Funding Source	No Action	Note	Page
Pollard Phased Improvements Feasibility Study	M	School	2	65,000	65,000					3-171
Public Safety Complex/Station #2	M	Town Manager	2	65,405,000		65,405,000			Project to be funded by Excluded Debt; Ballot Question November 2018.	3-001
Public Safety Data Center Servers and Storage Units	P	Finance	1	30,000				30,000	Grant Funding Possibility	3-009
Public Safety Mobile Devices	P	Finance	1	35,000	35,000					3-011
Public Works Infrastructure Program	M	Public Works	3	1,773,500	1,523,500	250,000				3-052
Replace Unit 1 Passenger Vehicle	C	DPW Admin	4	33,616	33,616					3-019
Replace Unit 107 Sidewalk Tractor Plow	L	DPW Highway	4	190,811	190,811					3-019
Replace Unit 181 Street Sweeper	L	DPW Highway	4	264,101	264,101					3-019
Replace Unit 183 Trailer Large	L	DPW Parks	4	25,722	25,722					3-019
Replace Unit 301 Work Van	C	DPW Parks	4	34,069	34,069					3-019
Replace Unit 38 Medium Work Truck Class 6	L	DPW Parks	4	202,169	202,169					3-019
Replace Unit 4 Light Work Truck Class 3	C	DPW Garage	4	82,671	82,671					3-019
Replace Unit 44 Passenger Vehicle	C	DPW Engineering	4	33,616	33,616					3-019
Replace Unit 457 Passenger Vehicle	B	Building	4	21,336				21,336		3-019
Replace Unit 46 Passenger Vehicle	C	DPW Engineering	4	33,616	33,616					3-019

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Funding Recommendations**

Title	Code*	Submitting Department	Cat*	2019 Department Request	Cash Capital All Tiers	Debt	Other Funding Source	No Action	Note	Page
Replace Unit 55 Medium Work Truck Class 5	L	DPW Highway	4	142,495	142,495					3-019
Replace Unit 65 Light Work Truck Class 3	C	DPW Parks	4	66,037	66,037					3-019
Replace Unit 702 Light Work Truck Class 2	C	DPW Building	4	45,765	45,765					3-019
Replace Unit 76 Skid Steer Loader	X	DPW Highway	4	122,182	122,182					3-019
Replace Unit E02 Fire Truck	L	Fire	4	840,163	840,163					3-019
Replace Unit Van 4 Transport Van	C	School	4	48,776	48,776					3-019
Replace Unit Van 5 Transport Van	C	School	4	48,776	48,776					3-019
School Copier Replacement	R	School	1	84,190	84,190					3-180
School Furniture	R	School	1	60,500	60,500					3-190
School Phone System Replacement	N	School	1	88,000	319,000				Department requested \$319,000 over several years, recommendation is to fund the project in whole and transfer responsibility of the telephone system effective July 1, 2018 to the School Department.	3-192
School Technology Replacement	R	School	1	303,600	303,600					3-184
Specialty Equipment - Unit 344 Large Mower	M	Public Works	1	76,500	76,500					3-048
Streetlight Conversion to LED	N	Public Works	3	685,000	685,000				New Request, budget savings merits early consideration.	3-061
Time Clock System	PB	Public Works	X	81,000				81,000	Not Capital	NA

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Capital Budget
Funding Recommendations**

Title	Code*	Submitting Department	Cat*	2019 Department Request	Cash Capital All Tiers	Debt	Other Funding Source	No Action	Note	Page
Town Multi-Function Printer Devices	M	Finance	1	35,600	35,600					3-001
Town Offices Replacement Furniture	P	Town Manager	1	25,000	25,000					3-003
Traffic Improvements	P	Public Works	3	50,000	50,000					3-065
Water Quality Improvements (Wildwood Drive Pond Analysis)	M	Public Works	3	25,000	25,000					3-134
General Fund				86,791,205	9,183,869	72,511,000	1,855,000	742,336		
Emery Grover Feasibility Study Refresh	N	School	2	70,000	70,000					3-162
Memorial Park Buildings and Grounds Improvements	M	Town Manager	2	Refer General Fund					CPA funding, if available, would reduce the amount to be funded by General Fund Debt.	3-119
Open Space Land Purchase	M	Park & Recreation	3	1,000,000				1,000,000	No specific request	3-113
Public Playgrounds	M	Park & Recreation	1	300,000	300,000					3-110
Rosemary Lake Camp and Trail	M	Park & Recreation	3	50,000	50,000					3-115
Water Quality Improvements (Rosemary Lake Sediment Removal)	M	Public Works	3	2,400,000	2,400,000					3-134
Community Preservation Fund				3,820,000	2,820,000			1,000,000		
Big Belly Trash Cans	N	Public Works	1	100,000	100,000					3-121
Replace Unit 143 Large Tractor Loader	L	DPW RTS	4	245,360	245,360					3-019
RTS Property Improvements	M	Public Works	2	645,000		645,000				3-129
RTS Enterprise Fund				990,360	345,360	645,000				

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**FY2019
Capital Budget
Funding Recommendations**

Title	Code*	Submitting Department	Cat*	2019 Department Request	Cash Capital All Tiers	Debt	Other Funding Source	No Action	Note	Page
DPW Central Avenue Storage Facility	M	Public Works	2	Refer General Fund	944,000				Refer to the General Fund section	3-043
Replace Unit 28 Light Work Truck Class 3	C	DPW Sewer	4	64,247	64,247					3-019
Replace Unit 94 Light Work Truck Class 2b	C	DPW Sewer	4	67,864	67,864					3-019
Sewer Main Extension Zone I and II	M	Public Works	3	690,000	690,000					3-136
Sewer Main Replacements	M	Public Works	3	330,000	330,000					3-138
Sewer System Infiltration & Inflow Removal	M	Public Works	3	205,000	205,000					3-144
Sewer Enterprise Fund				1,357,111	2,301,111					
Birds Hill Water Tank	M	Public Works	3	340,000	340,000					3-146
DPW Central Avenue Storage Facility	M	Public Works	2	Refer General Fund	1,786,000				Refer to the General Fund section	3-043
Replace Unit 14 Heavy Duty Truck Class 7	L	DPW Water	4	239,404	239,404					3-019
Replace Unit 22 Medium Work Truck Class 4	L	DPW Water	4	115,644	115,644					3-019
Water Distribution System Improvements	M	Public Works	3	830,000	830,000					3-150
Water Supply Development	M	Public Works	3	400,000				400,000		3-157
Water Enterprise Fund				1,925,048	3,311,048			400,000		
Total				94,883,724	17,961,388	73,156,000	1,855,000	2,142,336		

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**FY2019
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Funding Recommendations**

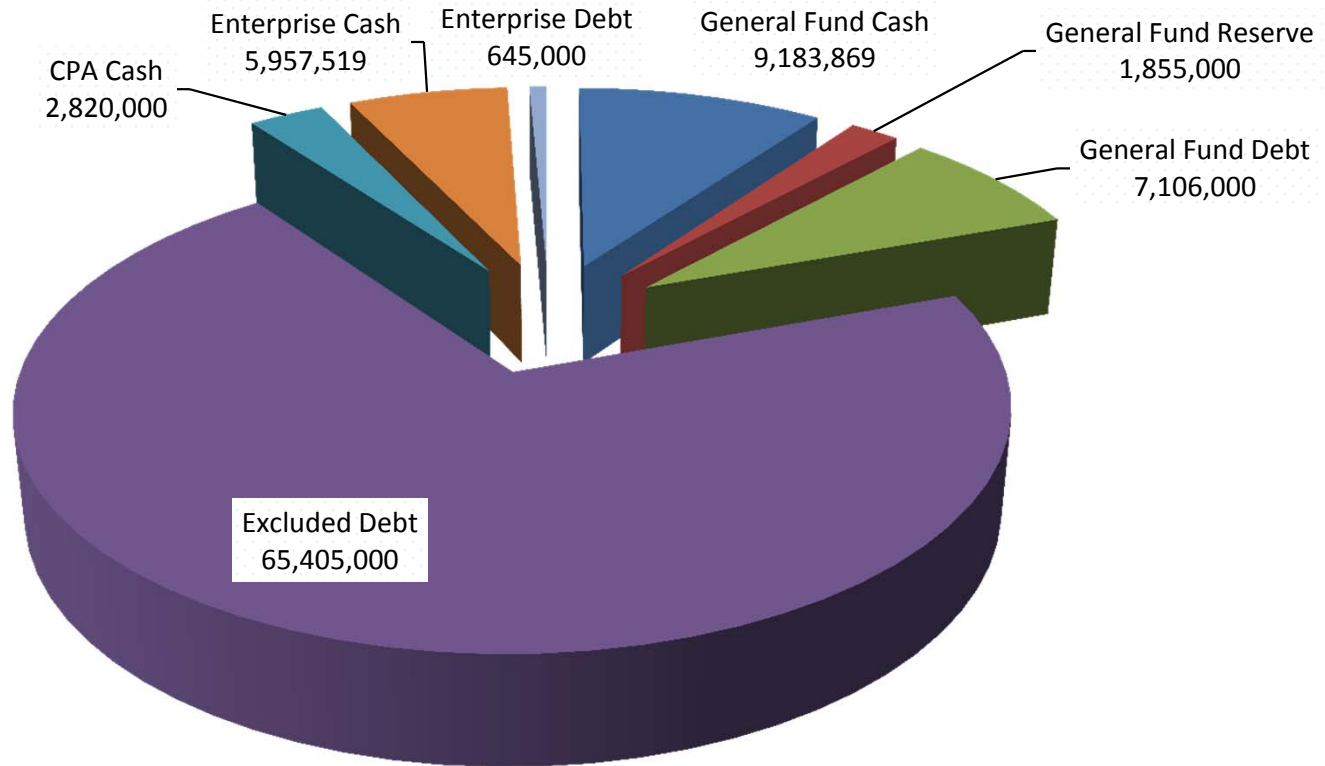
Title	Code*	Submitting Department	Cat*	2019 Department Request	Cash Capital All Tiers	Debt	Other Funding Source	No Action	Note	Page
Buildings & Facilities - All			2	80,936,000	6,130,000	72,906,000	1,800,000	100,000		
Equipment & Technology - All			1	1,554,784	1,755,784			30,000		
Fleet - All			4	2,968,440	2,947,104			21,336		
Infrastructure & Land - All			3	9,343,500	7,128,500	250,000	55,000	1,910,000		
Other - All				81,000				81,000		
TOTAL				94,883,724	17,961,388	73,156,000	1,855,000	2,142,336		

Code
 B = Funding may be considered under the operating budget/special warrant article
 C = Core Fleet
 D = Recommendation is deferred or on hold pending other actions
 E = Emergency approval
 F = Funded appropriation outside the capital plan
 G = Request may not qualify as capital submission
 L = Specialized Fleet Equipment
 I = Project submission is incomplete or waiting additional information
 M = Submission has been modified from previous submission
 N = New submission with this CIP
 P = Project request has appeared in previous CIP's
 Q = Request does not qualify as a capital submission
 R = Request is a regularly occurring capital expense
 S = No recommendation; under study
 U = Urgent request based on identified conditions

Cat (Category)
 1 = Equipment or Technology
 2 = Building or Facility
 3 = Infrastructure
 4 = Fleet

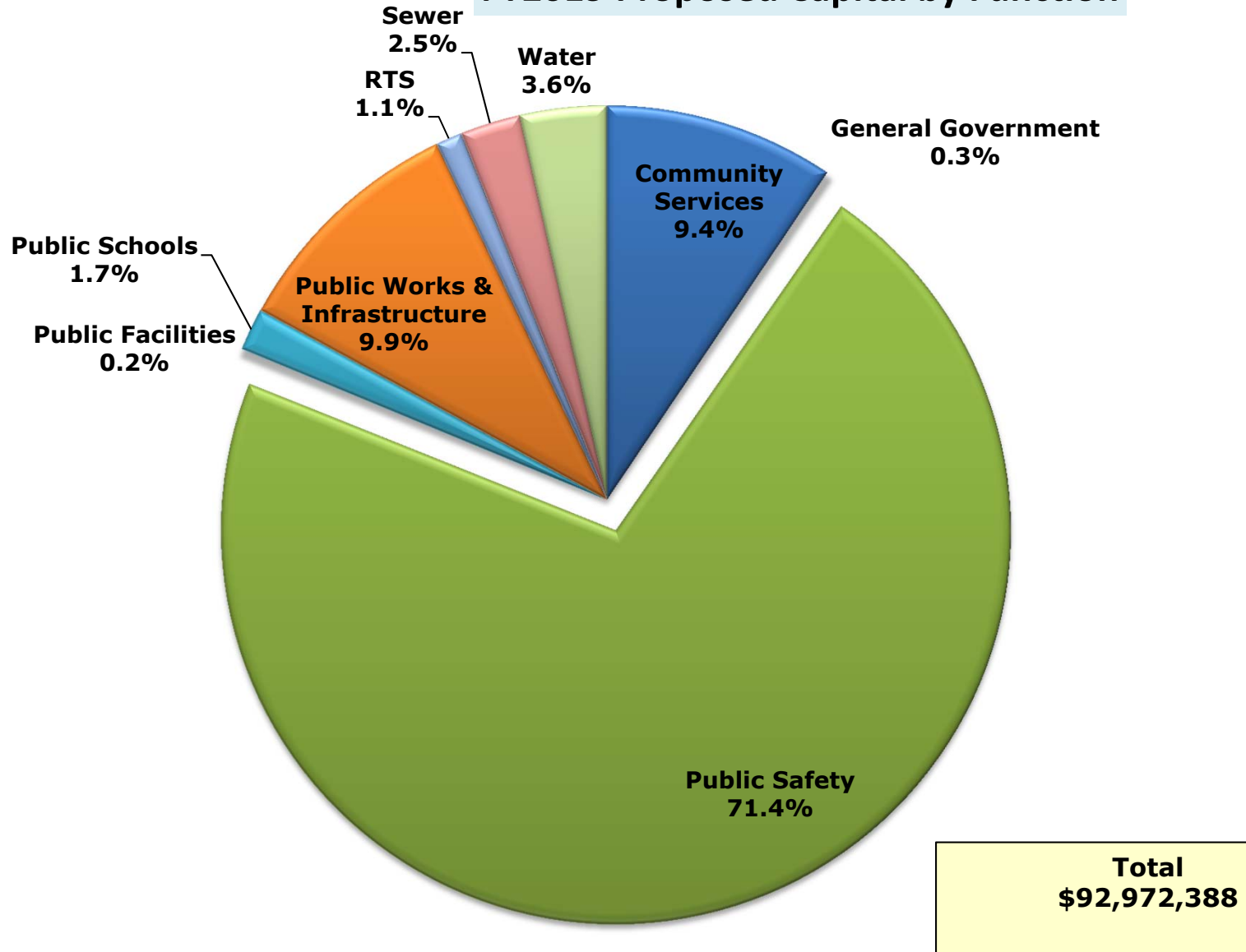
Truck Classification
 Class 1 = Smallest Pick-up Trucks 6,000 lbs.
 Class 2 = Full Size or 1/2 Ton Pick-up Trucks 6K to 10K lbs. (ex Ford F150 and F250)
 Class 3 = Heavy Duty Pick-up Trucks 10K to 14K lbs. (ex Ford F350)
 Class 4 = Medium Size Work Trucks 14K to 16K lbs. (ex Ford F450)
 Class 5 = Medium Job Trucks 16K to 19.5K lbs. (ex Ford F550)
 Class 6 = Medium to Large Trucks 19.5K to 26K (ex Ford F650)
 Class 7 = Heavy Duty Trucks 26K to 33K (ex Ford F750) Requires Class B Commercial
 Class 8 = Largest Heavy Duty Trucks 33K lbs. or more (ex 18-wheeler)

FY2019 Proposed Capital by Funding Source

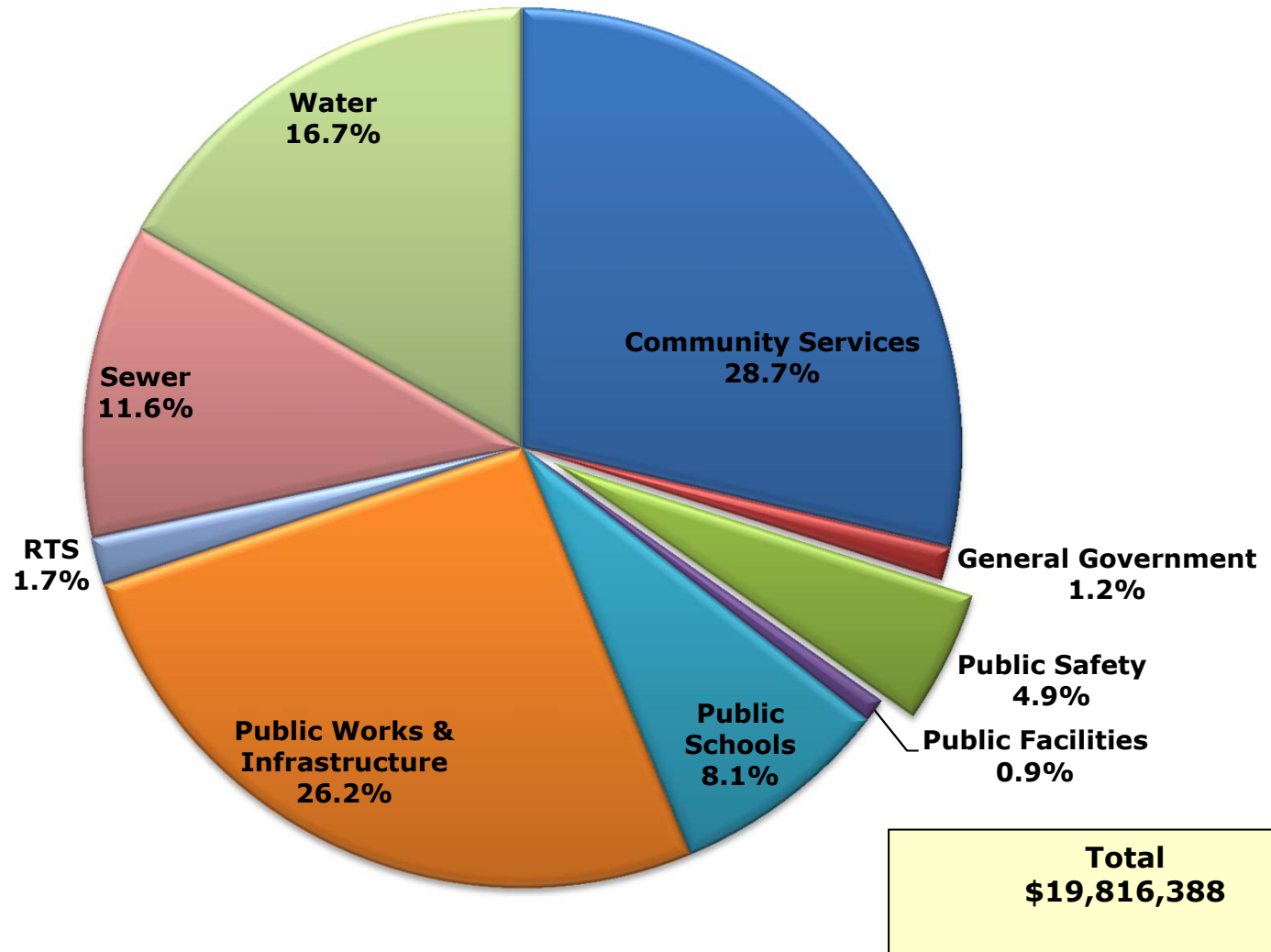


■ General Fund Cash ■ General Fund Reserve ■ General Fund Debt ■ Excluded Debt ■ CPA Cash ■ Enterprise Cash ■ Enterprise Debt

FY2019 Proposed Capital by Function



FY2019 Proposed Cash Capital by Function



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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations
FY2019 - FY2023**

Title	Code *	Function	Cat*	FY2019 Department Request	FY2019 Recommended Tier 1	FY2020 Department Request	FY2020 Recommended Tier 1	FY2021 Department Request	FY2021 Recommended Tier 1	FY2022 Department Request	FY2022 Recommended Tier 1	FY2023 Department Request	FY2023 Recommended Tier 1	Cash	Debt	Other	Page
Athletic Facility and Public Recreation Improvements	M	Community	3	565,000	55,000	2,880,000	2,500,000	52,500		677,000		1,102,000				2,555,000	3-040
Athletic Fields Master Plan	GM	Community	2							75,000							3-102
Boat Launch on Charles River	P	Community	2														3-104
Center at the Heights Computer Lab	P	Community	1			50,000	50,000							50,000			3-005
Center at the Heights Space Utilization Study	N	Community	2									30,000					3-069
Cricket Field Building Renovation	M	Community	2			162,000		649,000									3-106
Library Furniture Replacement	M	Community	1	43,970	43,970	112,960	112,960	82,740	82,740	83,182	83,182			322,852			3-097
Library RFID Conversion	M	Community	1					327,200									3-099
Memorial Park Buildings and Grounds Improvements	M	Community	2	5,900,000	5,900,000									1,032,000	3,068,000	1,800,000	3-119
Open Space Land Purchase	M	Community	3	1,000,000													3-113
Outdoor Basketball Courts	N	Community	2									125,000					3-108
Public Playgrounds	M	Community	1	300,000	300,000	400,000	400,000									700,000	3-110
Replace Unit 404 Ford E350 VAN	C	Community	4							100,240	100,240			100,240			3-019
Rosemary Lake Camp and Trail	M	Community	3	50,000	50,000	200,000	200,000									250,000	3-115
Town Common Historic Redesign and Beautification	M	Community	3			52,000	52,000	906,000	906,000							958,000	3-063
Walker Pond Improvements	N	Community	3														3-117
Energy Efficiency Upgrade Improvements	M	Facilities	2	71,000	71,000			200,000	200,000	100,000	100,000	100,000	100,000	471,000			3-077
Accounting and Revenue Software Package Replacement	P	General	1					1,100,000	1,100,000					1,100,000			3-013
Multi-Function Printer Devices	M	General	1			35,600	35,600	35,600	35,600	35,600	35,600	35,600	35,600	142,400			3-017
Non-Public Safety Data Center Servers and Storage Units	P	General	1	180,000	180,000							145,000	145,000	325,000			3-007
Permanent Message Boards	M	General	1			52,000		54,000		56,000		58,000					3-050
Replace Unit 452 Ford Taurus	C	General	4									41,034	41,034	41,034			3-019
Technology Systems and Application Updates	M	General	1									100,000	100,000	100,000			3-015

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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations
FY2019 - FY2023**

Title	Code *	Function	Cat*	FY2019 Department Request	FY2019 Recommended Tier 1	FY2020 Department Request	FY2020 Recommended Tier 1	FY2021 Department Request	FY2021 Recommended Tier 1	FY2022 Department Request	FY2022 Recommended Tier 1	FY2023 Department Request	FY2023 Recommended Tier 1	Cash	Debt	Other	Page
Town Multi-Function Printer Devices	M	General	1	35,600		35,600	35,600	35,600	35,600	35,600	35,600			106,800			3-017
Town Offices Replacement Furniture	P	General	1	25,000	25,000					25,000	25,000			50,000			3-003
Automated External Defibrillators Replacement	N	Public Safety	1									27,832	27,832	27,832			3-034
Firearm Replacement	M	Public Safety	1			31,000	31,000							31,000			3-030
Personal Protective Equipment	M	Public Safety	1	43,424	43,424	43,424	43,424	43,424	43,424	43,424	43,424	43,424	43,424	217,120			3-036
Police Cruiser Radio Replacement	M	Public Safety	1					93,351	93,351					93,351			3-028
Police Use-Of-Force Training Simulator	M	Public Safety	1	47,000	47,000									47,000			3-032
Public Safety Complex/Station #2	M	Public Safety	2	65,405,000	65,405,000										65,405,000		3-001
Public Safety Data Center Servers and Storage Units	P	Public Safety	1	30,000				60,000	60,000					60,000			3-009
Public Safety Mobile Devices	P	Public Safety	1	35,000	35,000	35,000	35,000							70,000			3-011
Replace Unit 400 Ford Taurus	C	Public Safety	4							38,310	38,310			38,310			3-019
Replace Unit 457 Ford Taurus	B	Public Safety	4	21,336													3-019
Replace Unit C-01 FORD EXPLORER	C	Public Safety	4					51,133	51,133					51,133			3-019
Replace Unit C-06 Ford F350	C	Public Safety	4					73,647	73,647					73,647			3-019
Replace Unit C-42 Ford Sedan	C	Public Safety	4			50,462	50,462							50,462			3-019
Replace Unit E02 E-ONE CYCLONE ii Fire Truck	L	Public Safety	4	840,163	840,163									840,163			3-019
Replace Unit HAZ HAZMAT TRAILER	L	Public Safety	4														3-019
Asa Small Field Renovation	M	Public Works	2			34,000	34,000	152,000	152,000							186,000	3-038
DPW Boiler Replacement 470 Dedham Avenue	M	Public Works	2	34,000		400,000											3-071
DPW Central Avenue Storage Facility	M	Public Works	2	7,900,000	7,900,000									1,382,000	3,788,000	2,730,000	3-043
DPW Complex	M	Public Works	2			2,950,000				35,000,000							3-045
Drain System Improvements - Water Quality (EPA)	M	Public Works	3	2,425,000	2,400,000			126,500		1,035,000						2,400,000	3-134
Hillcrest Radio Repeater Building Replacement	N	Public Works	2	136,000	136,000									136,000			3-059

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**Five Year Capital Improvement Plan
Preliminary Tier One Recommendations
FY2019 - FY2023**

Title	Code *	Function	Cat*	FY2019 Department Request	FY2019 Recommended Tier 1	FY2020 Department Request	FY2020 Recommended Tier 1	FY2021 Department Request	FY2021 Recommended Tier 1	FY2022 Department Request	FY2022 Recommended Tier 1	FY2023 Department Request	FY2023 Recommended Tier 1	Cash	Debt	Other	Page
Public Works Infrastructure Program	M	Public Works	3	1,773,500	1,773,500	1,985,500	1,985,500	2,320,000	2,145,000	2,022,000	2,022,000	1,805,500	1,805,500	9,481,500	250,000		3-052
Replace Unit 1 Ford Escape Hybrid	C	Public Works	4	33,616	33,616									33,616			3-019
Replace Unit 10 INTERNATIONAL 7400 Series	L	Public Works	4			239,000	239,000							239,000			3-019
Replace Unit 102 JOHN DEERE LOADER 544J	L	Public Works	4			181,481	181,481							181,481			3-019
Replace Unit 107 CAMOPLAST SW4S	L	Public Works	4	190,811													3-019
Replace Unit 108 TRACKLESS TRACTOR	X	Public Works	4									206,164	206,164	206,164			3-019
Replace Unit 112 Prinoth	L	Public Works	4									206,618	206,618	206,618			3-019
Replace Unit 113 CAMOPLAST SW4S	L	Public Works	4					192,880	192,880					192,880			3-019
Replace Unit 124 ADDCO MINI UTILITY TRAILER	L	Public Works	4							26,429	26,429			26,429			3-019
Replace Unit 168 GORMAN UTILITY TRAILER	L	Public Works	4							37,706	37,706			37,706			3-019
Replace Unit 181 Elgin PELICAN Sweeper	L	Public Works	4	264,101	264,101									264,101			3-019
Replace Unit 182 FREIGHTLINER ELGIN CROSSWIND SWEEPER	L	Public Works	4			302,028	302,028							302,028			3-019
Replace Unit 183 GIANT UTILITY LEAF PICKER TRAILER	L	Public Works	4	25,722	25,722									25,722			3-019
Replace Unit 186 GIANT LEAF VAC TRAILER	L	Public Works	4							27,275	27,275			27,275			3-019
Replace Unit 2 Ford F150 XL	C	Public Works	4					36,000	36,000					36,000			3-019
Replace Unit 253 VERMEER STUMP CUTTER	L	Public Works	4			54,207	54,207							54,207			3-019
Replace Unit 256 TRAILER UTILITY	L	Public Works	4			44,005	44,005							44,005			3-019
Replace Unit 3 Ford F450	L	Public Works	4							84,163	84,163			84,163			3-019
Replace Unit 301 FORD E150 VAN	C	Public Works	4	34,069	34,069									34,069			3-019
Replace Unit 32 Ford F350	CL	Public Works	4							71,137	71,137			71,137			3-019
Replace Unit 350 JOHN DEERE TRACTOR LOADER 4720	L	Public Works	4					53,156	53,156					53,156			3-019
Replace Unit 38 INTERNATIONAL IH 4300 Series	L	Public Works	4	202,169													3-019
Replace Unit 39 Ford F550	L	Public Works	4			73,233	73,233							73,233			3-019

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Title	Code *	Function	Cat*	FY2019 Department Request	FY2019 Recommended Tier 1	FY2020 Department Request	FY2020 Recommended Tier 1	FY2021 Department Request	FY2021 Recommended Tier 1	FY2022 Department Request	FY2022 Recommended Tier 1	FY2023 Department Request	FY2023 Recommended Tier 1	Cash	Debt	Other	Page
Replace Unit 4 Ford F350	CL	Public Works	4	82,671	82,671									82,671			3-019
Replace Unit 43 Ford F350	CL	Public Works	4							71,137	71,137			71,137			3-019
Replace Unit 44 Ford Escape Hybrid	C	Public Works	4	33,616	33,616									33,616			3-019
Replace Unit 45 FORD E150 VAN	C	Public Works	4							38,467	38,467			38,467			3-019
Replace Unit 46 Ford Escape Hybrid	C	Public Works	4	33,616	33,616									33,616			3-019
Replace Unit 55 Ford F550	L	Public Works	4	142,495	142,495									142,495			3-019
Replace Unit 57 Ford F350	CL	Public Works	4			66,407	66,407							66,407			3-019
Replace Unit 65 Ford F350	CL	Public Works	4	66,037	66,037									66,037			3-019
Replace Unit 700 Ford Econ Van E250	C	Public Works	4									41,656	41,656	41,656			3-019
Replace Unit 702 Ford F250	C	Public Works	4	45,765	45,765									45,765			3-019
Replace Unit 705 Ford Econ Van E250	C	Public Works	4			37,571	37,571							37,571			3-019
Replace Unit 707 Ford Econ Van E250	C	Public Works	4					38,886	38,886					38,886			3-019
Replace Unit 712 Ford Econ Van E250	C	Public Works	4							40,247	40,247			40,247			3-019
Replace Unit 713 Ford F450 Dump Truck	L	Public Works	4														3-019
Replace Unit 756 Ford F150	C	Public Works	4							37,260	37,260			37,260			3-019
Replace Unit 76 BOBCAT A300 SKID STEER	L	Public Works	4	122,182	122,182									122,182			3-019
Replace Unit 92 FORD EXPLORER	C	Public Works	4			38,385	38,385							38,385			3-019
Specialty Equipment - Loader Mounted Snow Blower (H)	M	Public Works	1					163,000	163,000					163,000			3-048
Specialty Equipment - Unit 334 Specialty Mower (PF)	M	Public Works	1							40,000	40,000			40,000			3-048
Specialty Equipment - Unit 344 Large Specialty Mower (PF)	M	Public Works	1	76,500	76,500									76,500			3-048
Specialty Equipment - Unit 351 Tractor (PF)	M	Public Works	1			90,000	90,000							90,000			3-048
Streetlight Conversion to LED	N	Public Works	3	685,000													3-061
Traffic Improvements	P	Public Works	3	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	250,000			3-065

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Building Management System Upgrade	M	Schools	1	102,000		126,000	126,000	94,000	94,000					220,000			3-067
Emery Grover Feasibility Study Refresh	N	Schools	2	70,000	70,000											70,000	3-162
Emery Grover Roof Replacement	M	Schools	2					15,000		160,000							3-075
Emery Grover Window Replacement	M	Schools	2			30,000		330,000									3-073
Facility Assessment for Sustainable Building Management	MB	Schools	2	100,000													3-079
Full Day Kindergarten Space Modifications	P	Schools	2			50,000											3-164
Harris Avenue Parking Lot (Pollard School)	N	Schools	2									25,000	25,000	25,000			3-081
High Rock School Locker Room Upgrade	N	Schools	2									20,000	20,000	20,000			3-083
Hillside School Boiler Upgrade	N	Schools	2			11,000		220,000									3-095
Mitchell Elementary School Renovation	P	Schools	2														3-166
Mitchell School Bathroom Upgrades	N	Schools	2					60,000		600,000							3-085
Mitchell School Locker Replacement	N	Schools	2	70,000													3-087
Newman Preschool Playground Custom Shade Shelter	N	Schools	1			49,800	49,800							49,800			3-169
Pollard Blue & Green Gym Upgrades	M	Schools	2	540,000	540,000	30,000	30,000							570,000			3-091
Pollard Locker Room Retrofit	M	Schools	2					60,000	60,000	630,000	630,000			690,000			3-093
Pollard Phased Improvements Feasibility Study	M	Schools	2	65,000	65,000									65,000			3-171
Pollard School Air Conditioning Upgrade	N	Schools	2							100,000		550,000					3-089
Pollard School Improvements	P	Schools	2														3-173
Renovate/Reconstruct Emery Grover Building at Highland Avenue Location	P	Schools	2			1,605,200		13,089,300									3-177
Renovate/Reconstruct Hillside as Swing Space	N	Schools	2					750,000									3-159
Replace Unit Bus 1 BLUE BIRD 303 SCHOOL BUS	C	Schools	4									96,693	96,693	96,693			3-019
Replace Unit Bus 14 IC SCHOOL BUS	C	Schools	4			90,568	90,568							90,568			3-019
Replace Unit Bus 2 BLUE BIRD 303 SCHOOL BUS	C	Schools	4									96,693	96,693	96,693			3-019

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Title	Code *	Function	Cat*	FY2019 Department Request	FY2019 Recommended Tier 1	FY2020 Department Request	FY2020 Recommended Tier 1	FY2021 Department Request	FY2021 Recommended Tier 1	FY2022 Department Request	FY2022 Recommended Tier 1	FY2023 Department Request	FY2023 Recommended Tier 1	Cash	Debt	Other	Page
Replace Unit Van 1 FORD E150 VAN	C	Schools	4			50,483	50,483							50,483			3-019
Replace Unit Van 10 TOYOTA SIENNA	C	Schools	4							54,079	54,079			54,079			3-019
Replace Unit Van 2 FORD E150 VAN	C	Schools	4			50,483	50,483							50,483			3-019
Replace Unit Van 4 FORD E150 VAN	C	Schools	4	48,776	48,776									48,776			3-019
Replace Unit Van 5 FORD E150 VAN	C	Schools	4	48,776	48,776									48,776			3-019
Replace Unit Van 7 FORD E250 VAN	C	Schools	4					52,250	52,250					52,250			3-019
Replace Unit Van 8 FORD E250 VAN	C	Schools	4					52,250	52,250					52,250			3-019
Replace Unit Van 9 TOYOTA SIENNA	C	Schools	4							54,079	54,079			54,079			3-019
School Copier Replacement	R	Schools	1	84,190	84,190	52,470	52,470	84,690	84,690	86,360	86,360	52,140	52,140	359,850			3-180
School Document Management System	M	Schools	1			176,900	176,900							176,900			3-187
School Furniture	R	Schools	1	60,500	60,500	45,000	45,000	25,000	25,000	25,000	25,000	25,000	25,000	180,500			3-190
School Phone System Replacement	N	Schools	1	88,000	319,000	114,000		117,000						319,000			3-192
School Technology Replacement	R	Schools	1	303,600	303,600	566,100	347,500	556,325	177,050	500,200		428,000		828,150			3-184
Sustain Hillside School as Swing Space for Future Use	P	Schools	2					100,000		2,607,400		16,253,100					3-195
TOTAL				90,530,205	87,755,289	13,733,867	7,761,067	22,502,432	6,057,657	44,667,295	3,856,695	21,664,454	3,118,354	24,389,062	72,511,000	11,649,000	
Buildings & Facilities			2	80,291,000	80,087,000	5,272,200	64,000	15,625,300	412,000	39,272,400	730,000	17,103,100	145,000	4,391,000	72,261,000	4,786,000	
Equipment & Technology			1	1,454,784	1,518,184	2,015,854	1,631,254	2,871,930	1,994,455	930,366	374,166	914,996	428,996	5,247,055		700,000	
Fleet			4	2,235,921	1,821,605	1,278,313	1,278,313	550,202	550,202	680,529	680,529	688,858	688,858	5,019,507			
Infrastructure & Land			3	6,548,500	4,328,500	5,167,500	4,787,500	3,455,000	3,101,000	3,784,000	2,072,000	2,957,500	1,855,500	9,731,500	250,000	6,163,000	
TOTAL				90,530,205	87,755,289	13,733,867	7,761,067	22,502,432	6,057,657	44,667,295	3,856,695	21,664,454	3,118,354	24,389,062	72,511,000	11,649,000	

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RTS Enterprise																	
Replace Unit 143 CASE LOADER 721E	L	RTS	4	245,360	245,360									245,360			3-019
Replace Unit 5 INTERNATIONAL 7400 Series	L	RTS	4									264,984	264,984	264,984			3-019
Replace Unit 56 Ford F150	C	RTS	4			34,783	34,783							34,783			3-019
Replace Unit 91 CONSTRUCTION SCALP TRUCK	L	RTS	4							153,337	153,337			153,337			3-019
Big Belly Trash Cans	N	RTS	1	100,000	100,000									100,000			3-121
RTS Efficiency Study and Master Plan	N	RTS	3														3-123
Employee Trailer	N	RTS	2														3-125
Horizontal Grinder	M	RTS	1			750,000											3-127
RTS Property Improvements	M	RTS	2	645,000	645,000	27,000	27,000	120,000	120,000	120,000	120,000			267,000	645,000		3-129
Stormwater Plan at RTS	M	RTS	3			250,000	250,000	275,000	275,000					525,000			3-132
TOTAL				990,360	990,360	1,061,783	311,783	395,000	395,000	273,337	273,337	264,984	264,984	1,590,464	645,000		
Summary by Category																	
Buildings & Facilities		RTS	2	645,000	645,000	27,000	27,000	120,000	120,000	120,000	120,000			267,000	645,000		
Equipment & Technology		RTS	1	100,000	100,000	750,000								100,000			
Fleet		RTS	4	245,360	245,360	34,783	34,783			153,337	153,337	264,984	264,984	698,464			
Infrastructure & Land		RTS	3			250,000	250,000	275,000	275,000					525,000			
TOTAL		RTS		990,360	990,360	1,061,783	311,783	395,000	395,000	273,337	273,337	264,984	264,984	1,590,464	645,000		

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Sewer Enterprise																	
Replace Unit 101 CASE LOADER	L	Sewer	4							202,621	202,621			202,621			3-019
Replace Unit 11 FORD EXPLORER	C	Sewer	4									42,558	42,558	42,558			3-019
Replace Unit 17 Ford F550	L	Sewer	4							78,449	78,449			78,449			3-019
Replace Unit 19 INTERNATIONAL 7400 Series	L	Sewer	4							256,023	256,023			256,023			3-019
Replace Unit 23 Ford F350	C	Sewer	4					60,046	60,046					60,046			3-019
Replace Unit 28 Ford F350	C	Sewer	4	64,247	64,247									64,247			3-019
Replace Unit 29 INTERNATIONAL 7400 Series	L	Sewer	4			239,000	239,000							239,000			3-019
Replace Unit 37 INTERNATIONAL 7500 Series	L	Sewer	4							441,303	441,303			441,303			3-019
Replace Unit 94 Ford F250	C	Sewer	4	67,864	67,864									67,864			3-019
Sewer Main Extension Zone I and II	M	Sewer	3	690,000	690,000									690,000			3-136
Sewer Main Replacements	M	Sewer	3	330,000	330,000	1,950,000	500,000	9,000,000						830,000			3-138
Sewer Pump Station Improvements	M	Sewer	3			630,000	630,000			345,000	345,000	3,370,500		975,000			3-140
Sewer Service Connections	R	Sewer	3			50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	200,000			3-142
Sewer System Infiltration & Inflow Removal	M	Sewer	3	205,000	205,000	1,600,000	1,600,000							205,000	1,600,000		3-144
TOTAL				1,357,111	1,357,111	4,469,000	3,019,000	9,110,046	110,046	1,373,395	1,373,395	3,463,058	92,558	4,352,110	1,600,000		

Buildings & Facilities	Sewer	2															
Equipment & Technology	Sewer	1															
Fleet	Sewer	4	132,111	132,111	239,000	239,000	60,046	60,046	978,395	978,395	42,558	42,558	1,452,110				
Infrastructure & Land	Sewer	3	1,225,000	1,225,000	4,230,000	2,780,000	9,050,000	50,000	395,000	395,000	3,420,500	50,000	2,900,000	1,600,000			
TOTAL	Sewer		1,357,111	1,357,111	4,469,000	3,019,000	9,110,046	110,046	1,373,395	1,373,395	3,463,058	92,558	4,352,110	1,600,000			

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Title	Code *	Function	Cat*	FY2019 Department Request	FY2019 Recommended Tier 1	FY2020 Department Request	FY2020 Recommended Tier 1	FY2021 Department Request	FY2021 Recommended Tier 1	FY2022 Department Request	FY2022 Recommended Tier 1	FY2023 Department Request	FY2023 Recommended Tier 1	Cash	Debt	Other	Page
Water Enterprise																	
Replace Unit 14 INTERNATIONAL 7400	L	Water	4	239,404	239,404									239,404			3-019
Replace Unit 164 Trailer ATLAS Copco	L	Water	4			35,803	35,803							35,803			3-019
Replace Unit 22 Ford F450	L	Water	4	115,644	115,644									115,644			3-019
Replace Unit 25 Ford F450	L	Water	4							84,163	84,163			84,163			3-019
Replace Unit 26 Ford F150	C	Water	4					48,428	48,428					48,428			3-019
Replace Unit 27 Ford F150	C	Water	4														3-019
Replace Unit 30 Ford F550	L	Water	4							78,449	78,449			78,449			3-019
Replace Unit 31 Ford F150	C	Water	4					36,000	36,000					36,000			3-019
Replace Unit 35 INTERNATIONAL 4900	L	Water	4														3-019
Replace Unit 40 Ford F350	C	Water	4							62,148	62,148			62,148			3-019
Birds Hill Water Tank	M	Water	3	340,000	340,000									340,000			3-146
Fire Flow Improvements	M	Water	3			540,000	540,000	2,400,000	2,400,000					540,000	2,400,000		3-148
Water Distribution System Improvements	M	Water	3	830,000	830,000	4,640,000	4,640,000	390,000	390,000	100,000	100,000	460,000	460,000	1,780,000	4,640,000		3-150
Water Distribution Study	QB	Water	3									222,000	222,000	222,000			3-153
Water Service Connections	R	Water	3									200,000	200,000	200,000			3-155
Water Supply Development	M	Water	3	400,000				1,100,000									3-157
TOTAL				1,925,048	1,525,048	5,215,803	5,215,803	3,974,428	2,874,428	324,759	324,759	882,000	882,000	3,782,038	7,040,000		
Buildings & Facilities		Water	2														
Equipment & Technology		Water	1														
Fleet		Water	4	355,048	355,048	35,803	35,803	84,428	84,428	224,759	224,759			700,038			
Infrastructure & Land		Water	3	1,570,000	1,170,000	5,180,000	5,180,000	3,890,000	2,790,000	100,000	100,000	882,000	882,000	3,082,000	7,040,000		
TOTAL		Water		1,925,048	1,525,048	5,215,803	5,215,803	3,974,428	2,874,428	324,759	324,759	882,000	882,000	3,782,038	7,040,000		
Grand Total				94,802,724	91,627,808	24,480,453	16,307,653	35,981,906	9,437,131	46,638,786	5,828,186	26,274,496	4,357,896	34,113,674	81,796,000	11,649,000	

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FY2019 - FY2023**

Title	Code *	Function	Cat*	FY2019 Department Request	FY2019 Recommended Tier 1	FY2020 Department Request	FY2020 Recommended Tier 1	FY2021 Department Request	FY2021 Recommended Tier 1	FY2022 Department Request	FY2022 Recommended Tier 1	FY2023 Department Request	FY2023 Recommended Tier 1	Cash	Debt	Other	Page
Buildings & Facilities - All			2	80,936,000	80,732,000	5,299,200	91,000	15,745,300	532,000	39,392,400	850,000	17,103,100	145,000	4,658,000	72,906,000	4,786,000	
Equipment & Technology - All			1	1,554,784	1,618,184	2,765,854	1,631,254	2,871,930	1,994,455	930,366	374,166	914,996	428,996	5,347,055		700,000	
Fleet - All			4	2,968,440	2,554,124	1,587,899	1,587,899	694,676	694,676	2,037,020	2,037,020	996,400	996,400	7,870,119			
Infrastructure & Land - All			3	9,343,500	6,723,500	14,827,500	12,997,500	16,670,000	6,216,000	4,279,000	2,567,000	7,260,000	2,787,500	16,238,500	8,890,000	6,163,000	
TOTAL				94,802,724	91,627,808	24,480,453	16,307,653	35,981,906	9,437,131	46,638,786	5,828,186	26,274,496	4,357,896	34,113,674	81,796,000	11,649,000	

Codes

- B = Funding may be considered under the operating budget/special warrant article
- C = Core Fleet
- D = Recommendation is deferred or on hold pending other actions
- E = Emergency approval
- F = Funded appropriation outside the capital plan
- G = Request may not qualify as capital submission
- L = Specialized Fleet Equipment
- I = Project submission is incomplete or waiting additional information
- M = Submission has been modified from previous submission
- N = New submission with this CIP
- P = Project request has appeared in previous CIP's
- Q = Request does not qualify as a capital submission
- R = Request is a regularly occurring capital expense
- S = No recommendation; under study
- U = Urgent request based on identified conditions

Cat (Category)

- 1 = Equipment or Technology
- 2 = Building or Facility
- 3 = Infrastructure
- 4 = Fleet

Pink highlighted amounts indicate that all or a portion of the funding recommendation may be funded by debt.

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**General Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Current Year Requests						86,710,205	83,549,869
Cash							
Current Receipts & Free Cash	5,566,941	2,667,260	2,432,606	2,729,117	5,438,467		9,183,869
Other Available Funds	575,000		320,305	302,000	3,888,000		1,855,000
Total - Cash	6,141,941	2,667,260	2,752,911	3,031,117	9,326,467		11,038,869
Debt							
Within the Annual Levy Limit	3,958,000	1,700,000	5,100,000	500,000	18,825,000		7,106,000
Excluded from the Levy Limit			7,000,000	58,305,000			65,405,000
Total - Debt	3,958,000	1,700,000	12,100,000	58,805,000	18,825,000		72,511,000
Total	10,099,941	4,367,260	14,852,911	61,836,117	28,151,467	86,710,205	83,549,869

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**General Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019	
100kW Portable Generator	61,250							G
Athletic Facility and Public Recreation Improvements (Claxton Field Lighting)						510,000		
Athletic Facility and Public Recreation Improvements (Design for Turf Replacement)						55,000	55,000	S
Building Management System Upgrade						102,000	102,000	G
Central Avenue/Elliot Street Bridge		900,000	D	2,000,000	D			
Defibrillators	27,500							G
DPW Boiler Replacement 470 Dedham Avenue						34,000	34,000	G
DPW Central Avenue Storage Facility					150,000	7,900,000	5,170,000	DG
DPW/Public Services Administration Building Location Feasibility Study			40,000	A				
Drain System Improvements – Water Quality		80,000	G					
Drain System Repairs		76,000	G					
Election Equipment	85,000							G
Emery Grover School Administration Tank			73,000	A				
Energy Efficiency Upgrade Improvements	113,078	G	96,323	G	38,154	G	57,000	G
Facilities Maintenance Program	465,750	GO	482,000	G				
Facility Assessment for Sustainable Building Management						100,000		
Fire Alarm Cables		60,000	G					

Town of Needham
Capital Improvement Plan
January 2018

**General Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Firefighting Protective Gear					167,872	G	
Fleet - Ambulance (Fire)					224,677	G	
Fleet - Ambulance (Fire)		186,607	G				
Fleet - Brush Truck C6 (Fire)	49,200						
Fleet - Delivery Van (School)					33,861	G	
Fleet - Dump Truck 10 Wheel Heavy Class 8 Unit 49 (Highway)			269,930	G			
Fleet - Dump Truck 10 Wheel Unit 47 (Highway)				223,109	G		
Fleet - Dump Truck 6 Wheel Heavy Class 8 Unit 6 (Highway)	178,400						
Fleet - Dump Truck 6 Wheel Heavy Class 8 Unit 7 (Highway)			219,746	G			
Fleet - Dump Truck 6 Wheel Unit 66 (Highway)	78,300						
Fleet - Dump Truck 6 Wheel Unit 70 (Parks)				68,364	G		
Fleet - Dump Truck 6 Wheel Unit 71 (Parks)				68,364	G		
Fleet - Dump Truck 6 Wheel Unit 72 (Parks)	78,400						
Fleet - Dump Truck 6 Wheel Unit 73 (Parks)			78,296	G			
Fleet - Dump Truck 6 Wheel Unit 75 (Parks)			78,296	G			
Fleet - Dump Truck 6 Wheel with Hook Lift Unit 74 (Parks)			104,102	G			
Fleet - Fire Engine E2 (Fire)						840,163	840,163

Town of Needham
Capital Improvement Plan
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**General Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Fleet - Passenger Vehicle Electric Unit 453 (Building)		30,830	G				
Fleet - Passenger Vehicle Electric Unit 455 (Building)		30,830	G				
Fleet - Passenger Vehicle Unit 1 (Admin)						33,616	33,616
Fleet - Passenger Vehicle Unit 15 (Admin)					35,481	G	
Fleet - Passenger Vehicle Unit 43 (Fire)				35,123	G		
Fleet - Passenger Vehicle Unit 44 (Engineering)						33,616	33,616
Fleet - Passenger Vehicle Unit 454 (Building)	22,521	G					
Fleet - Passenger Vehicle Unit 456 (Building)	22,521	G					
Fleet - Passenger Vehicle Unit 457 (Building)						21,336	
Fleet - Passenger Vehicle Unit 46 (Engineering)						33,616	33,616
Fleet - Passenger Vehicle Unit 52 (Highway)					34,729	G	
Fleet - Pick Truck Unit 65 (Parks)	51,900	G					
Fleet - Pickup Truck 4WD Unit 50 (Parks)		50,723	G				
Fleet - Pickup Truck Unit 12 (Parks)					38,277	G	
Fleet - Pickup Truck Unit 41 (Parks)		50,187	G				
Fleet - Pickup with Cab Unit 701 (Carpenter)	33,600	G					
Fleet - Sidewalk Tractor Plow Unit 106 (Highway)			152,912	G			

Town of Needham
Capital Improvement Plan
January 2018

**General Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019	
Fleet - Sidewalk Tractor Plow Unit 107 (Highway)						190,811	190,811	G
Fleet - Sidewalk Tractor Plow Unit 116 (Highway)	169,300	G						
Fleet - Sidewalk Tractor Plow Unit 117 (Highway)			173,967	G				
Fleet - Skid Steer Loader Unit 76 (Highway)						122,182	122,182	G
Fleet - Snow and Ice Equipment Material Spreaders (Highway)	41,000	G						
Fleet - SUV Emergency Response Unit 2 (Fire)				56,635	G			
Fleet - SUV Emergency Response Unit 3 (Fire)				46,116	G			
Fleet - Street Sweeper Unit 181 (Highway)						264,101	264,101	G
Fleet - Tractor Mower Unit 336 (Parks)					98,747	G		
Fleet - Trailer Large Unit 183 (Parks)						25,722	25,722	G
Fleet - Transport Van Unit 3 (School)					32,875	G		
Fleet - Transport Van Unit 4 (School)						48,776	48,776	G
Fleet - Transport Van Unit 404 (HHS Aging Services)				87,354	AG			
Fleet - Transport Van Unit 5 (School)						48,776	48,776	G
Fleet - Transport Van Unit 6 (School)					32,875	G		
Fleet - Utility Trailer Portable Messenger Board Unit 120 (Highway)				23,031	G			
Fleet - Work Truck Class 2 Unit 702 (Building Maintenance)						45,765	45,765	G

Town of Needham
Capital Improvement Plan
January 2018

**General Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019	
Fleet - Work Truck Class 3 Unit 4 (Fleet)						82,671	82,671	G
Fleet - Work Truck Class 3 Unit 65 (Parks)						66,037	66,037	G
Fleet - Work Truck Class 5 Unit 55 (Highway)						142,495	142,495	G
Fleet - Work Truck Class 6 Unit 38						202,169	202,169	G
Fleet - Work Van Unit 301 (Parks)						34,069	34,069	G
Fleet - Work Van Unit 703 (HVAC)		27,346						G
Fleet - Work Van Unit 704 (Building Maintenance)					31,222			G
Fleet - Work Van Unit 706 (Glazier)				35,073				G
Fleet - Work Van Unit 708 (Delivery)			28,049					G
Fleet -Utility Truck Unit 48 (Highway)					83,561			G
Fuel Island Relocation and Upgrade				131,000		1,056,000		G
Fuel System Software/Hardware Upgrade			94,500					G
Geographic Information System		100,000						G
High School A Gym Upgrade				130,557				G
High School Chiller					125,000			O
High School Classroom Expansion & Other Improvements					14,138,000			ADS
High School Classroom Expansion Alternatives Feasibility Study				65,000				G

Town of Needham
Capital Improvement Plan
January 2018

**General Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019			
High School Expansion Options			150,000	A						
High School Radio System	37,275	G								
High School Reconfiguration Work		200,000	G							
Hillcrest Radio Repeater Building Replacement						136,000	136,000	G		
Hillside (Williams) Feasibility & Design	650,000	G	45,000	A						
Library Furniture Replacement						43,970	43,970	G		
Mail Processing Machines			30,645	G						
Memorial Park Buildings and Grounds Improvements				50,000	G	375,000	G	5,900,000	5,900,000	DGS
Mitchell School Locker Replacement						70,000	70,000	G		
Mitchell School Modular Classrooms	2,729,276	G								
Mobile Column Lifts			73,500	G						
Needham High School Cafeteria Expansion			2,100,000	D						
Network Hardware, Servers & Switches	30,000	G	30,000	G	30,000	G				
Non-Public Safety Data Center Servers and Storage Units					145,000	G	180,000	180,000	G	
Personal Protective Equipment						43,424	43,424	G		
Police Station Underground Storage Tank Removal	28,500	G								
Police Use-Of-Force Training Simulator						47,000	47,000	G		

Town of Needham
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**General Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Pollard Bathroom Upgrades					650,000	O	
Pollard Blue & Green Gym Upgrades					45,000	G	540,000 540,000 G
Pollard Boiler Replacement	800,000	D					
Pollard Locker Replacement				41,157	G		
Pollard Phased Improvements Feasibility Study						65,000	65,000 G
Pollard Telephone System Replacement	53,000	G					
Property Acquisition (609 Central Avenue)				762,500	X		
Property Acquisition (66-70 Chestnut Street)	1,533,000	DR					
Property Acquisition (Owens Farm & Abutting Properties)			7,000,000	X			
Public Safety Complex/Station #2 Projects			50,000	OA	90,000	O	4,000,000 D*O 65,405,000 65,405,000 X
Public Safety Computer Aided Dispatch System		244,615	G				
Public Safety Data Center Servers and Storage Units						30,000	
Public Safety Mobile Devices						35,000	35,000 G
Public Works Garage Bay	1,100,000	D					
Public Works Garage Vehicle Service Lift	110,000	G					
Public Works Infrastructure Program	600,000	D	800,000	D	1,453,500	DG	1,700,000 DG 1,762,000 G 1,773,500 1,773,500 DG
Public Works Large Format Scanner		33,000	G				

Town of Needham
Capital Improvement Plan
January 2018

**General Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014		Funded FY2015		Funded FY2016		Funded FY2017		Funded FY2018		Requested FY2019	Proposed FY2019	
Public Works Small Specialty Equipment	130,800	G	29,797	G									
Public Works Two-Way Radios	47,700	G											
Rosemary Complex									3,800,000	DO			
School 1:1 Initiative	145,000	O	127,725	G									
School Fitness Equipment Replacement	14,380	G	14,810	G									
School Furniture & Musical Equipment	56,600	G	49,180	G	45,405	G	45,000	G	45,000	G	60,500	60,500	G
School Graphic Arts Equipment	8,270	G	8,350	G									
School Interactive Whiteboard Technology			24,600	G									
School Phone System Replacement											88,000	319,000	G
School Photocopier Replacement	59,620	G	30,320	G	62,740	G	39,330	G	46,790	G	84,190	84,190	G
School Postage and Folding Machines			9,340	G									
School Technology Innovation			25,000	G									
School Technology Replacement	488,800	G	502,000	G	403,000	G	307,750	G	463,500	G	303,600	303,600	G
Specialty Equipment - Unit 344 Large Mower											76,500	76,500	G
Specialty Equipment Field Renovator (Parks)									30,000	G			
Streetlight Conversion to LED											685,000	685,000	G
Town Hall Stair Modifications									200,000	G			

Town of Needham
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**General Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019	
Town Multi-Function Printer Devices						35,600	35,600	G
Town Offices Replacement Furniture						25,000	25,000	G
Traffic Improvements					249,000	50,000	50,000	G
Water Quality Improvements (Wildwood Drive Pond Analysis)						25,000	25,000	G
Williams Elementary School					57,542,500			X
Williams Elementary School Outside Play Area					250,000			A
Wireless Master Fire Box System			164,000					G

- Funding Source
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 - R = Retained Earnings
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 - 2 = Historic Reserve
 - 3 = Open Space Reserve
 - 4 = CPA Free Cash
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Town of Needham
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**Community Preservation Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Current Year Requests						7,521,800	2,820,000
Cash							
Current Receipts & State Match					1,030,000		
Other Available Funds	433,000	268,219	3,417,000	978,000	4,075,000		2,820,000
Total - Cash	433,000	268,219	3,417,000	978,000	5,105,000		2,820,000
Debt							
CPA Surcharge Supported					8,000,000		
Total - Debt					8,000,000		
Total	433,000	268,219	3,417,000	978,000	13,105,000	7,521,800	2,820,000

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**Community Preservation Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019	
Athletic Facility and Public Recreation Improvements (Cricket Field)					35,000	4		
Boat Launch Design			30,000	4				
Emery Grover Feasibility Study Refresh+						70,000	70,000	
Memorial Park Buildings and Grounds Improvements+		35,000	T		310,000	4	3,701,800	TBD
Mills Field Improvements	40,000	3		510,000	4			
Newman Preschool Playground Surfacing	60,000	T						
Newman School Fields Renovation			1,527,000	4				
Open Space Purchase						1,000,000		
Public Playgrounds+						300,000	300,000	
Rail Trail Improvements			100,000	4				
Ridge Hill Reservation Footbridge Repairs		213,219	3					
Rosemary Complex			450,000	4	550,000	4	12,000,000	CDT 4
Rosemary Lake Camp and Trail+						50,000	50,000	
Rosemary Lake Sediment Removal+					118,000	4	2,400,000	2,400,000
Town Common Historic Redesign		20,000	3					
Trail Improvement Project - Needham Reservoir	85,000	3			860,000	4		
Trail Improvement Project - Newman Eastman	248,000	T		800,000	4			

Town of Needham
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**Community Preservation Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Williams Elementary School Walking Trails					210,000	4	

Notes

+ Subject to approval by the Community Preservation Committee

<p>Funding Source A = Transfer from another Financial Warrant Article B = Operating Budget C = CPA Fund Cash D = Debt E = Enterprise Fund Cash G = General Fund Cash O = Overlay Surplus R = Retained Earnings S = Stabilization Fund T = CPA General Reserve 1 = Community Housing Reserve 2 = Historic Reserve 3 = Open Space Reserve 4 = CPA Free Cash X = Excluded Debt</p>
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Town of Needham
 Capital Improvement Plan
 January 2018

**RTS Enterprise Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Current Year Requests						990,360	990,360
Cash							
Current Receipts & Retained Earnings	108,100	321,095		215,927	725,342		345,360
Other Available Funds	144,000			22,073			
Total - Cash	252,100	321,095		238,000	725,342		345,360
Debt							
Fee Supported		324,400		269,000			645,000
Total - Debt		324,400		269,000			645,000
Total	576,500	321,095		507,000	725,342	990,360	990,360

Town of Needham
Capital Improvement Plan
January 2018

**RTS Enterprise Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019	
Big Belly Trash Cans						100,000	100,000	R
Fleet - Collection Packer Unit 80					211,256			R
Fleet - Front End Loader Unit 104				269,000				D
Fleet - Front End Loader Unit 143						245,360	245,360	R
Fleet - Grinder Unit 67					43,086			R
Fleet - Semi Tractor Unit 42	218,100							AR
Fleet - Swap Loader Truck Unit 5				120,000				R
Fleet - Trommel Screener Unit 93		215,316						R
Fuel Island Relocation and Upgrade					15,000			R
Message Board		30,000						R
RTS Property Improvements				68,000		290,000	645,000	AR R D
RTS Stormwater Plan				50,000				R
Transfer Station Floor Replacement					166,000			R
Transfer Station Office Trailer		75,779						R
Waste Containers	34,000							A
Waste Handler	324,400							D

Town of Needham
 Capital Improvement Plan
 January 2018

**RTS Enterprise Fund Capital
 Current and Prior
 Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
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- Funding Source
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Town of Needham
Capital Improvement Plan
January 2018

**Sewer Enterprise Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Current Year Requests						1,357,111	2,301,111
Cash							
Current Receipts & Retained Earnings	647,900	398,000	554,357	63,525	87,000		2,301,111
Other Available Funds			116,143	10,335			
Total - Cash	647,900	398,000	670,500	73,860	87,000		2,301,111
Debt							
Fee Supported					600,000		
Total - Debt					600,000		
Total	647,900	398,000	670,500	73,860	687,000	1,357,111	2,301,111

Town of Needham
Capital Improvement Plan
January 2018

**Sewer Enterprise Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019	
DPW Central Avenue Storage Facility						Refer to General	944,000	R
Fleet - Work Truck Class 2b Unit 94						67,864	67,864	R
Fleet - Work Truck Class 3 Unit 28						64,247	64,247	R
Fleet - Utility Truck Unit 94	47,900	R						
Fuel Island Relocation and Upgrade					87,000	R		
Sewer Main Extension Zone I and II				73,860	AR	690,000	690,000	R
Sewer Main Replacements						330,000	330,000	R
Sewer Pump Station (Alden Road)					600,000	D		
Sewer Pump Station Improvements (Reservoir A)			550,000	AR				
Sewer Pump Station Improvements (West Street)		90,000	R					
Sewer SCADA System		258,000	R					
Sewer Service Connections		50,000	R	50,000	R			
Sewer System Infiltration & Inflow Removal Program	600,000	R				205,000	205,000	R
Specialty Equipment Sewer Easement Machine to Clean Sewer Lines			70,500	R				

<p>Funding Source A = Transfer from another Financial Warrant Article B = Operating Budget C = CPA Fund Cash D = Debt E = Enterprise Fund Cash G = General Fund Cash</p>
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Town of Needham
Capital Improvement Plan
January 2018

**Sewer Enterprise Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
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O = Overlay Surplus
R = Retained Earnings
S = Stabilization Fund
T = CPA General Reserve
1 = Community Housing Reserve
2 = Historic Reserve
3 = Open Space Reserve
4 = CPA Free Cash
X = Excluded Debt

Town of Needham
Capital Improvement Plan
January 2018

**Water Enterprise Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Current Year Requests						1,925,048	3,311,048
Cash							
Current Receipts & Retained Earnings	1,563,100	729,050	980,179	345,679	433,074		3,311,048
Other Available Funds			181,925				
Total - Cash	1,563,100	729,050	1,162,104	345,679	433,074		3,311,048
Debt							
Fee Supported	5,565,100		635,000		2,300,000		
Total - Debt	5,565,100		635,000		2,300,000		
Total	7,128,200	729,050	1,797,104	345,679	2,733,074	1,925,048	3,311,048

Town of Needham
Capital Improvement Plan
January 2018

**Water Enterprise Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019	
Birds Hill Water Tank						340,000	340,000	R
DPW Central Avenue Storage Facility						Refer to General Fund	1,786,000	R
Filter Media Replacement	115,000	R 238,050	R					
Fire Flow Improvement Study				20,000	R			
Fleet - Heavy Duty Truck Class 7 Unit 14						239,404	239,404	R
Fleet - Medium Work Truck Class 4 Unit 22						115,644	115,644	R
Fleet - Pickup Truck Unit 21			41,604	R				
Fleet - Pickup Truck Unit 26				43,679	R			
Fleet - SUV Hybrid Unit 20					34,729	R		
Fleet - Tractor Excavator Unit 115					132,000	R		
Fleet - Trailer Unit 160	57,300	R						
Fleet - Van Unit 24					29,345	R		
Fuel Island Relocation and Upgrade					162,000	R		
Irrigation Supply Facility Design	80,000	R						
Mobile Record Keeping Devices GIS			35,000	R				
SCADA System Upgrade	435,000	R						
St Mary's Pump Station	5,565,100	D						

Town of Needham
Capital Improvement Plan
January 2018

**Water Enterprise Fund Capital
Current and Prior
Funding Sources**

Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Trail Improvement Project - Needham Reservoir					75,000		
Water Distribution System Improvements						830,000	830,000
Water Service Connections	160,000	R 200,000	R 200,000	R 200,000	R 1,000,000		D
Water Supply Development						400,000	
Water Supply Development		200,000	R 700,000	R			
Water System Rehabilitation Program					1,300,000		D
Water System Rehabilitation Program					82,000		R
Water System Rehabilitation Program		91,000	R 820,500	ADR			
Water System Rehabilitation Program	715,800	R					

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Town of Needham
Capital Improvement Plan
January 2018

All Capital Funds Funding Sources							
Description	Funded FY2014	Funded FY2015	Funded FY2016	Funded FY2017	Funded FY2018	Requested FY2019	Proposed FY2019
Current Year Requests						94,802,724	92,972,388
Cash							
Cash	5,566,941	2,667,260	2,432,606	2,729,117	6,468,467		9,183,869
Retained Earnings	2,319,100	1,448,145	1,534,536	625,131	1,245,416		5,957,519
Other Available Funds	1,152,000	268,219	4,035,373	1,312,408	7,963,000		4,675,000
Total - Cash	9,038,041	4,383,624	8,002,515	4,666,656	15,676,883		19,816,388
Debt							
Operating Revenues	9,847,500	1,700,000	5,735,000	769,000	21,725,000		7,751,000
CPA Surcharge					8,000,000		
Debt Excluded			7,000,000	58,305,000			65,405,000
Total - Debt	9,847,500	1,700,000	12,735,000	59,074,000	29,725,000		73,156,000
Total	18,885,541	6,083,624	20,737,515	63,740,656	45,401,883	94,802,724	92,972,388

Town of Needham
Capital Improvement Plan
January 2018

**Debt Service to Revenue
Issued, Authorized and Proposed
FY2019 - FY2023**

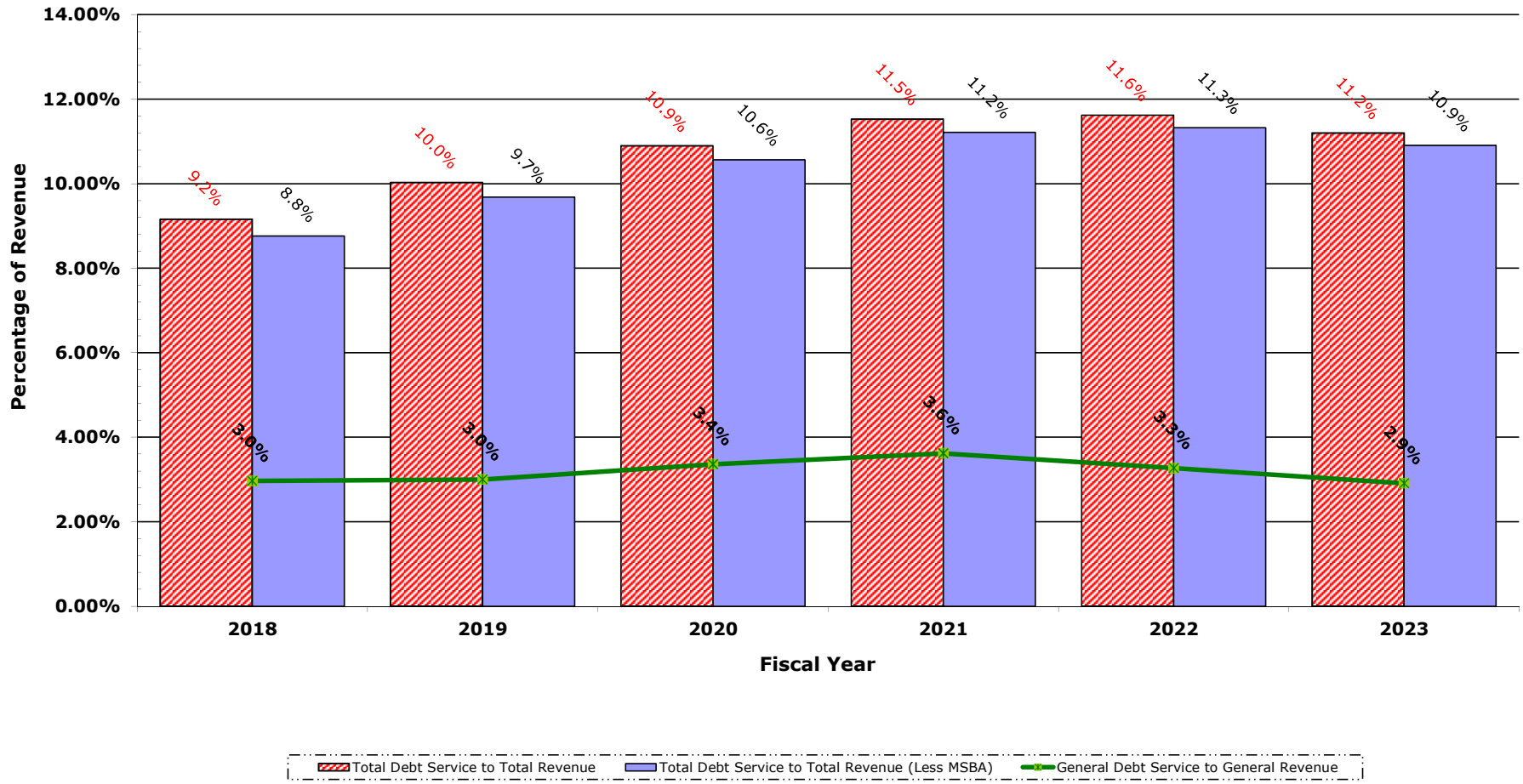
Description	2018	2019	2020	2021	2022	2023
Revenue						
General Fund Within the Levy *	\$146,959,701	\$153,016,108	\$159,758,460	\$167,173,818	\$173,421,791	\$179,916,953
General Fund Excluded from Levy **	\$7,019,086	\$9,177,378	\$10,933,867	\$12,015,087	\$13,730,670	\$14,149,565
CPA Revenue	\$2,681,539	\$2,597,274	\$2,662,206	\$2,728,761	\$2,796,980	\$2,866,905
RTS Revenue	\$1,219,607	\$1,230,303	\$1,269,856	\$1,283,727	\$1,284,737	\$1,284,858
Sewer Revenue	\$8,520,415	\$8,590,620	\$7,757,642	\$8,054,147	\$8,108,845	\$8,164,218
Water Revenue	\$5,845,584	\$5,888,539	\$5,931,925	\$5,975,288	\$6,018,258	\$6,064,274
Total Revenue	\$172,245,932	\$180,500,223	\$188,313,957	\$197,230,829	\$205,361,281	\$212,446,772
Debt Service						
General Debt (Table I)	\$4,362,022	\$4,590,483	\$5,368,853	\$6,048,548	\$5,669,739	\$5,236,444
CPA Debt (Table II)	\$449,163	\$441,494	\$1,195,525	\$1,425,150	\$1,249,716	\$1,214,581
RTS Debt (Table III)	\$150,000	\$150,000	\$178,750	\$181,710	\$171,700	\$160,690
Sewer Debt (Table IV)	\$1,500,000	\$1,500,000	\$596,117	\$821,006	\$803,373	\$785,691
Water Debt (Table V)	\$1,550,000	\$1,550,000	\$1,550,000	\$1,549,544	\$1,548,256	\$1,549,572
Gross Excluded Debt (Table VI)	\$7,762,773	\$9,872,526	\$11,629,015	\$12,710,235	\$14,425,818	\$14,844,713
Total Debt Service	\$15,773,958	\$18,104,504	\$20,518,260	\$22,736,192	\$23,868,601	\$23,791,691
Total Debt Service to Total Revenue	9.2%	10.0%	10.9%	11.5%	11.6%	11.2%
Total Debt Service to Total Revenue (less MSBA) **	8.8%	9.7%	10.6%	11.2%	11.3%	10.9%
General Debt Service to General Revenue	3.0%	3.0%	3.4%	3.6%	3.3%	2.9%

* General Fund revenue is based on the FY2019 - FY2023 ProForma

** Excludes Massachusetts School Building Assistance (MSBA) Revenue.

*** Uses net general fund debt excluded figure (or actual debt to be paid by Town after MSBA payment) see table VI.

Projected Debt Service as a Percentage of Revenue



Town of Needham
Capital Improvement Plan
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Table I
General Fund Capital Projects
Proposed Funding by Debt
FY2019

Project	Budget	Estimated Debt Service Schedule				
	2018	2019	2020	2021	2022	2023
General Fund Within the Levy						
Public Works Infrastructure Program (2019)			\$67,500	\$64,000	\$60,500	\$57,000
Memorial Park Building and Grounds Improvements (2019)			\$107,380	\$527,760	\$502,850	\$481,150
DPW Seasonal Storage Facility (2019)			\$132,580	\$523,160	\$502,100	\$484,250
Projected New General Fund Debt Service#			\$307,460	\$1,114,920	\$1,065,450	\$1,022,400
General Fund Debt						
Authorized & Issued (refer to schedule)	\$2,962,171	\$2,522,886	\$2,080,968	\$1,953,378	\$1,751,439	\$1,563,594
Authorized Not Yet Issued & Short Term Proposed	\$1,399,851	\$2,067,597	\$2,980,425	\$2,980,250	\$2,852,850	\$2,650,450
			\$307,460	\$1,114,920	\$1,065,450	\$1,022,400
Total General Fund Debt Service Within the Levy	\$4,362,022	\$4,590,483	\$5,368,853	\$6,048,548	\$5,669,739	\$5,236,444
General Fund Within the Levy Revenue *	\$146,959,701	\$153,016,108	\$159,758,460	\$167,173,818	\$173,421,791	\$179,916,953
Debt Service % of General Fund Revenue^	3.0%	3.0%	3.4%	3.6%	3.3%	2.9%

^ Funding from the Debt Service Stabilization Fund is anticipated to pay the debt expense that is above the three percent measure.

Town of Needham
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Table II
CPA Capital Projects
Proposed Funding by Debt
FY2019

Project	Budget	Estimated Debt Service Schedule				
	2018	2019	2020	2021	2022	2023
CPA Fund Debt						
No New Authorizations Proposed for FY2019						
Projected New CPA Fund Debt Service						
CPA Fund Debt						
Authorized & Issued	\$449,163	\$441,494	\$430,525	\$416,675	\$405,041	\$395,256
Authorized Not Yet Issued & Short Term Proposed	\$1	\$0	\$765,000	\$1,008,475	\$844,675	\$819,325
Total CPA Fund Debt Service	\$449,163	\$441,494	\$1,195,525	\$1,425,150	\$1,249,716	\$1,214,581

Town of Needham
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Table III
Recycling & Solid Waste Disposal Capital Projects
Proposed Funding by Debt
FY2019

Project	Budget	Estimated Debt Service Schedule				
	2018	2019	2020	2021	2022	2023
Recycling & Solid Waste Disposal Enterprise (RTS)						
RTS Property Improvement (2019)			\$137,150	\$181,710	\$171,700	\$160,690
Projected New RTS Debt Service			\$137,150	\$181,710	\$171,700	\$160,690
RTS Enterprise Fund Debt						
Authorized & Issued (refer to schedule)	\$143,654	\$58,800	\$41,600			
Authorized Not Yet Issued & Short Term Proposed	\$6,346	\$91,200	\$137,150	\$181,710	\$171,700	\$160,690
Total RTS Debt Service	\$150,000	\$150,000	\$178,750	\$181,710	\$171,700	\$160,690

Town of Needham
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Table IV
Sewer Fund Capital Projects
Proposed Funding by Debt
FY2019

Project	Budget	Estimated Debt Service Schedule				
	2018	2019	2020	2021	2022	2023
Sewer Enterprise						
No New Authorizations Proposed for FY2019						
Sewer System Inflow & Infiltration Removal (2020)				\$272,000	\$260,800	\$249,600
Projected New Sewer Debt Service				\$272,000	\$260,800	\$249,600
Sewer Enterprise Fund Debt						
Authorized & Issued (refer to schedule)	\$1,025,700	\$953,472	\$549,917	\$505,256	\$501,273	\$497,241
Authorized Not Yet Issued & Short Term Proposed	\$474,300	\$546,528	\$46,200	\$43,750	\$41,300	\$38,850
				\$272,000	\$260,800	\$249,600
Total Sewer Debt Service	\$1,500,000	\$1,500,000	\$596,117	\$821,006	\$803,373	\$785,691

Town of Needham
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Table V
Water Fund Capital Projects
Proposed Funding by Debt
FY2019

Project	Budget	Estimated Debt Service Schedule				
	2018	2019	2020	2021	2022	2023
<u>Water Enterprise</u>						
No New Authorizations Proposed for FY2019						
Water Pressure Improvements (2021)					\$84,000	\$146,000
Water Main Replacement Project (2020)				\$517,400	\$469,963	\$452,100
Projected New Water Debt Service				\$517,400	\$553,963	\$598,100
Water Enterprise Fund Debt						
Authorized & Issued (refer to schedule)	\$1,291,376	\$1,104,550	\$557,731	\$533,994	\$520,994	\$503,022
Authorized Not Yet Issued & Short Term Proposed	\$258,624	\$445,450	\$992,269	\$498,150	\$473,300	\$448,450
				\$517,400	\$553,963	\$598,100
Total Water Debt Service	\$1,550,000	\$1,550,000	\$1,550,000	\$1,549,544	\$1,548,256	\$1,549,572

Town of Needham
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Table VI
Capital Projects
Proposed Funding by Debt Exclusion
FY2019

Project	Budget	Estimated Debt Service Schedule				
	2018	2019	2020	2021	2022	2023
General Fund Debt Excluded						
Public Safety Buildings (2019) - Series One			\$950,000	\$929,000	\$908,000	\$887,000
Public Safety Buildings (2019) - Series Two				\$350,000	\$2,100,000	\$2,300,000
Public Safety Buildings (2019) - Series Three				\$350,000	\$700,000	\$1,294,175
Projected New General Fund Debt Service Excluded			\$950,000	\$1,629,000	\$3,708,000	\$4,481,175
General Fund Debt Excluded						
Authorized & Issued (refer to schedule)	\$7,160,884	\$6,930,914	\$6,467,365	\$5,377,585	\$5,196,868	\$5,025,288
Authorized Not Yet Issued & Short Term Proposed	\$601,889	\$2,941,613	\$4,211,650	\$5,703,650	\$5,520,950	\$5,338,250
			\$950,000	\$1,629,000	\$3,708,000	\$4,481,175
Total General Fund Excluded Debt Service	\$7,762,773	\$9,872,526	\$11,629,015	\$12,710,235	\$14,425,818	\$14,844,713
Projected SBA Payments/Other Adjustments	\$743,687	\$695,148	\$695,148	\$695,148	\$695,148	\$695,148
Net General Fund Excluded Debt Service *	\$7,019,086	\$9,177,378	\$10,933,867	\$12,015,087	\$13,730,670	\$14,149,565

* Before other offsets and credits

Town of Needham
Capital Improvement Plan
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**Previously Approved Debt Funded Capital
Open Authorizations
Balances Not Yet Issued**

Approved	Project	Town Meeting	Art	Authorized	Balance
2008	Sewer System Rehabilitation I/I Work	16-May-07	45	\$1,806,800	\$59,159
2014	St Mary's Pumping Station	13-May-13	47	\$5,565,100	\$135,000
2015	Central Avenue/Elliot Street Bridge	12-May-14	39	\$900,000	\$440,000
2016	Central Avenue/Elliot Street Bridge	11-May-15	43	\$2,000,000	\$440,000
2016	Water System Rehabilitation Program	11-May-15	47	\$635,000	\$307,000
2016	High School Cafeteria Construction	02-Nov-15	11	\$2,100,000	\$85,000
2017	RTS Front-End Loader	02-May-16	46	\$269,000	\$6,000
2017	Property Acquisition - 609 Central Avenue	09-May-16	7	\$762,500	\$32,500
2017	Public Works Infrastructure Program	11-May-16	44	\$500,000	\$340,000
2017	Central Avenue Elementary School	05-Oct-16	2	\$57,542,500	\$56,542,500
2018	Water Service Connections	01-May-17	50	\$1,000,000	\$1,000,000
2018	Water Distribution System Improvements	01-May-17	51	\$1,300,000	\$1,300,000
2018	Rosemary Recreational Complex - CPA	08-May-17	33	\$8,000,000	\$8,000,000
2018	Rosemary Recreational Complex - GF	08-May-17	33	\$3,000,000	\$3,000,000
2017	High School Expansion Design	10-May-17	43	\$950,000	\$950,000
2018	Wastewater System Rehabilitation	10-May-17	48	\$600,000	\$600,000
2017	Public Safety Building & Station 2 Design	02-Oct-17	11	\$3,750,000	\$3,750,000
2017	High School Expansion Construction	02-Oct-17	13	\$11,125,000	\$11,125,000
Total				\$101,805,900	\$88,112,159

The above projects are in various stages of completion and therefore the amount and timing of each Note and Bond issue has not yet been determined. The debt retirement will be structured to fit within the proposed budget allocation shown in the debt tables.

Town of Needham
Capital Improvement Plan
January 2018

**Town of Needham
Current Long Term Debt Service Obligations
Inclusive of the January 17, 2017 Bond Issue**

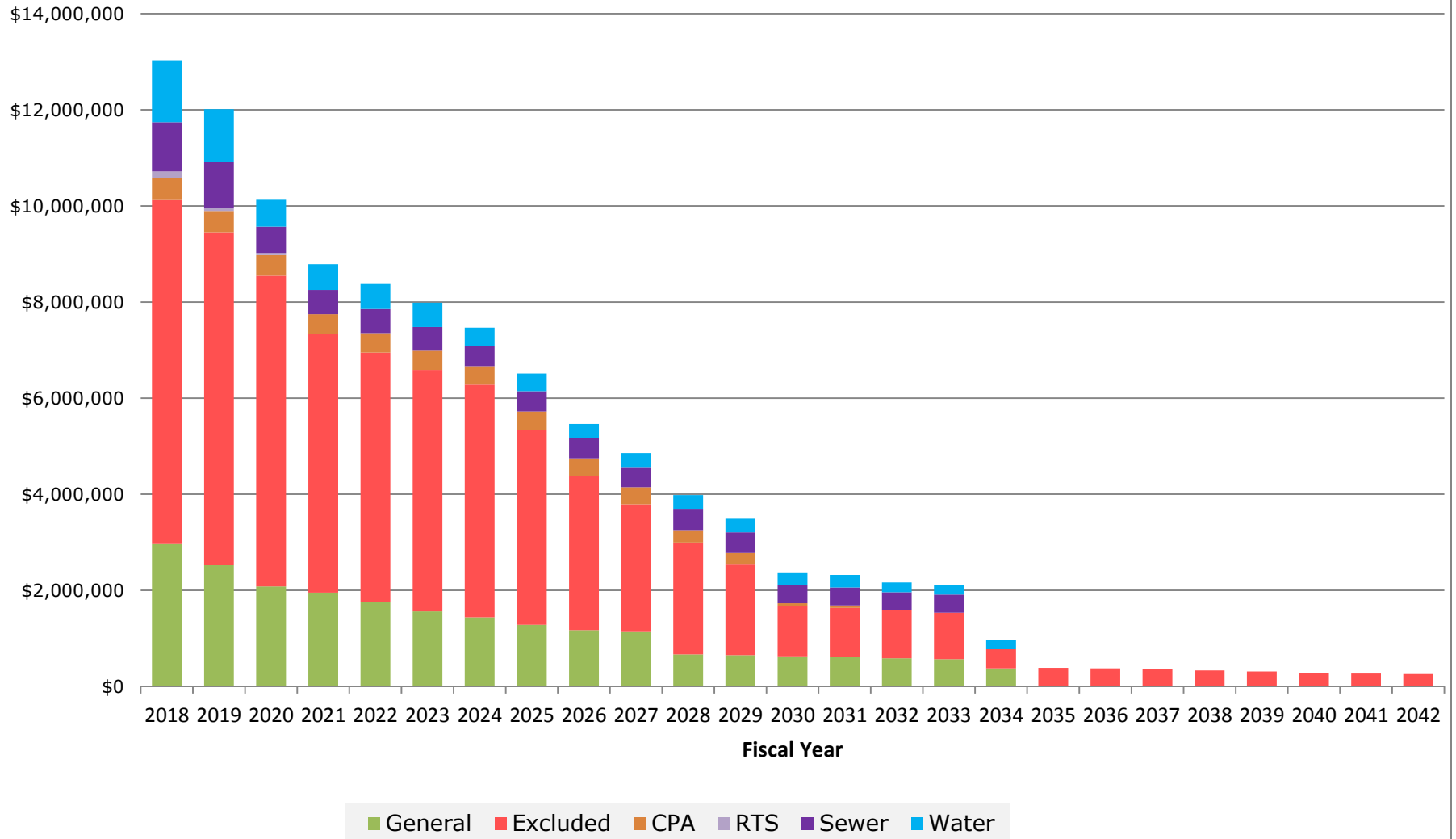
Fiscal Year	General	Excluded	CPA	RTS	Sewer	Water	Total
2018	\$2,962,170.81	\$7,160,884.30	\$449,162.50	\$143,654.44	\$1,025,700.33	\$1,291,376.31	\$13,032,948.69
2019	\$2,522,886.17	\$6,930,913.75	\$441,493.75	\$58,800.00	\$953,472.34	\$1,104,549.64	\$12,012,115.65
2020	\$2,080,968.22	\$6,467,365.00	\$430,525.00	\$41,600.00	\$549,916.96	\$557,731.18	\$10,128,106.36
2021	\$1,953,377.52	\$5,377,585.00	\$416,675.00		\$505,256.32	\$533,993.60	\$8,786,887.44
2022	\$1,751,438.77	\$5,196,867.50	\$405,040.63		\$501,272.93	\$520,993.56	\$8,375,613.39
2023	\$1,563,593.77	\$5,025,287.50	\$395,256.26		\$497,240.95	\$503,022.42	\$7,984,400.90
2024	\$1,437,680.02	\$4,843,295.00	\$384,906.26		\$424,559.50	\$377,413.08	\$7,467,853.86
2025	\$1,282,977.52	\$4,062,835.00	\$374,762.51		\$423,230.66	\$368,595.41	\$6,512,401.10
2026	\$1,172,002.52	\$3,208,210.00	\$364,681.26		\$421,802.39	\$296,002.26	\$5,462,698.43
2027	\$1,132,584.39	\$2,659,650.00	\$354,306.26		\$420,276.63	\$289,632.26	\$4,856,449.54
2028	\$667,601.26	\$2,327,367.50	\$259,996.88		\$443,252.24	\$283,785.00	\$3,982,002.88
2029	\$649,915.64	\$1,885,768.75	\$241,637.50		\$430,929.00	\$283,288.06	\$3,491,538.95
2030	\$626,611.27	\$1,053,907.50	\$51,812.50		\$374,907.65	\$267,663.04	\$2,374,901.96
2031	\$607,438.76	\$1,027,148.75	\$50,625.00		\$374,987.84	\$261,387.51	\$2,321,587.86
2032	\$587,577.50	\$996,697.50			\$375,070.14	\$206,775.00	\$2,166,120.14
2033	\$567,080.00	\$969,613.76			\$375,154.05	\$195,650.00	\$2,107,497.81
2034	\$377,800.00	\$397,856.26				\$184,600.00	\$960,256.26
2035		\$387,943.76					\$387,943.76
2036		\$377,650.00					\$377,650.00
2037		\$366,975.00					\$366,975.00

Town of Needham
Capital Improvement Plan
January 2018

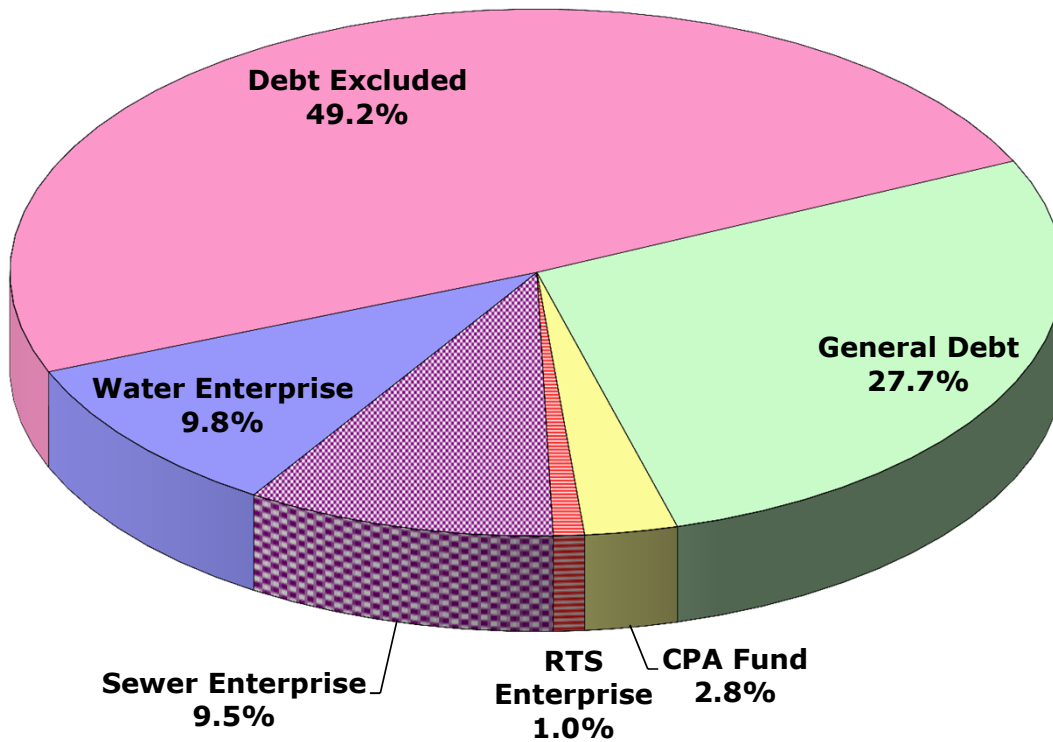
Town of Needham
Current Long Term Debt Service Obligations
Inclusive of the January 17, 2017 Bond Issue

Fiscal Year	General	Excluded	CPA	RTS	Sewer	Water	Total
2038		\$334,775.00					\$334,775.00
2039		\$313,375.00					\$313,375.00
2040		\$278,750.00					\$278,750.00
2041		\$270,000.00					\$270,000.00
2042		\$260,000.00					\$260,000.00
2043							

Current Total Annual Long Term Debt Service
 By Category
 FY2018 - FY2043



**FY2018
Debt Service
Share of Total**



- General Debt
- CPA Fund
- ▨ RTS Enterprise
- ▨ Sewer Enterprise
- ▨ Water Enterprise
- ▨ Debt Excluded

**Projected Gross Debt Service
\$15,773,958**

Town of Needham
Capital Improvement Plan
January 2018

TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE						DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Art	Amount Issued	Final Maturity	Average Rate*	2018	2019	2020	2021	2022	2023	2024 - 2028	After 2028
Central Ave & Elliot Street Bridge Construction	May-15	43	\$500,000	Jan-27	4.00%	69,889	68,000	66,000	64,000	62,000	60,000	220,000	
Central Ave & Elliot Street Bridge Design	May-14	39	\$250,000	Nov-18	3.67%	66,250	63,750						
DPW Garage Bays	May-13	42	\$800,000	May-24	2.09%	91,600	90,000	88,400	86,800	85,200	83,600	82,000	
High School Cafeteria Construction	Nov-15	11	\$1,500,000	Jan-27	4.00%	209,667	204,000	198,000	192,000	186,000	180,000	660,000	
Kendrick Street Bridge Repair	May-10	35	\$750,000	Aug-21	2.21%	82,688	81,188	79,594	77,813	75,938			
MWPAT 98-92 (Stormwater)	May-98	7	\$364,979	Aug-19	(see note)	31,149	29,874	28,567					
Pollard School Boiler Replacement	May-13	40	\$95,000	May-18	2.00%	20,400							
Pollard School Boiler Replacement	May-13	40	\$565,000	Jul-21	3.22%	80,150	78,050	75,950	73,500	71,050			
Pollard School Roof Replacement	Nov-10	10	\$725,000	Jul-22	3.67%	90,125	82,600	79,800	77,000	74,200	71,400		
Property Acquisition - 37-39 Lincoln Street	May-12	31	\$25,000	May-18	2.00%	5,100							
Property Acquisition - 37-39 Lincoln Street	May-12	31	\$605,000	Nov-32	3.39%	45,750	44,550	43,350	42,300	41,400	40,500	188,963	164,138
Property Acquisition - 51 Lincoln Street	Nov-12	17	\$150,000	May-18	2.00%	35,700							
Property Acquisition - 51 Lincoln Street	Nov-12	17	\$950,000	Nov-32	3.39%	74,575	72,575	70,575	68,825	67,325	65,825	283,444	246,206
Property Acquisition - 59 Lincoln & 89 School Streets	May-12	8	\$117,500	May-18	2.00%	25,500							
Property Acquisition - 59 Lincoln & 89 School Streets	May-12	8	\$1,005,000	Nov-32	3.39%	76,250	74,250	72,250	70,500	69,000	67,500	314,938	273,563
Property Acquisition - 66 - 70 Chestnut Street	Nov-13	22	\$1,330,000	Nov-33	3.35%	110,950	108,150	105,350	102,550	99,750	96,950	443,275	457,800

Town of Needham
Capital Improvement Plan
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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE						DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Art	Amount Issued	Final Maturity	Average Rate*	2018	2019	2020	2021	2022	2023	2024 - 2028	After 2028
Property Acquisition 59 Lincoln Street & 89 School Street	May-12	8	\$52,500	Jul-32	2.93%	4,210	4,105	3,985	3,865	3,745	3,625	13,893	10,695
Public Services Administration Building	Oct-08	5	\$100,000	Jul-22	3.69%	12,150	11,800	11,400	11,000	10,600	10,200		
Public Services Administration Building (Series I)	Oct-08	5	\$4,000,000	Aug-26	3.16%	312,525	306,225	299,325	292,125	284,625	276,825	946,388	
Public Services Administration Building (Series II)	Oct-08	5	\$1,000,000	Dec-24	3.07%	82,356	80,488	78,538	86,438	84,094	81,563	155,250	
Public Works Infrastructure Program	May-10	36	\$306,500	Jul-17	2.72%	10,150							
Public Works Infrastructure Program	May-11	39	\$600,000	Jul-17	2.82%	121,800							
Public Works Infrastructure Program	May-13	41	\$100,000	May-18	2.00%	25,500							
Public Works Infrastructure Program	May-12	33	\$210,000	May-18	2.00%	51,000							
Public Works Infrastructure Program	May-10	36	\$129,000	May-18	2.00%	30,600							
Public Works Infrastructure Program	May-11	39	\$150,000	May-18	2.00%	35,700							
Public Works Infrastructure Program	May-12	33	\$190,000	Nov-18	3.67%	50,350	48,450						
Public Works Infrastructure Program	May-13	41	\$500,000	Nov-18	3.60%	132,500	127,500						
Public Works Infrastructure Program	May-14	38	\$580,000	Nov-18	3.67%	153,700	147,900						
Public Works Infrastructure Program	May-15	42	\$750,000	Jan-21	4.00%	229,833	222,000	214,000	156,000				
Senior Center (Series I)	Nov-11	14	\$1,000,000	Nov-32	3.38%	75,506	73,506	71,506	69,756	68,256	66,756	311,219	251,291
Senior Center (Series II)	Nov-11	14	\$5,050,000	Jul-33	3.54%	398,575	390,925	383,275	374,350	365,425	357,775	1,642,444	1,676,406

Town of Needham
Capital Improvement Plan
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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE						DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Art	Amount Issued	Final Maturity	Average Rate*	2018	2019	2020	2021	2022	2023	2024 - 2028	After 2028
Senior Center (Series III)	Nov-11	14	\$1,050,500	May-34	2.83%	78,200	77,100	76,000	74,900	73,800	72,700	324,925	336,325
Street & Traffic Light Improvements	May-08	42	\$25,000	Nov-17	3.34%	5,100							
Title V Loans	May-97	64	\$85,894	Aug-19	(see note)	5,391	5,120	4,854					
Town Hall	May-09	35	\$385,000	Aug-26	2.63%	31,281	30,781	30,250	29,656	29,031	28,375	106,109	
TOTAL GENERAL FUND						2,962,171	2,522,886	2,080,968	1,953,378	1,751,439	1,563,594	5,692,846	3,416,423
Broadmeadow School	May-00	31	\$8,400,000	Nov-23	3.00%	828,300	801,325	771,225	741,425	708,700	678,000	642,600	
Eliot School	May-00	32	\$2,562,000	Nov-24	3.94%	346,840	314,400	304,400	294,400	284,400	269,500	509,600	
High Rock & Pollard School Projects	May-07	41	\$429,470	Aug-26	4.00%	80,760	78,285	75,660	68,360	66,160	63,960	212,010	
High Rock & Pollard School Projects (Series III)	May-07	41	\$2,253,010	Aug-27	4.00%	370,216	358,623	342,460	327,160	312,060	297,160	1,298,110	
High Rock & Pollard School Projects (Series IV)	May-07	41	\$10,500,000	Aug-28	3.35%	772,600	758,031	742,075	720,500	703,313	685,438	3,129,500	561,000
High Rock School Design	Nov-06	9	\$187,770	Aug-26	4.00%	33,965	32,934	31,840	30,840	29,840	28,840	89,790	
High School (Series IIA)	May-03	31	\$2,991,900	Aug-24	4.00%	682,050	660,188	602,700	582,900	558,200	538,600	1,008,800	
High School (Series IIB)	Feb-05	1	\$782,850	Aug-26	4.00%	142,565	138,234	128,740	124,740	115,840	112,040	408,690	
High School (Series III)	Feb-05	1	\$3,850,000	Jun-28	3.42%	275,450	267,450	259,450	253,450	247,200	240,450	1,001,000	
High School Series 1	May-03	31	\$4,775,000	Nov-25	3.97%	674,300	653,700	589,000	560,400	542,000	523,600	1,441,400	
Library Project	May-03	30	\$6,510,000	Dec-19	3.00%	870,550	830,475	796,775					

Town of Needham
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TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE						DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Art	Amount Issued	Final Maturity	Average Rate*	2018	2019	2020	2021	2022	2023	2024 - 2028	After 2028
Newman School Extraordinary Repairs (Series I)	Nov-09	14	\$1,000,000	Dec-19	2.62%	107,375	104,500	101,500					
Newman School Extraordinary Repairs (Series III)	Nov-09	14	\$5,000,000	Oct-28	3.35%	389,700	383,750	373,600	359,600	348,925	341,050	1,570,325	244,800
Newman School Extraordinary Repairs (Series IV)	Nov-09	14	\$9,000,000	Jul-32	2.82%	662,240	646,420	628,340	610,260	592,180	574,100	2,659,420	2,384,480
Newman School Extraordinary Repairs (Series V)	Nov-09	14	\$2,200,000	Nov-32	3.39%	167,750	163,350	158,950	155,100	151,800	148,500	692,863	601,838
Owens Farm Land Purchase	Nov-15	13	\$7,000,000	Jan-42	3.70%	613,428	600,900	516,900	505,700	494,500	483,300	2,248,500	4,794,500
Property Acquisition - 609 Central Street	May-16	7	\$730,000	Jan-39	3.68%	142,795	138,350	43,750	42,750	41,750	40,750	188,750	333,844
TOTAL GENERAL FUND EXCLUDED						7,160,884	6,930,914	6,467,365	5,377,585	5,196,868	5,025,288	17,101,358	8,920,461
Town Hall (Series II)	May-09	35	\$3,500,000	Oct-28	3.36%	272,113	267,969	260,900	251,150	243,716	238,231	1,097,191	188,700
Town Hall (Series III)	May-09	35	\$1,225,000	Aug-26	2.63%	100,100	98,500	96,800	94,900	92,900	90,800	339,550	
Town Hall (Series IV)	May-09	35	\$970,000	Jul-30	2.80%	76,950	75,025	72,825	70,625	68,425	66,225	301,913	155,375
TOTAL COMMUNITY PRESERVATION FUND						449,163	441,494	430,525	416,675	405,041	395,256	1,738,653	344,075
Front-End Loader	May-16	46	\$205,000	Jan-20	4.00%	118,154	58,800	41,600					
Soil Remediation	Nov-12	16	\$140,000	Nov-17	3.31%	25,500							
TOTAL RTS ENTERPRISE						143,654	58,800	41,600					
MWPAT 97-13	Oct-96	8	\$67,700	Aug-18	(see note)	6,107	6,150						
MWPAT 97-33	Oct-96	7	\$180,300	Aug-18	(see note)	16,208	16,195						

Town of Needham
Capital Improvement Plan
January 2018

TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE						DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Art	Amount Issued	Final Maturity	Average Rate*	2018	2019	2020	2021	2022	2023	2024 - 2028	After 2028
MWPAT 97-63	May-97	46	\$1,019,778	Aug-18	(see note)	91,683	91,840						
MWPAT 98-10	May-97	42	\$130,200	Aug-18	(see note)	11,683	11,685						
Sewer - West Street Force Main	May-98	59	\$568,400	May-19	3.98%	70,233	67,600						
Sewer - West Street Pumping Station	May-98	58	\$1,252,300	May-19	3.98%	149,269	147,680						
Sewer Pump Station Design Reservoir B	May-09	54	\$90,000	Jul-17	2.79%	15,225							
Sewer Pump Station GPA	May-05	49	\$500,000	Jun-19	3.17%	54,000	52,000						
Sewer Pump Station GPA	May-08	45	\$550,000	Aug-28	3.36%	41,225	40,438	39,575	33,750	32,969	32,156	161,950	35,700
Sewer Pump Station Reservoir B	Nov-11	15	\$6,034,290	Jan-33	2.15%	374,066	374,129	374,192	374,256	374,323	374,391	1,873,021	1,874,949
Sewer Pump Station Reservoir B	Nov-11	15	\$78,491	Jan-18	2.15%	40,520							
Sewer Rehabilitation - Rte. 128 Area	Nov-05	9	\$145,000	Dec-19	2.59%	15,956	15,525	10,150					
Sewer Rehabilitation - Rte. 128 Area	Nov-05	9	\$500,000	Nov-22	4.00%	118,000	109,100	105,300	77,000	74,200	71,400		
Sewer Rehabilitation - Rte. 128 Area	Nov-05	9	\$320,000	Aug-28	3.39%	21,525	21,131	20,700	20,250	19,781	19,294	98,150	20,400
TOTAL SEWER ENTERPRISE						1,025,700	953,472	549,917	505,256	501,273	497,241	2,133,121	1,931,049
MWPAT Water DWS-08-24	May-08	47	\$765,335	Jul-30	2.00%	49,289	49,230	49,169	49,106	49,044	48,979	243,878	145,464
St Mary's Pump Station	May-13	47	\$1,700,000	Nov-33	3.36%	142,350	138,750	135,150	131,550	127,950	124,350	568,425	577,100
St Mary's Pump Station	May-13	47	\$1,995,000	May-34	2.85%	144,775	142,775	140,775	138,775	136,775	134,775	638,725	666,600

Town of Needham
Capital Improvement Plan
January 2018

TOWN OF NEEDHAM SCHEDULE OF ISSUED LONG TERM DEBT SERVICE						DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE	DEBT SERVICE
Project	TM Vote	Art	Amount Issued	Final Maturity	Average Rate*	2018	2019	2020	2021	2022	2023	2024 - 2028	After 2028
Water Distribution System Improvements	May-09	56	\$400,000	Dec-24	3.02%	31,031	30,313	29,563	28,813	28,031	27,188	51,750	
Water Main Improvements	May-08	47	\$400,000	Nov-20	3.95%	52,000	50,400	48,800	47,200	45,600	44,000	83,200	
Water Service Connections	May-06	70	\$55,000	Aug-19	2.51%	5,350	5,219	5,075					
Water Storage Tank Rehabilitation	May-08	48	\$655,000	Jun-19	3.16%	70,200	67,600						
Water System Rehabilitation	May-15	47	\$260,000	Jan-20	4.00%	210,342	32,400	31,200					
Water System Rehabilitation - Rte. 128 Area	May-06	71	\$212,000	Jun-19	3.16%	21,600	20,800						
Water System Rehabilitation - Rte. 128 Area	May-06	71	\$638,000	Nov-22	4.00%	116,660	114,900	111,100	131,800	127,000	117,300		
Water System Rehabilitation - Rte. 128 Area	May-06	71	\$100,000	Aug-28	3.41%	7,175	7,044	6,900	6,750	6,594	6,431	29,450	10,200
Water Treatment Facility	May-96	47	\$1,710,000	May-19	3.98%	201,393	204,360						
Water Treatment Facility	Nov-97	18	\$1,994,300	May-19	3.98%	239,211	240,760						
TOTAL WATER ENTERPRISE						1,291,376	1,104,550	557,731	533,994	520,994	503,022	1,615,428	1,399,364
TOTAL DEBT SERVICE						13,032,948	12,012,116	10,128,106	8,786,887	8,375,613	7,984,401	28,281,406	16,011,372

Note: Massachusetts Water Pollution Abatement Trust (MWPAT) loans include many communities and multiple loans and are restructured from time to time by the Trust. The program provides grants and other financial assistance which in some instances results in a low or no interest rate loan.

* Rate reflects the average coupon rate over the life of the loan.

Project Submissions

Section 3

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Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Police/Fire Station								Fiscal Year: 2019	
Purpose:	Construction	Classification:	Building	Status:	Amended Request from the Prior CIP				
Department:	Police			Supports:	Public Safety				
Partners:	Public Facilities, Building Department, Fire/police, IT			Useful Life:	More than twenty-five (25) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								Yes	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								Yes	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								Yes	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								No	
6. If funded, will additional permanent staff be required?						Total New FTE's:	2.5	Yes	
7. If funded, will the operating budget need to be increased to cover operating expenses?								Yes	
8. If funded, will this project lower the requesting Department's operating costs?								No	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								Yes	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								No	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								Yes	
19. If funded, will this project increase the operating expense for any other department?								Yes	
Project Cost:	\$65,405,000	How was the Project Cost Determined:		Hired Consultant					
Budget Impact:	May increase annual operating expenses by more than \$100,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$5,528,000	\$5,528,000							
Land/ROW Acquisition	\$0								
Site Preparation	\$4,123,889	\$4,123,889							
Construction	\$48,776,111	\$48,776,111							
Construction Management	\$0								
Equipment	\$810,000	\$810,000							
Furniture, Fixtures, and Equipment	\$1,050,000	\$1,050,000							
Technology Hardware/Software	\$4,785,000	\$4,785,000							
Other Expenses	\$332,000	\$332,000							
TOTAL	\$65,405,000	\$65,405,000	\$0	\$0	\$0	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Police/Fire Station

Fiscal Year: 2019

Project Description and Considerations

The Public Safety Building, located at the intersection of Chestnut Street and School Street, opened in 1931, and was renovated in 1988-1989. Fire Station #2, located at the intersection of Highland Avenue and Webster Street, opened in 1949 and was also renovated in 1988-1989. The amount of space that was originally allocated within both buildings for the Police and Fire Departments is no longer sufficient to accommodate changes in operations, changing personnel needs, technology upgrades, and security improvements, and neither station is fully accessible for individuals with limited mobility.

In 1950, 19 years after the station opened, the Police Department had 25 sworn officers and responded to 1,774 calls. By 2015, the number of sworn officers was 49 and call volume had increased to 31,610. The proposed program meets many deficiencies identified in the Police Department, including the lack of adequate locker facilities for female officers, evidence and property storage, interview rooms and interview recording technology, public meeting space, records storage, dispatch areas, patrol and administrative office space, and report writing space. The prisoner holding cells are outdated and inadequate, and the current prisoner booking area is unsafe due to its size and configuration. The building lacks the ability to handle technology improvements due to available space needed, while the roof continues to leak into the records/server room on the second floor. The current climate control only works sporadically throughout the building creating numerous temperature variations.

In 1950, the Fire Department had 27 firefighters. Call volume data is not available for 1950, but the Department responded to 600 calls in 1960. By 2015, the number of sworn firefighters was 64 and the Department responded to 3,915 calls. The proposed program meets many deficiencies identified in the Fire Department, including apparatus bays that are too small for modern fire trucks, insufficient area for performing equipment maintenance and repair, lack of facilities for storing and cleaning turnout gear, minimal existing office space, inadequate facilities for firefighter support such as bunkrooms, toilets and showers, and insufficient storage space for files and equipment.

The November 2, 2015 and February 10, 2016 Special Town Meetings and the 2017 Annual Town Meeting approved a total of \$390,000 in funding for feasibility studies and schematic design. If the appropriation for design development is approved, the project will be presented to the fall, 2018 Special Town Meeting for construction appropriation, and to the voters at the November 6, 2018 State election for debt exclusion funding.

1. If approved, land acquisition near Station 1 will be funded through available mitigation funds.
2. Building maintenance costs, IT licensing fees, and Townwide expenses.
3. Building, Planning and other related approvals will be needed.
4. ITC supports the request.
6. 2.5 Custodians will need to be added to the staff to meet the maintenance needs of the new complex and Fire Station 2.
7. There will be increase costs associated with the use of the building.
11. Elevator certification.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Town Offices Replacement Furniture						Fiscal Year: 2019				
Purpose:	Acquisition	Classification:	Equipment	Status:	Same Request from the Prior CIP					
Department:	Town Manager			Supports:	General Government					
Partners:				Useful Life:	More than five (5) years					
Parameters						Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No				
3. Does this project require any permitting by any Town or State agency?						No				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No				
6. If funded, will additional permanent staff be required?						Total New FTE's:				No
7. If funded, will the operating budget need to be increased to cover operating expenses?						No				
8. If funded, will this project lower the requesting Department's operating costs?						No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No				
10. If the project is NOT funded, will current Town revenue be reduced?						No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No				
13. Is this a request in response to a Court, Federal, or State order?						No				
14. Is this a request in response to a documented public health or safety condition?						No				
15. Is this a request to improve or make repairs to extend the useful life of a building?						No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No				
18. Will any other department be required to provide assistance in order to complete the project?						No				
19. If funded, will this project increase the operating expense for any other department?						No				
Project Cost:	\$50,000	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$50,000	\$25,000			\$25,000					
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$50,000	\$25,000	\$0	\$0	\$25,000	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Town Offices Replacement Furniture

Fiscal Year: 2019

Project Description and Considerations

Town Hall was renovated with new furniture when it re-opened in September, 2011. In FY2022, the furniture will be 10 years old and will need to start to be replaced, where applicable due to heavy wear and tear.

The Public Services Administration Building was opened as a new building with new furniture in February, 2010. In FY2022, the furniture will be 12 years old and the more worn and broken furniture will need to start to be replaced.

A furniture inventory, including current condition, has been done for the Town Hall and for the Public Services Administration Building and will be updated annually. It has been attached to this request.

In Fiscal Year 2019, furniture scheduled to be replaced would be the Town Hall's Board of Selectmen's conference table and chairs (to go around table) and as much of the poor and fair conditioned furniture as already established from the Public Services Administration Building.

In Fiscal Year 2022, furniture to be replaced will be as much of the stated "poorer condition" furniture as budget request would allow. Depending upon the condition of the furniture in out-lying years, this request may be repeated either annually or every other year.

FYI - replacement furniture prices at 2018 pricing: office task chairs \$830 each. 3 drawer regular file cabinets \$725 each. 15' wooden conference table \$8-10K, conference chairs \$350 each, sled chairs in Powers Hall \$700 each.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request					
Project Title: Center At The Heights Computer Lab Hardware / Software Replacement				Fiscal Year: 2020	
Purpose:	Acquisition	Classification:	Technology	Status:	Same Request from the Prior CIP
Department:	Finance			Funding Source:	General Fund
Partners:					
Parameters					Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?					No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?					No
3. Does the project support activities to produce new revenue for the Town?					No
4. Does this project require any permitting by any Town or State agency?					No
5. If funded, will additional permanent staff be required?					No
6. If funded, will the operating budget need to be increased to cover operating expenses?					No
7. If funded, will this project increase the operating expense for any other department?					No
8. If funded, will this project lower the requesting Department's operating costs?					No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?					No
10. If the project is NOT funded, will current Town revenue be reduced?					No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?					No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?					No
13. Is this a request in response to a Court, Federal, or State order?					No
14. Is this a request in response to a documented public health or safety condition?					No
15. Is this a request to improve or make repairs to extend the useful life of a building?					No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?					No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?					No
18. Will any other department be required to provide assistance in order to complete the project?					No

Primary Reason for the Request: Scheduled replacement
 How was the Estimated Project Cost Determined: In-House Estimate Estimated Project Cost: \$50,000
 Useful Life: More than five (5) years but less than eight (8) years
 Budget Impact: Negligible impact on the annual operating expenses less than \$5,000
 Total New FTE's: 0

Project Budget Elements	Project Budget	2020	2021	2022	2023	2024
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$50,000	\$50,000				
Other Expenses	\$0					
TOTAL	\$50,000	\$50,000	\$0	\$0	\$0	\$0

\$0

Town of Needham
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Capital Project Request

Project Title: **Center At The Heights Computer Lab Hardware / Software Replacement**

Fiscal Year: **2020**

Project Description and Considerations

FY 2020

The purpose of this request is to replace the hardware and upgrade software associated with the Center at The Heights (CATH) Computer Lab. This will include 20 desktops, 4 laptops, a server, switch, and firewall. Also being upgraded would be any software associated with the specific operation. Typically throughout other departments across the Town the Information Technology Center (ITC) looks at individual pieces of hardware and determines its need for replacement. However since this equipment and software was purchased and installed at the same time, as well as the nature of the use of the equipment, it will be better to keep the same make and models of hardware and software instead of mixing and matching. New models will be able to take advantage of upgraded operating systems and faster processors to better serve the users of the Computer Lab. If the funding does not occur there is currently not sufficient funding in the ITC budget to cover the cost of replacing the added pieces of hardware. Outside of this request for replacement the move of the Council on Aging to the CATH more than double the number of computers for that department. That in itself will draw more funds from the ITC over time making it harder to use currently budgeted dollars for the replacement of hardware and software in the CATH Computer Lab.

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Capital Project Request

Project Title: **Non-Public Safety Data Center Servers and Storage Units** Fiscal Year: **2019**

Purpose:	Acquisition	Classification:	Technology	Status:	Revised Request from the Prior CIP
Department:	Finance	Funding Source:	General Fund		
Partners:					

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: Obsolete/non-functioning
 How was the Estimated Project Cost Determined: In-House Estimate Estimated Project Cost: \$325,000
 Useful Life: More than five (5) years but less than eight (8) years
 Budget Impact: Negligible impact on the annual operating expenses less than \$5,000
 Total New FTE's:

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$325,000	\$180,000				\$145,000
Technology Hardware/Software	\$0					
Other Expenses	\$0					
TOTAL	\$325,000	\$180,000	\$0	\$0	\$0	\$145,000

\$0

Capital Project Request

Project Title: **Non-Public Safety Data Center Servers and Storage Units**

Fiscal Year: **2019**

Project Description and Considerations

FY19 \$180,000.00 Data Center 1 and Data Center 2 Hardware Replacements
FY23 \$145,000.00 Data Center 1 and Data Center 3 Hardware Replacements

This project is for the replacement of hardware within the three Town of Needham data centers. Phase I of the project, which is taking place in the current fiscal year (FY18), will be the replacement of four servers, two storage units, and four switches. Phase II of the project will be the replacement of six servers, two storage units, and four switches. Data Center 1 is housed at the Town Hall, Data 2 is housed at the Public Services Administration Building, and Data Center 3 is housed at The Center at The Heights. Data Center 1 is the primary data center where the Town Departments access files and programs, the internet, and network and internet security takes place. The six servers at Town Hall are physical servers however three of them maintain and support upwards of 50 virtual servers with corresponding data maintained on the storage units. The other three are for specific software functions. The servers, storage unit, and switches at the Public Services Administration Building act as fail over in case of the Town Hall network and infrastructure going offline. The server and storage at The Center at The Heights is where backup data is housed and from there certain segments of the data are migrated off site using a Code42 business account. All of the current servers are Dell PowerEdge R400 - R700 series, the storage units are Dell Equallogics PS4000 - PS6000 series, and the switches are Dell PowerConnect 8000 series.

The Information Technology Center (ITC) is currently reviewing the data center design as described above to determine if a hyper-converged environment will be financially viable moving forward based on the FY18 and FY19 dollar requests. In a hyper-converged data center the infrastructure systems architecture is software-centric which integrates and consolidates compute, storage, networking and virtualization resources into minimal hardware. Using a hyper-converged data design between Data Center 1 and Data Center 2 would mean replacing the 20 devices that currently reside between these two locations with 4 – 6 devices in total between the two locations. Instead of 10 pieces of hardware in each location there would be 2 – 3 pieces of hardware in each location. This includes the switching hardware as well. Data Center 3 would still act as the location for back-ups of the data centers but would be using hardware that is less robust and still off siting back-ups with the Code42 cloud solution. ITC is also looking cloud based options as a Business Continuity/Disaster Recovery solution. During the first half of FY18 ITC will be engaged in demonstrations with vendors to better understand if a hyper-converged data center design will satisfy the data center demands of the Town. The goal is to find a solution that minimizes the amount of technology hardware needed as well as building space which in the long run will lessen the financial burden on ITC and any future buildings where ITC maintains and supports technology. For continuity sake the FY 2018 dollars (\$145,000) were included in the current request and can be seen under 2023. ITC uses a five year replacement model for infrastructure hardware. Next year's submission for this request will also include a Fiscal Year 2024 request for \$180,000 as represented in the current Fiscal Year 2019 request.

The importance of this project is to maintain hardware at a level that will support the needs of the Town Departments as well as either continuing or changing the model developed for Business Continuity. As equipment gets older it becomes harder and harder to maintain the same level of quality and performance when initially installed directly effecting the day to day operation of the Town. There are currently ITC operating budget dollars used for licensing for the both hardware and software maintenance and support.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Public Safety Data Center Servers and Storage Units		Fiscal Year: 2019	
Purpose: Acquisition	Classification: Technology	Status:	Same Request from the Prior CIP
Department: Finance	Funding Source:		General Fund
Partners: Public Safety			

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: Obsolete/non-functioning
 How was the Estimated Project Cost Determined: In-House Estimate Estimated Project Cost: \$90,000
 Useful Life: More than five (5) years but less than eight (8) years
 Budget Impact: Negligible impact on the annual operating expenses less than \$5,000
 Total New FTE's:

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$90,000	\$30,000		\$60,000		
Other Expenses	\$0					
TOTAL	\$90,000	\$30,000	\$0	\$60,000	\$0	\$0
\$0						

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: **Public Safety Data Center Servers and Storage Units**

Fiscal Year: **2019**

Project Description and Considerations

FY19 \$30,000.00 Digital Video Recorder

FY21 \$60,000.00 Public Safety Computer Aided Dispatch (CAD) Hardware Replacement

This project request consists of two elements used by Public Safety. The first element, Digital Video Recorder, is used internally and externally by the Needham Police Department. There are multiple cameras within the Needham Police Department from the front entrance to the jail cells and throughout the multiple hallways and areas. There are also several cameras on the external structure of the Public Safety Building as well as Town Hall that are managed through the Digital Video Recording hardware from the Police Department. These devices are used for safety and security of the officers and any other individuals who may find themselves within the Needham Police Department. The second element of the project request is the replacement of Public Safety CAD hardware installed during the FY15 upgrade of the Public Safety CAD software. The software piece of the Public Safety CAD project was funded by a capital request while the hardware piece of the Public Safety CAD project, as well as the Digital Video Recorder equipment, was funded using State 911 Grant Funds. However during CY15 the State put a hold on all future funding of the 911 Grants. Because of the uncertainty of the funding from the State it is important to place this request out into the future. There are currently ITC operating budget dollars used for licensing for the both the Digital Video Recording item. Dollars for the Public Safety CAD hardware and software maintenance and support will be available through savings starting FY18 due to the ending of support for the replaced Sungard Public Safety modules.

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Capital Project Request

Project Title: Public Safety Mobile Devices		Fiscal Year: 2019	
Purpose: Acquisition	Classification: Technology	Status:	Same Request from the Prior CIP
Department: Finance	Funding Source: General Fund		
Partners: Public Safety			

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: Scheduled replacement
 How was the Estimated Project Cost Determined: In-House Estimate Estimated Project Cost: \$70,000
 Useful Life: More than five (5) years but less than eight (8) years
 Budget Impact: Negligible impact on the annual operating expenses less than \$5,000
 Total New FTE's:

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$70,000	\$35,000	\$35,000			
Other Expenses	\$0					
TOTAL	\$70,000	\$35,000	\$35,000	\$0	\$0	\$0
\$0						

Town of Needham
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Capital Project Request

Project Title: **Public Safety Mobile Devices**

Fiscal Year: **2019**

Project Description and Considerations

This project is for the replacement of laptops and tablets that are used in the Needham Police and Fire Department Vehicles. The hardware is used to access multiple applications during the the daily operations of either an individual or vehicle. The hardware communicates with the Public Safety CAD software as well as State and Federal databases. The devices themselves are hardened military specification hardware manufactured for above normal use in more intensive environments than normal off the shelf hardware. The current hardware is a mix a Panasonic ToughBooks and ToughTablets. In the past the hardware was funded using State 911 Grant Funds. However during CY15 the State put a hold on all future funding of the 911 Grants. Because of the uncertainly of the funding from the State it is important to place this request out into the future. There are currently ITC operating budget dollars used for licensing for both hardware and software maintenance and support.

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Capital Project Request

Project Title: Revenue and General Ledger/Accounting Software Package Replacement		Fiscal Year: 2021	
Purpose: Acquisition	Classification: Technology	Status:	Same Request from the Prior CIP
Department: Finance	Funding Source: General Fund		
Partners:	Treasurer's Office, Accounting Department, Finance Department, School Business Office, School Human Resources, Payrol, IT Services		

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	Yes
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	Yes
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes

Primary Reason for the Request: Operational efficiency

How was the Estimated Project Cost Determined: In-House Estimate Estimated Project Cost: \$1,100,000

Useful Life: Between eight (8) and twelve (12) years

Budget Impact: May increase annual operating expenses between \$5,001 and \$25,000

Total New FTE's:

Project Budget Elements	Project Budget	2021	2022	2023	2024	2025
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$1,100,000	\$1,100,000				
Other Expenses	\$0					
TOTAL	\$1,100,000	\$1,100,000	\$0	\$0	\$0	\$0
\$0						

Town of Needham
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Capital Project Request

Project Title: **Revenue and General Ledger/Accounting Software Package Replacement**

Fiscal Year: **2021**

Project Description and Considerations

The Revenue and General Ledger/Accounting Software Package Replacement is a request to replace the current Revenue and General Ledger/Accounting Software Packages. The current Revenue Application was first purchased in 1996 and has gone through several versions since the original implementation. Its primary function is the collection of Real Estate and Personal Property Tax, Excise Tax, Utility Fees, and Miscellaneous Revenues collected among both Town and School Departments. There are other modules that are incorporated with the Revenue Package and these include Customer Information, Land /Parcel Management, and Cash Receipts. There has been a need for better reporting out of the Revenue package which is currently housed on an IBM piece of hardware. All of the specialized programming and process in the Revenue Application is done using COBOL which in combination with the IBM hardware is becoming more and more difficult for the Information Technology Center (ITC) to support. Migrating both the application and hardware to a non-IBM piece of hardware would bring that specific application and hardware into the business model currently in place in the ITC. The General Ledger/Accounting Software Package has been in place since FY14. The movement to a different vendor providing the General Ledger/Accounting Software Package has been both beneficial and troublesome at the same time. Though some reporting, requisition, and rollover processes have seen improvement the fact that the Revenue and General Ledger/Accounting packages are from two different vendors and hardware types has caused some problems. Most of those problems involve certain processes becoming more tedious and time consuming leading to delays in departments disseminating information. These processes range from revenue posting, cash reconciliation, bank account reconciliation, and personnel reporting. The complexity of the Town's payroll has also pushed the limits of the General Ledger/Accounting package leading to some confusion from certain employee groups about the line items on payroll checks and direct deposit notices. There may need to be additional cost increases for ongoing annual maintenance in comparison to the current Revenue and General Ledger/Accounting Software Packages. It is difficult to say the exact amount at this time but is anticipated these costs will be more due to the complex nature of the Town's business and the level of application needed. Also after implementation there may be situations that may require programming specialization which the vendor would supply. The planning and implementation for this project will involve multiple Town departments (Treasurer's Office, Accounting Office, Assessor's Office, Human Resources) as well as School departments (Business Office, Human Resources, Payroll, Information Technology Services).

Town of Needham
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Capital Project Request

Project Title: **Technology Systems and Applications Updates** Fiscal Year: **2023**
 Purpose: **Acquisition** Classification: **Technology** Status: **Revised Request from the Prior CIP**
 Department: **Finance** Funding Source: **Revolving Fund**
 Partners: **DPW Engineering**

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: **Operational efficiency**
 How was the Estimated Project Cost Determined: **In-House Estimate** Estimated Project Cost: **\$100,000**
 Useful Life: **More than five (5) years but less than eight (8) years**
 Budget Impact: **Negligible impact on the annual operating expenses less than \$5,000**
 Total New FTE's:

Project Budget Elements	Project Budget	2023	2024	2025	2026	2027
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$100,000	\$100,000				
Other Expenses	\$0					
TOTAL	\$100,000	\$100,000	\$0	\$0	\$0	\$0
\$0						

Town of Needham
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Capital Project Request

Project Title: **Technology Systems and Applications Updates**

Fiscal Year: **2023**

Project Description and Considerations

1) Imagery and Planimetric Data Updates:

The Imagery and Planimetric Data Updates (previously titled Geographic Information Systems Upgrade) project is a request for a flight to update aerial imagery and then use that aerial imagery to update the Town's planimetric data. The aerial imagery and planimetric data is used across Town departments but it is most used by Public Works Engineering using computer aided design (CAD) software and the Information Technology Center Geographic Information System (GIS) Administrator using GIS software (ESRI, Inc) in support of multiple Town and School Departments. CAD and GIS are systems that use hardware and software for storage, retrieval, mapping, analysis, design, and planning. The planimetric data is the electronic representation of above ground physical structures and features. These physical structures and features are then associated with layers in CAD and geospatial information and databases in GIS which then allows for the different departments to use the planimetric data for needs specific to each department. The updated planimetric data will be incorporated into the Town's web GIS as well as secure web GIS sites accessed by DPW Divisions for viewing and querying as well as the Engineering Division using the data for planning and design projects. Because Water & Sewer, Planning, Conservation and other Town and School Departments use or request services specific to the planimetric data it is important to have up to date data so these departments can plan, analyze and display with as accurate a representation of the physical structures and features. Licensing costs to use the data through specific software are currently paid through the operating budget. The use of new planimetrics and imagery will not directly cause any increase to these costs.

The revision to this CIP is that the starting fiscal year was changed from 2022 to 2023. This CIP request is a recurring request with the most recent fulfillment of the request happening in Fiscal Year 2015. The initial phase of the Imagery and Planimetric Data Updates is to fly the Town and collect imagery which is then used to collect planimetric data. However due to a heavy snow fall during the winter of 2014 - 2015 that left substantial snow on the ground in the spring of 2015 the flight did not take place. The flight was rescheduled for the spring of 2016 but due to technical problems with the flight that took place in the spring of 2016 the imagery deliverables did not take place. The flight did take place this past spring 2017 and the imagery deliverables should be available by the end of October 2017. Because of these delays and the fact that the flight took place this year it was decided to push the next flight for imagery and collection of planimetric data out one year.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Town Side Multi-Function Printer Devices		Fiscal Year: 2019	
Purpose: Acquisition	Classification: Technology	Status:	Revised Request from the Prior CIP
Department: Finance	Funding Source: Revolving Fund		
Partners:			

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does the project support activities to produce new revenue for the Town?	No
4. Does this project require any permitting by any Town or State agency?	No
5. If funded, will additional permanent staff be required?	No
6. If funded, will the operating budget need to be increased to cover operating expenses?	No
7. If funded, will this project increase the operating expense for any other department?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No

Primary Reason for the Request: Obsolete/non-functioning
 How was the Estimated Project Cost Determined: In-House Estimate Estimated Project Cost: \$142,400
 Useful Life: Between eight (8) and twelve (12) years
 Budget Impact: Negligible impact on the annual operating expenses less than \$5,000
 Total New FTE's:

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023
Planning/Feasibility	\$0					
Design/Engineering	\$0					
Land/ROW Acquisition	\$0					
Site Preparation	\$0					
Construction	\$0					
Construction Management	\$0					
Equipment	\$0					
Furniture, Fixtures, and Equipment	\$0					
Technology Hardware/Software	\$142,400	\$35,600	\$35,600	\$35,600	\$35,600	
Other Expenses	\$0					
TOTAL	\$142,400	\$35,600	\$35,600	\$35,600	\$35,600	\$0
\$0						

Capital Project Request

Project Title: **Town Side Multi-Function Printer Devices**

Fiscal Year: **2019**

Project Description and Considerations

This project is for the replacement of multi-function printers throughout the four primary Town locations (Town Hall, Public Services Administration Building, Public Safety, Center at The Heights) due to either being obsolete or part of a planned schedule replacement. In all there are nine of these devices between the buildings with only three of the devices not purchased during a capital project. Though several of these devices are currently over six years old, with one over eight, only one has reached 50% of the anticipated life cycles for each model according to the manufacturer estimated cycles per year. Based on the current usage the expected life of these devices is between ten and twelve years however the manufacturer of these devices does not guarantee the availability of parts or consumables past seven years. The cycle for replacement of these multi-function printers would be seven years. During their replacement they would be replaced with devices similar in specifications. Due to the time out till replacement it is difficult to give an actual make and model that would be purchased. The current devices are listed below.

The revision to this request is that the fiscal year of start was moved forward two years from fiscal year 2021 to fiscal year 2019. The movement forward request was made, after conversation with the Town Manager, because of the increase of device downtime which required maintenance causing time lost waiting for printing projects as well as the issue, as noted above, with the lack of availability of parts and consumables from the manufacturer past seven years. More frequently, OEM consumables and parts have been replaced with refurbished and third party parts which in some case have not worked with the older multi-function printers. By fiscal year 2019 the age of the majority of these devices will range from five to eight years with the remaining three to four years old. The process of determining which devices will be replaced will be based on the age of the machine and the overall amount of use.

- 1) Public Services Administration Building, 2nd Floor, Ricoh Aficio MP 7500
- 2) Public Services Administration Building, 1st Floor, Ricoh Aficio MP 7501
- 3) Public Services Administration Building , 2nd Floor , Ricoh Aficio MP 8001
- 4) Town Hall, Lower Level, Ricoh Aficio MP 7501
- 5) Town Hall, 1st Floor, Ricoh Aficio MP 7501
- 6) Town Hall, Lower Level, Ricoh Pro 1357EX
- 7) Center at the Heights Copy Room RICOH MP C5503
- 8) Public Safety, Police, Konica Minolta Biz Hub 350
- 9) Public Safety, Fire, Konica Minolta Biz Hub 350

Town of Needham
Capital Improvement Plan
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Capital Project Request

Project Title: Fleet Replacement Program **Fiscal Year:** 2019

Purpose:	Acquisition	Classification:	Equipment	Status:	Amended Request from the Prior CIP
Department:	Finance			Supports:	Other (see below for information)
Partners:	Building, Fire, Health and Human Services, Police, Public Works, and the School Department			Useful Life:	Varies between 6 and 20 years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Not Applicable
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	Not Applicable
6. If funded, will additional permanent staff be required?	Total New FTE's: 0 No
7. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	Yes
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Not Applicable
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	Yes

Project Cost:	\$8,284,433	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	May increase annual operating expenses between \$5,001 and \$25,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$0							
Construction Management	\$0							
Equipment	\$8,284,433	\$2,968,440	\$1,587,898	\$694,676	\$2,037,020	\$996,399		
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$8,284,433	\$2,968,440	\$1,587,898	\$694,676	\$2,037,020	\$996,399	\$0	\$0

\$0

Capital Project Request

Project Title: Fleet Replacement Program

Fiscal Year:

2019

Project Description and Considerations

The Town's fleet replacement program is funded through both the capital plan and the operating budget. A major equipment expense for the Town is rolling stock. The Town relies upon many types and sizes of vehicles in order to provide services, respond to emergencies, maintain public facilities, and improve the infrastructure in the community. The fleet replacement program consolidates all vehicles and special equipment attachments under one submission, but allocation of resources is looked at on a department by department basis rather than as one global replacement schedule. Needs and purposes for equipment differ significantly, and no department can do its work without the equipment. We classify the fleet program in three categories: core fleet (general purpose vehicles), special purpose/high value vehicles, and snow and ice equipment. The program is intended to centrally present and review the Town's rolling stock operations in order to ensure timely, cost effective, and high quality replacement of vehicles, maintenance, fueling, and short-term transportation. However, the Police Department vehicles are not included in this request. Generally, the Police Department vehicles are funded through the operating budget as many vehicles in the department do not meet the threshold to be considered part of the capital program. A majority of the Town's fleet maintenance and management is performed by the Garage Division of the Public Works Department. Other maintenance work is provided off-site by vendors due to factors such as specialized work, volume, or warranty.

Managing and maintaining a fleet of more than 200 vehicles – from passenger vehicles to large heavy duty diesel trucks and tractors – involves some of the Town's most environmentally consequential choices. Considering the number of vehicles purchased and the thousands of gallons of fuel used, the fleet represents one of the Town's opportunities to meet its goal of environmentally responsible and sustainable operations.

The most obvious and substantial environmental impacts of the fleet for the Town are, of course, tailpipe emissions and fuel use. However, an environmentally superior fleet encompasses a number of other factors, only some of which are under the control of fleet operations. For example, the Town's ability to influence vehicle manufacturing is limited, even though the process involves huge amounts of material extraction, use of natural resources and is responsible for significant air and water pollution. The elements that the Town's fleet operations can control or influence to achieve a cleaner and greener fleet include the following:

- Fleet size
- Fuel use, type, and amount
- Fueling procedures - preventing pollution from incidental fuel spills
- How vehicles are maintained, e.g. avoiding oil leaks, ensuring proper tire inflation, etc.
- Use of maintenance materials, e.g., alternatives to hydraulic fluids, or recycled anti-freeze
- Use of recycled oil, and, as appropriate, tires
- Use, storage and disposal of hazardous materials used in vehicle maintenance
- Vehicle type, e.g., fuel efficiency, size, and availability of alternatives

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Capital Project Request

Project Title: Fleet Replacement Program

Fiscal Year:

2019

Supplemental Information

The Town's fleet replacement program was established in FY2015. This represents a budget and schedule for the Town's rolling stock fleet of approximately 232 vehicles, trailers, and large specialized attachments and the School Department fleet of vans and buses. General purpose vehicles include pickup trucks, a variety of sedans, SUV's, vans, and police vehicles (81). They comprise approximately 35 percent of the entire fleet. General purpose vehicles are utilized in every department and are relatively inter-changeable. The replacement of these vehicles can proceed on a regular schedule and should be considered part of the Town's base recurring costs.

The Town relies on a number of trailers for the purpose of moving tools and equipment, hauling trash and debris, and transporting special equipment. The Town has 56 trailers, which represents approximately 24 percent of the fleet, many of the trailers have a replacement cost that falls below the capital threshold. When a low dollar value trailer is recommended for replacement, the funding request is submitted by the individual department with its operating budget request.

Specialized, high value vehicles, and snow and ice equipment comprise of the other 35 percent of the fleet. These vehicles and equipment are just as integral to Town operations as the general purpose vehicles, but serve the unique purposes of specific departments or divisions. Included in this group are the high value vehicles such as ambulances, large dump trucks, fire engines, street sweepers, and others for which appropriations need to be planned.

The intent and goal of the fleet replacement program is to: Replace vehicles before service delivery is impacted negatively; maximize vehicle availability for all user departments; minimize costs from vehicle downtime and emergency maintenance and operational costs; take advantage of opportunities to implement new technology to achieve fuel conservation and reduced emissions; promote safety, reliability and operational efficiencies; and enhance the public image of the Town's fleet.

The estimated cost of the identified replacements (including the school department) for core fleet, specialize equipment, and snow and ice equipment is \$8,284,433 which is up from the prior CIP five-year submission of \$7,693,399. The change is due to the addition of fiscal year 2023 and increased cost estimates for some specialized equipment, most notably fire apparatus, and several vehicles which should be replaced in FY2019 which is earlier than planned (for example units 28, 94, 107, and 143) or were not funded in the previous year (unit 457). The estimated core fleet replacement cost over the five year period is \$2,385,803, which is up from the prior CIP amount of \$1,853,131; specialized equipment is \$5,548,947 which is also higher than prior CIP of \$5,198,833; and snow and ice equipment is \$328,346 which down from the prior amount of \$641,436. The FY2019 request is for vehicles that have been identified to be replaced based on, condition, functionality, usability, or cost of maintenance. The vehicles identified for replacement in FY2020 and beyond are based on industry recommended replacement schedules. However, the schedule is adjusted annually based on the actual condition of the vehicles, the serviceability of the vehicles, demands on the equipment, and financial resources.

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Town of Needham
Capital Improvement Plan
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Capital Project Request

Project Title: Fleet Replacement Program

Fiscal Year:

2019

Supplemental Information

The total request consists of both General and Enterprise Fund assets of which the portion that relates to an enterprise fund would be paid by the applicable enterprise fund. The table below summarizes the amount that would be paid from enterprise funds if approved.

	2019	2020	2021	2022	2023	Total
RTS	\$245,360	\$34,783	\$ 0	\$153,337	\$264,984	\$ 698,464
Sewer	\$132,111	\$239,000	\$60,046	\$ 978,395	\$42,558	\$1,452,110
Water	\$355,048	\$35,803	\$84,428	\$224,759	\$0	\$ 700,038

Specific Questions:

Question 7: If funded, will the operating budget need to be increased to cover operating expenses? Yes, as part of the fleet replacement program, there are recommendations to change some of the vehicles types or increase the number of vehicles available for use. In those years where such a change is approved, there may be an increase in insurance, and perhaps specialized tools in order to better maintain the new equipment.

Question 11: Is specialized training or annual licensing required that the Town will need to pay in order to use the asset? Yes, some vehicles require a commercial driver's license to operate. Other vehicles have specialized equipment which requires period training and demonstrations on the proper use of the equipment.

Question 18: Will any other department be required to provide assistance in order to complete the project? Yes, the various requesting departments must assist in the final assessment of the vehicle to be replaced, procurement of the new vehicle, and the discontinuation or transfer of the current vehicle. The vehicle may be retained as a pool vehicle for the department, transferred to another department, auctioned or traded, or otherwise disposed.

Question 19: If funded, will this project increase the operating expense for any other department? Increase costs may be incurred for any department that increases the number of vehicles used in the fleet. The Town's commercial and vehicle insurance expense could increase.

Town of Needham
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Vehicle to be Replaced	Dept	FY2019 Department Request Last Year	FY2019 Department Request This Year	FY2020 Department Request Last Year	FY2020 Department Request This Year	FY2021 Department Request Last Year	FY2021 Department Request This Year	FY2022 Department Request Last Year	FY2022 Department Request This Year	FY2023 Department Request NEW
Replace Unit 457 Ford Taurus	19		21,336							
Replace Unit 1 Ford Escape Hybrid	23.1	31,625	33,616							
Replace Unit 44 Ford Escape Hybrid	23.3	31,625	33,616							
Replace Unit 46 Ford Escape Hybrid	23.3	31,625	33,616							
Replace Unit 4 Ford F350	23.4	56,054	82,671							
Replace Unit 55 Ford F550	23.5	70,756	142,495							
Replace Unit 76 BOBCAT A300 SKID STEER	23.5	87,240	122,182							
Replace Unit 107 CAMOPLAST SW4S	23.5	0	190,811	186,358						
Replace Unit 181 Elgin PELICAN Sweeper	23.5	291,815	264,101							
Replace Unit 38 INTERNATIONAL IH 4300 Series	23.6	199,328	202,169							
Replace Unit 65 Ford F350	23.6		66,037							
Replace Unit 183 GIANT UTILITY LEAF PICKER TRAILER	23.6	28,336	25,722							
Replace Unit 301 FORD E150 VAN	23.6	30,464	34,069							
Replace Unit 143 CASE LOADER 721E	100	0	245,360					302,274		
Replace Unit 28 Ford F350	200	0	64,247	58,016						
Replace Unit 94 Ford F250	200	0	67,864							
Replace Unit 14 INTERNATIONAL 7400 Series	300	230,918	239,404							
Replace Unit 22 Ford F450	300	64,097	115,644							
Replace Unit 27 Ford F150	300					36,000				
Replace Unit 702 Ford F250	23.2		45,765							

Town of Needham
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Vehicle to be Replaced	Dept	FY2019 Department Request Last Year	FY2019 Department Request This Year	FY2020 Department Request Last Year	FY2020 Department Request This Year	FY2021 Department Request Last Year	FY2021 Department Request This Year	FY2022 Department Request Last Year	FY2022 Department Request This Year	FY2023 Department Request NEW
Replace Unit E02 E-ONE CYCLONE ii Fire Truck	18	666,339	840,163							
Replace Unit Van 4 FORD E150 VAN	21	34,025	48,776							
Replace Unit Van 5 FORD E150 VAN	21	34,025	48,776							
Replace Unit 92 FORD EXPLORER	23.3			38,385	38,385					
Replace Unit 10 INTERNATIONAL 7400 Series	23.5			239,000	239,000					
Replace Unit 39 Ford F550	23.5			73,233	73,233					
Replace Unit 57 Ford F350	23.5				66,407			50,123		
Replace Unit 102 JOHN DEERE LOADER 544J	23.5			181,481	181,481					
Replace Unit 182 FREIGHTLINER ELGIN CROSSWIND SWEEPER	23.5	291,815			302,028					
Replace Unit 253 VERMEER STUMP CUTTER	23.6				54,207					
Replace Unit 256 TRAILER UTILITY	23.6			44,005	44,005					
Replace Unit 56 Ford F150	100			34,783	34,783					
Replace Unit 29 INTERNATIONAL 7400 Series	200			239,000	239,000					
Replace Unit 164 Trailer ATLAS Copco	300			35,803	35,803					
Replace Unit 705 Ford Econ Van E250	23.2				37,571					
Replace Unit C-42 Ford Sedan	18			41,066	50,462					
Replace Unit Bus 14 IC SCHOOL BUS	21			94,975	90,568					
Replace Unit Van 1 FORD E150 VAN	21			35,216	50,483					
Replace Unit Van 2 FORD E150 VAN	21			35,216	50,483					
Replace Unit 2 Ford F150 XL	23.4					36,000	36,000			

Town of Needham
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Vehicle to be Replaced	Dept	FY2019 Department Request Last Year	FY2019 Department Request This Year	FY2020 Department Request Last Year	FY2020 Department Request This Year	FY2021 Department Request Last Year	FY2021 Department Request This Year	FY2022 Department Request Last Year	FY2022 Department Request This Year	FY2023 Department Request NEW
Replace Unit 113 CAMOPLAST SW4S	23.5			186,358			192,880			
Replace Unit 350 JOHN DEERE TRACTOR LOADER 4720	23.6						53,156	55,016		
Replace Unit 23 Ford F350	200					60,046	60,046			
Replace Unit 26 Ford F150	300					48,428	48,428			
Replace Unit 31 Ford F150	300					36,000	36,000			
Replace Unit 707 Ford Econ Van E250	23.2	36,301					38,886			
Replace Unit 713 Ford F450 Dump Truck	23.2							71,066		
Replace Unit C-01 FORD EXPLORER	18					60,464	51,133			
Replace Unit C-06 Ford F350	18					57,384	73,647			
Replace Unit Van 7 FORD E250 VAN	21					49,536	52,250			
Replace Unit Van 8 FORD E250 VAN	21					49,536	52,250			
Replace Unit 400 Ford Taurus	19							30,018	38,310	
Replace Unit 45 FORD E150 VAN	23.3							33,776	38,467	
Replace Unit 3 Ford F450	23.4							71,066	84,163	
Replace Unit 32 Ford F350	23.5							50,123	71,137	
Replace Unit 43 Ford F350	23.5							50,123	71,137	
Replace Unit 124 ADDCO MINI UTILITY TRAILER	23.5							26,429	26,429	
Replace Unit 168 GORMAN UTILITY TRAILER	23.6							37,706	37,706	
Replace Unit 186 GIANT LEAF VAC TRAILER	23.6							27,275	27,275	
Replace Unit 91 CONSTRUCTION SCALP TRUCK	100							153,337	153,337	

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Vehicle to be Replaced	Dept	FY2019 Department Request Last Year	FY2019 Department Request This Year	FY2020 Department Request Last Year	FY2020 Department Request This Year	FY2021 Department Request Last Year	FY2021 Department Request This Year	FY2022 Department Request Last Year	FY2022 Department Request This Year	FY2023 Department Request NEW
Replace Unit 17 Ford F550	200			73,233					78,449	
Replace Unit 19 INTERNATIONAL 7400 Series	200			239,000					256,023	
Replace Unit 37 INTERNATIONAL 7500 Series	200							441,303	441,303	
Replace Unit 101 CASE LOADER	200							202,621	202,621	
Replace Unit 25 Ford F450	300							71,066	84,163	
Replace Unit 30 Ford F550	300			73,233					78,449	
Replace Unit 40 Ford F350	300							62,148	62,148	
Replace Unit 712 Ford Econ Van E250	23.2					49,575			40,247	
Replace Unit 756 Ford F150	23.2			34,783					37,260	
Replace Unit 404 Ford E350 VAN	25							100,240	100,240	
Replace Unit Van 9 TOYOTA SIENNA	21							37,725	54,079	
Replace Unit Van 10 TOYOTA SIENNA	21							37,725	54,079	
Replace Unit 108 TRACKLESS TRACTOR	23.5									206,164
Replace Unit 112 Prinoth	23.5									206,618
Replace Unit 5 INTERNATIONAL 7400 Series	100									264,984
Replace Unit 11 FORD EXPLORER	200									42,558
Replace Unit 35 INTERNATIONAL 4900 Series	300									
Replace Unit 700 Ford Econ Van E250	23.2					38,886				41,656
Replace Unit 452 Ford Taurus	14	35,758								41,034
Replace Unit HAZ HAZMAT TRAILER	18									

Town of Needham
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Vehicle to be Replaced	Dept	FY2019 Department Request Last Year	FY2019 Department Request This Year	FY2020 Department Request Last Year	FY2020 Department Request This Year	FY2021 Department Request Last Year	FY2021 Department Request This Year	FY2022 Department Request Last Year	FY2022 Department Request This Year	FY2023 Department Request NEW
Replace Unit Bus 1 BLUE BIRD 303 SCHOOL BUS	21									96,693
Replace Unit Bus 2 BLUE BIRD 303 SCHOOL BUS	21									96,693
		\$2,252,146	\$2,968,440	\$1,943,144	\$1,587,898	\$521,855	\$694,676	\$1,911,160	\$2,037,020	\$996,399

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Police cruiser radio replacement						Fiscal Year: 2021				
Purpose:	Acquisition	Classification:	Equipment	Status:	Amended Request from the Prior CIP					
Department:	Police			Supports:	Public Safety					
Partners:				Useful Life:	More than twelve (12) years					
Parameters						Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No				
3. Does this project require any permitting by any Town or State agency?						No				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No				
6. If funded, will additional permanent staff be required?						Total New FTE's:				No
7. If funded, will the operating budget need to be increased to cover operating expenses?						No				
8. If funded, will this project lower the requesting Department's operating costs?						No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No				
10. If the project is NOT funded, will current Town revenue be reduced?						No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No				
13. Is this a request in response to a Court, Federal, or State order?						No				
14. Is this a request in response to a documented public health or safety condition?						No				
15. Is this a request to improve or make repairs to extend the useful life of a building?						No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No				
18. Will any other department be required to provide assistance in order to complete the project?						No				
19. If funded, will this project increase the operating expense for any other department?						No				
Project Cost:	\$93,351	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:										
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$93,351		\$0	\$93,351						
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$93,351	\$0	\$0	\$93,351	\$0	\$0	\$0	\$0		

Capital Project Request

Project Title: Police cruiser radio replacement

Fiscal Year: 2021

\$0

Project Description and Considerations

The current police cruiser radio system has been in service for over nine years. This is the primary communication tool between the officers in the field and the police dispatch center. The eighteen radios are Motorola Astro Spectra series which are now discontinued by the manufacturer. While we currently do not have service agreements for the cruiser radios due to age of the radios, replacement parts will be increasingly difficult to acquire in the future. With this in mind, the department is proposing to replace 20 cruiser radios with a compatible radio system in FY 2021. At that time, these units will have been in service for fourteen years, which would be the end of their useful life cycle. The increase of \$191.88 per unit over FY18 is quoted from the new state contract ITT57 MA State. This pricing reflects replacing our current fleet radios with the newer model.

In last years submission the cruiser radio replacment was scheduled for FY 2019. Currently we are in the process of a communications study in conjunction with the New Public Safety Building study. I want to suggest waiting to see what the outcome of the communication study and public safety building before purchasing new cruiser radios to ensure compatibility.

The increase in price also reflects the increase of radios from 18 to 20. The first addition is to add a radio to the travel car which currently is not equipped with one. The second radio is to be installed in a detective vehicle that was added to the fleet.

Supplemental Information

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Police Department Firearm Replacement						Fiscal Year: 2020				
Purpose:	Acquisition	Classification:	Equipment	Status:	Same Request from the Prior CIP					
Department:	Police			Supports:	Public Safety					
Partners:				Useful Life:	More than eight (8) years					
Parameters						Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No				
3. Does this project require any permitting by any Town or State agency?						No				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No				
6. If funded, will additional permanent staff be required?						Total New FTE's:				No
7. If funded, will the operating budget need to be increased to cover operating expenses?						No				
8. If funded, will this project lower the requesting Department's operating costs?						No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No				
10. If the project is NOT funded, will current Town revenue be reduced?						No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						yes				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No				
13. Is this a request in response to a Court, Federal, or State order?						No				
14. Is this a request in response to a documented public health or safety condition?						No				
15. Is this a request to improve or make repairs to extend the useful life of a building?						no				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No				
18. Will any other department be required to provide assistance in order to complete the project?						No				
19. If funded, will this project increase the operating expense for any other department?						No				
Project Cost:	\$31,000	How was the Project Cost Determined:		Industry References						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$26,000		\$26,000							
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$5,000		\$5,000							
TOTAL	\$31,000	\$0	\$31,000	\$0	\$0	\$0	\$0	\$0		

Capital Project Request

Project Title: Police Department Firearm Replacement

Fiscal Year: 2020

\$0

Project Description and Considerations

The current service weapon of the Police Department is a Smith and Wesson M&P 40 caliber. The weapon is outfitted with night sights and has a 15 round capacity in each magazine. The current weapon was placed into service in 2009, replacing a weapon that was in service for eight years. Based on a study conducted by the FBI and research done by our firearms instructors we would replace the Smith and Wesson 40 caliber with a 9MM firearm (make and model to be determined). The cost includes the purchase of the new firearm and holsters . The other expense (\$5000.) is for the purchase of new 9mm ammunition. The department intends to purchase 52 weapons.

Supplemental Information

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Police use of Force Simulator							Fiscal Year: 2019			
Purpose:	Acquisition	Classification:	Equipment	Status:	Amended Request from the Prior CIP					
Department:	Police			Supports:	Public Safety					
Partners:	IT			Useful Life:	More than eight (8) years					
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							Yes			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							No			
6. If funded, will additional permanent staff be required?							Total New FTE's:			No
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							No			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							No			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$47,000	How was the Project Cost Determined:		Industry References						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$47,000	\$47,000								
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$47,000	\$47,000	\$0	\$0	\$0	\$0	\$0	\$0		

Capital Project Request

Project Title: Police use of Force Simulator

Fiscal Year: 2019

\$0

Project Description and Considerations

This request is for a comprehensive interactive Use-Of-Force training simulator which will provide a platform for realistic, stress-induced training. The system provides scenarios that enhance marksmanship skills, but more importantly, they improve an officer's decision-making skills and the appropriate selection of force used. The simulator provides trainee's with the ability to practice posture, verbalization, soft hand skills, impact weapons, chemical spray and lethal force. They also provide a means for officers to practice skills in de-escalating a situation. Each trainee's scenario and reactions can be analyzed and then reviewed for training purposes. The system is portable and can be easily customized to meet the needs of the agency. The benefit of having an effective, realistic training program is to enhance public safety as well as reduce liability risks.

This is amended from last year in two areas;

1. FYchange from 2021 to 2019. This change is a result of the cruiser radio change, and the need to provide interactive use of force training
2. The cost has increased from \$45,000 to \$47,000. This is due to the addition of the purchase of 2 taser related training tool that were not included in the prior submission

Supplemental Information

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Replacement of AED (Automated External Deffibrillators)							Fiscal Year: 2023			
Purpose:	Acquisition	Classification:	Equipment	Status:	New Request					
Department:	Police			Supports:	Public Safety					
Partners:	N/A			Useful Life:	More than twelve (12) years					
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							No			
6. If funded, will additional permanent staff be required?							Total New FTE's:			No
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							No			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							Yes			
15. Is this a request to improve or make repairs to extend the useful life of a building?							No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							No			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$27,832	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$23,940	\$0				\$23,940				
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$3,892	\$0				\$3,892				
TOTAL	\$27,832	\$0	\$0	\$0	\$0	\$27,832	\$0	\$0		

Capital Project Request

Project Title: Replacement of AED (Automated External Deffibrillators)

Fiscal Year: 2023

\$0

Project Description and Considerations

This purchase is to replace all of the current AED equipment. Some of the current equipment in use is sixteen years old and at the end of the useful life cycle. We intend to purchase the same model that is carried by the Needham Fire Department allowing the equipment to be interchangeable when fire personel arrive.

Othe expenses of \$3892.00 is to purchase 12 Hard Shell, watertight carrying cases and one training unit.

Supplemental Information

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Ongoing Personal Protective Equipment, PPE ("bunker gear") Replacement Program							Fiscal Year: 2019			
Purpose:	Acquisition	Classification:	Equipment	Status:	Amended Request from the Prior CIP					
Department:	Fire			Supports:	Public Safety					
Partners:	Board of Selectmen; Finance Committee			Useful Life:	More than eight (8) years					
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							No			
6. If funded, will additional permanent staff be required?							Total New FTE's:			No
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							No			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							No			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$303,968	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$303,968	\$43,424	\$43,424	\$43,424	\$43,424	\$43,424	\$43,424	\$43,424		
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$303,968	\$43,424	\$43,424	\$43,424	\$43,424	\$43,424	\$43,424	\$43,424		
\$0										

Capital Project Request

Project Title: Ongoing Personal Protective Equipment, PPE ("bunker gear") Replacement Program

Fiscal Year:

2019

Project Description and Considerations

This request is to replace Personal Protective Equipment, PPE ("bunker gear") for 20% of all firefighting personnel on an annual basis. This is to ensure the life span of the equipment does not exceed the 10 year guideline. Ensembles issued prior to the recent purchase of a second set of PPE are approaching this time frame for many of our members. Fortunately, with the number of recent and forthcoming new hires, about a third of the Department have been issued PPE within the past 5 years. All fire personnel are in the process of being issued a second set of PPE allowing them to properly maintain this equipment in a healthy manner.

In FY 2018 a request was approved for the purchase of a second set of Personal Protective Equipment, PPE ("bunker gear") for all fire line personnel. The PPE requested includes boots, firefighting pants and coat. Our firefighting personnel regularly work in highly toxic environments caused by spills, chemical releases and the products of combustion. Numerous studies have found the number of carcinogens and other toxins associated with the fire ground to be extremely high. Further, the toxicity of these carcinogens appears to be much greater and more concentrated today, due to the wide spread use of synthetic and petroleum based building materials and furnishings found in modern construction. These unhealthy contaminants, chemicals, toxins and carcinogens adhere to our firefighter's "bunker gear", thus creating a lingering exposure concern for not only the firefighters, but to members of the public they serve, as they respond to calls for service. Recent research by NIOSH, CDC, National Fallen Firefighters Foundation and others clearly points to the increased risks of cancer due to firefighters wearing contaminated PPE adds to this risk. The following links may be helpful in understanding this research:

<http://firefightercancersupport.org/wp-content/uploads/2013/08/Taking-Action-against-Cancer-in-the-Fire-Service.pdf>

<http://www.cdc.gov/niosh/firefighters/ffCancerStudy.html>

<http://www.everyonegoeshome.com/wp-content/uploads/sites/2/2016/03/Cancer-Alliance-January-2015.pdf>

<http://www.cdc.gov/niosh/pgms/worknotify/pdfs/ff-cancer-factsheet-final.pdf>

Ignoring such research could be considered to negligent going forward.

Our Department has taken additional measures to help reduce the risk of cancer, including outfitting each piece of apparatus with after action wipes to quickly remove carcinogens from responders skin while still in the field. However, current safety practices dictate that firefighters be issued two sets of PPE, so that once contaminated the equipment can be washed in extractors and dried in dryers designed specifically for that purpose. Maintaining a second set of PPE allows for contaminated equipment to be washed and dried properly, while allowing personnel to remain available to respond to calls. Research has found that wet PPE creates a breeding ground for unhealthy bacteria, as well, which is also harmful.

Fulfillment of this request will be greatly beneficial to the health and wellness of our personnel and the public we serve. In doing so, the exposure to occupational carcinogens will be reduced with the potential for a reduction in the number of our members contracting cancer from the work place. In turn, this could result in a corresponding reduction in cancer related disability pensions saving funds in the future.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Asa Small Field Renovation **Fiscal Year:** 2020

Purpose:	Design/Engineering	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP
Department:	Public Works - Parks and Forestry	Supports:	Culture and Leisure		
Partners:	Park and Recreation, Needham Youth Sports Groups		Useful Life:	More than twenty-five (25) years	

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	Yes
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	Total New FTE's: 0 No
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$186,000	How was the Project Cost Determined:	Hired Consultant
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$34,000		\$34,000					
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$152,000			\$152,000				
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$186,000	\$0	\$34,000	\$152,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Asa Small Field Renovation

Fiscal Year: 2020

Project Description and Considerations

This project will address field deficiencies on the Asa Small ball diamond at the DeFazio complex. The project will include striping, regrading, amending soils, a new baseball skin surface, and a new irrigation system. The field conditions were not addressed as part of the Field of Dreams project. This project may include additional amenities funded by user groups including field lights, a score board, bleachers, and a larger batting cage.

DPW and the Parks and Forestry Division did a thorough review of their workload over the next five years in order to prioritize their schedule based on the volume of projects and their timing. Due to this review, it has been decided this project is going to be pushed back a year. This additional time will also allow the Division to work with the user groups to identify any value added items.

3. This project may require permitting from the Conservation Commission, Planning Board, Zoning Board of Appeals, and Building Department.

12. This project may be eligible for Community Preservation funds under Recreation.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Athletic Facility and Public Recreation Improvements						Fiscal Year: 2019			
Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP				
Department:	Public Works - Parks and Forestry			Supports:	Culture and Leisure				
Partners:	Park and Recreation			Useful Life:	More than twelve (12) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								No	
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?								No	
8. If funded, will this project lower the requesting Department's operating costs?								No	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								Yes	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								No	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								Yes	
19. If funded, will this project increase the operating expense for any other department?								No	
Project Cost:	\$5,276,500	How was the Project Cost Determined:			Hired Consultant				
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements		Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility		\$0							
Design/Engineering		\$214,500	\$55,000		\$52,500	\$107,000			
Land/ROW Acquisition		\$0							
Site Preparation		\$0							
Construction		\$5,062,000	\$510,000	\$2,880,000		\$570,000	\$1,102,000		
Construction Management		\$0							
Equipment		\$0							
Furniture, Fixtures, and Equipment		\$0							
Technology Hardware/Software		\$0							
Other Expenses		\$0							
TOTAL		\$5,276,500	\$565,000	\$2,880,000	\$52,500	\$677,000	\$1,102,000	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Athletic Facility and Public Recreation Improvements

Fiscal Year:

2019

Project Description and Considerations

The Department of Public Works and Park and Recreation have developed a maintenance plan for all fields, which includes new construction, total reconstruction, partial renovation, irrigation, drainage improvements, and equipment replacement or repair (bleachers, fences/backstops, player benches, and miscellaneous equipment) for multi-use fields and ball diamonds.

FY19

Claxton Field: Upgrade field lighting system to more energy efficient lights

Construction \$510,000

The costs for Claxton Field upgrades have increased due to the original cost estimate not being inclusive of installation.

Turf Field Replacement at DeFazio Field & Memorial Park: remove the existing turf carpet, regrade, and install new artificial field turf

Design \$55,000

The costs for the design of the turf field replacement at DeFazio and Memorial Park decreased as a result of a quote from a prequalified consultant.

FY20

Turf Field Replacement at DeFazio Field & Memorial Park: remove the existing turf carpet, regrade, and install new artificial field turf

Construction \$2,500,000

Cricket Field: Drainage and field renovation for Field #2, irrigation renovation for both fields

Construction \$380,000

The construction of the Cricket Field drainage and field renovation for field #2 is being pushed back to FY20, pending the completion of the design. The increase in costs was originally disclosed in early 2017 and is being explored through the design process.

FY21

McLeod Field: repair drainage, amend soils, and install new sod

Design \$35,000

Claxton: Softball Skin Renovation Fields 1 & 2

Design \$17,500

FY22

McLeod Field: repair drainage, amend soils, and install new sod

Construction \$450,000

Claxton: Softball Skin Renovation Fields 1 & 2

Construction \$120,000

Renovation of fields at Eliot and Broadmeadow; remediate drainage issues at Broadmeadow

Design \$107,000

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Athletic Facility and Public Recreation Improvements

Fiscal Year:

2019

FY23

Renovation of fields at Eliot and Broadmeadow; remediate drainage issues at Broadmeadow

Construction \$1,102,000

ADDITIONAL FUTURE PROJECTS:

Needham Heights Common Renovation

Design of sidewalks, irrigation, landscape improvements, hardscape, electrical and lighting, park benches

Avery Field

Improve parking (DPW road project) after the new Fire Station is constructed

DeFazio Complex

Install walking path with protective netting to DeFazio #1

High Rock Fields

New backstop, player benches, perimeter fencing

DeFazio Tot Lot

Improve fencing

Charles River Water Treatment Plant

Mitigation of red pines tree stand in the well fields

Hillside and Mitchell

Renovation of fields

Nike, Ridge Hill, and Hillside

Construction of new athletic fields

3. Conservation Commission permitting can be satisfied by preparing the pipe and installing hay bales and sedimentation barriers; Planning Board filing may be required.

12. All items except for Turf Fields are eligible for Community Preservation Funds.

18. The Department of Public Works will be partnering with Park and Recreation on each of these projects.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: DPW Central Ave. Storage Facility **Fiscal Year:** 2019

Purpose:	Design/Engineering	Classification:	Building	Status:	New Request
Department:	Public Works - Highway			Supports:	Other (see below for information)
Partners:	Public Works, PPBC			Useful Life:	More than twenty-five (25) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	Yes
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	Yes
6. If funded, will additional permanent staff be required?	Total New FTE's: 0 No
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$7,900,000	How was the Project Cost Determined:	Hired Consultant
Budget Impact:	May increase annual operating expenses by more than \$100,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$650,000	\$650,000						
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$7,250,000	\$7,250,000						
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$7,900,000	\$7,900,000	\$0	\$0	\$0	\$0	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: DPW Central Ave. Storage Facility

Fiscal Year:

2019

Project Description and Considerations

This request is for the Design/Engineering of the DPW Central Avenue Storage Facility.

The storage facility will address the needs of a modernized DPW facility and organization, including providing shelter for Town equipment which will increase the service life. Due to the construction of the Public Service Administration Building adjacent to the main DPW facility and water building, a significant amount of storage area for the DPW was sacrificed. Currently, materials that were displaced are being stored throughout Town in less than optimal conditions. With the additional proposed build out of the main DPW facility at 470 Dedham Avenue, including the relocation of the fuel island, even more laydown and staging space has been lost.

The DPW developed a comprehensive vehicle and equipment list, including towed, ride-on, and small portable equipment along with classified storage type (i.e. garaged vs. covered), and presented equipment storage scenarios based on the season.

The FY19 request for Design/Engineering funds has increased due to:

- Increased heated space.
- Preferred location, factoring in RTS operations.
- Market adjustments.
- Additional escalation.

FY19

Design/Engineering \$650,000

The Department plans to request Construction funds at the FY19 Special Town Meeting. The work would take place from February through October 2019.

FY19 STM

Construction \$7,250,000

This request supports public safety, the transportation network, and utilities.

3. A building permit will be required. Conservation Commission permitting may also be required.
5. This request for a new building is supported by the Building Maintenance division.
18. The PPBC and DPW will be required to provide assistance in order to complete the project.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: DPW Complex								Fiscal Year: 2020	
Purpose:	Design/Engineering	Classification:	Building	Status:	Informational Only Details Incomplete				
Department:	Public Works - Highway			Supports:	Other (see below for information)				
Partners:	PPBC			Useful Life:	More than twenty-five (25) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								Yes	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								Yes	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								Yes	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								Yes	
6. If funded, will additional permanent staff be required?						Total New FTE's:	1.5	Yes	
7. If funded, will the operating budget need to be increased to cover operating expenses?								Yes	
8. If funded, will this project lower the requesting Department's operating costs?								No	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								Yes	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								Yes	
19. If funded, will this project increase the operating expense for any other department?								No	
Project Cost:	\$37,950,000	How was the Project Cost Determined:			Hired Consultant				
Budget Impact:	May increase annual operating expenses between \$5,001 and \$25,000								
Project Budget Elements		Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility		\$0							
Design/Engineering		\$2,950,000		\$2,950,000					
Land/ROW Acquisition		\$0							
Site Preparation		\$35,000,000				\$35,000,000			
Construction		\$0							
Construction Management		\$0							
Equipment		\$0							
Furniture, Fixtures, and Equipment		\$0							
Technology Hardware/Software		\$0							
Other Expenses		\$0							
TOTAL	\$37,950,000	\$0	\$2,950,000	\$0	\$35,000,000	\$0	\$0	\$0	\$0
<div style="display: flex; justify-content: space-between;"> \$0 Section 3 - 45 </div>									

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: DPW Complex

Fiscal Year:

2020

Project Description and Considerations

The Public Services Administration Building (PSAB, 500 Dedham Ave) was occupied by the DPW in November 2011, eliminating the space problems and air quality issues experienced on the second floor of the DPW Operations Building (470 Dedham Ave). However, deficiencies continue to exist throughout the building internally and the DPW site externally. The poor condition of the current building, unmet equipment and vehicle storage, and stormwater quality issues require a solution. Ultimately, the expansion and renovation of the DPW Operations Building (470 Dedham Ave) and site, referred to as DPW Phase II, will be required to address the need for stormwater quality mitigation as well as storage and maintenance considerations.

In 2006, the DPW was made aware that municipal DPW facilities were no longer exempt from National Pollutant Discharge Elimination System (NPDES) stormwater requirements regulating public works facilities under the Federal Highway Act. All municipal DPW facilities are now required to comply with stormwater and wastewater discharge requirements (quality). In 2009, Town Meeting approved \$42,000 for engineering and design for stormwater quality improvements on a portion of the DPW site.

In FY15, Town Meeting approved \$40,000 for a feasibility study for the appropriate location(s) for a facility to provide the various DPW services. This study will evaluate the current facility and other options for the location of various DPW operations. The current DPW building is over 50 years old. To continue using this facility, the major building systems including electrical, plumbing, and HVAC require replacement as well as a structural upgrade for seismic events. The feasibility study resolving these issues may involve the relocation of DPW services, renovation of the existing building, replacing the existing building, and providing other services in different locations throughout Town. The final result will address the needs of a modernized DPW facility and organization, including providing shelter for Town equipment which will increase the service life, and resolve any existing stormwater and wastewater management issues at the current location.

FY20

DPW Facility

Design/Engineering \$2,950,000

FY21

No funding request

FY22

DPW Facility

Construction \$35,000,000

Capital Project Request

Project Title: DPW Complex

Fiscal Year:

2020

Supplemental Information

This request supports culture and leisure, public safety, transportation network and utilities.

1. The cost to construct off-site storage will be made under a separate request.
2. There are costs for technology, maintenance etc. that may not be included in this request.
3. Conservation Commission permitting may be required. Building permit may be required.
4. Technology will be necessary for a DPW Facility.
5. This request is for a DPW Facility.
6. It may facilitate the addition of maintenance staff.
7. There may be additional expenses to maintain the building.
15. This will be to extend the useful life of the DPW Facility.
18. This will require input from all fuel users, technology, facilities construction and operations.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: DPW Specialty Equipment						Fiscal Year: 2019			
Purpose:	Acquisition	Classification:	Equipment	Status:	Amended Request from the Prior CIP				
Department:	Public Works - Garage			Supports:	Transportation Network				
Partners:				Useful Life:	More than eight (8) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								No	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								No	
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?								No	
8. If funded, will this project lower the requesting Department's operating costs?								No	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								No	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								No	
19. If funded, will this project increase the operating expense for any other department?								No	
Project Cost:	\$369,500	How was the Project Cost Determined:			Industry References				
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements		Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility		\$0							
Design/Engineering		\$0							
Land/ROW Acquisition		\$0							
Site Preparation		\$0							
Construction		\$0							
Construction Management		\$0							
Equipment		\$369,500	\$76,500	\$90,000	\$163,000	\$40,000			
Furniture, Fixtures, and Equipment		\$0							
Technology Hardware/Software		\$0							
Other Expenses		\$0							
TOTAL		\$369,500	\$76,500	\$90,000	\$163,000	\$40,000	\$0	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: DPW Specialty Equipment

Fiscal Year:

2019

Project Description and Considerations

This request is for all large equipment that fits the definition of capital but is not included in the rolling stock. These pieces of equipment are not plated. The Town received an updated quote and increased its funding request for FY20.

FY19

Unit #344 Parks & Forestry

Specialty Mower: large machine that performs second cut on highly maintained multipurpose athletic fields

Equipment \$76,500

FY20

Unit #351 Parks & Forestry

Tractor: multi-use utility equipment

Equipment \$90,000

FY21

New piece of Highway equipment

Loader mounted snow blower: clears gutter lines, parking lots, loading trucks

Equipment \$163,000

FY22

Unit #334 Parks & Forestry

Specialty Mower: small machine that performs second cut on highly maintained baseball fields

Equipment \$40,000

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Permanent Message Boards **Fiscal Year:** 2020

Purpose:	Acquisition	Classification:	Technology	Status:	Amended Request from the Prior CIP
Department:	Public Works - Engineering			Supports:	General Government
Partners:	Town Manager's Office, ITC			Useful Life:	More than eight (8) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	Yes
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Yes
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	Total New FTE's: 0 No
7. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	Yes
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	Yes

Project Cost:	\$220,000	How was the Project Cost Determined:	Current Contract
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$220,000		\$52,000	\$54,000	\$56,000	\$58,000		
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$220,000	\$0	\$52,000	\$54,000	\$56,000	\$58,000	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Permanent Message Boards

Fiscal Year:

2020

Project Description and Considerations

In support of the Board of Selectmen's goals, this request is for up to seven permanently installed message boards to communicate with residents. This will alleviate competition for the current message boards. The new message boards will have the capacity to be programmed remotely and simultaneously from a Town work station or a laptop. There will be minimal operating costs, including a data plan to allow for remote updates and electricity for each location.

Currently the Public Works Department has three mobile message boards that are used for large construction projects. These message boards are removed from construction projects and relocated to various sites in Town when requested for non-construction notifications to residents and commuters. The existing message boards are difficult to maneuver, time consuming to program, and often not available for non-emergency notices.

At the May 2014 Annual Town Meeting, funding was approved for a Permanent Message Board pilot program at the RTS. This message board was installed in the Spring of 2016. The Town is presently piloting the use of the board and has decided to delay an additional year before requesting funding for more boards.

The increase in cost from the prior year's submission is a reflection of the actual costs of the board, which include the double sided board that the Town opted for, and the stone wall that serves both an aesthetic and a structural function.

FY20

One Message Board at Dedham St. and South St.

Construction \$52,000

FY21

One Message Board at Central Avenue at Great Plain Avenue

Construction \$54,000

FY212

One Message Board at the Public Safety Building, School Street and Chestnut Street

Construction \$56,000

FY23

One Message Board at Fire Station #2

Construction \$58,000

FY24

One Message Board at Greendale Avenue at Great Plain Avenue

3. Conservation Commission permitting may be required for some locations. Depending on the location, a building permit and Design Review Board Approval may be required.
4. ITC will be adding new message boards to existing software for programming.
7. There will be minimal operating costs for these boards which include cellular service for remote programming and electricity.
16. These message boards will be permanently installed at the chosen locations.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Public Works Infrastructure Program **Fiscal Year:** 2019

Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP
Department:	Public Works - Highway			Supports:	Transportation Network
Partners:				Useful Life:	More than twelve (12) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	Yes
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	Total New FTE's: 0
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	Yes
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No
19. If funded, will this project increase the operating expense for any other department?	Yes

Project Cost:	\$9,906,500	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$556,000	\$203,500		\$83,000		\$269,500		
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$9,350,500	\$1,570,000	\$1,985,500	\$2,237,000	\$2,022,000	\$1,536,000		
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$9,906,500	\$1,773,500	\$1,985,500	\$2,320,000	\$2,022,000	\$1,805,500	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Public Works Infrastructure Program

Fiscal Year:

2019

Project Description and Considerations

The Public Works Infrastructure Program allows the Department of Public Works to make improvements and repairs to Town infrastructure, including but not limited to roads, bridges, sidewalks, intersections, drains, brooks, and culverts. Each program is detailed below.

Street Resurfacing:

This program is essential to improve the structural and surface integrity of the Town's approximately 279 lane miles of accepted streets. The Town targets 17 lane miles per year to get a desired life cycle of 15 to 20 years. The primary strategy of this program is asphalt paving and incidental work. Incidental work may include asphalt berm curb, new grass shoulders, corner reconstruction including handicapped ramps, minor drainage improvements, street sign replacement, traffic markings, and signs.

Applying this repair strategy in a timely manner will extend the useful life of the roadway for up to 15 years. Installing a monolithic asphalt berm curb better defines the edge of the road, improves drainage, and protects the shoulder from erosion.

The Town targets roads with a Pavement Condition Index (PCI) of below 70 for resurfacing or specialized treatment. The Town targets a PCI of 60 or below for repair/renovation. The Town's goal is to maintain its roadway network at an average PCI rating of 75.

The cost per lane mile for resurfacing in FY18 is \$77,000 or more per lane mile. A basic asphalt overlay at 1.5 inches with asphalt berm curb and casting adjustments is \$59,000 per lane mile.

The average useful life for asphalt paving is 15 years.

FY19 - \$820,000

FY20 - \$840,500

FY21 - \$862,000

FY22 - \$884,000

FY23 - \$906,000

Traffic Signal & Intersection Improvements:

The costs are estimated by Engineering and require conceptual scope of work for project level costs that have not yet been determined. This program will fund traffic signal improvements, intersection improvements, and new traffic signal installations where none currently exist. The design for Highland Avenue at West Street was not completed prior to submission of this CIP and the construction has been pushed out to FY21. In FY19, DPW will evaluate intersection prioritization for future projects

FY21

Highland Avenue at West Street

Construction \$575,000

FY23

Central Avenue at Great Plain Avenue

Design/Engineering \$166,000

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Public Works Infrastructure Program

Fiscal Year:

2019

Supplemental Information

Future Projects:

Central Avenue at Great Plain Avenue Construction
Great Plain Avenue at Greendale Avenue
Kendrick Street at Third Avenue
Kendrick Street at Fourth Avenue

Sidewalk Program:

This program requires funding for the Town to address the failing network of sidewalks throughout the community. There are over 130 miles of accepted sidewalks in Needham. Over half of the Town's sidewalks do not comply with current standards and require significant improvements including the installation of handicapped ramps. Sidewalk improvements must comply with Federal and State laws and construction standards. The cost for sidewalk rehabilitation and reconstruction can vary significantly. Current estimates have identified over \$20,000,000 in backlogged sidewalks in need of repair.

FY18 contract pricing to reconstruct one mile of asphalt sidewalk with incidental costs is estimated to be **\$232,320 per mile (\$44.00/lf)**. Contract pricing to install a mile of granite curb with minor drainage improvements and incidental costs is estimated to be **\$274,560 per mile (\$52.00/lf)**. These costs do not include engineering, design, tree removal and replacement, major drainage improvements, or major public or private property adjustments.

The Town conducted a study with funding from FY16 to analyze and make recommendations about the Town's existing sidewalk infrastructure. The conclusions of that study identified 80 miles of sidewalk in a condition that would warrant reconstruction. The current funding for FY19 was increased over the prior year's submission to begin addressing this deficiency.

FY19 - \$500,000
FY20 - \$512,500
FY21- \$525,000
FY22 - \$540,000
FY23 - \$555,000

Storm Drain Capacity Improvements:

This program provides funding to improve roadway drainage capacity. The March 2002 Stormwater Master Plan identified a number of areas throughout Needham where improvements are required to resolve existing problems with flooding and illicit discharge. Locations for improvements have been prioritized within the plan. This funding request also includes, but is not limited to, the installation of additional storm drains and the replacement and extension of drains on Manning Street, Hoover Road, Concord Road, and Burnside Road with larger capacity drains. Since the issuance of the 2002 Stormwater Master Plan, numerous multi-unit developments have been built or planned in the Town. These developments include new roads with drainage structures and roof or sump connections that are then connected to existing Town systems. These new connections have increased the load on the Town's drainage system and caused flooding in some areas.

Due to extensive drainage repairs that were required on Greendale Ave, funds for FY18 were diverted from Ardmore Road and Hunnewell Street to complete the work, and this project is being requested again for FY19.

FY19

Ardmore Road and Hunnewell Street or Other Prioritized Projects
Design/Engineering \$103,500

FY20

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Public Works Infrastructure Program

Fiscal Year:

2019

Ardmore Road and Hunnewell Street or Other Prioritized Projects

Construction \$362,500

FY21

Concord Street and Burnside Road or Other Prioritized Projects

Design/Engineering \$83,000

FY22

Concord Street and Burnside Road or Other Prioritized Projects

Construction \$523,000

FY23

TBD or Other Prioritized Projects

Design/Engineering \$103,500

Future areas to be considered, but not yet prioritized:

Carey Road (Area 2)

Lower Hunnewell Street Drainage Improvements, Engineering and Construction

Oak Street (Area 8), Mackintosh Avenue (Areas 3 & 7), Oxbow Road (Area 9), and West Street (Area 11)

Fairfield Street and Elmwood Road (Area 5)

Storm Drain System Repairs:

This program provides funding to repair failing storm drainage infrastructure within Town easements that have been discovered through investigation work. These projects will include the replacement of existing culverts that have deteriorated over time and are restricting flow. This work will eliminate flooding and capacity issues in the immediate vicinity. This project will provide funding over five years for the Drains Division to address small projects related to the Labor Day 2013 storm drainage remediation.

Drainage work on Greendale Avenue was addressed using funding from this portion of the Infrastructure Program. The engineering and construction at 470 South Street has been reassigned to FY19 and FY20.

FY19

470 South Street

Design/Engineering \$100,000

FY20

470 South Street

Construction \$270,000

FY21

TBD (Reserved for projects related to Labor Day 2013 Flooding)

Construction: \$75,000

FY22

TBD (Reserved for projects related to Labor Day 2013 Flooding)

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Public Works Infrastructure Program

Fiscal Year:

2019

Construction \$75,000

FY23

TBD (Reserved for projects related to Labor Day 2013 Flooding)

Construction \$75,000

Brooks and Culverts – Repair and Maintenance:

It is the intention of the DPW to expend Capital Funds to address the issue of poorly draining brooks, streams, waterways, and culverts throughout the Town that have been severely damaged by heavy rains/storms in the past. Flooding in March 2010 caused the failure of retaining walls, resulting in extensive erosion and silt deposits in brooks and streams. The silt has provided a medium for vegetation and affected the flow of water, and the situation has resulted in the loss of useable abutting property and flooded basements. The current conditions are beyond the means of DPW equipment and personnel. It will require a detailed investigation, a plan of recommended improvements, a design drawing and specifications, environmental permitting, and bidding of construction to be overseen by the Town's Engineering Division. This will return the waterways to a condition that the DPW will be able to maintain.

The Environmental Protection Agency (EPA) is currently finalizing stronger requirements for stormwater and permitting under the NPDES permit. The Town will need to continue to demonstrate its efforts regarding cleaning and improving the water quality of brook and culverts to avoid fines from the EPA.

The Town Engineer and the Water/Sewer/Drains Superintendent have reviewed the existing plan for brook rehabilitation and have determined that based on current conditions, the prioritization should change. The funding that was allocated in FY17 and FY18 will be used to design Meredith Circle area, construct Meadowbrook area, and any remaining funding will be used to address additional portions of Rosemary Brook.

FY19

Meredith Circle

Construction \$250,000

FY20

No Funding Request

FY21

Continued wall repair along Rosemary Brook

Construction \$200,000

FY22

No Funding Request

FY23

No Funding Request

Future Projects include, but are not limited to, the following locations:

Winding River Road

Locust Lane

Fuller Brook Avenue

Oxbow Road

Webster and Howland Streets

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Capital Project Request

Project Title: Public Works Infrastructure Program

Fiscal Year:

2019

Brookside Road and Forest Street
Chestnut Street and Carriage Lane
Emerson Place
Pennsylvania Avenue
Elder Road

Roadway Reconstruction:

This request is for full road reconstruction. This differs from the road rehabilitation program, as it requires more complete design and construction. Rehabilitation is similar to a house renovation whereas reconstruction is similar to a knock-down and rebuild. Roads do not just consist of the top layer of asphalt; they are complete systems that have their own foundation. The Town evaluates the sight distance, drainage, handicap ramps, sidewalks, subsurface utilities, public utility poles, and overhead utilities. For this article, the physical conditions of roads to be considered include shape, foundation, and traffic volume. This relates to the nature of how the Town has evolved historically, with roads being constructed as opposed to being designed. This is a multi-year process which requires surveying, designing, utility evaluation, and construction.

Some of the roads that may be targeted for reconstruction include:

Marked Tree Road
Nehoiden Street
Kingsbury Street (received an interim full width overlay patch in CY16)
Sections of Central Avenue
Webster Street from Dedham Avenue to South Street (received an interim full width overlay patch in CY16)

Bridge Repairs:

Surrounded on three sides by the Charles River, the Town jointly maintains a number of bridges with neighboring communities. The Massachusetts Bridge Inspection Program has identified a number of bridges that have some level of deficiency and has recommended repairs. This Program is essential to improve the structural and/or surface integrity of all bridges throughout Needham. Capital Project costs will include surveying, engineering evaluation, design, and repair or reconstruction. Bridges are one of the infrastructure assets whose value and depreciation are now tracked under the GASB 34 Program.

Massachusetts Department of Transportation issued a report on Newell's Bridge which is on Central Avenue to Dover, which indicated that the bridge is deficient and in need of repair. The Town will work with Dover to determine how to address these deficiencies.

Other Bridges (all were recently reconstructed)

Fisher's Bridge, South Street to Dover
Pierce's Bridge, Charles River Street to Dover and South Natick
Kendrick Bridge to Newton

No funding requested at this time.

Guardrail:

Many of the Town's guardrails are noncompliant and the DPW is preparing a plan internally to systematically upgrade existing guardrails to make them both compliant and aesthetically pleasing.

Future projects:

447 Dedham Avenue to Town line
Central Avenue

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Public Works Infrastructure Program

Fiscal Year: 2019

Others as determined by DPW, including: Hillside Avenue at Rosemary Street, various locations along Rosemary Street, various locations along Dedham Avenue, High Rock Street at Warren Street, South Street at Dedham Avenue, South Street near Farley Pond Road, Brookline Street at Mitchell School, Greendale Avenue at railroad bridge, Perry Drive, Coulton Park, Harris Avenue, Charles River Street, Central Avenue at Dover town line, multiple locations along Great Plain Avenue, Pilgrim Road, Cartwright Road, Ivy Road, Marshall Street, West Street, Abbott Street, Carter Street, Pershing Road, Chapel Street lot, Oak Knoll Terrace, Blake Street, Highland Avenue near Fire Station #2, Fisher Street near railroad tracks, Parkland Road, and Brookside Road.

3. Conservation Commission permitting may be required for drainage repairs, brooks and culvert repair and roadway reconstruction.

14. The School Safety Committee documented safety issues on Nehoiden Street and Marked Tree Road.

19. A potential increase in electrical costs from traffic signals may require additional budget funds from the Needham Electric Light and Gas Program.

	Street Resurfacing (2.5%/yr)		Traffic Signal & Intersection		Sidewalk Program (2.5%/yr)		Storm Drain Capacity Improvements		Storm Drain System Repair		Brooks & Culverts	Total		
	Engin.	Const.	Engin.	Const.	Engin.	Const.	Engin.	Const.	Engin.	Const.		Engin.	Const.	Total
2019		\$820,000				\$500,000	\$103,500		\$100,000		\$250,000	\$203,500	\$1,570,000	\$1,773,500
2020		\$840,500				\$512,500	\$362,500		\$270,000			\$0	\$1,985,500	\$1,985,500
2021		\$862,000		\$575,000		\$525,000	\$83,000		\$75,000		\$200,000	\$83,000	\$2,237,000	\$2,320,000
2022		\$884,000				\$540,000	\$523,000		\$75,000			\$0	\$2,022,000	\$2,022,000
2023		\$906,000	\$166,000			\$555,000	\$103,500		\$75,000			\$269,500	\$1,536,000	\$1,805,500

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request										
Project Title:		Radio Repeater Building Replacement (Hillcrest Rd.)					Fiscal Year:		2019	
Purpose:	Construction	Classification:	Building	Status:	New Request					
Department:	Public Works - Highway			Supports:	Public Safety					
Partners:	Police Department, Fire Department, Schools Department, DPW, ITC, HHS, PPBC			Useful Life:	More than twenty-five (25) years					
Parameters								Response		
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No		
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No		
3. Does this project require any permitting by any Town or State agency?								Yes		
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								Yes		
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								No		
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No		
7. If funded, will the operating budget need to be increased to cover operating expenses?								No		
8. If funded, will this project lower the requesting Department's operating costs?								No		
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No		
10. If the project is NOT funded, will current Town revenue be reduced?								No		
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No		
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No		
13. Is this a request in response to a Court, Federal, or State order?								No		
14. Is this a request in response to a documented public health or safety condition?								Yes		
15. Is this a request to improve or make repairs to extend the useful life of a building?								No		
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No		
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								Yes		
18. Will any other department be required to provide assistance in order to complete the project?								Yes		
19. If funded, will this project increase the operating expense for any other department?								No		
Project Cost:	\$136,000	How was the Project Cost Determined:		Hired Consultant						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements		Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility		\$0								
Design/Engineering		\$18,000	\$18,000							
Land/ROW Acquisition		\$0								
Site Preparation		\$0								
Construction		\$118,000	\$118,000							
Construction Management		\$0								
Equipment		\$0								
Furniture, Fixtures, and Equipment		\$0								
Technology Hardware/Software		\$0								
Other Expenses		\$0								
TOTAL		\$136,000	\$136,000	\$0	\$0	\$0	\$0	\$0	\$0	
<div style="display: flex; justify-content: space-between;"> \$0 </div>										

Capital Project Request

Project Title: Radio Repeater Building Replacement (Hillcrest Rd.)

Fiscal Year:

2019

Project Description and Considerations

This request is to replace the failing building at the base of the Birds Hill Water Tower on Hillcrest Road. The building houses radio equipment and related support components for the radios and antennas used by the following departments: Fire, Police, DPW, School Transportation, and Local Emergency Planning Committee (LEPC). The new building will include equipment moved from the existing building, new replacement equipment, and a new back-up generator stored in a separate room for noise control purposes.

The current building, which was built with cement blocks, is deteriorating and has several water leaks in both the walls and the roof. There has also been damage to the building and its contents from animals (rodents). Additionally, the steel entrance door has heavy rust and rot. The Town has not been able to find records of when the structure was built, but it appears it was most likely built in the late 1960s or early 1970s, and has therefore outlasted its useful life.

The Town will also research the possibility of grant funding and other available funding programs.

The current building size is 8'X10' and the proposed replacement building would be 8'X12', placing the back-up power generator in a separate room, as well as allowing for the possibility for future expansion space.

If this building is not replaced or significantly rebuilt, continuing damage to the communications equipment could cause major voids in public safety radio signals and the ability to communicate during emergencies. There is also a concern of electrical problems as a result of water and rodent damage to the electrical wiring in the building.

- 3. Building permits will be required.
- 4. There is technology in the communications building.
- 14. The current building damage compromises the ability to communicate during emergencies.
- 17. This project improves the reliability of the Town's emergency communication network.
- 18. This project involves the Fire Department, Police Department, Schools Department, DPW, Health and Human Services, ITC, and PPBC.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Streetlight Conversion to LED **Fiscal Year:** 2019

Purpose:	Construction	Classification:	Infrastructure	Status:	New Request
Department:	Public Works - Engineering			Supports:	Transportation Network
Partners:	Finance			Useful Life:	More than eight (8) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	Total New FTE's: 0
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	Yes
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$685,000	How was the Project Cost Determined:	Hired Consultant
Budget Impact:	The project should reduce the operating expenses		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$685,000	\$685,000						
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$685,000	\$685,000	\$0	\$0	\$0	\$0	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Streetlight Conversion to LED

Fiscal Year: 2019

Project Description and Considerations

This request is in response to the Streetlight Pilot Program conducted by DPW from May 2017 to July 2017. The Pilot Program tested the existing streetlights against Light Emitting Diodes (LED) streetlights to get the Town residents' input on converting to a more efficient lighting type. The existing lights are High Pressure Sodium (HPS) lights. These were considered the most energy efficient lighting types for their purpose in the early 2000s. Currently, LEDs are considered the more energy efficient streetlighting type. Taking into consideration the Town's Pilot Program, it was determined that converting the streetlights to LED was in the Town's best interest. Of the three LED streetlight models piloted, two received a higher average rating than the existing HPS streetlights by the Town residents who completed the online survey. This included many residents who live on the streets where the Pilot Program was conducted.

The Metropolitan Area Planning Council (MAPC) conducted an estimate for the Town of Needham in 2017 to convert all of the existing Cobrahead streetlights. According to that estimate, the Town has 2,521 existing streetlights that would need to be converted. In addition to the monetary incentive, the Town's energy savings would be approximately 393,296 kWh annually. Depending on funding and implementation schedule, the actual cost to the Town may decrease. Payback does not include anticipated decreases in maintenance costs. LED lights will be warranted for ten years and the only costs for maintenance to the Town will be labor to address any issues, pole transfers, new lights, and the cost of knockdowns.

	Savings/Yr	Costs	Payback
Utility Incentive Only	\$94,578	\$658,255	7.0
Utility Incentive & Grant	\$94,578	\$494,812	5.2

Other Massachusetts towns and cities with comparable streetlight inventories that have participated in the MAPC LED conversion program have secured maintenance contracts valued at an average of \$0.53 per streetlight per year, while Needham currently pays \$14.24 per streetlight per year for its existing streetlight maintenance contract. Though not all Town-owned streetlights are eligible for LED conversion under the MAPC program, total maintenance savings for those that are eligible for conversion could exceed \$30,000 per year.

The MAPC listed out a seven milestone process in order to complete the streetlight conversion project. So far, the Town has completed the first two milestones, which were to contact the electric utility to begin the incentive reservation and to complete a streetlight audit. The next step is to secure funding.

8. It will not decrease DPW's annual operating budget, but it will decrease the Needham Electric, Light, and Gas budget due to energy reduction and reduced maintenance costs.

16. These lights will be permanently installed on the street.

18. Finance will be involved in the process since the budget for the utility costs and maintenance are managed by that Department.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Town Common Historic Redesign and Beautification **Fiscal Year:** 2020

Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP
Department:	Public Works - Parks and Forestry			Supports:	Culture and Leisure
Partners:	Town Manager, ITC			Useful Life:	More than eighteen (18) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	Yes
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Yes
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	Total New FTE's: 0
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$958,000	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$52,000		\$52,000					
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$906,000			\$906,000				
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$958,000	\$0	\$52,000	\$906,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Town Common Historic Redesign and Beautification

Fiscal Year: 2020

Project Description and Considerations

The Town is presently completing an internal design process for the Town Common. This will include improved hardscape, landscaping, amenities, tree plantings, and utility improvements that are consistent with the historic nature of the common as well as the improvements being made in the Downtown Streetscape Improvement Project.

This project includes improving the landscaping with new sod, trees, and plantings. The hardscape services will be upgraded to include more low maintenance materials as well as be more handicap accessible. The pathways and landscaping will be adjusted to become more aesthetically pleasing and functionally enhanced. There will be increased electrical and sound capacity to accommodate Town-wide events. This work will complement the new Town Hall and enhance the new "blue tree".

DPW and the Parks and Forestry Division did a thorough review of their workload over the next five years in order to prioritize their schedule based on the volume of projects and their timing. Due to this review, it has been decided this project is going to be pushed back a year.

3. This project may be subject to Planning Board review.

4. ITC will need to be involved for Wifi and electrical connectivity.

12. This project is being evaluated for eligibility of Community Preservation Funds under the category of Historic Preservation.

18. The Town Manager's Office will be involved.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Traffic Improvements **Fiscal Year:** 2019

Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP
Department:	Public Works - Engineering			Supports:	Transportation Network
Partners:				Useful Life:	More than eighteen (18) years

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	Yes
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	No
Total New FTE's:	0
7. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	Yes
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No
19. If funded, will this project increase the operating expense for any other department?	Yes

Project Cost:	\$250,000	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	May increase annual operating expenses between \$5,001 and \$25,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$250,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000		
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$250,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Traffic Improvements

Fiscal Year:

2019

Project Description and Considerations

This Article will allow for the funding of projects that are recommended by the Traffic Management Advisory Committee (TMAC). These recommendations include items such as permanent speed monitoring devices, traffic calming measures, and school zone enhancements. These items are not presently included in the Department of Public Works operating budget. The \$50,000 annual request will support one or two TMAC construction related requests per year such as 500 feet of roadway granite curb installation, two school zone installations, two average traffic calming installations, several radar sign installations, or sign and/or pavement markings.

FY19 (Pending TMAC Approval)

- Granite curb installation on Paul Revere Road and Brookline Road.

Examples of Previous TMAC Requests

- Flashing LED pedestrian signs and school zone signs for Eliot School.
- Handicap ramps and cross-walks at various locations.
- Children playing signs.

Examples of Potential Future TMAC Projects

- Advisory curve signs with speed tabs on Forest Street.
- Traffic signal timing adjustments at Great Plain Avenue and Central Avenue.

3. Depending on recommendations from TMAC there may be permitting requirements with the Conservation Commission, Planning Board, Zoning Board of Appeals, and Building Department.

7. The maintenance budget for the Highway Division will need to be increased so that improvements can be maintained. The cost of maintenance will vary based on the type of improvement made. This can vary from \$100-\$1,000 annually.

14. This request is in response to the recommendations by the TMAC and Safe Routes to School report.

16. Improvements under this article could include signage, signaling, curbing, or other traffic calming measures that will be permanently installed at the determined locations.

19. If electricity is required for any of these improvements, then the Needham Light, Electric, and Gas Program budget may be increased to fund the electricity costs.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Building Management System Upgrade **Fiscal Year:** 2019

Purpose:	Construction	Classification:	Technology	Status:	Amended Request from the Prior CIP
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)
Partners:	ITC, School Department			Useful Life:	More than eight (8) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Yes
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	Yes
6. If funded, will additional permanent staff be required?	No
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$322,000	How was the Project Cost Determined:	Industry References
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$322,000	\$102,000	\$126,000	\$94,000				
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$322,000	\$102,000	\$126,000	\$94,000	\$0	\$0	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Building Management System Upgrade

Fiscal Year:

2019

Project Description and Considerations

The Town maintains a Building Management System (BMS) on the school's server to manage the heating and cooling in all major facilities in Town. All of the buildings constructed since 2009, with the exception of the Newman, are on the same system called Control Suite, LON works. These systems consist of internal sensors in the HVAC components and a backend software product that allows Building Maintenance staff to review and diagnose HVAC issues remotely as well as on-site. This system is critical to the maintenance of healthy air temperatures in the building.

The IT department for the Town would like to upgrade and standardize all of the BMS so that we are only utilizing and maintaining one system. A part of the Newman School will need to remain on a separate system because of the devices installed at the time of renovation. A retrofit would be necessary to completely migrate it to the new software. This conversion will allow for greater standardization and will change the manner of how HVAC data is communicated. Currently, there are computer interfaces talking to devices within the building and then communicating this information to an outside computer for management. This new software would create a virtualized environment where the software would only be on the back end and no longer on the devices. This will rid us of unnecessary redundancy and help to improve tracking. This will also allow all of the Town's buildings to integrate with the Town's afterhours permitting system, which will reduce the amount of time it takes staff to input irregular schedules and ensure appropriate temperature for afterhours events. Additionally, the Town's IT Department would like the system to be migrated to the Town's network, and the standardization will assist in this process.

This proposal is a phased approach to replacing the Front End of the BMS system so that all the buildings in Town will be on one system. It is proposed that this system will be the SmartStruxure Building Management System.

This request is being moved forward a year, to start in FY19. The existing Building Maintenance System is a legacy system in the oldest buildings and will not be supported in the near future. The current old system requires manual schedule adjustments for all after school activities and vacations. The new system will integrate with the Town's after hours permitting software and will not require manual override. The new Williams School, opening potentially in FY20, will also be on the SmartStruxure Building Management System.

In FY19, the Town will upgrade the Front End Software and complete the conversion of the Pollard, Broadmeadow, Library, Mitchell, and Eliot. These are the oldest BMS systems in Town and it is possible in the future, the control panel for these systems will no longer be serviced.

In FY20, the Town will upgrade the High School and the Newman School. The High School has the most sophisticated HVAC system in Town and therefore is the most expensive to convert.

In FY21, the Town will upgrade the Town Hall, High Rock, PSAB, Hillside, and Center at the Heights. If the Hillside is no longer being occupied at this time, it will not be converted.

Supports Other: Supports building infrastructure.

4. The request will require assistance from the IT Department.
5. This is a Building Maintenance request.
18. The School Department will be involved.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: CATH Space Utilization Study						Fiscal Year: 2023				
Purpose:	Feasibility Study		Classification:	Building		Status:	Informational Only Details Incomplete			
Department:	Public Works - Building Maintenance					Supports:	Community Services			
Partners:	Health and Human Services, Council on Aging					Useful Life:	More than five (5) years			
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							Yes			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0		No	
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							No			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							Yes			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							Yes			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$30,000		How was the Project Cost Determined:		In-House Estimate					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$30,000					\$30,000				
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$30,000	\$0	\$0	\$0	\$0	\$30,000	\$0	\$0		
\$0										

Capital Project Request

Project Title: CATH Space Utilization Study

Fiscal Year: 2023

Project Description and Considerations

Funding is requested to support a space utilization study and an assessment of building needs at the Center at the Heights (CATH) in light of the Town's commitment to expand hours of operation of the building. A high priority of the Council on Aging, the focus of this independent, expert-led study would be on the program, office, and clinical spaces within the CATH and ensuring optimal utilization and program flexibility for participants. Additional points of emphasis for this study would include deck configuration and level of usage, enhancing and expanding the utilization of the restaurant-grade kitchen, and a review of parking and building access challenges for Needham's seniors.

5. This is a request submitted by the Building Maintenance Division.

15. This request is to improve the usage of the existing space and possibly improve it, depending on the results of the feasibility study.

18. Assistance will be required from the Council on Aging and the Department of Health and Human Services.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: DPW Boiler Replacement - 470 Dedham Ave						Fiscal Year: 2019			
Purpose:	Construction	Classification:	Building	Status:	Amended Request from the Prior CIP				
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)				
Partners:				Useful Life:	More than eighteen (18) years				
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						Yes			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						Yes			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No			
8. If funded, will this project lower the requesting Department's operating costs?						Yes			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						No			
15. Is this a request to improve or make repairs to extend the useful life of a building?						Yes			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						Yes			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						No			
19. If funded, will this project increase the operating expense for any other department?						No			
Project Cost:	\$434,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$34,000	\$34,000							
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$400,000		\$400,000						
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$434,000	\$34,000	\$400,000	\$0	\$0	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: DPW Boiler Replacement - 470 Dedham Ave

Fiscal Year: 2019

Project Description and Considerations

This request is to replace the DPW boiler with two high efficiency condensing boilers. The increase to two boilers is based on both the need for redundancy in the heating season and the desire to improve energy efficiency. The boiler at the DPW was installed in 1961 and is past its useful life. This piece of equipment has required a number of repairs in order to maintain it in working order. Significant repairs were necessary in FY10 and FY12 at costs of \$60,000 and \$25,000 respectively. In FY15, \$4,180 was spent on repairs. A new boiler will improve the energy efficiency of heating the DPW. Installing two units will ensure that if one unit needs repair during the heating season, the building will have sufficient heat to prevent the pipes from freezing.

After review, the Building Maintenance Division has pushed the construction phase of this project back to FY20 in order to allow proper time for a thorough design. Additionally, the division is adding upgrading the heat piping throughout the building to the construction phase. This is in response to a review and analysis of the existing piping in the building with the assumption that the building will need to remain in use for the foreseeable future.

The new boiler will be designed for natural gas and will increase the energy efficiency of the heating systems at the DPW. This project may be eligible for energy efficiency rebates to offset the cost of buying a more efficient model.

There is an estimated 15-20% energy cost savings based on savings seen at the Pollard and Newman schools, which underwent similar boiler upgrades.

Supports Other: Supports building infrastructure.

3. Plumbing and electrical permits will be required.
5. This request is for the Building Maintenance Division.
8. Upgrading to an energy efficient boiler will reduce heating costs, but those are no longer included in Building Maintenance's budget.
15. This request will extend the life of the building.
16. The boiler will be permanently installed at this location.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Emery Grover Partial Window Replacement							Fiscal Year: 2020		
Purpose:	Construction	Classification:	Building	Status:	Informational Only Details Incomplete				
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)				
Partners:	Needham Public Schools, Community Preservation Committee			Useful Life:	More than twenty-five (25) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								Yes	
6. If funded, will additional permanent staff be required?							Total New FTE's:	0	No
7. If funded, will the operating budget need to be increased to cover operating expenses?								No	
8. If funded, will this project lower the requesting Department's operating costs?								Yes	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								Yes	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								Yes	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								Yes	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								Yes	
19. If funded, will this project increase the operating expense for any other department?								No	
Project Cost:	\$360,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$30,000		\$30,000						
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$330,000			\$330,000					
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$360,000	\$0	\$30,000	\$330,000	\$0	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Emery Grover Partial Window Replacement

Fiscal Year: 2020

Project Description and Considerations

This request is to replace the eight arched windows on the front of the Emery Grover building. A prominent feature of the building, the existing windows are beyond their expected life span. They are inefficient, resulting in occupant discomfort and needless energy usage for heating and cooling. Replacing these windows will increase the energy efficiency of this building. The anticipated lifespan of the replacement windows is 50 years.

This request has been pushed back to FY20 in order to allow additional time for the Town to determine the future of the building. If a major renovation is not planned for this facility, then this repair is being recommended.

Supports Other: Supports building infrastructure.

- 3. Building permits will be required.
- 5. This request is for the Building Maintenance Division.
- 8. Energy efficiency upgrades will reduce energy costs, which are no longer handled by the Building Maintenance Division.
- 12. This project may be eligible for CPA funding.
- 15. This request is necessary to extend the life of the building.
- 16. The windows will be permanently installed.
- 18. This request will require assistance from the School Department.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Emery Grover Roof Replacement						Fiscal Year: 2022			
Purpose:	Construction	Classification:	Building	Status:	Informational Only Details Incomplete				
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)				
Partners:	School Department, Community Preservation Committee			Useful Life:	More than twenty-five (25) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								Yes	
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?								No	
8. If funded, will this project lower the requesting Department's operating costs?								Yes	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								Yes	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								Yes	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								Yes	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								Yes	
19. If funded, will this project increase the operating expense for any other department?								No	
Project Cost:	\$175,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$15,000			\$15,000					
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$160,000				\$160,000				
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$175,000	\$0	\$0	\$15,000	\$160,000	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Emery Grover Roof Replacement

Fiscal Year: 2022

Project Description and Considerations

This request is to replace the existing roof at the Emery Grover Building. The existing slate roof at the Emery Grover is over 100 years old. It poses a continual maintenance problem and is beyond the expected 75 year life span of this roof type. In the Spring of 2010, leaks in the roof caused damage to flooring materials. These circumstances forced the Department to reprioritize its summer asbestos abatement work and caused interruption to the operations of the building .

A new environmentally conscious material that mimics the aesthetics of slate, but is composed of recycled rubber from tires, will be used to replace this roof. This material would reduce the cost of installation by over one third and would reduce the cost of maintenance. The anticipated lifespan of this material is 50 years. If slate material is required, the cost of this installation would be \$237,537.

Replacing this roof will increase the energy efficiency of this building. It will decrease leaks, the cost of repairs, and the inconvenience to the occupants.

The Building Maintenance Division is adding a design phase in FY21 in order to ensure that the new roof will meet all the requirements of the building.

This project is pending the results of the Emery Grover feasibility study.

Supports Other: Supports building infrastructure.

- 3. Building permits will be required.
- 5. This request is for the Building Maintenance Division.
- 8. Energy efficiency upgrades will reduce energy costs, which are no longer handled by the Building Maintenance Division.
- 12. This project may be eligible for CPA funding.
- 15. This request is necessary to extend the life of the building.
- 16. The roof will be permanently installed.
- 18. This request will require assistance from the School Department.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Energy Efficient Upgrades						Fiscal Year: 2019			
Purpose:	Construction	Classification:	Building	Status:	Amended Request from the Prior CIP				
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)				
Partners:	Building Occupants			Useful Life:	More than twelve (12) years				
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						Yes			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						Yes			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No			
8. If funded, will this project lower the requesting Department's operating costs?						Yes			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						No			
15. Is this a request to improve or make repairs to extend the useful life of a building?						Yes			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						Yes			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						Yes			
19. If funded, will this project increase the operating expense for any other department?						No			
Project Cost:	\$471,000	How was the Project Cost Determined:		Hired Consultant					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$100,000			\$100,000					
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$371,000	\$64,000	\$7,000	\$100,000	\$100,000	\$100,000			
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$471,000	\$64,000	\$7,000	\$200,000	\$100,000	\$100,000	\$0	\$0	
<div style="display: flex; justify-content: space-between;"> \$0 </div>									

Capital Project Request

Project Title: Energy Efficient Upgrades

Fiscal Year:

2019

Project Description and Considerations

The 2011 May Special Town Meeting approved Article 6 to fund an engineering study for energy upgrades. This study was conducted on 10 key buildings in August and September of 2011 and the results were issued in October 2011. The results of this study illustrate that if the Town makes an initial investment in selected and recommended energy upgrades, the cost of these upgrades will pay for themselves within 10 years.

Recent Projects Include:

In FY16, the division completed numerous energy efficiency lighting upgrades, including: exterior lighting and gym lighting at the Broadmeadow School, exterior lighting at the High Rock School, exterior lighting at Needham High School, gym lighting at the Eliot School, exterior lighting at the Needham Public Library, gym lighting at the Pollard School, and exterior lighting at the Public Services Administration Building (PSAB).

The division was also able to do the following additional energy efficiency upgrades: lighting in the cafe and auditorium at the Eliot School, gym lighting in the B gym at Needham High School, gym lighting at the Hillside School, and auditorium lighting at the Pollard School.

In FY17, the division completed numerous energy efficiency lighting upgrades, including: lighting in the gym at the Mitchell School, and exterior lighting and lighting in the garage at the DPW Building. The initial plan had been to perform retrocommissioning on the HVAC controls at the Eliot School, but due to conflicts over the summer, the work has been postponed to FY19. The funds were used to complete the work above.

In FY18, the division will upgrade the air conditioning and the lighting in the cafe at the Mitchell School.

In FY19, the division intends to install a bi-lighting system in the hallways at the Pollard Middle School (\$7,000) and retrocommission the HVAC system at the Eliot (\$57,000).

In FY20, the division intends to install a bi-lighting system in the hallways at the High Rock School (\$7,000).

In FY21, the division intends to retrocommission the HVAC system at the High School (\$100,000). Additionally, the division intends to do another energy efficiency study (\$100,000). The original study was only focused on 10 buildings that had some age. This study will focus on buildings that were not addressed in the original study, including Town Hall, PSAB, Newman School, and Center at the Heights, in addition to the original buildings that will not be undergoing renovation shortly. The improvement in technologies necessitates that this study be conducted approximately every 10 years.

Supports Other: Supports building infrastructure.

3. Building, electrical, and plumbing permits will be required.

5. This request is for the Building Maintenance Division.

8. Energy efficiency upgrades will reduce energy costs, but these are no longer included in Building Maintenance's budget.

15. This request will modernize building components.

16. Building components will be permanently installed.

18. This request will require help from the occupants of the buildings being addressed.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Facility Assessment for Sustainable Building Management							Fiscal Year: 2019			
Purpose:	Feasibility Study		Classification:	Building		Status:	Amended Request from the Prior CIP			
Department:	Public Works - Building Maintenance					Supports:	Other (see below for information)			
Partners:	Needham Public Schools					Useful Life:	More than eight (8) years			
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							Yes			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0		No	
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							No			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							Yes			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							Yes			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$100,000		How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$100,000	\$100,000								
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Facility Assessment for Sustainable Building Management

Fiscal Year: 2019

Project Description and Considerations

This is a request for the assessments of public buildings throughout the Town and School Department in order to fully determine the condition of the facility and to identify repair and replacement needs and costs. We will use the results of the facility assessments to dictate future projects for Facilities Maintenance Articles.

In FY19, the division requests that a facility assessment be done on the Broadmeadow and Eliot Elementary Schools. Both buildings will be approaching the age of 20 years old and may require upgrades beyond general maintenance. An assessment would be done on facility conditions including HVAC systems, plumbing, roofing, and boilers, in order to create a plan to address the facility needs.

We will evaluate other buildings as they approach their individual 20 year marks to see if they require any upgrades. This will be used to keep up maintenance and upgrades on all public buildings as they age and require more than average maintenance. It will assist the division in prioritizing projects deemed necessary or useful by the assessments. The assessments will be useful in creating and maintaining sustainable buildings.

Supports Other: Supports building infrastructure.

5. This is a Building Maintenance request.

15. This study is anticipated to make recommendations that will extend the life of the building in a sustainable way.

18. Assistance will be required from the School Department.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Harris Ave Parking Lot					Fiscal Year: 2023				
Purpose:	Construction	Classification:	Infrastructure	Status:	Informational Only Details Incomplete				
Department:	Public Works - Building Maintenance			Supports:	Transportation Network				
Partners:	School Department			Useful Life:	More than twelve (12) years				
Parameters					Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?					No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?					No				
3. Does this project require any permitting by any Town or State agency?					Yes				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?					No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?					Yes				
6. If funded, will additional permanent staff be required?					Total New FTE's:	0		No	
7. If funded, will the operating budget need to be increased to cover operating expenses?					No				
8. If funded, will this project lower the requesting Department's operating costs?					No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?					No				
10. If the project is NOT funded, will current Town revenue be reduced?					No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?					No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?					No				
13. Is this a request in response to a Court, Federal, or State order?					No				
14. Is this a request in response to a documented public health or safety condition?					No				
15. Is this a request to improve or make repairs to extend the useful life of a building?					No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?					Yes				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?					No				
18. Will any other department be required to provide assistance in order to complete the project?					Yes				
19. If funded, will this project increase the operating expense for any other department?					No				
Project Cost:	\$525,000	How was the Project Cost Determined:		In-House Estimate					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$25,000					\$25,000			
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$500,000						\$500,000		
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$525,000	\$0	\$0	\$0	\$0	\$25,000	\$500,000	\$0	
\$0									

Capital Project Request

Project Title: Harris Ave Parking Lot

Fiscal Year: 2023

Project Description and Considerations

In FY23, the Building Maintenance Division will go out for a design to update the parking lot on Harris Avenue at the Pollard School. The Harris Avenue parking lot is presently made up of two different parking areas. The area to the left is the large main parking lot. The area to the right was converted to a temporary paved parking lot that was not constructed with the intention of supporting automotive vehicles. Both parking lots suffer from structural deficiencies and lack of drainage. Additionally, due to the expanding student population at the Pollard, as well as additional educational requirements, such as Special Education, there is a need for more staff and visitor parking. Currently, visitors park in the bus loop after hours or along the road. This design will look at the renovation of the existing lot, including capturing additional space where possible. The construction phase will follow in FY24, allowing for a proper design to be in place.

- 3. This request may be subject to Planning Review, Conservation Commission, Street Opening Permits, and Building Permits.
- 5. This is a Building Maintenance request.
- 16. The parking lot will be permanently installed.
- 18. This request will require support form Highway and the School Department.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: High Rock Locker Room Upgrades							Fiscal Year: 2023			
Purpose:	Construction	Classification:	Building	Status:	New Request					
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)					
Partners:	School Department			Useful Life:	More than twelve (12) years					
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							Yes			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							Yes			
6. If funded, will additional permanent staff be required?							Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							No			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							Yes			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							Yes			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							Yes			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$220,000	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$20,000					\$20,000				
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$200,000						\$200,000			
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$220,000	\$0	\$0	\$0	\$0	\$20,000	\$200,000	\$0		
\$0										

Capital Project Request

Project Title: High Rock Locker Room Upgrades

Fiscal Year: 2023

Project Description and Considerations

The existing locker rooms at the High Rock School are not sufficient for the number of students who need to utilize it daily. The High Rock School serves the sixth grade population of Needham, and conducts daily physical education classes which require students to change their clothes. The current space is insufficient for an entire class of students to utilize at one time. There are not enough lockers in each space to accommodate the 60 students in each class (30 boys and 30 girls). It is a struggle to get students sufficient time to change in and out of their gym clothing and on to other activities in a timely fashion and that time takes away from the learning environment. This request would renovate the two existing locker rooms, making each locker room able to serve at least 30 students at a time. It would evaluate the space and the space surrounding the gym to find appropriate space and determine the best design allowing for appropriately sized lockers and locker rooms.

Supports Other: Supports building infrastructure.

- 3. Building permits will be required.
- 5. This is a Building Maintenance request.
- 15. This will improve the existing locker rooms, increasing their lifespan.
- 16. The lockers will be permanently installed.
- 18. This request will require assistance from the School Department.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Mitchell Bathroom Upgrades						Fiscal Year: 2021			
Purpose:	Construction	Classification:	Building	Status:	New Request				
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)				
Partners:	School Department			Useful Life:	More than twenty-five (25) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								Yes	
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?								No	
8. If funded, will this project lower the requesting Department's operating costs?								No	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								Yes	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								Yes	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								Yes	
19. If funded, will this project increase the operating expense for any other department?								No	
Project Cost:	\$660,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$60,000			\$60,000					
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$600,000				\$600,000				
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$660,000	\$0	\$0	\$60,000	\$600,000	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Mitchell Bathroom Upgrades

Fiscal Year: 2021

Project Description and Considerations

This request is to upgrade the six existing bathrooms at the Mitchell School and provide two additional Staff Only accessible bathrooms. This would include making them ADA/MAAB accessible. Many of the existing plumbing fixtures are 40 to 60 years old. This upgrade would include replacing them with new water saving fixtures. The current stalls are not the proper size and do not include grab bars. The urinals and dispensers are not set at the proper height. There are no insulated pipes at the sink. In order to meet ADA/MAAB requirements, the clearance for the entrance and turning circle will need to be increased, and the door hardware will need to be upgraded. The Building Maintenance Division would partner with the School Department and go out for a design in FY21 and then construction in FY22. This would allow them time to fully investigate the needs of the school.

Supports Other: Supports building infrastructure.

- 3. Building and electrical permits will be required.
- 5. This is a Building Maintenance request.
- 15. This request will improve the bathrooms and extend their usage.
- 16. All fixtures will be permanently installed.
- 18. Assistance will be required from the School Department.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Mitchell Locker Replacement						Fiscal Year: 2019			
Purpose:	Construction	Classification:	Building	Status:	New Request				
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)				
Partners:	School Department			Useful Life:	More than twelve (12) years				
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						Yes			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No			
8. If funded, will this project lower the requesting Department's operating costs?						No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						No			
15. Is this a request to improve or make repairs to extend the useful life of a building?						Yes			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						Yes			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						Yes			
19. If funded, will this project increase the operating expense for any other department?						No			
Project Cost:	\$70,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$0								
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$70,000	\$70,000							
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$70,000	\$70,000	\$0	\$0	\$0	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Mitchell Locker Replacement

Fiscal Year: 2019

Project Description and Considerations

The current lockers at the Mitchell School are in need of repair. They are not appropriately sized for the school age population at the Mitchell and are broken. This request is to replace the existing lockers with lockers that are better suited for elementary school children. The Mitchell School is not scheduled to be renovated for at least ten years and this would help to improve the appearance as well as the functionality of the school. There are three different types of lockers at the Mitchell. One set require two students to share each locker. One set is too narrow to store backpacks. This results in the locker doors remaining open, which is dangerous in the hallways. The last set just needs refurbishment. The replacement lockers would be stacked on top of each other in order to accommodate wider lockers. These lockers would be easier for elementary aged students to store their backpacks and other items in, as well as be easier to open and close. This will allow each student to have their own locker.

Supports Other: Supports building infrastructure.

- 5. This is a Building Maintenance request.
- 15. This request will improve the bathrooms and extend their useful life.
- 16. All fixtures will be permanently installed.
- 18. Assistance will be required from the School Department.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Pollard AC Upgrades					Fiscal Year: 2022					
Purpose:	Construction		Classification:	Building		Status:	Informational Only Details Incomplete			
Department:	Public Works - Building Maintenance				Supports:	Other (see below for information)				
Partners:	School Department				Useful Life:	More than twelve (12) years				
Parameters						Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No				
3. Does this project require any permitting by any Town or State agency?						No				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						Yes				
6. If funded, will additional permanent staff be required?						Total New FTE's:	0		No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No				
8. If funded, will this project lower the requesting Department's operating costs?						No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No				
10. If the project is NOT funded, will current Town revenue be reduced?						No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No				
13. Is this a request in response to a Court, Federal, or State order?						No				
14. Is this a request in response to a documented public health or safety condition?						No				
15. Is this a request to improve or make repairs to extend the useful life of a building?						No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No				
18. Will any other department be required to provide assistance in order to complete the project?						Yes				
19. If funded, will this project increase the operating expense for any other department?						Yes				
Project Cost:	\$1,225,000		How was the Project Cost Determined:		Industry References					
Budget Impact:	May increase annual operating expenses between \$5,001 and \$25,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$100,000				\$100,000					
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$1,125,000					\$550,000	\$575,000			
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$1,225,000	\$0	\$0	\$0	\$100,000	\$550,000	\$575,000	\$0	\$0	
\$0										

Capital Project Request

Project Title: Pollard AC Upgrades

Fiscal Year: 2022

Project Description and Considerations

Currently, the Pollard Middle School only has supplemental AC in approximately one third of the building. This request would evaluate the space to determine how to bring AC to the rest of the building and would address which method of supplemental AC, roof top units or window units, would be most efficient. The comfort and temperature of the educational learning space is an important aspect of school maintenance. This would help to address those concerns, especially since school is starting in August, earlier than before. Additionally, providing AC throughout the building would make the Pollard more ideal for use in the summer. Currently, the Pollard is underutilized during the summer for summer programs because there is no AC in the building. Adding additional AC would allow more groups to utilize the Pollard during the summer when other schools are closed for renovations.

Supports Other: Supports building infrastructure.

5. This is a Building Maintenance request.

18. Assistance will be required from the School Department.

19. The building is currently not air conditioned. Installing air conditioning throughout the building will increase energy costs, which are handled by the Needham ELG.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Pollard Blue and Green Gym Upgrades							Fiscal Year: 2019		
Purpose:	Construction	Classification:	Building	Status:	Amended Request from the Prior CIP				
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)				
Partners:	Needham Public Schools			Useful Life:	More than eighteen (18) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								Yes	
6. If funded, will additional permanent staff be required?							Total New FTE's:	0	No
7. If funded, will the operating budget need to be increased to cover operating expenses?								No	
8. If funded, will this project lower the requesting Department's operating costs?								Yes	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								Yes	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								Yes	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								Yes	
19. If funded, will this project increase the operating expense for any other department?								No	
Project Cost:	\$570,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$0								
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$570,000	\$540,000	\$30,000						
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$570,000	\$540,000	\$30,000	\$0	\$0	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Pollard Blue and Green Gym Upgrades

Fiscal Year: 2019

Project Description and Considerations

The Pollard gyms were identified in the feasibility study conducted in 2011 as in need of upgrades and have additionally been identified by the Director of Athletics as in need of improvement. These improvements consist of replacing the present rubber flooring with another material that is more appropriate for basketball use, upgrading lighting, and installing mats along the side of the gym for safety. Lighting upgrades were completed under the Energy Efficient Upgrades request in FY16.

In FY19, this project would replace the flooring only in the Blue and Green Gyms. The present rubber flooring is not ideal for basketball use and this building is used frequently by both school and community basketball groups due to its size. The rubber flooring will be replaced by a new type of flooring that would have the same bounce as wood flooring required for basketball usage, but does not have the ADA/MAAB accessible issues that wood flooring presents. Additionally, work will be done to improve the functionality and safety of both gyms. In the Blue Gym, the siding will be removed and replaced. The Blue Gym will also be painted to brighten the area. Backboards and winch mechanisms on the basketball hoops will be replaced and winch mechanisms will be installed on hoops that do not currently have them. Padding will also be installed behind all backboards. In the Green Gym, two sections of pull out seating, approximately 15'x15' each, will be installed in order to accommodate classes.

In FY20, the scoreboards in both gyms will be removed and replaced. Shot clocks will be installed in the Green Gym. The basketball scoreboard and shot clocks in both gyms are beyond their useful life and the technology is outdated. The current system is based on incandescent bulb technology, which is not energy efficient. The replacement will include an electronic LED scoreboard and one set of shot clocks with wireless controls and technology in each gym.

Supports Other: Supports building infrastructure.

3. Building and electrical permits will be required.
5. This is a request for the Building Maintenance Division
8. Energy efficiency upgrades will reduce energy costs, no longer included in Building Maintenance's budget.
15. This request will modernize building components, thereby maximizing the usefulness of this building.
16. Flooring and wall coverings will be permanently installed.
18. This request will require assistance from the School Department and the Athletics Department.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Pollard Locker Room Retrofit						Fiscal Year: 2021			
Purpose:	Construction	Classification:	Building	Status:	Amended Request from the Prior CIP				
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)				
Partners:	Needham Public Schools			Useful Life:	More than twenty-five (25) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								Yes	
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?								No	
8. If funded, will this project lower the requesting Department's operating costs?								No	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								Yes	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								Yes	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								Yes	
19. If funded, will this project increase the operating expense for any other department?								No	
Project Cost:	\$690,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$60,000			\$60,000					
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$630,000				\$630,000				
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$690,000	\$0	\$0	\$60,000	\$630,000	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Pollard Locker Room Retrofit

Fiscal Year: 2021

Project Description and Considerations

This request is to retrofit the locker rooms at the Pollard Middle School. This project would include removing existing lockers, installing new lockers, replacing existing tile and bathroom fixtures, and painting.

Retrofitting the locker rooms will make the space more functional. The school has been offering more sports programs, therefore increasing the need for larger lockers for equipment. The current lockers are all the same size and are not sufficient for much of the equipment needed to be stored in the locker rooms during the day. The school is in need of a variety of locker sizes to accommodate the varying needs of the students. The tile flooring is starting to crack in places and will need replacing before becoming a safety hazard. Additionally, the bathrooms are outdated and are in need of an upgrade. These bathroom fixtures, in addition to the showers, will need to be addressed. General maintenance, such as painting and upgrading the lighting, will also improve the current appearance.

In FY21, the division will work with a consultant on a design for the locker room retrofit. The designer will help to recommend the most efficient layout for the locker rooms in order to accommodate the variety of needs. The construction phase will be done in FY22.

Supports Other: Supports building infrastructure.

3. Building, electrical, and plumbing permits will be required.
5. This request is for the Building Maintenance Division.
15. This request is necessary to extend the life of the building.
16. All components will be permanently installed.
18. This request will require assistance from the School Department.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Upgrade Boiler #1 at Hillside						Fiscal Year: 2020			
Purpose:	Construction	Classification:	Building	Status:	New Request				
Department:	Public Works - Building Maintenance			Supports:	Other (see below for information)				
Partners:	School Department			Useful Life:	More than twenty-five (25) years				
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						Yes			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						Yes			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No			
8. If funded, will this project lower the requesting Department's operating costs?						No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						No			
15. Is this a request to improve or make repairs to extend the useful life of a building?						Yes			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						Yes			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						Yes			
19. If funded, will this project increase the operating expense for any other department?						No			
Project Cost:	\$231,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$11,000		\$11,000						
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$220,000			\$220,000					
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$231,000	\$0	\$11,000	\$220,000	\$0	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Upgrade Boiler #1 at Hillside

Fiscal Year: 2020

Project Description and Considerations

The Hillside School has two cast iron boilers that it relies on to heat the school. Boiler #1 has a leak that needs to be repaired. Since the Town plans on maintaining the Hillside as swing space, the Building Maintenance Division needs to address the deficiencies in boiler #1. Up until the Town was able to acquire the Owens' Property to construct a replacement for the Hillside Elementary School, it was conceived that the Hillside School, as it presently stands, would be torn down. With the construction of the school on an alternative location, the Hillside School looks as if it will be used for many purposes at least through the next decade. The existing boilers are from the renovation in 1998 and are approaching their 20 year life cycle. A study conducted in 2011 indicated that they should last for a few more years without major issues. Not only have we passed that time period, but we are anticipating that we will need to keep the boilers functioning into the future. The study recommended replacing the existing boilers with high efficiency condensing boilers. One of the main concerns with this older boiler is that many of the parts are no longer manufactured, so repairing the boiler becomes increasingly difficult.

Supports Other: Supports building infrastructure.

- 3. This request will require a Building Permit.
- 5. This is a Building Maintenance request.
- 15. Upgrading the boiler will help to keep the building in use in the future.
- 16. The boiler will be permanently installed at the school.
- 18. Assistance from the School Department will be required.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Library Furniture						Fiscal Year: 2019			
Purpose:	Acquisition	Classification:	Equipment	Status:	Amended Request from the Prior CIP				
Department:	Library			Supports:	Culture and Leisure				
Partners:				Useful Life:	More than twelve (12) years				
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						Yes			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No			
8. If funded, will this project lower the requesting Department's operating costs?						No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						No			
15. Is this a request to improve or make repairs to extend the useful life of a building?						No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						Yes			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						Yes			
19. If funded, will this project increase the operating expense for any other department?						No			
Project Cost:	\$322,852	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$0								
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$0								
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$322,852	\$43,970	\$112,960	\$82,740	\$83,182				
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$322,852	\$43,970	\$112,960	\$82,740	\$83,182	\$0	\$0	\$0	

Capital Project Request

Project Title: Library Furniture

Fiscal Year: 2019

\$0

Project Description and Considerations

The "new" library has been open to the public for more than eleven years, and, due to heavy use, the furniture is beginning to show wear and tear. Both public and staff computer chairs are slowly breaking and the covering on the arms is splitting. For staff members, the computer chair is their desk chair. As staff chairs break, a public computer chair has been taken from the public computers and moved into a staff office. Some of the mesh on the community Room stackable mesh chairs is unravelling, the backs are separating from the frames, and food has been caught in the mesh and proven unable to be removed. The forty-two cloth public arm chairs are showing the ravages of heavy use, particularly the arms of the chairs. The thirty-eight leather public arm chairs are also beginning to show wear.

The prices listed in this request were obtained from manufacturer's websites.

29 Public computer chairs @ \$530 each	\$15,370
25 Staff computer chairs @\$1,144 each	\$28,600
160 Community Room audience stackable chairs @ \$706 each	\$112,960
42 Public lounge chairs (cloth) @1,970 each	\$82,740
38 Public lounge chairs (leather) @ \$2,189 each	\$83,182
Total	\$322,852

1. The services of a design consultant may be needed
16. All furniture would be installed at the library
18. Public Facilities personnel may be needed to help move furniture

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Library RFID Conversion Project							Fiscal Year: 2021		
Purpose:	Acquisition	Classification:	Technology	Status:	Amended Request from the Prior CIP				
Department:	Library			Supports:	Culture and Leisure				
Partners:				Useful Life:	More than twelve (12) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								Yes	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								No	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								No	
6. If funded, will additional permanent staff be required?							Total New FTE's:	0	No
7. If funded, will the operating budget need to be increased to cover operating expenses?								Yes	
8. If funded, will this project lower the requesting Department's operating costs?								No	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								Yes	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								No	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								Yes	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								No	
19. If funded, will this project increase the operating expense for any other department?								No	
Project Cost:	\$327,200	How was the Project Cost Determined:			Industry References				
Budget Impact:	May increase annual operating expenses between \$25,001 and \$50,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$0								
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$0								
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$313,766	\$0		\$313,766					
Technology Hardware/Software	\$8,684			\$8,684					
Other Expenses	\$4,750			\$4,750					
TOTAL	\$327,200	\$0	\$0	\$327,200	\$0	\$0	\$0	\$0	

Capital Project Request

Project Title: Library RFID Conversion Project

Fiscal Year:

2021

\$0

Project Description and Considerations

RFID, Radio Frequency Identification, is the technology toward which libraries are migrating, as a means to increase efficiency and to cut down on repetitive action tasks. The advantages of the system include:

1. Reduction in the time necessary to check in and out library materials (in FY17 the library checked in and out more than 1,000,000 items--123,048 checkouts were done by customers on self-checkout.
2. Information can be read faster from the RFID tags than from barcodes
3. The items in a stack can be read at the same time, as opposed to barcodes that must be read one at a time. Checking a stack of materials in and out reduces repetitive action tasks, saving time and helping to avoid repetitive stress syndrome in employees
4. Patron self-checkout is simplified--patrons do not have to carefully line up a barcode with a laser beam
5. Opens the possibility of electronic inventorying, item searching, and shelf order checking

There are forty-three Minuteman Library Network libraries. Currently (fall 2017), thirteen Minuteman libraries are using RFID; three libraries are placing RFID tags in materials (the first step in migrating to RFID); and four more have expressed interest. The current thinking and discussions at Minuteman committee meetings is that, eventually, all Minuteman libraries will move to RFID. The libraries that are now operating with RFID have formed a "service" group for interlibrary loan service. Requests from these libraries go automatically to the other RFID libraries (they are the larger libraries in the system), where items are found and requests filled faster than at the non-RFID libraries. In FY17, Needham requested 64,843 items from other libraries for the use of Needham residents. Needham sent 55,937 items to other libraries. With an RFID system that includes a portable scanner, these items could have been retrieved faster from the library's shelves, increasing the efficiency of a library employee.

Further system investigation and observation at RFID libraries, has shown that, for the RFID system to function at a peak level of efficiency, it must include an automated sorting system. In this system, materials are placed on conveyer-type equipment where the RFID tag is read and the item automatically drops into a predetermined bin of like materials. The divide can include one bin for items that are on reserve; one for items that belong to another library; one for a library's nonfiction books; one for a library's fiction books; one for a library's children's books; plus many other useful divisions. The cost for a 15-bin system has been included below.

RFID System Cost:

RFID tags:	150,000 books @ \$0.16 each	\$24,000		
	35,000 media @ \$0.63 each	\$22,050	Total	\$46,050
Conversion Stations:				
	2 @ \$11,178 each		Total	\$22,356
Staff Station Equipment:				
	4 Staff Stations (Circulation Desk) @ \$4,895 each	\$19,580		
	1 Portable Scanner @ \$5,200	\$5,200	Total	\$24,780
Self-Checkout Equipment:				
	3 Self-Checkout Stations @ \$6,860 each		Total	\$20,580
Software:	4 Staff Stations @ \$266 each	\$1,064		
	3 Self-Checkout Stations @ \$2,540 each	\$7,620	Total	\$8,684
Sorting System:	15 bin automated sorting system	\$200,000	Total	\$200,000
Installation and Training:				

Capital Project Request

Project Title: Library RFID Conversion Project

Fiscal Year: 2021

Supplemental Information

On-Site Training (per day)	\$2,500	Total	\$4,750	
Total Project Cost:				\$327,200
1. The Circulation Desk area and adjacent lounge area would have to be reconfigured				
7. The Yearly Operating Budget would have to be increased for the cost of RFID tags:				
Books:	12,000 @ \$0.16 each	\$1,920		
Media	3,400 @ \$.63 each	\$2,142		
		Total	\$4,062	
and software licensing:				
	4 staff stations @\$266 each	\$1,064		
	3 self-checkout stations @2,540	\$7,620		
		Total	\$8,684	
and 15 bin sorting system maintenance	\$17,000	Total	\$17,000	
Total yearly operating budget increases:				\$29,746
11. Annual licensing listed under #7				
16. All equipment will be installed at the library				

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Athletic Fields Master Plan					Fiscal Year: 2022				
Purpose:	Feasibility Study		Classification:	Land		Status:	Amended Request from the Prior CIP		
Department:	Park and Recreation				Supports:	Culture and Leisure			
Partners:	DPW Parks and Forestry Division				Useful Life:	More than twelve (12) years			
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No			
6. If funded, will additional permanent staff be required?						Total New FTE's:	No		
7. If funded, will the operating budget need to be increased to cover operating expenses?						No			
8. If funded, will this project lower the requesting Department's operating costs?						No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						Yes			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						No			
15. Is this a request to improve or make repairs to extend the useful life of a building?						No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						Yes			
19. If funded, will this project increase the operating expense for any other department?						No			
Project Cost:	\$75,000		How was the Project Cost Determined:		In-House Estimate				
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$75,000				\$75,000				
Design/Engineering	\$0								
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$0								
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$75,000	\$0	\$0	\$0	\$75,000	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Athletic Fields Master Plan

Fiscal Year: 2022

Project Description and Considerations

The Park and Recreation Commission has been working with user groups to determine how athletic fields are being used and how best to schedule the athletic fields to provide optimal use without jeopardizing the maintenance plan. The organizations and the Commission need to do some additional work together before the scope of a master plan can be created.

Renovations have occurred at several parks, and some school sites will be improved in upcoming years. The study would help the Commission determine whether new athletic fields are needed to accommodate the need and provide feasibility studies on possible locations for new athletic fields.

The ability for the Town to maintain current athletic facilities, along with any possible new facilities, would be included within the study. This project may be appropriate to submit for a warrant article as opposed to a capital request.

The project has been moved out to a later year, while it waits for additional field improvements to be completed. DPW Parks and Forestry will need to be involved as they are responsible for maintenance of athletic fields.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Boat Launch on Charles River					Fiscal Year: 2021					
Purpose:	Construction	Classification:	Land	Status:	Informational Only Details Incomplete					
Department:	Park and Recreation			Supports:	Culture and Leisure					
Partners:	Conservation Department/Town Manager			Useful Life:	More than twelve (12) years					
Parameters					Response					
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?					No					
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?					No					
3. Does this project require any permitting by any Town or State agency?					Yes					
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?					No					
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?					No					
6. If funded, will additional permanent staff be required?					Total New FTE's:					No
7. If funded, will the operating budget need to be increased to cover operating expenses?					Yes					
8. If funded, will this project lower the requesting Department's operating costs?					No					
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?					No					
10. If the project is NOT funded, will current Town revenue be reduced?					No					
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?					No					
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?					Yes					
13. Is this a request in response to a Court, Federal, or State order?					No					
14. Is this a request in response to a documented public health or safety condition?					No					
15. Is this a request to improve or make repairs to extend the useful life of a building?					No					
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?					No					
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?					Yes					
18. Will any other department be required to provide assistance in order to complete the project?					Yes					
19. If funded, will this project increase the operating expense for any other department?					No					
Project Cost:	\$0	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Boat Launch on Charles River

Fiscal Year: 2021

Project Description and Considerations

The Town of Needham is adjacent to a major state resource - the Charles River. It creates about 2/3rds of the Town's border, with the City of Newton, the City of Boston, the Town of Dedham, and the Town of Dover, our neighbors on the other side of the river.

CPC funds of \$30,000 have been awarded to design an improved boat launch into the Charles River on Town-owned property on South Street, near the intersection of Dedham Avenue, but we have not started the formal design process as this is written. One of the on-call engineer firms will be chosen to work with Park and Recreation/Conservation departments on this project.

There is an existing unimproved launch for canoes and kayaks, with a circular driveway and parking for 10-12 vehicles. There is pedestrian access, only, to the river. The intention is to keep the launch in its natural setting, but create a more consistent access on a previous path, and possibly creating the ability for vehicles to back up to the launch area with their boats. Depending on the final design, it is hoped that maintenance will be minimal.

At a minimum, permits would be required from the Needham Conservation Commission.

A project estimate can be provided once the designer is able to provide options and the Town chooses a scope of work. Until a design is in place, it is not known whether there would be any maintenance or staffing costs related to operation.

Though design is funded, the project has not moved forward as Conservation and Park & Recreation staff have needed to concentrate on other projects. The Conservation Department is partnering on this project.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Cricket Field Building Renovation							Fiscal Year: 2020			
Purpose:	Design/Engineering	Classification:	Building	Status:	Amended Request from the Prior CIP					
Department:	Park and Recreation			Supports:	Culture and Leisure					
Partners:	PPBC; Public Facilities-Construction; DPW			Useful Life:	More than eighteen (18) years					
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							Yes			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							No			
6. If funded, will additional permanent staff be required?							Total New FTE's:			No
7. If funded, will the operating budget need to be increased to cover operating expenses?							Yes			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							Yes			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							Yes			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							Yes			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$811,000	How was the Project Cost Determined:		Hired Consultant						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$162,000		\$162,000							
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$649,000			\$649,000						
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$811,000	\$0	\$162,000	\$649,000	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Cricket Field Building Renovation

Fiscal Year: 2020

Project Description and Considerations

Park and Recreation completed a feasibility study of the Cricket Field building with PPBC in March 2012. The study looked at (1) renovation of the building for current uses; (2) renovation of the building for year-round use; (3) construction of new building at same location; (4) construction of new building elsewhere on site. For the renovation options, code upgrades, including ADA, are included. Extensive work on the grounds is also required for accessibility. "Option 1 Modified" is used for the request, which is an update of the current layout for seasonal use only and a septic field. Option 1, without modifications, or a new modular building would be more than \$100,000 of additional costs. The design costs would also include a survey that is required for a building permit. The original estimate was created in 2012, with a 10% contingency. It is recommended to escalate the estimate by 5% annually, or review if a significant period of time passes. The numbers in this request have therefore been increased from the original estimate. The design/engineering costs were based on 20% of total project estimate.

The building is currently used for (a) Park and Recreation summer program; (b) Needham High Girls Soccer and Girls Lacrosse; (c) storage for Park and Recreation programs; and (d) storage for DPW Parks and Forestry. It is hoped that the building could be utilized for these purposes, and that public restrooms for those using the playgrounds or athletic fields would be available. The chosen option would also create an accessible building, and site work would add appropriate accessible parking. Approval of a new septic system as opposed to a sewer system would help reduce the cost of construction. The 1964 wood structure building is approximately 1,250 square feet. Without renovations, it will become more difficult to use it for the summer program, which would also be a loss of revenue of approximately \$30,000 as it isn't likely another site in Town would be available to accommodate the program. Donations have been made for other projects at the park, totaling about \$200,000. Those projects include the rebuilding of the athletic fields, addition of new playground equipment, and a bubbler and garden with park benches.

Any portion of the project related to outdoor recreation would be eligible for CPA funding, but indoor recreation is not eligible. Permits would be required from the Needham Health Department and the Planning Board. The costs do not include any unanticipated requirements of the permits. At some point, without renovation, the building will not be available for use by Park and Recreation for its summer program or by Needham High School Athletics. The loss of the summer program location would lead to a loss in revenue. Costs to use Cricket Field would increase for Needham High Athletics.

Currently, the building's restrooms are only used by Park and Recreation's summer program, as well as the Needham High teams. No other park user has access to the restrooms, so creating restrooms that are available to the park will increase the cost for cleaning by an outside firm.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Outdoor Basketball Courts						Fiscal Year: 2023				
Purpose:	Construction		Classification:	Infrastructure		Status:	New Request			
Department:	Park and Recreation				Supports:	Culture and Leisure				
Partners:	DPW				Useful Life:	More than twenty-five (25) years				
Parameters						Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No				
3. Does this project require any permitting by any Town or State agency?						No				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No				
6. If funded, will additional permanent staff be required?						Total New FTE's:				No
7. If funded, will the operating budget need to be increased to cover operating expenses?						No				
8. If funded, will this project lower the requesting Department's operating costs?						No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No				
10. If the project is NOT funded, will current Town revenue be reduced?						No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						Yes				
13. Is this a request in response to a Court, Federal, or State order?						No				
14. Is this a request in response to a documented public health or safety condition?						No				
15. Is this a request to improve or make repairs to extend the useful life of a building?						No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						Yes				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						Yes				
18. Will any other department be required to provide assistance in order to complete the project?						Yes				
19. If funded, will this project increase the operating expense for any other department?						No				
Project Cost:	\$125,000		How was the Project Cost Determined:		In-House Estimate					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$25,000					\$25,000				
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$100,000					\$100,000				
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$125,000	\$0	\$0	\$0	\$0	\$125,000	\$0	\$0		
\$0										

Capital Project Request

Project Title: Outdoor Basketball Courts

Fiscal Year: 2023

Project Description and Considerations

The Town has outdoor basketball courts located at parks, including Mills Field, Greene's Field, Riverside Park, Perry Park; and half basketball courts at Cricket Field and Walker-Gordon Field.

Full or half courts are also located at Broadmeadow, Eliot, Hillside, Mitchell , Newman and High Rock, with a new court anticipated at the Williams School.

The Mills Field courts are ready for renovation, new backboards, and striping. The Perry Park courts can be painted, but cannot be rebuilt at the same location due to the former school's foundation. Riverside and Cricket would have minor repairs.

The Park and Recreation Commission is viewing the locations of basketball courts, to determine if a new set is needed in a new location. The design costs are to assist with the scope of work needed for repairs, or creation of a new court at a location where one doesn't currently exist.

DPW will provide guidance on the project scope, likely Parks & Forestry, Highway and Engineering.

Capital Project Request

Project Title: Public Playgrounds **January 2018** **Fiscal Year: 2019**

Purpose:	Acquisition	Classification:	Equipment	Status:	Amended Request from the Prior CIP
Department:	Park and Recreation			Supports:	Culture and Leisure
Partners:	School Department			Useful Life:	More than twenty-five (25) years

Parameters				Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?				No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?				No
3. Does this project require any permitting by any Town or State agency?				No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?				No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?				No
6. If funded, will additional permanent staff be required?			Total New FTE's:	No
7. If funded, will the operating budget need to be increased to cover operating expenses?				No
8. If funded, will this project lower the requesting Department's operating costs?				No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?				No
10. If the project is NOT funded, will current Town revenue be reduced?				No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?				No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?				Yes
13. Is this a request in response to a Court, Federal, or State order?				No
14. Is this a request in response to a documented public health or safety condition?				No
15. Is this a request to improve or make repairs to extend the useful life of a building?				No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?				Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?				Yes
18. Will any other department be required to provide assistance in order to complete the project?				Yes
19. If funded, will this project increase the operating expense for any other department?				No

Project Cost:	\$700,000	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements		Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility		\$0							
Design/Engineering		\$0							
Land/ROW Acquisition		\$0							
Site Preparation		\$0							
Construction	\$700,000	\$300,000		\$400,000					
Construction Management		\$0							
Equipment		\$0							
Furniture, Fixtures, and Equipment		\$0							
Technology Hardware/Software		\$0							
Other Expenses		\$0							
TOTAL	\$700,000	\$300,000		\$400,000	\$0	\$0	\$0	\$0	\$0

\$0

Project Description and Considerations

The Town of Needham has 18 public playground locations: Broadmeadow (2), Eliot (2), Hillside (2), Mitchell (1), Newman (3), Claxton, Cricket, DeFazio, Greene's, Mills, Perry, Riverside, and Walker-Gordon.

Hillside and Mitchell have the oldest school-site playgrounds. The Williams School will have new playground equipment installed as part of the project. The Hillside equipment will be able to remain in use for visitors to the site, unless it needs to be removed for a temporary use of the school site.

The Mitchell Principal has requested that the playground equipment be replaced rather than wait until the school renovation project is done. Quality equipment, installed professionally, can be moved and re-used.

Broadmeadow's Grade 1-5 and Kindergarten playgrounds were installed in 2002 and will likely need upgrades in upcoming years. Eliot's two playgrounds were installed in 2004 and appear to be in excellent condition. Newman's Grade 1-5 and Kindergarten playgrounds were installed in 2012 and are in excellent condition. The Preschool playground received a poured-in-place surface in 2013. Its equipment was originally purchased in 1998 and moved to the Newman site in 2004. It is in good condition, but will need some refreshing. An improvement recommended for Broadmeadow and Eliot would be the installation of poured-in-place pathways. Though the current wood fiber surfacing is considered ADA compliant, the MA Architectural Board may be creating a new ruling that will require other options for pathways. The addition of poured-in-place pathways reduces the wear and tear on the wood fiber surfacing, requiring less material to be installed a few times a year.

For the non-school playgrounds, all sites are in very good to excellent condition. Greene's Field's equipment was installed new in 2013, with a major donation from residents of over \$180,000. At this time, through existing funding sources, adaptations to the swings are being planned, to add a new ADA swing, and move the toddler swings into an area near the toddler equipment. The Exchange Club has "adopted" DeFazio and Claxton, adding improvements over several years. Parent Talk has "adopted" Cricket, Perry and Mills, with new playgrounds installed between 2001-2007. The Parent Talk Board would like consideration for upgrades at Perry Park. Riverside received new equipment in 2007 as part of the nearby Charles River Landing project. Walker-Gordon was replaced in 2013 as part of the park reconstruction project. Cricket will have ADA improvements completed when the park building is renovated.

The school projects will require consultation with the School Department, insuring their educational goals are met with any new structures.

The estimate was made in-house, based on recent projects completed in Needham and informal discussions with playground and surfacing companies.

Supplemental Information

PLAYGROUND	MANUFACTURER/REPRESENTATIVE	YEAR	SURFACING	CURRENT CONDITIONS/NOTES
Broadmeadow	Miracle Playgrounds - Creative Recreation (CT)	2002	Fiber	Fair/Good: Paid for through PPBC building project and donations
Broadmeadow - Kindergarten	Miracle Playgrounds - Creative Recreation (CT)	2002	Fiber	Fair/Good: Paid for through PPBC building project and donations

Claxton	Landscape Structures - O'Brien and Sons (MA)	1994	Fiber	Excellent: Initial Town Capital Novemmer 2007 - partial renovation
Cricket	Landscape Structures - O'Brien and Sons (MA)	2005	Fiber	Very Good: Donated by Parent Talk
DeFazio	Landscape Structures - O'Brien and Sons (MA)	1997 -	Fiber/Sand	Excellent/Good: Inital Town Capital Donated by Exchange Club
Eliot	Landscape Structures - O'Brien and Sons (MA)	2004	Fiber	Very Good: Paid for through PPBC building project and donations
Eliot - Kindergarten	Landscape Structures - O'Brien and Sons (MA)	2004	Fiber	Excellent: Paid for through PPBC building project and donations
Greene's	Landscape Structures - O'Brien and Sons (MA)	2013	Poured in place	Excellent: CPA Funds and private donations
High Rock	N/A			Removed wooden structure; nothing returning in near future for 6th grade
Hillside	Landscape Structures - O'Brien and Sons (MA)	1995	Fiber	Very Good: Donated by school parents including 2011 improvements.
Hillside - Kindergarten	Kompan - Kompan NE (RI)	2001	Fiber	Good: Donated by school parents, and payment mad to Town by RCN for damages to school site.
Mills	Landscape Structures - O'Brien and Sons (MA)	2007	Fiber	Excellent: Donated by Parent Talk
Mitchell	Playworld - Ultiplay (MA)	1998	Fiber	Fair/Good: Donated by school parents
Newman	Landscape Structures - O'Brien and Sons (MA)	2012	Synthetic grass	Excellent: Donated by school parents plus some Town capital funding
Newman - Kindergarten	Landscape Structures - O'Brien and Sons (MA)	2012	Synthetic grass	Excellent: Donated by school parents plus some Town capital funding
Newman - Preschool	Landscape Structures - O'Brien and Sons (MA)	1998-2004	Poured in Place	Very Good: Donated by school parents 2013 p-i-p surface funded by CPA fund
Rebecca Perry	Landscape Structures - O'Brien and Sons (MA)	2001	Fiber	Excellent: Donated by Parent Talk
Riverside	Landscape Structures - O'Brien and Sons (MA)	2004 -	Fiber	Excellent: Donated by Hanover Co. as part of nearby construction
Rosemary Pool	N/A			Donated by Masons in 2016; removed 2017; to be replaced by spray
Walker-Gordon	Landscape Structures - O'Brien and Sons (MA)	2013	Fiber	Excellent: Town capital
Williams School	TBD	2019	TBD	Funded through construction project; likely be 2-3 locations with playground equipment

Possible Projects (as of August 2017):

- Add ADA swings at Greene's and Cricket - need specialized ADA surface to reach swings
- Parent Talk would like to discuss upgrades at Perry Park
- Mitchell School would like to make improvements: prefer full replacement, but also consider removing some equipment, adding some K equipment
- Broadmeadow and Eliot should get poured-in-place pathways; decision on whether to replace Broadmeadow equipment

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Purchase of Open Space					Fiscal Year: 2019					
Purpose:	Acquisition	Classification:	Land	Status:	Same Request from the Prior CIP					
Department:	Park and Recreation			Supports:	Culture and Leisure					
Partners:	Conservation Commission; Board of Selectmen			Useful Life:	More than twenty-five (25) years					
Parameters					Response					
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?					No					
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?					No					
3. Does this project require any permitting by any Town or State agency?					No					
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?					No					
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?					No					
6. If funded, will additional permanent staff be required?					Total New FTE's:					No
7. If funded, will the operating budget need to be increased to cover operating expenses?					No					
8. If funded, will this project lower the requesting Department's operating costs?					No					
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?					No					
10. If the project is NOT funded, will current Town revenue be reduced?					No					
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?					No					
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?					Yes					
13. Is this a request in response to a Court, Federal, or State order?					No					
14. Is this a request in response to a documented public health or safety condition?					No					
15. Is this a request to improve or make repairs to extend the useful life of a building?					No					
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?					No					
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?					No					
18. Will any other department be required to provide assistance in order to complete the project?					Yes					
19. If funded, will this project increase the operating expense for any other department?					No					
Project Cost:	\$1,000,000	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$1,000,000	\$1,000,000								
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$1,000,000	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Purchase of Open Space

Fiscal Year: 2019

Project Description and Considerations

Without much notice, opportunities to purchase private land to add to the open space inventory surface each year. In particular, some opportunities arise during discussions of the development of private land. This project request is to keep all aware of the possibility, in the near future, of a purchase moving forward. This request is a "place holder" in the event a parcel that benefits the community becomes available.

Unexpectedly, in FY 2010, the purchase of two parcels of land on Carol Road and Brewster Drive, as well as a parcel on Charles River Street, adjacent to Walker-Gordon Field were all funded through CPA funds. It is possible that some purchases would relate to easements, as opposed to full ownership of the land. The Open Space and Recreation Plan reflects the goal of making additional purchases, especially in areas of Town without current open space to retain open areas, or to create access to other parcels, including connections to the Charles River. The purchase of parcels adjacent to current open space is also a high priority. Some parcels may require improvements which would be submitted as separate capital improvement projects. Under the current CPA legislation, parcels purchased with CPA funds are eligible for improvement funds from CPA. The CPA indicates how the value of the property is determined.

A conservation restriction would need to be placed on the property, under CPA requirements.

The Town Manager and Town Counsel would need to be involved in discussions, deliberations and negotiations.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Rosemary Lake Camp Property and Trail							Fiscal Year: 2019			
Purpose:	Construction	Classification:	Building	Status:	Amended Request from the Prior CIP					
Department:	Park and Recreation			Supports:	Culture and Leisure					
Partners:	DPW, Conservation Department			Useful Life:	More than twenty-five (25) years					
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							Yes			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							No			
6. If funded, will additional permanent staff be required?							Total New FTE's:			No
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							Yes			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							Yes			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							Yes			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$250,000	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$50,000	\$50,000								
Construction	\$200,000		\$200,000							
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$250,000	\$50,000	\$200,000	\$0	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Rosemary Lake Camp Property and Trail

Fiscal Year: 2019

Project Description and Considerations

The former request has been updated. The three remaining buildings at the property are continually vandalized and need to be removed. The two smaller buildings were formerly latrines, and need to be decommissioned as part of demolition. The shelter building is not insulated and the electrical source was disconnected almost twenty years ago when a fourth building was lost in a fire. The Park and Recreation Commission would like to have the buildings demolished, for the safety of those using the site, and the neighbors. Youth who live in the area continue to build structures, including a small dock, that would also need to be removed for safety. In place of the shelter, an open air picnic shelter would be built, with picnic tables installed on the concrete base to minimize vandalism. This area would be available for use by trail walkers as well as any programs offered by Park and Recreation or other Needham organizations. Past vandalism has included use of flammable materials, a danger to nearby homes.

The Rosemary Trail project was initially developed within the Trails Master Plan and is the fourth of four major trail projects to be moved forward. The original scope and estimates was developed in 2008 by Beals+Thomas, and they updated the estimate in subsequent years. The scope has been altered to meet the current plans of the property. The entrance to the trail from the Rosemary parking lot is being repaired during the Rosemary Recreation Complex project. It is recommended that projects along the trail be combined into a group of projects for the Student Conservation Association, including rebuilding a bridge crossing the brook. The final project would involve improvements on the cart path to alleviate wet conditions, particularly when an emergency vehicle needs to access the property. The trail will not be ADA accessible.

Permits would be required from the Conservation Commission for the trail work, and demolition permits would be required, as well as for the installation of a pre-fab shelter for the picnic area.

On-going maintenance can primarily be done by volunteers, with minor assistance from DPW Parks and Forestry.

The estimates are based on recent Needham projects.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Walker Pond Improvements						Fiscal Year: 2023				
Purpose:	Construction	Classification:	Land	Status:	Informational Only Details Incomplete					
Department:	Park and Recreation			Supports:	Culture and Leisure					
Partners:	Conservation Department			Useful Life:	More than twelve (12) years					
Parameters						Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						Yes				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No				
3. Does this project require any permitting by any Town or State agency?						Yes				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No				
6. If funded, will additional permanent staff be required?						Total New FTE's:				No
7. If funded, will the operating budget need to be increased to cover operating expenses?						Yes				
8. If funded, will this project lower the requesting Department's operating costs?						No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						Yes				
10. If the project is NOT funded, will current Town revenue be reduced?						No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						Yes				
13. Is this a request in response to a Court, Federal, or State order?						No				
14. Is this a request in response to a documented public health or safety condition?						No				
15. Is this a request to improve or make repairs to extend the useful life of a building?						No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						Yes				
18. Will any other department be required to provide assistance in order to complete the project?						Yes				
19. If funded, will this project increase the operating expense for any other department?						No				
Project Cost:	\$0	How was the Project Cost Determined:			No Estimate Has Been Determined					
Budget Impact:	May increase annual operating expenses between \$5,001 and \$25,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Walker Pond Improvements

Fiscal Year: 2023

Project Description and Considerations

In Fall 2017, the Conservation Department has begun a study of Walker Pond with the firm ESS. The pond is under the jurisdiction of the Park and Recreation Commission, and seven of the abutters are also considered owners for the portions adjacent to their properties. The Conservation Department has been working with the neighbors who would like to see the quality of the water improved.

In 1996, the Park and Recreation Department, with funding from a state grant and neighbor donations undertook a hydroaking project, removing about 2/3rds of the lily growth in the pond. The deep roots were eliminating areas for fish and wildlife to thrive. This project required permits from the Conservation Commission, DEP, and Army Corps of Engineers. For about five following years, an order of conditions allowed for chemical treatments to follow-up with the clean-out, and keep conditions from the project. The conditions have not returned to the 1990's, but new problems have arisen. The current ESS study will try to determine the problems and causes, and will make recommendations to improve the conditions. The neighbors will provide partial funding.

As the study has not been done as this is written, there is no estimate available. It is likely that the neighbors will seek to have funding earlier than this request.

It is anticipated that permitting may be lengthy, as it was for the past project.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Improvements to Memorial Park Building						Fiscal Year:			
Purpose:	Construction	Classification:	Building	Status:	Partially Funded Request				
Department:	Memorial Park			Supports:	Culture and Leisure				
Partners:	Board of Selectmen, PPBC, DPW, Park and Recreation Department			Useful Life:	More than twenty-five (25) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								Yes	
6. If funded, will additional permanent staff be required?						Total New FTE's:	1	Yes	
7. If funded, will the operating budget need to be increased to cover operating expenses?								Yes	
8. If funded, will this project lower the requesting Department's operating costs?								No	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								Yes	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								Yes	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								Yes	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								No	
19. If funded, will this project increase the operating expense for any other department?								Yes	
Project Cost:	\$5,900,000	How was the Project Cost Determined:		Hired Consultant					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$0								
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$5,500,000	\$5,500,000							
Construction Management	\$100,000	\$100,000							
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$200,000	\$200,000							
Technology Hardware/Software	\$25,000	\$25,000							
Other Expenses	\$75,000	\$75,000							
TOTAL	\$5,900,000	\$5,900,000	\$0	\$0	\$0	\$0	\$0	\$0	

Capital Project Request

Project Title: Improvements to Memorial Park Building

Fiscal Year:

\$0

Project Description and Considerations

This is a general submission which will be followed with additional information from the Trustees of Memorial Park, project partners, and Town staff.

Winter Street Architects performed a feasibility study on the Memorial Park Building in 2016, and after design funds were approved at the May 2017 Annual Town Meeting, Winter Street continued to move forward with design documents, under the charge of the PPBC. The design is for a new two-story building which will be fully handicap accessible, and constructed in accordance with the building code. The building will enhance programs held at the park, and promote synergy among the other nearby Town facilities. The building will be a service point for High School athletics and other community activities, while keeping the focus on the site and its history.

The first floor will have spaces for Needham High School home teams to meet, and a separate room for visiting teams. These rooms can be used for other community activities, i.e. Citrus Sale or uniform pick-up. A concession room would be available for use. Restrooms for park users will be rebuilt, and a small number of restrooms will be inside for team use. Storage will be available for DPW Parks and Forestry, as well as groups using the fields at Memorial Park. The second floor will have meeting space for the Trustees and other community groups, as well as a room for larger meetings.

With an increase in use, it is anticipated that there will be additional operating costs for the building, including but not limited to HVAC, custodial care (to be determined if staff or outsourcing), building monitor, and energy.

A recent facility financing plan assumed that the project would be funded by a combination of General Fund debt (\$2 million), CPA funds, other one-time General Fund monies, and some limited outside resources, yet to be determined.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Big Belly Trash Cans						Fiscal Year: 2019			
Purpose:	Acquisition	Classification:	Equipment	Status:	New Request				
Department:	Public Works - RTS			Supports:	Utilities				
Partners:	Town Manager's Office, ITC			Useful Life:	More than eight (8) years				
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						Yes			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						Yes			
8. If funded, will this project lower the requesting Department's operating costs?						No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						Yes			
15. Is this a request to improve or make repairs to extend the useful life of a building?						No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						Yes			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						No			
19. If funded, will this project increase the operating expense for any other department?						No			
Project Cost:	\$100,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$0								
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$0								
Construction Management	\$0								
Equipment	\$100,000	\$100,000							
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Big Belly Trash Cans

Fiscal Year: 2019

Project Description and Considerations

The Town has been investigating long term strategies for handling public litter. Over the past year, the DPW has met with Big Belly Solar, Inc. to review a Town-wide deployment of their waste management receptacles. These receptacles have two compartments, one for recycling and one for trash, with solar powered compactors, and technology that indicates when the receptacles are full.

The Town is pursuing a pilot program to deploy these receptacles at two recreational facilities around Town. This deployment will include 12 Big Belly trash and recycling receptacles. Eleven receptacles will be solar powered compactors and one will be a solar powered non-compactable receptacle. The solar powered compactors will be deployed in areas of high volumes of trash and the non-compactable receptacle will be deployed in areas that are not prone to substantial trash generation. This deployment is being done in accordance with a study conducted by Big Belly.

The receptacles will be purchased by the Town and their effect on reducing the issues of overflowing trash containers and minimizing odors will be monitored. There is a potential in the out years to either purchase or lease additional Big Belly receptacles. The 12 trash and recycling receptacles being purchased under this pilot program can be incorporated in a lease program in the out years.

- 4. ITC is required because of the software included and the possibility of Wi-Fi capability.
- 7. Additional maintenance funds may be required, estimated at \$1,000 annually.
- 14. The Town receives numerous complaints of public litter.
- 16. These trash and recycling receptacles will be permanently installed at each location.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: RTS Efficiency Study & Master Plan						Fiscal Year: 2023				
Purpose:	Feasibility Study		Classification:	Infrastructure		Status:	Informational Only Details Incomplete			
Department:	Public Works - RTS					Supports:	Utilities			
Partners:						Useful Life:	More than eighteen (18) years			
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							No			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0		No	
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							No			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							No			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:			How was the Project Cost Determined:							
Budget Impact:										
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: RTS Efficiency Study & Master Plan

Fiscal Year: 2023

Project Description and Considerations

The efficiency study will include:

- A review of the RTS operations as a whole (recycling, Municipal Solid Waste (MSW), composting, material handling, and the landfill), and as they relate to the site operations.
- A review of traffic patterns and safety matters.
- A financial evaluation of the operations in terms of operating and maintenance costs, disposal costs, transportation costs, and revenue. The financial evaluation will highlight the potential to increase revenues or reduce costs through efficiencies.
- A meeting with the supervisors and foremen of the operation, and a review of staffing and equipment levels.
- A review of MSW, recycling acceptance and handling practices, and volumes (quantities). This may be further segregated into residential and commercial wastes.
- A review of the existing site layout.

Findings from the review will be presented in a draft report format. Practices and efficiencies may be compared to other municipal operations when appropriate. Based on review of the overall operations and site layout, the department will make recommendations for potential efficiency improvements.

Building upon this efficiency study and the completed structural analysis, the department shall develop three conceptual master plan options that incorporate both efficiency improvements and address structural needs. An independent estimator shall then review all three options and calculate planning level costs. Lastly, the department will select the preferred option to pursue based on needs and costs.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: RTS Employee Trailer					Fiscal Year: 2023					
Purpose:	Acquisition	Classification:	Building	Status:	Informational Only Details Incomplete					
Department:	Public Works - RTS			Supports:	Utilities					
Partners:				Useful Life:	More than eighteen (18) years					
Parameters								Response		
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?										
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?										
3. Does this project require any permitting by any Town or State agency?								Yes		
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								Yes		
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								Yes		
6. If funded, will additional permanent staff be required?								Total New FTE's:	0	No
7. If funded, will the operating budget need to be increased to cover operating expenses?								No		
8. If funded, will this project lower the requesting Department's operating costs?								No		
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No		
10. If the project is NOT funded, will current Town revenue be reduced?								No		
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No		
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No		
13. Is this a request in response to a Court, Federal, or State order?								No		
14. Is this a request in response to a documented public health or safety condition?								No		
15. Is this a request to improve or make repairs to extend the useful life of a building?								No		
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No		
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No		
18. Will any other department be required to provide assistance in order to complete the project?								Yes		
19. If funded, will this project increase the operating expense for any other department?								No		
Project Cost:		How was the Project Cost Determined:								
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$0									
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: RTS Employee Trailer

Fiscal Year: 2023

Project Description and Considerations

This informational request is for a new employee trailer at the RTS. The current employee lunch/break room is a donated, second-hand trailer located in an isolated area of the facility. The restrooms in this trailer are not ADA compliant and there are no shower facilities or washing machines on site for staff working in an extremely dirty environment.

In the future, these quarters will need to be replaced in order to provide adequate working conditions for RTS staff. The new employee trailer shall be ADA accessible and feature shower facilities as well as laundry.

The plumbing for this new employee trailer poses a significant cost in terms of reconfiguring the sewer at the RTS.

3. This project will have to go to the Planning Board for Site Plan Review and will be subject to Conservation Commission permitting requirements.
4. The technology in the current employee trailer includes a cable television. The RTS will communicate with ITC in terms of technology needed in the new employee trailer.
5. This request is for a new employee trailer and the RTS will communicate with the Building Maintenance division to discuss future cleaning service requirements.
18. Other departments that may be required to provide assistance in order to complete this project include Engineering, Building Maintenance, ITC, Sewer and Water.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: RTS Horizontal Grinder (Tracked)						Fiscal Year: 2020			
Purpose:	Acquisition	Classification:	Equipment	Status:	Informational Only Details Incomplete				
Department:	Public Works - RTS			Supports:	Utilities				
Partners:				Useful Life:	More than eight (8) years				
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						Yes			
8. If funded, will this project lower the requesting Department's operating costs?						No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						Yes			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						No			
15. Is this a request to improve or make repairs to extend the useful life of a building?						No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						No			
19. If funded, will this project increase the operating expense for any other department?						No			
Project Cost:	\$750,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$0								
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$0								
Construction Management	\$0								
Equipment	\$750,000		\$750,000						
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$750,000	\$0	\$750,000	\$0	\$0	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: RTS Horizontal Grinder (Tracked)

Fiscal Year: 2020

Project Description and Considerations

The RTS has had a Vermeer horizontal grinder in its inventory for more than 10 years. This grinder is unsafe, does not operate consistently, and is slated to be disposed of given its condition.

To provide the staff with the necessary equipment to ensure seamless operations at the compost operation, a new tracked (not wheeled) horizontal grinder is necessary. The grinder will provide the staff the means to control the inflow of brush, limbs, and logs. This will provide for considerably more square footage by negating the need to store huge amounts of the aforementioned materials on site which take up lots of necessary space at the present time. Having a new grinder will allow these materials to be processed at least weekly, freeing up valuable space for the layout of more windrows. The new grinder will play a significant role in both the efficiency and increased productivity of operation.

The new grinder will also provide the necessary equipment in the event of a catastrophic wind or storm event. Should (or when) such an event occur in town, having a horizontal grinder on site that is sized to handle both the day to day operations of the compost area and provide the processing power to handle copious amounts of local construction demolition from a catastrophic storm is prudent planning and will provide the Town flexibility to deal with this debris in a timely fashion.

The grinder will assist in the more efficient layout of the RTS' composting site. Having the grinder on site will allow for better control of incoming brush, limbs, and logs and keep open and clear valuable square footage that can be used for the layout of additional compost windrows.

7. If funded, the operating budget will need to be increased to cover operating expenses as the costs to service the grinder are presently not in the budget.

9. If funded, this project will require ongoing assistance from vendors at an additional expense to the Town which is not already budgeted.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: RTS Property Improvements						Fiscal Year: 2019			
Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP				
Department:	Public Works - RTS			Supports:	Utilities				
Partners:	Public Facilities Construction			Useful Life:	More than eighteen (18) years				
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						Yes			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						Yes			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No			
8. If funded, will this project lower the requesting Department's operating costs?						No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						No			
15. Is this a request to improve or make repairs to extend the useful life of a building?						Yes			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						Yes			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						Yes			
19. If funded, will this project increase the operating expense for any other department?						No			
Project Cost:	\$912,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$130,000	\$130,000							
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$542,000	\$515,000	\$27,000						
Construction Management	\$0								
Equipment	\$230,000			\$110,000	\$120,000				
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$10,000			\$10,000					
TOTAL	\$912,000	\$645,000	\$27,000	\$120,000	\$120,000	\$0	\$0	\$0	
<div style="display: flex; justify-content: space-between;"> \$0 </div>									

Capital Project Request

Project Title: RTS Property Improvements

Fiscal Year: 2019

Project Description and Considerations

This article will be used to fund improvements to the Recycling & Transfer Station (RTS) facility to increase efficiency, comply with regulatory requirements, and improve the facility function.

Due to a study conducted in 2016 on the condition of the Transfer Station building, the original priority for FY19 has been moved back and taking action to remedy items identified in the report has taken precedence.

FY19

Weston & Sampson conducted a Transfer Station Building Roof Evaluation in April 2016 on the 1998 Transfer Building Structure and outline the following recommendations based on the observed conditions of the structure. Temporary emergency structural repairs were made to address immediate safety concerns in the building.

- New Metal Roof and Purlins
- Clean and Paint Steel Framing
- Re-Support Fire Protection

The Weston & Sampson Transfer Station Building Evaluation conducted in November 2016 on the 1988 Transfer Building Structure identified the following structural concerns that should be addressed.

- Misc. Repairs to the Pre-Engineered Metal Framing
- Clean and Paint Steel Framing
- Re-Support Fire Protection
- Repair Roof Leaks
- Fall Protection/Warning System at Tipping Pit
- Replace Steel Approach at Tipping Pit
- Repair Slab-On-Grade

Design/Engineering \$130,000

Construction \$515,000

FY20

This is for the purchase and installation of two new chain link gates and a chain link fence with privacy slats in the same location as the current security fencing at the RTS.

Construction \$27,000

FY21

This is for the purchase and installation of 300 jersey barriers that will be used to create a barrier between the composting operation and the wetlands. This needs to be done in order for the Town to be compliant with the Negative Determination of Applicability from the Conservation Commission in 2014. The cost referenced is for the purchase of new jersey barriers and transportation. It is possible that the Town may be able to procure used jersey barriers at little or no cost but that will require the Town pay the cost of transportation, which is approximately \$10,000.

Equipment \$110,000

Other Expenses \$10,000

Capital Project Request

Project Title: RTS Property Improvements

Fiscal Year:

2019

Supplemental Information

FY22

This is for the purchase and installation of two 18' x 10' panels to extend the existing scale which is 40 feet and insufficient to take the accurate weight of the Town's 100 yard open top containers and contractor's larger vehicles. Right now, the Town uses approximate values for these materials but the extended scale will accurately determine the weights of the materials being shipped out of or dropped off at the RTS. Additionally, the current scale is 10 years old as of 2017 and it requires annual maintenance due to excessive wear.

Equipment \$120,000

Future Projects

The Recycling and Transfer Station has grown organically over the years and currently includes seven separate buildings:

1. Transfer station building with customer reception area has been abandoned and is currently being used as storage due to lack of ADA compliance, insufficient barrier to the transfer station, deteriorated bathroom facility, and areas with mold.
2. A new office trailer that is temporary in nature has been installed in front of the transfer station building. This is a temporary solution.
3. 3-Bay garage used for surplus paint and equipment storage and Re-use-it area
4. Employee break trailer with storage and restroom are not ADA compliant
5. REX building garage with Superintendent Office and restroom are not ADA compliant. The garage is not properly insulated or heated.
6. Surplus paint reuse shed and hazardous waste locker
7. 12 foot storage container

Some of the limitations of the current facility include:

- Superintendent's office is isolated from the day-to-day operations and staff activity, making supervision and oversight challenging
- No shower facilities on site for staff working in extremely dirty environment
- Limited secure storage
- Employee lunch/break room is in a donated second-hand trailer located in isolated area of facility

Looking to the future, in order to improve efficiency and oversight of operations, provide adequate working conditions, and provide secure storage, new quarters at the RTS are desperately needed. The new area would combine the functions of five separate storage buildings into one facility attached to the existing transfer station building. The new facility would include: customer service area, staff office, superintendent office, employee lunch/break room, meeting room, restroom, shower facilities, and secure storage area all in a single facility. The new facility would most likely be a three-story addition to the existing transfer station building consisting of secure storage and shower/locker room on the ground level, customer reception and office area on the first floor, and meeting room and employee break room on the second floor. A May 2014 Annual Town Meeting Warrant approved funding for a temporary office trailer to provide adequate customer service, office, and restroom facilities and to bring the superintendent's office into the main operations area. This trailer is intended to be temporary and is situated so as not to interfere with potential transfer station expansion.

3. This project may have to go to the Planning Board for Site Plan Review and may be subject to Conservation Commission permitting requirements.
5. This project involves building improvements to the Transfer Station Building and Roof. The RTS has communicated with Building Maintenance and this division supports the request.
15. This is a request to improve or make repairs to extend the useful life of the Transfer Station Building and Roof.
16. The scale is a below ground device and will be permanently installed at the RTS.
18. The Conservation Department will be required to provide assistance in order to complete the project.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: RTS Stormwater Plan					Fiscal Year: 2020					
Purpose:	Construction		Classification:	Infrastructure		Status:	Amended Request from the Prior CIP			
Department:	Public Works - RTS				Supports:	Utilities				
Partners:					Useful Life:	More than eighteen (18) years				
Parameters						Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No				
3. Does this project require any permitting by any Town or State agency?						Yes				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No				
6. If funded, will additional permanent staff be required?						Total New FTE's:	0		No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No				
8. If funded, will this project lower the requesting Department's operating costs?						No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No				
10. If the project is NOT funded, will current Town revenue be reduced?						No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No				
13. Is this a request in response to a Court, Federal, or State order?						No				
14. Is this a request in response to a documented public health or safety condition?						No				
15. Is this a request to improve or make repairs to extend the useful life of a building?						No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No				
18. Will any other department be required to provide assistance in order to complete the project?						No				
19. If funded, will this project increase the operating expense for any other department?						No				
Project Cost:	\$525,000		How was the Project Cost Determined:	Hired Consultant						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$525,000		\$250,000	\$275,000						
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$525,000	\$0	\$250,000	\$275,000	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: RTS Stormwater Plan

Fiscal Year: 2020

Project Description and Considerations

The Recycling and Transfer Station (RTS) composting operation is presently under a July 2014 Conservation Commission Negative Determination of Applicability (NDA). This NDA was put in place as a result of adverse impacts to the wetlands from the compost operations. The NDA calls for the mitigation of potential stormwater issues at the site. At the present time, untreated stormwater runoff is entering a perennial stream that feeds the wetlands abutting the composting operations.

In 2016, the Town received funding for the design phase of this project. At the time of the FY19 Capital process, the design phase will not be completed therefore the funding request for the construction phase of this project has been pushed to FY20 when budgetary numbers are available. Preliminary estimates, working with the Town's consultant, Fuss & O'Neill, are above previous estimates. This project has now been broken down into two years due to scope and cost. The Town will continue to work to refine and prioritize elements of this project.

FY20

Area 1 – The construction of a sediment removal structure at the compost area

Construction \$170,000

Area 3 – A new detention basin at the base of the landfill that will control stormwater runoff from the materials processing area and the road behind the salt shed

Construction \$80,000

FY21

Area 2 – The stormwater management collection system for the proposed paving of the road behind the salt shed

Construction \$275,000

Future Projects

Area 4 – The re-grading of the materials processing area; this re-grading will require all stormwater runoff to be shifted away from the wetlands

3. This project will have to go to the Planning Board for Site Plan Review and will be subject to Conservation Commission permitting requirements.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Drain System Improvements - Water Quality (EPA)						Fiscal Year: 2019				
Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP					
Department:	Public Works - Drains			Supports:	Utilities					
Partners:				Useful Life:	More than twenty-five (25) years					
Parameters						Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No				
3. Does this project require any permitting by any Town or State agency?						Yes				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No				
6. If funded, will additional permanent staff be required?						Total New FTE's:	0		No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No				
8. If funded, will this project lower the requesting Department's operating costs?						No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No				
10. If the project is NOT funded, will current Town revenue be reduced?						No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						Yes				
13. Is this a request in response to a Court, Federal, or State order?						No				
14. Is this a request in response to a documented public health or safety condition?						No				
15. Is this a request to improve or make repairs to extend the useful life of a building?						No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No				
18. Will any other department be required to provide assistance in order to complete the project?						No				
19. If funded, will this project increase the operating expense for any other department?						No				
Project Cost:	\$3,586,500	How was the Project Cost Determined:		Hired Consultant						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$25,000	\$25,000								
Design/Engineering	\$126,500			\$126,500						
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$3,435,000	\$2,400,000			\$1,035,000					
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$3,586,500	\$2,425,000	\$0	\$126,500	\$1,035,000	\$0	\$0	\$0		
<div style="display: flex; justify-content: space-between;"> \$0 </div>										

Capital Project Request

Project Title: Drain System Improvements - Water Quality (EPA)

Fiscal Year: 2019

Project Description and Considerations

The Town entered into a Memorandum of Understanding (MOU) with the Environmental Protection Agency (EPA) to commence a Town-wide investigation of stormwater discharge to address the discharge of pollutants through stormwater into the Charles River Basin and other water bodies. Incorporated into this plan are improvements to the Stormwater Drainage System to upgrade the quality of the water discharged into the Charles River in Needham. This request is to support action items identified in the MOU.

When the 2003 EPA National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit took effect, it incorporated several requirements identified in the MOU. There were a number of projects proposed to manage stormwater quality effectively. The second permit to be issued by the EPA was submitted in April 2016 and will take effect July 1, 2018, pending litigation. This request for funding increased from the previous year because during the design process, it was determined that the depth of the sediment that needs to be removed is greater than what was originally estimated. This has increased the cubic yardage of sediment product that needs to be disposed.

Funding for the construction portion of the Rosemary Lake Sediment Removal was delayed a year from FY18 to FY19, per agreement amongst Town boards and commissions. Analysis of Wildwood Drive pond was added to FY19 to address concerns over the condition of the pond and its capacity to handle Town stormwater.

FY19

Rosemary Lake Sediment Removal
Construction \$2,400,000

60 Wildwood Drive Pond Analysis
Planning/Feasibility \$25,000

FY20

No funding requested

FY21

The Town Reservoir Sediment Removal
Design/Engineering \$126,500

FY22

The Town Reservoir Sediment Removal
Construction \$1,035,000

FY23

No funding requested

Future Projects

Action Items from Watershed Management Plan funded in FY15
Design and Construction

3. Conservation Commission, State and Federal permitting may be required for dredging.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Sewer Main Extensions in Zone I and II						Fiscal Year: 2019			
Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP				
Department:	Public Works - Sewer			Supports:	Utilities				
Partners:				Useful Life:	More than twenty-five (25) years				
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						Yes			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						Yes			
8. If funded, will this project lower the requesting Department's operating costs?						No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						Yes			
15. Is this a request to improve or make repairs to extend the useful life of a building?						No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						No			
19. If funded, will this project increase the operating expense for any other department?						Yes			
Project Cost:	\$690,000	How was the Project Cost Determined:		Industry References					
Budget Impact:	May increase annual operating expenses between \$5,001 and \$25,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$40,000	\$40,000							
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$650,000	\$650,000							
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$690,000	\$690,000	\$0	\$0	\$0	\$0	\$0	\$0	
\$0									

Capital Project Request

Project Title: Sewer Main Extensions in Zone I and II

Fiscal Year: 2019

Project Description and Considerations

There are eight homes in Needham that need to be prioritized for sewer service connection because they are within Massachusetts Department of Environmental Protection's (MassDEP) Zone II areas. This project is to provide sewer services to homes that presently have no sewer service but are adjacent to the public water supply well field. These homes are being looked at as part of a future sewer main extension/service connections project.

The Zone I and Zone II aquifer protection area for the Charles River Well No. 1 encompasses an area that includes private septic systems. Zone I, as defined by MassDEP, includes land within the protective 400 ft. radius around an existing or potential public water supply well or well field. Zone II includes the area of an aquifer that, given the most severe pumping and recharge conditions that can be realistically anticipated, would potentially be affected by nearby septic systems. It is bounded by the groundwater divides which result from pumping the well and by the contact of the aquifer with less permeable materials such as till or bedrock. (Note: these private systems predate the Zone I and II requirements by MassDEP and Needham Zoning Bylaws, Section 3.4.6 (b)).

All three of Needham's wells are located in an area that is vulnerable to contamination from nearby septic systems. Extending the sewer main will enable access to homes within Zones I & II and reduce the risk of contamination.

The FY19 construction project proposed was designed in FY17 and includes the installation of a new sewage pumping station and extension of the sewer main in Winding River Road. With this new service, the Town will provide sewer service for 909 Charles River Street to a critical portion of Winding River Road.

This service will extend 712 ft. up Winding River Road. The new sewer main will pick up eight homes that are on septic, seven of which are on Winding River Road. These improvements may be subject to a betterment fee.

FY19

Engineering and Construction \$690,000

3. Conservation Commission permitting may be required for site work; Board of Health permitting for septic system abandonment.

7. Additional operating budget funds will be required after this project is constructed in order to operate the new main which include maintenance costs of the pumps, mechanicals seals, valves, wet cleanings, and other maintenance costs. The increased electrical and maintenance costs are not anticipated to exceed \$10,000 in 2017 dollars.

14. All of Needham's wells are located in an area that is vulnerable to contamination from nearby septic systems.

19. An increase in electrical costs will require additional budget funds from the Needham Electric Light and Gas Program. The increased electrical and maintenance costs are not anticipated to exceed \$10,000 in 2017 dollars.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Sewer Main Replacement					Fiscal Year: 2019					
Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP					
Department:	Public Works - Sewer			Supports:	Utilities					
Partners:				Useful Life:	More than twenty-five (25) years					
Parameters								Response		
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No		
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No		
3. Does this project require any permitting by any Town or State agency?								Yes		
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No		
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								No		
6. If funded, will additional permanent staff be required?								Total New FTE's:	0	No
7. If funded, will the operating budget need to be increased to cover operating expenses?								No		
8. If funded, will this project lower the requesting Department's operating costs?								No		
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No		
10. If the project is NOT funded, will current Town revenue be reduced?								No		
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No		
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No		
13. Is this a request in response to a Court, Federal, or State order?								No		
14. Is this a request in response to a documented public health or safety condition?								No		
15. Is this a request to improve or make repairs to extend the useful life of a building?								No		
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No		
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No		
18. Will any other department be required to provide assistance in order to complete the project?								No		
19. If funded, will this project increase the operating expense for any other department?								No		
Project Cost:	\$11,280,000	How was the Project Cost Determined:		Industry References						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$330,000	\$330,000								
Design/Engineering	\$1,950,000		\$1,950,000							
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$9,000,000			\$9,000,000						
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$11,280,000	\$330,000	\$1,950,000	\$9,000,000	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Sewer Main Replacement

Fiscal Year: 2019

Project Description and Considerations

The Greendale Avenue/Route 128 sewer interceptor is in need of rehabilitation/replacement. The existing sewer line has been determined to be in the process of deteriorating and in need of rehabilitation/replacement.

This request is for replacing or relining 12,000 feet (2.25 miles) of 18 inch reinforced concrete gravity sewer main running through Town property in the right of way from Greendale Avenue near Cheney Street towards Route 128, along Route 128 right of way, to Great Plain Avenue. This work is on an interceptor sewer which is a trunk sewer that collects and conveys waste water from numerous sewer lines.

Costs have increased since the previous request because this is for the entire length of interceptor sewer from Cheney Street to Great Plain Avenue as opposed to the original request which was just Parcel 74. A feasibility study was added as part of the increased scope.

FY19

Feasibility Study \$330,000

FY20

Engineering \$1,950,000

FY21

Construction Phase I \$9,000,000

FY22

No Funding Requested

FY23 Informational

Sewer replacement under Route 128 at Great Plain Avenue (horizontal directional drilling)

3. MWRA permitting may be required for repair work.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Sewer Pump Station Improvements/Replacement						Fiscal Year: 2020			
Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP				
Department:	Public Works - Sewer			Supports:	Utilities				
Partners:				Useful Life:	More than twenty-five (25) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								No	
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?								No	
8. If funded, will this project lower the requesting Department's operating costs?								No	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								No	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								No	
19. If funded, will this project increase the operating expense for any other department?								No	
Project Cost:	\$5,005,500	How was the Project Cost Determined:		In-House Estimate					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$545,000		\$95,000		\$345,000		\$105,000		
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$4,460,500		\$535,000			\$3,370,500	\$555,000		
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$5,005,500	\$0	\$630,000	\$0	\$345,000	\$3,370,500	\$660,000	\$0	
\$0									

Capital Project Request

Project Title: Sewer Pump Station Improvements/Replacement

Fiscal Year: 2020

Project Description and Considerations

As part of the Wastewater System Master Plan, several of the wastewater pumping stations were evaluated to assess their physical condition and capacity, and to evaluate current and future flow projections. The Master Plan recommended that at least 7 of the 9 stations be upgraded. There are 4 stations left to be addressed, 1 of which was already funded in FY18 and the remaining 3 are in the 5-year Capital Plan.

Canister pump stations at Lake Drive and Cooks Bridge are either at or beyond their design life. Constant maintenance and emergency shutoffs occur more frequently and require greater amounts of personnel time and emergency funds to keep running.

FY19

No Funding Requested

FY20

Lake Drive

Design/Engineering \$95,000

Construction \$535,000

FY21

No Funding Requested

FY22

Cooks Bridge

Design/Engineering \$345,000

FY23

Cooks Bridge

Construction \$3,370,500

Future Projects

Warren Street

Design/Engineering \$105,000

Construction \$555,000

3. Conservation Commission permitting may be required for site work.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Sewer Service Connections					Fiscal Year: 2020					
Purpose:	Construction	Classification:	Infrastructure	Status:	Informational Only Details Incomplete					
Department:	Public Works - Sewer			Supports:	Utilities					
Partners:				Useful Life:	More than twenty-five (25) years					
Parameters								Response		
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No		
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No		
3. Does this project require any permitting by any Town or State agency?								No		
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No		
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								No		
6. If funded, will additional permanent staff be required?								Total New FTE's:	0	No
7. If funded, will the operating budget need to be increased to cover operating expenses?								No		
8. If funded, will this project lower the requesting Department's operating costs?								No		
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No		
10. If the project is NOT funded, will current Town revenue be reduced?								No		
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No		
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No		
13. Is this a request in response to a Court, Federal, or State order?								No		
14. Is this a request in response to a documented public health or safety condition?								No		
15. Is this a request to improve or make repairs to extend the useful life of a building?								No		
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No		
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No		
18. Will any other department be required to provide assistance in order to complete the project?								No		
19. If funded, will this project increase the operating expense for any other department?								No		
Project Cost:	\$200,000	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$200,000		\$50,000	\$50,000	\$50,000	\$50,000				
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$200,000	\$0	\$50,000	\$50,000	\$50,000	\$50,000	\$0	\$0		
\$0										

Capital Project Request

Project Title: Sewer Service Connections

Fiscal Year: 2020

Project Description and Considerations

There are 108 homes with access to sewer that are not connected to the Town Sewer System because they have chosen not to. The purpose of this request is to provide the lateral sewer line from the sewer main to the property line so that homeowners can connect should they choose to or should their septic system fail. The lateral sewer line is to be added prior (at least one year) to a road reconstruction/paving project. The cost for these service installations are typically not included in road construction estimates. In the case of Chapter 90 Projects, these are not considered as a reimbursement eligible expense. These expenses are included in local road reconstruction estimates. There is a corresponding request for water service connections.

This program has been put on hold so that the division could re-evaluate the intention of this article. The funding for this article was initially requested for the installation of sewer lateral lines in roads that were anticipated to be renovated in the near future, so should the homeowner choose to convert to Town sewer, the lateral would be available.

The reality has been that when homeowners have decided to go onto Town sewer it has been when their house has been sold, and with the high number of tear downs, the location of the sewer laterals the Town has installed are no longer beneficial for the new house's layout.

Past Projects

2013 - Installed 14 new sewer laterals (408.5' of pipe)

2014 - No appropriation was requested

2015 - Installed sewer laterals as part of the Great Plain Avenue sewer replacement

2016 - Installed sewer laterals as part of the Great Plain Avenue sewer replacement

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Sewer System Inflow & Infiltration Removal							Fiscal Year: 2019			
Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP					
Department:	Public Works - Sewer			Supports:	Utilities					
Partners:				Useful Life:	More than twenty-five (25) years					
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							No			
6. If funded, will additional permanent staff be required?							Total New FTE's:	0		No
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							No			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							No			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$1,805,000	How was the Project Cost Determined:		Industry References						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$205,000	\$205,000								
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$1,600,000		\$1,600,000							
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$1,805,000	\$205,000	\$1,600,000	\$0	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Sewer System Inflow & Infiltration Removal

Fiscal Year:

2019

Project Description and Considerations

In 2016, the Town completed a study that identified areas of inflow and infiltration removal in areas around town over the next ten years. This study was delayed due to low groundwater that made I/I harder to detect. The Town has been undertaking I/I projects using funding from developments. In future years, funding from private developments will be appropriated at Town Meeting.

The Town of Needham, along with numerous other communities, is under Administrative Orders from the Department of Environmental Protection (DEP) to identify and remove Infiltration and Inflow (I/I) in existing sewer systems.

Infiltration is defined as groundwater or storm water runoff that enters the system through deteriorated pipe or manhole structures that need to be repaired.

Inflow is defined as clean, non-septic water, which is introduced to the system. This water is generally produced by residential sump pumps that drain basements. The inflow removal program is being presented separately from the infiltration removal program. Much of this work could address inflow to include extending or expanding the storm drain system to accept groundwater from household sump pumps. Needham's most significant problem is believed to be from these private sources. The program will initiate with an education and information campaign to inform and prepare the homeowners as to the nature of the problem. The cost impacts to the community, the legal implications, the likely solutions, the responsibilities of the homeowner, and the potential enforcement actions by the Town, the Massachusetts Water Resource Authority (MWRA), the DEP and the Environmental Protection Agency (EPA) will need to be communicated. The preliminary engineering will likely take the form of smoke testing and flooded dye testing to determine any direct or indirect interconnections between the sewer and the storm drain system. It also includes a door-to-door investigation of households to determine where violations are occurring. Typical violations include, but are not limited to, sump pumps or open clean-outs where non-sanitary flow is discharging directly to the sewer system as well as foundation drains, yard drains, roof leaders, and other cross connections.

Cost Benefits of Program:

- Failure to do any mitigation in any of the MWRA communities will cause the overall costs for all participating communities to increase.
- The failure of the Town of Needham to address its I/I while neighboring communities reduce theirs will increase the percentage of the cost to Needham.
- When Needham decreases its I/I the same or better than other participating communities its percentage of cost will stay the same or decrease.
- The Town must keep up with its I/I mitigation in order to avoid disproportionate increases in cost and to comply with MassDEP's administrative order.

FY19

This request is for the design of the removal of the remaining locations of identified infiltration in the system as indicated in the 2016 BETA report.

Design/Engineering \$205,000

FY20

This request is for the removal of the remaining locations of identified infiltration in the system as indicated in the 2016 BETA report.

Construction \$1,600,000

FY21 - FY23

The focus of this article has historically been on infiltration. Based on changes in the industry, the focus in the future will be on inflow. When the Town has developed its plan on how to tackle inflow, this information will be added to this article.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Birds Hill Water Tank Improvements							Fiscal Year: 2019			
Purpose:	Design/Engineering	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP					
Department:	Public Works - Water			Supports:	Utilities					
Partners:				Useful Life:	More than eighteen (18) years					
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							No			
6. If funded, will additional permanent staff be required?							Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							No			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							Yes			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							No			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$340,000	How was the Project Cost Determined:		Industry References						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$65,000	\$65,000								
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$275,000	\$275,000								
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$340,000	\$340,000	\$0	\$0	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Birds Hill Water Tank Improvements

Fiscal Year: 2019

Project Description and Considerations

The purpose of the water tank located at Birds Hill is to maintain proper operating system pressure of the Town's municipal water distribution system. The method used for filling the tank is through one central pipe at the bottom of the tank. This is also how the tank is drained. The movement of water is predominately at the bottom of the tank. This tank has a 100 ft. diameter foundation and it is 45 ft. in elevation. The intention of this request is to install a mixing valve that will move water throughout the tank. This movement will assist in maintaining chlorine levels inside the tank. This will assure improved water quality.

This funding request increased based on a revised quote that the department received.

FY19

Design/Engineering \$65,000

Construction \$275,000

16. The mixing valve will be permanently installed at the Birds Hill Water Tank.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Fire Flow Improvements					Fiscal Year: 2020					
Purpose:	Construction	Classification:	Infrastructure	Status:	Informational Only Details Incomplete					
Department:	Public Works - Water			Supports:	Utilities					
Partners:				Useful Life:	More than twenty-five (25) years					
Parameters								Response		
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								No		
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No		
3. Does this project require any permitting by any Town or State agency?								No		
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								No		
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								No		
6. If funded, will additional permanent staff be required?								Total New FTE's:	0	No
7. If funded, will the operating budget need to be increased to cover operating expenses?								No		
8. If funded, will this project lower the requesting Department's operating costs?								No		
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No		
10. If the project is NOT funded, will current Town revenue be reduced?								No		
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No		
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No		
13. Is this a request in response to a Court, Federal, or State order?								No		
14. Is this a request in response to a documented public health or safety condition?								Yes		
15. Is this a request to improve or make repairs to extend the useful life of a building?								No		
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No		
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No		
18. Will any other department be required to provide assistance in order to complete the project?								No		
19. If funded, will this project increase the operating expense for any other department?								No		
Project Cost:	\$2,940,000	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$540,000		\$540,000							
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$2,400,000			\$2,400,000						
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$2,940,000	\$0	\$540,000	\$2,400,000	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Fire Flow Improvements

Fiscal Year: 2020

Project Description and Considerations

In 2016, the Town received funding for a feasibility study which explored the issue of water pressure in the Tower Hill and Birds Hill areas. The goal is to create a high pressure zone in these two areas, potentially supplied by water booster stations. The design/engineering and construction requests have been pushed to FY20 and FY21 in order to allow for a detailed analysis of the final report from this study. The FY20 and FY21 estimates provided are based upon a water system report and may be altered depending upon which option the Town decides to pursue.

FY20

Design/Engineering \$540,000

FY21

Construction \$2,400,000

14. The water pressure in these areas has the potential to be a public health or safety concern, specifically for the Fire Department.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Water Distribution System Improvements							Fiscal Year: 2019			
Purpose:	Construction	Classification:	Infrastructure	Status:	Amended Request from the Prior CIP					
Department:	Public Works - Water			Supports:	Utilities					
Partners:				Useful Life:	More than twenty-five (25) years					
Parameters							Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							No			
3. Does this project require any permitting by any Town or State agency?							Yes			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							No			
6. If funded, will additional permanent staff be required?							Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?							No			
8. If funded, will this project lower the requesting Department's operating costs?							No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							No			
10. If the project is NOT funded, will current Town revenue be reduced?							No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							No			
13. Is this a request in response to a Court, Federal, or State order?							No			
14. Is this a request in response to a documented public health or safety condition?							No			
15. Is this a request to improve or make repairs to extend the useful life of a building?							No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							No			
18. Will any other department be required to provide assistance in order to complete the project?							No			
19. If funded, will this project increase the operating expense for any other department?							No			
Project Cost:	\$6,420,000	How was the Project Cost Determined:		In-House Estimate						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$140,000		\$40,000		\$100,000					
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$6,280,000	\$830,000	\$4,600,000	\$390,000		\$460,000				
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$6,420,000	\$830,000	\$4,640,000	\$390,000	\$100,000	\$460,000	\$0	\$0		
\$0										

Capital Project Request

Project Title: Water Distribution System Improvements

Fiscal Year:

2019

Project Description and Considerations

Water System Rehabilitation

Under the Water System Rehabilitation Program, the Town's water infrastructure is continually analyzed to assess functionality and performance, and to identify areas in need of repair. Water infrastructure requires ongoing attention and periodic replacement, and portions of the Town's water infrastructure are 75+ years old and approaching the end of their useful life. A diligent rehabilitation program encompassing maintenance, repair, and replacement ensures a continual supply of water to the public. The Department of Public Works prioritizes replacement of water pipes based upon pipe condition, water break history, and adequacy of water flow to fire hydrants.

In FY18, all projects were pushed out a year on account of drainage work that had to be done on Greendale Avenue as the existing water line had lead joints that were susceptible to breakage during construction of the drainage pipe underneath it. This could not have been foreseen because the lead joints were not identified on the Town records.

FY19

Bennington Street /High Street to Concord Street (unlined)
Country Way/ Replace (1,200lf) of 8" main (unlined)

Construction \$830,000

FY20

Thorpe Road/Webster Street to End New 8" (330lf)
Mills Road/ Sachem Road to Davenport Avenue New 8" (500lf)
Mayo Avenue/Harris Avenue to Great Plain Avenue New 8" (1060lf)

Design/Engineering \$40,000

FY21

Thorpe Road/ Mills Road/ Mayo Avenue (unlined)
Mills Road/ Sachem Road to Davenport Avenue New 8" (500lf)
Mayo Avenue /Harris Avenue to Great Plain Avenue New 8" (1060lf) (unlined)

Construction \$390,000

FY22

Kingsbury Street/ Oakland Avenue to Webster Street 8" (1,500lf)
Oakland Avenue/ May Street to Highland Avenue 8" (1,100lf)

Design/Engineering \$100,000

FY23

Kingsbury Street/ Oakland Avenue to Webster Street 8" (1,500lf)
Oakland Avenue / May Street to Highland Avenue 8" (1,100lf) (unlined)

Construction \$460,000

Capital Project Request

Project Title: Water Distribution System Improvements

Fiscal Year: 2019

Supplemental Information

Water Main Replacement

This request is to replace a total of 11,500 linear feet of 14" water main. The existing water line dates from 1936-1939 and is cast iron with bitumastic or coal tar liner. The water quality in areas serviced by this line is a concern as the lining of these pipes breaks down over time causing discoloration in the water. In 2008, the Town began addressing areas served by this type of piping which at the time was approximately 19,000 linear feet. This work was completed over the subsequent years, extending from Charles River Street, to Pine Street, to Central Avenue, to Marked Tree Road and a section between Oak Street and Chestnut Street, to School Street.

The 14" water main was relined from the Charles River Water Treatment Facility to Grove Street. In 2010, the second phase of this project replaced the 14" water main with a new 16" water main extending from Grove Street to Central Avenue. In FY16, the Town replaced the water main in Oak Street from Maple Street to Chestnut Street and in Chestnut Street from Oak Street to School Street.

The current project will be replacing a 14" water main with a new 16" water main. This project includes replacing the pipe and reconstructing the road.

In FY18, funding was approved for Design/Engineering of the remaining 11,500 linear feet of water main to be replaced from the intersection of Pine Street to Marked Tree Road to Oak Street, and Maple Street.

FY20

Funding is proposed for the construction of the remaining water main.

Construction \$4,600,000

The cost has increased from last year's submission because the Engineering Division has reviewed current construction and engineering costs and has determined that the original amount submitted is insufficient to complete the project as specified. The cost is \$400/linear foot of pipe with a 20% contingency in FY16 dollars. This cost was determined based on recent bids. The engineering is estimated to be 10% of the cost, which is lower than our normal engineering estimate percentage due to the straightforwardness of the project.

State Revolving Fund may be available for this project and the Public Works Department will submit an application.

Future Projects

Fenton Road/West Street to Pershing Road

Greenough Street/Pine Grove Street to Avery Street

Pine Grove Street, Hillside Avenue to exiting 8"

Tower Avenue/Greendale Avenue to Lexington Avenue 800lf of 12"

Rosemary Pond Water Main Replacement

Design/Engineering

3. Conservation Commission permitting may be required for site work.

Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Water Distribution Study						Fiscal Year: 2023			
Purpose:	Design/Engineering	Classification:	Infrastructure	Status:	Informational Only Details Incomplete				
Department:	Public Works - Water			Supports:	Utilities				
Partners:				Useful Life:	More than eighteen (18) years				
Parameters						Response			
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No			
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No			
3. Does this project require any permitting by any Town or State agency?						No			
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No			
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No			
6. If funded, will additional permanent staff be required?						Total New FTE's:	0	No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No			
8. If funded, will this project lower the requesting Department's operating costs?						No			
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No			
10. If the project is NOT funded, will current Town revenue be reduced?						No			
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No			
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No			
13. Is this a request in response to a Court, Federal, or State order?						No			
14. Is this a request in response to a documented public health or safety condition?						No			
15. Is this a request to improve or make repairs to extend the useful life of a building?						No			
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No			
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No			
18. Will any other department be required to provide assistance in order to complete the project?						No			
19. If funded, will this project increase the operating expense for any other department?						No			
Project Cost:	\$222,000	How was the Project Cost Determined:		In-House Estimate					
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$222,000					\$222,000			
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$0								
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$222,000	\$0	\$0	\$0	\$0	\$222,000	\$0	\$0	
\$0									

Capital Project Request

Project Title: Water Distribution Study

Fiscal Year: 2023

Project Description and Considerations

This study will provide for an analysis of the Town's water infrastructure. This is partially driven by recommendations that were made in the current master plan that was conducted in 1998, which is coming to its completion of recommendations. Since the last time that the Town studied its water infrastructure, Needham Crossing, formerly the 128 Business Park, has significantly changed with more dense development and different industries and uses.

This request is for developing a new 20 year master plan that will include the following:

- Conduct a thorough asset inventory of the system and conduct a hydraulic analysis.
- Prioritize the rehabilitation and replacement of the asset information related to condition, performance, replacement values, failure modes, probability of failure, and criticality.
- Develop a new 20 year forecast for projected growth.
- Develop an annual estimate of needed reserves and an annual budget.
- Implement the asset management plan.
- Review and revise the current asset management plan.

The purpose of this water distribution study is to evaluate the existing water distribution system and determine the following:

- Identify any deficiencies that exist and determine what repairs should be made to ensure that the system can provide the required flow and pressure.
- Use growth projections from the Town's planning and zoning maps, estimate where and when future growth will occur.
- Use these growth projections, analyze the water system and determine the capacity of the water source, storage, and distribution system.
- Once the capacity is determined, decisions can be made as to when aspects of the water system should be further developed, upsized, or replaced.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Water Service Connections					Fiscal Year: 2023					
Purpose:	Construction		Classification:	Infrastructure		Status:	Amended Request from the Prior CIP			
Department:	Public Works - Water				Supports:	Utilities				
Partners:					Useful Life:	More than eighteen (18) years				
Parameters						Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No				
3. Does this project require any permitting by any Town or State agency?						No				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No				
6. If funded, will additional permanent staff be required?						Total New FTE's:	0		No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						No				
8. If funded, will this project lower the requesting Department's operating costs?						No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No				
10. If the project is NOT funded, will current Town revenue be reduced?						No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No				
13. Is this a request in response to a Court, Federal, or State order?						No				
14. Is this a request in response to a documented public health or safety condition?						Yes				
15. Is this a request to improve or make repairs to extend the useful life of a building?						No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						No				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No				
18. Will any other department be required to provide assistance in order to complete the project?						No				
19. If funded, will this project increase the operating expense for any other department?						No				
Project Cost:	\$200,000		How was the Project Cost Determined:	Current Contract						
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$0									
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$200,000					\$200,000				
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$200,000	\$0	\$0	\$0	\$0	\$200,000	\$0	\$0		
\$0										

Capital Project Request

Project Title: Water Service Connections

Fiscal Year: 2023

Project Description and Considerations

The primary purpose of this program is to remove old iron pipe water services that may contain lead from the water distribution system. Old water services are to be replaced prior (at least one year) to a road reconstruction/paving project. System wide, there are approximately 1,220 services that still need to be replaced in the system.

Year Number of Services Replaced

CY07 – 126

CY08 – 170

CY09 – 174

CY10 – 17

CY11 – 145

CY12 – 102

CY13 – 200

CY14 – 152

CY15 – 110

CY16 – 12

CY17 – 62 (as of August)

There was a significant drop in the number of services that were replaced in CY16 because the vendor under contract for these services was released from their contract and the Town had to rebid the work.

There shall be no request for funding in FY19 through FY22 because in FY18, this program was funded \$1,000,000 for use over a 5-year period.

FY23 – \$200,000 for the replacement of approximately 120 services based on the final year of the Town's current contract.

14. Old iron pipe water services in the water distribution system that may contain lead is a documented public health or safety condition.

Capital Improvement Plan
January 2018

Capital Project Request										
Project Title: Water Supply Development						Fiscal Year: 2019				
Purpose:	Construction		Classification:	Infrastructure		Status:	Amended Request from the Prior CIP			
Department:	Public Works - Water					Supports:	Utilities			
Partners:						Useful Life:	More than twenty-five (25) years			
Parameters						Response				
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?						No				
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?						No				
3. Does this project require any permitting by any Town or State agency?						Yes				
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?						No				
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?						No				
6. If funded, will additional permanent staff be required?						Total New FTE's:	0		No	
7. If funded, will the operating budget need to be increased to cover operating expenses?						Yes				
8. If funded, will this project lower the requesting Department's operating costs?						No				
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?						No				
10. If the project is NOT funded, will current Town revenue be reduced?						No				
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?						No				
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?						No				
13. Is this a request in response to a Court, Federal, or State order?						No				
14. Is this a request in response to a documented public health or safety condition?						No				
15. Is this a request to improve or make repairs to extend the useful life of a building?						No				
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?						Yes				
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?						No				
18. Will any other department be required to provide assistance in order to complete the project?						No				
19. If funded, will this project increase the operating expense for any other department?						No				
Project Cost:	\$1,500,000		How was the Project Cost Determined:			Industry References				
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000									
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025		
Planning/Feasibility	\$0									
Design/Engineering	\$400,000	\$400,000								
Land/ROW Acquisition	\$0									
Site Preparation	\$0									
Construction	\$1,100,000			\$1,100,000						
Construction Management	\$0									
Equipment	\$0									
Furniture, Fixtures, and Equipment	\$0									
Technology Hardware/Software	\$0									
Other Expenses	\$0									
TOTAL	\$1,500,000	\$400,000	\$0	\$1,100,000	\$0	\$0	\$0	\$0		
\$0										

Capital Project Request

Project Title: Water Supply Development

Fiscal Year: 2019

Project Description and Considerations

Proposed Well #4

This project would be to install a fourth well at the Charles River Well Field that will provide reliability and redundancy while other wells are taken offline for routine maintenance or repair. There would be no changes to the Town's WMA withdrawal permit. The Well Field is presently at full capacity when all three wells are operational. This fourth well would allow the Town to continue to operate to its full capacity. Previously, when the system was at peak demand and a well was taken offline, the Town had to rely on MWRA water source to meet its daily demands. This redundant well will allow the Town to be more independent even during routine maintenance periods.

FY19

The design/engineering funding request includes DEP and Conservation permitting, exploration and test wells program, as well as design of a pitless well with appurtenance.

Design/Engineering \$400,000

FY21

The construction funding request is for an approximately 100' deep well with control, pump and electrical.

Construction \$1,100,000

3. This project requires permitting from DEP and Conservation.

7. The operating budget will need to be increased in order to cover increased monitoring and maintenance expenses that come with having an additional well.

16. The well equipment is intended to be permanently installed at the location of its use.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request				
Project Title:	Combined Project to Renovate Mitchell School & Sustain Hillside as Swing Space		Fiscal Year:	2021

Purpose:	Feasibility Study	Classification:	Building	Status:	New Request
Department:	Needham Public Schools			Supports:	Public Education
Partners:	Massachusetts School Building Authority			Useful Life:	More than twenty-five (25) years

Parameters	Response		
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	Yes		
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No		
3. Does this project require any permitting by any Town or State agency?	Yes		
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	No		
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	Yes		
6. If funded, will additional permanent staff be required?	<table border="1" style="width: 100%;"> <tr> <td style="width: 70%;">Total New FTE's:</td> <td style="width: 30%; text-align: center;">4</td> </tr> </table>	Total New FTE's:	4
Total New FTE's:	4		
7. If funded, will the operating budget need to be increased to cover operating expenses?	Yes		
8. If funded, will this project lower the requesting Department's operating costs?	No		
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No		
10. If the project is NOT funded, will current Town revenue be reduced?	No		
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No		
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No		
13. Is this a request in response to a Court, Federal, or State order?	No		
14. Is this a request in response to a documented public health or safety condition?	No		
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes		
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No		
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No		
18. Will any other department be required to provide assistance in order to complete the project?	Yes		
19. If funded, will this project increase the operating expense for any other department?	Yes		

Project Cost:	\$750,000	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	May increase annual operating expenses by more than \$100,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$750,000			\$750,000				
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$0							
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$750,000	\$0	\$0	\$750,000	\$0	\$0	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Combined Project to Renovate Mitchell School & Sustain Hillside as Swing Space

Fiscal Year:

2021

Project Description and Considerations

Constructed in 1950, the Mitchell Elementary School has undergone several additions over the past 50 years, but is in need of total renovation/replacement to address building deficiencies and modernize the learning environment. During construction, the school would need to occupy swing space. The FY19-23 CIP includes separate requests to renovate the Mitchell School and to sustain the Hillside School as swing space. These requests are based on the following project schedules which involve updating the Hillside School to accommodate the Mitchell population (FY25) and then renovating the Mitchell School (to open Sept '28.)

Preliminary Project Schedule - Sustain the Hillside School as Swing Space for Future Town Use:

Feasibility Design: FY21

Design: FY22

Override Ballot Question: FY22

Site Construction: FY23-FY24

Modernized Hillside Opens: July, 2024

Preliminary Project Schedule - Mitchell School Renovation Project:

Feasibility Study: FY25

Debt Exclusion Override: FY25 (April 2015)

Schematic Design/Design Development/ Project Funding Year: FY26

Mitchell Moves to Swing Space: FY27

Construction: FY27 & FY28

New School Opens: September 2028 (FY29)

In reality, however, combining the two projects may make sense from a logistical and funding perspective, and may serve to accelerate the anticipated completion date of the Mitchell School Renovation. This request is to accelerate feasibility study funding for both projects to FY21 to coincide with the original schedule for the Hillside swing space update. If approved by MSBA, a possible schedule for the combined projects could be as follows, based on Needham's experience with the Hillside Renovation Project with MSBA. The total cost of the project may vary from the existing estimates, based on the combined scope.

Potential Schedule -Combined Project

Submit SOI to MSBA (FY20) - Feb '20 - Apr '20)

MSBA Board Meeting to Vote SOI (FY21) - Aug '20

Feasibility (FY21-22)- (Oct '20 STM)

Funding - Oct '20 STM

Bidding Feasibility - Oct '20 - Dec '20

Designer Selection w MSBA - Jan '21 - Mar '21

Feasibility Study - Apr '21 - Jun '22

PDP - Mar '21 - Aug '21

PSR - Sept '21 - Jan '22

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Combined Project to Renovate Mitchell School & Sustain Hillside as Swing Space

Fiscal Year:

2021

Supplemental Information

Schematic Design Mitchell (FY22) - continued

DRT Review - Feb '22

MSBA/DESE Review - May '22 - Jun '22

Submit Schematic Design to MSBA - Jun '22

Needham Boards Approve Schematic Design -Jun '22 - July '22

MSBA Board Meeting - July '22

Project Funding (FY23)

Submit Ballot Question to Secretary of State - Aug '22

Special Town Meeting - Oct '22

Override Ballot Question - Nov '22

Project Funding Agreement - Nov '22 - Dec '22

Design Development (FY23)

Design Development & Review - Dec '22 - May '23

MSBA Review & Approval - May '23 - Jun '23

Hillside Swing Space Updated- CM at Risk (FY23 - FY26)

Design Development & Review - Nov '22 - Jan '23

Construction Docs (Accelerated) - Feb '23 - May '23

Bidding - Jun '23 - Jul '23

Construction (11 months) - Aug '23 - July '24

Mitchell Moves into Hillside Swing Space - Aug '24

Mitchell Occupies Hillside Swing Space - Sep '24 - Jun '26

Construction Documents (FY24 - FY24)

60% Submittal to MSBA - Oct '23

90% Submittal to MSBA - Jan '24

Completion of Construction Docs - Mar '24

Bidding Documents/ Procurement (FY24-FY25)- Apr '24 - July 24

Construction (FY25-27) - Aug '24 - Aug '26

New Building Opens (FY27) - Sept '26

Parameters Addressed:

Project Costs Not Included: Cost of Design and Construction of Combined Project.

Permitting: As required by Town Boards.

Building Improvements: The PPBC and Public Facilities Department support this request.

FTE: Estimate 2.0 Additional Custodians; 2.0 Additional Crossing Guards, Similar to Hillside.

Operating Budget Increase: Improvements to HVAC, electrical system may increase building maintenance expense by more than \$100,000/year. This placeholder estimate to be revised during design process.

Extend Useful Life: See above narrative.

Other Departmental Assistance: PPBC Project Management; Public Facilities Maintenance & Custodial.

Operating Budget Increase for Another Department: See above.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Emery Grover Feasibility Study Refresh **Fiscal Year:** 2019

Purpose:	Feasibility Study	Classification:	Building	Status:	New Request
Department:	Needham Public Schools			Supports:	Public Education
Partners:				Useful Life:	More than twenty-five (25) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	No
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$70,000	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$70,000	\$70,000						
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$0							
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$70,000	\$70,000	\$0	\$0	\$0	\$0	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Emery Grover Feasibility Study Refresh

Fiscal Year:

2019

Project Description and Considerations

The 2005 Facilities Master Plan indicated that the Emery Grover School Administration Building is in need of additional office and storage space, as well as extensive repair and modernization. The needed scope of renovation includes reorganizing office and meeting spaces, making the building fully ADA accessible, removing remaining asbestos and lead paint, and replacing deteriorating systems, including: windows, HVAC, electrical and plumbing. These renovations would allow for a more efficient use of space, as well as full utilization of all four floors and full handicapped accessibility. A capital funding request has been separately submitted for this project, based on the preliminary schedule below:

Preliminary Project Schedule - Renovate/Reconstruct Emery Grover Building at Highland Avenue Location:

Feasibility Study: FY14 (\$30,000)

Feasibility Study Refresh: FY19

Design: FY20 (May '19 ATM)

Project Funding Year: FY21 (May '20 ATM)

Emery Grover Occupies Swing Space: FY21-FY22 (July '20 - Sept '22)

Construction: FY21-FY22

New Building Opens: 9/2022 (FY23)

A feasibility study was conducted in August 2013 by DesignLAB Architects, which identified several options for the building, including: renovation of the existing building, the purchase/renovation of commercial property, and new construction on an alternate Town-owned parcel. This request is to conduct a 'refresh' of the original study, which was conducted five years ago and which must be refreshed to provide useful information for the design project above. The refreshed study should focus exclusively on a project to renovate/reconstruct the Emery Grover Building at the Highland Avenue location, rather than the alternate options of purchasing/renovating commercial property or new construction on another Town-owned parcel. The study should include an updated project budget and schedule, address temporary relocation requirements and identify any building code changes that will be needed to accommodate the projected use. In addition, the study should include the assessment of swing space options including timelines and project budget for the swing space.

Parameters Addressed:

Community Preservation Committee: Funding to be Requested from CPC

Other Departmental Assistance: PPBC Project Management

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Full Day Kindergarten Space Modifications **Fiscal Year:** 2020

Purpose:	Construction	Classification:	Building	Status:	Same Request from the Prior CIP
Department:	Needham Public Schools			Supports:	Public Education
Partners:				Useful Life:	More than twenty-five (25) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Yes
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	Yes
6. If funded, will additional permanent staff be required?	No
Total New FTE's:	No
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$50,000	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$20,000		\$20,000					
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$30,000		\$30,000					
TOTAL	\$50,000	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Full Day Kindergarten Space Modifications

Fiscal Year:

2020

Project Description and Considerations

The School Committee has prioritized the implementation of Full-Day Kindergarten (FDK) in Needham. Based on a preliminary analysis completed in June 2015 (and updated in December 2015), up to five additional classrooms maybe needed in the year of initial implementation, to accommodate the projected population of Kindergarteners at an average class size of 20 students. These classrooms could be provided by re-purposing non-traditional space at each elementary school, such as art/music/world language/technology classrooms, or by re-using available space at the existing Hillside School, or another Town building. Based on the accelerated schedule for completing construction of the new Hillside School at Central Avenue, the existing Hillside will become vacant in September 2019, when the new school is completed.

In FY18, Town Meeting appropriated \$50,000 for a space planning/feasibility study that would identify the exact spaces needed for Full Day Kindergarten, and plan for any retrofits required to these spaces. This Feasibility Study is expected to be completed by February 26, 2018. This request is a companion to that study and represents a **placeholder request** for the funding needed to implement the modifications/retrofits identified by the Feasibility Study. The project includes a placeholder estimate of \$30,000 for repairs, to be expended as needed, plus \$20,000 to purchase Kindergarten classroom technology, furniture and/or play equipment. (The budgeted cost of furniture is \$5,000 per classroom.) Other operational expenses associated with Full-Day Kindergarten would be provided through the operating budget.

Parameters Addressed:

Project Costs Not Included: Operational cost of Full-Day Kindergarten implementation to be funded through Operating Budget

Technology: The School Instructional Technology Department is in support of this request. New classroom spaces identified through the Feasibility Study could require a retrofit for classroom technology (including Interactive Whiteboards and Computers), the funding for which would come from this project budget.

Building Improvements: The PPBC and Public Facilities Department support this request. The feasibility study will identify the type, scope and budget of any facility retrofits needed.

Other Departmental Assistance: PPBC or Public Facilities Project Management, depending on the type, scope and budget of any facility retrofits needed.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Mitchell School Renovation **Fiscal Year:** 2025

Purpose:	Construction	Classification:	Building	Status:	Same Request from the Prior CIP
Department:	Needham Public Schools			Supports:	Public Education
Partners:	Massachusetts School Building Authority			Useful Life:	More than twenty-five (25) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	Yes
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Yes
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	Yes
6. If funded, will additional permanent staff be required?	Total New FTE's: 4 Yes
7. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	Yes

Project Cost:	\$650,000	How was the Project Cost Determined:	Hired Consultant
Budget Impact:	May increase annual operating expenses by more than \$100,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$650,000							\$650,000
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$0							
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$650,000	\$0	\$0	\$0	\$0	\$0	\$0	\$650,000

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Mitchell School Renovation

Fiscal Year: 2025

Project Description and Considerations

Constructed in 1950, the Mitchell Elementary School has undergone several additions over the past 50 years, but is in need of total renovation/replacement to address building deficiencies and modernize the learning environment. This request would bring the Mitchell facility to a level of modernization comparable to that of the Hillside School, which is in the midst of an ongoing renovation project. The Town of Needham has submitted Statements of Interest to the MSBA to partner with the Town in renovating this school, but has not yet received an invitation to move forward with construction.

This is a project to renovate/replace the Mitchell School and is contingent upon the MSBA agreeing to partner with the Town in completing this project. It is possible that a modified project scope could be considered. Final decisions will be made upon project acceptance and a feasibility study, completed jointly with the MSBA. Project costs are based on a 2014 update of a 2012 Dore & Whittier Pre-feasibility estimate for an 82,227 s.f. 503-student school (Option 1A.3, New Construction), plus \$650,000 for pre-feasibility design.

Preliminary Project Schedule:

Feasibility Study: FY25

Debt Exclusion Override: FY25 (April 2015)

Schematic Design/Design Development/ Project Funding Year: FY26

Mitchell Moves to Swing Space: FY27

Construction: FY27 & FY28

New School Opens: September 2028 (FY29)

Project Budget:

The Total estimated project cost of \$88,526,200 occurs outside of the five-year window and is detailed in the chart below. The total budget excludes the cost of swing space, which is described in a separate capital request, either in the form of renovating the Hillside School for use as swing space, or the cost of constructing a temporary school at DeFazio Park. Project costs are based on a 2012 Dore & Whittier Pre-feasibility estimate of \$39,543,000 for an 82,227 s.f. 503-student school (Option 1A.3, New Construction), plus \$650,000 for pre-feasibility design. The Dore & Whittier costs, developed in 2012, were updated in 2014 and escalated for 14 years to FY27 (the mid-point of construction.) The FY25 cost of \$650,000 represents the cost of feasibility design.

This project reflects a 5% escalation factor, beginning in FY17, based on advice from the PPBC.

The preliminary estimated MSBA reimbursement rate for this project is 32.47%.

Parameters Addressed:

Project Costs Not Included: See Project Budget narrative above.

Permitting: As required by Town Boards.

Technology: The School Instructional Technology Department is in support of this request. The estimated project cost includes a full FF&E budget for this new facility, including classroom technology.

Building Improvements: The PPBC and Public Facilities Department support this request.

FTE: Estimate 2.0 Additional Custodians; 2.0 Additional Crossing Guards, Similar to Hillside.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Mitchell School Renovation

Fiscal Year: 2025

Supplemental Information

**Mitchell School Renovation/ Replacement, Based on 2014 Dore & Whittier PreFeasibility Study
Option 1A.2a, New School Construction for 503 Students, Updated 2014
Scheduled opening: September 2023 (FY24)**

82,227 SF Building		Feasibility	Construction*	A/E	FF&E	Constr Mgnt	Total	Cost/SF
FY14 Project Cost (D&W)		650,000	34,781,640	6,048,928	1,207,200	1,512,232	44,200,000	
TOTAL		650,000	34,781,640	6,048,928	1,207,200	1,512,232	44,200,000	\$538
		1%	79%	14%	3%	3%	100%	
6.00%	FY15 Cost Multiplier @ 6%	650,000	36,868,538	6,411,864	1,279,632	1,602,966	46,813,000	\$569
6.00%	FY16 Cost Multiplier @ 6%	650,000	39,080,651	6,796,576	1,356,410	1,699,144	49,582,780	\$603
5.00%	FY17 Cost Multiplier @ 3.8%	650,000	41,034,683	7,136,404	1,424,230	1,784,101	52,029,419	\$633
5.00%	FY18 Cost Multiplier @ 3.8%	650,000	43,086,417	7,493,224	1,495,442	1,873,306	54,598,390	\$664
5.00%	FY19 Cost Multiplier @ 3.8%	650,000	45,240,738	7,867,886	1,570,214	1,966,971	57,295,809	\$697
5.00%	FY20 Cost Multiplier @ 3.8%	650,000	47,502,775	8,261,280	1,648,725	2,065,320	60,128,100	\$731
5.00%	FY21 Cost Multiplier @ 3.8%	650,000	49,877,914	8,674,344	1,731,161	2,168,586	63,102,005	\$767
5.00%	FY21 Cost Multiplier @ 3.8%	650,000	52,371,810	9,108,061	1,817,719	2,277,015	66,224,605	\$805
5.00%	FY22 Cost Multiplier @ 3.8%	650,000	54,990,400	9,563,464	1,908,605	2,390,866	69,503,335	\$845
5.00%	FY23 Cost Multiplier @ 3.8%	650,000	57,739,920	10,041,637	2,004,035	2,510,409	72,946,002	\$887
5.00%	FY24 Cost Multiplier @ 3.8%	650,000	60,626,916	10,543,719	2,104,237	2,635,930	76,560,802	\$931
5.00%	FY25 Cost Multiplier @ 3.8%	650,000	63,658,262	11,070,905	2,209,449	2,767,726	80,356,342	\$977
5.00%	FY26 Cost Multiplier @ 3.8%	650,000	66,841,175	11,624,451	2,319,921	2,906,113	84,341,660	\$1,026
5.00%	FY27 Cost Multiplier @ 3.8%	650,000	70,183,234	12,205,673	2,435,917	3,051,418	88,526,243	\$1,077
14 Years	TOTAL PROJECT COST	650,000	70,183,234	12,205,673	2,435,917	3,051,418	88,526,243	\$1,077
	TOTAL COST (ROUNDED)	650,000	70,183,200	12,205,700	2,435,900	3,051,400	88,526,200	\$1,077

* Excludes modular temporary classrooms

Square Footage 82,227

Note - costs escalated at rates shown above, to midpoint of construction (FY27). There are 2 construction years, FY27 and FY28. School opens FY29 (Sept 2028). Mitchell moves to swing space FY27. FY25 is feasibility funding year; FY26 is design & full funding year.

	FY25	FY26	FY27	
Feasibility	650,000			650,000
Arch/Engineering		12,205,700		12,205,700
<u>Construction</u>			<u>75,670,500</u>	<u>75,670,500</u>
	650,000	12,205,700	75,670,500	88,526,200

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Newman Preschool Playground Custom Shade Shelter **Fiscal Year:** 2020

Purpose:	Acquisition	Classification:	Equipment	Status:	New Request
Department:	Needham Public Schools			Supports:	Public Education
Partners:				Useful Life:	

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	Yes
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	No
Total New FTE's:	
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	Yes
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	Yes
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$49,800	How was the Project Cost Determined:	Industry References
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$0							
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$49,800		\$49,800					
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$49,800	\$0	\$49,800	\$0	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: Newman Preschool Playground Custom Shade Shelter

Fiscal Year:

2020

Project Description and Considerations

The Newman Preschool playground was renovated in FY14. The playground is situated in a part of the school that has constant sunlight. At this time, access to the playground is limited to mild weather given that there is no available shade on the playground and temperatures climb rapidly on sunny days. About half of the children who attend the preschool are identified as having special needs, and many struggle with their social-emotional skills. A custom shade shelter would increase the students' comfort and access to the playground, which in turn would create more meaningful social opportunities for them during their day. It is also worth noting that this impacts the program year round, as the preschool runs a summer program for students who require year- round special education services.

This request is for a custom shade shelter to be built over the center section of the playground. The quoted structure consists of five steel columns and three triangular 'sail style' canopy tops, of the type depicted in the picture below. This structure would provide the shade necessary for students and staff to remain outside during recess periods. The quoted purchase and installation cost is \$43,000 (2017.) The estimated FY20 cost of \$49,800 includes an annual inflation adjustment of 5%. Permitting would be required.



Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Pollard Phased Improvements Feasibility Study **Fiscal Year:** 2019

Purpose:	Construction	Classification:	Building	Status:	Amended Request from the Prior CIP
Department:	Needham Public Schools			Supports:	Public Education
Partners:				Useful Life:	More than twenty-five (25) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	Yes
6. If funded, will additional permanent staff be required?	No
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$65,000	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$65,000	\$65,000						
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$0							
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$65,000	\$65,000	\$0	\$0	\$0	\$0	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Pollard Phased Improvements Feasibility Study

Fiscal Year:

2019

Project Description and Considerations

This is a project to study the feasibility of phasing the Pollard Improvements project over multiple years, for the purpose of best addressing the needs of that facility in the most timely and economically feasible manner possible. Additionally, the study should evaluate the current condition of the Pollard modulars and develop recommendations (as needed) for extending their useful life until such time as they can be replaced with permanent construction.

The Pollard Improvements Project is presented as a separate Capital Improvement Project Request, timed for initial funding in FY 27. This project is based on a 2011 facilities assessment completed by Dore & Whittier Architects, which identified approximately \$17.8 million in needed upgrades to the Pollard School. These were upgrades that could not be undertaken as part of the regular maintenance budget, due to their large scope and/or cost, and included: renovation and enlargement of the science and engineering classrooms, updates to the auditorium and reconfiguration of the administration area. The science classrooms are undersized compared to Massachusetts School Building Authority (MSBA) standards, do not have adequate prep rooms or storage spaces and include casework and plumbing fixtures that are in poor condition. The engineering classroom is a converted space that is not well-suited to delivery of the curriculum. The auditorium needs updating, including sound and lighting upgrades, in order to remain a suitable space for performing arts, guest lectures and assemblies. In addition, the administration space, which is located on the side of the building, is difficult for visitors to locate, doesn't allow school personnel to view visitors as they approach the building and is undersized by MSBA standards. Finally, the modular classrooms, constructed in 2002, are not designed as permanent, long-term facilities. They are constructed of inexpensive materials, in off site production style construction techniques and are not energy efficient. A long-term solution will be required within the next five to ten years. (The expected lifespan for modular classrooms is 20-25 years.)

Given the scope and cost of these upgrades, as well as the need to modernize other school facilities within the next ten year period (Hillside School, Mitchell School, Emery Grover Administration Building), the School Department has requested funding for these improvements beginning in FY27, with an expected completion year in September 2030 (FY31.) The placement of this project so far into the future defers these needed improvements by more than a decade, resulting in significantly increased cost and a lengthy period of unmet need.

The purpose of the feasibility study is to determine whether or not it would be possible to phase the project over multiple years with the goal of accelerating completion of the project and reducing the overall project cost. A particular emphasis is the Pollard modular classrooms, which are nearing the end of their useful life, but which are needed to meet the current program of studies for the projected enrollment. The study should also look at the cost benefit of completing the science classrooms first to create swing space when the modular classrooms are demolished, examine strategies to maximize potential MSBA reimbursement for this project and, finally, estimate future need, based on long-term enrollment trends. In addition, some ongoing maintenance repair work may have reduced the scope of the overall project, such as the relocation of the administrative offices at Pollard, renovations to bathrooms and auditorium seating improvements.

This request is amended from last year to reflect a FY2019 funding year, since it was not funded in FY18.

Parameters Addressed:

Other Departmental Assistance: PPBC Project Management

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: Pollard School Renovation					Fiscal Year: 2027				
Purpose:	Construction	Classification:	Building	Status:	Same Request from the Prior CIP				
Department:	Needham Public Schools			Supports:	Public Education				
Partners:	Massachusetts School Building Authority			Useful Life:	More than twenty-five (25) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?								Yes	
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?								No	
3. Does this project require any permitting by any Town or State agency?								Yes	
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?								Yes	
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?								No	
6. If funded, will additional permanent staff be required?						Total New FTE's:		No	
7. If funded, will the operating budget need to be increased to cover operating expenses?								Yes	
8. If funded, will this project lower the requesting Department's operating costs?								No	
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?								No	
10. If the project is NOT funded, will current Town revenue be reduced?								No	
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?								No	
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?								No	
13. Is this a request in response to a Court, Federal, or State order?								No	
14. Is this a request in response to a documented public health or safety condition?								No	
15. Is this a request to improve or make repairs to extend the useful life of a building?								Yes	
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?								No	
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?								No	
18. Will any other department be required to provide assistance in order to complete the project?								Yes	
19. If funded, will this project increase the operating expense for any other department?								Yes	
Project Cost:	\$0	How was the Project Cost Determined:			Hired Consultant				
Budget Impact:	May increase annual operating expenses by more than \$100,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$0								
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$0								
Construction Management	\$0								
Equipment	\$0								
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
\$0									

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Pollard School Renovation

Fiscal Year: 2027

Project Description and Considerations

In 2011, a facilities assessment was conducted of the Mitchell, Hillside and Pollard Schools. This assessment identified repair projects that should be undertaken to extend the useful life of these school buildings. It also identified, in summary fashion, the need for programmatic improvements at the Pollard Middle School, for the purpose of adapting Pollard to the “21st Century Learning” environment. This environment reflects changes in education that have occurred over the past 50 years, including technology integration, project-based learning, team-teaching, multi-disciplinary collaboration and special education delivery methods. Dore & Whittier, the architects who conducted the facilities assessment, concluded that a detailed programmatic study be undertaken, in order to understand the full scope of the programmatic improvements needed and to ensure that any future renovation/improvement project be comprehensive enough to meet both the facility maintenance and programmatic needs of the school for the next several decades.

Many of the improvements identified in the facilities assessment have been, or will be, completed through the regular maintenance program. These include: bathroom renovation; interior door replacement; installation of LED exist signs; roof repair; installation of new gas main on Harris Ave.; replacement of the telephone, PA and clock systems; replacement of the paved walkway from the parking lot to the building; water fountain replacement; demolition of the condemned bridge; auditorium seating replacement; gym flooring replacement; removal of remaining VCT and VAT flooring in the 1958 wing; water heater replacement; removal and abatement of the fuel oil tank; boiler replacement; classroom lighting replacement; asbestos abatement.

Other identified improvements, however, will not be undertaken as part of the regular maintenance budget. These include: renovation and enlargement of the science and engineering classrooms, updates to the auditorium and reconfiguration of the administration area. The science classrooms are undersized from Massachusetts School Building Authority (MSBA) standards, do not have adequate prep rooms or storage spaces and include casework and plumbing fixtures that are in poor condition. The engineering classroom is a converted space that is not well-suited to delivery of the curriculum. The auditorium needs updating, including sound and lighting upgrades, in order to remain a suitable space for performing arts, guest lectures and assemblies. In addition, the administration space, which is located on the side of the building, is difficult for visitors to locate, doesn't allow school personnel to view visitors as they approach the building and is undersized by MSBA standards. Finally, the modular classrooms, constructed in 2002, are not designed as permanent, long-term facilities. They are constructed of inexpensive materials, in fast-production style construction techniques and are not energy efficient. A long-term solution will be required within the next fifteen years. (The expected lifespan for modular classrooms is 20-25 years.)

This request is for funds to repair/renovate the Pollard Middle School to address identified deficiencies and meet programmatic needs. The projected cost was developed by Needham Public Schools, based on improvements identified in the Condition Assessment, which Public Facilities does NOT expect to undertake from its regular maintenance budget. These projects include the following: Replace Doors (#1.03 \$113,880), Renovate Exit Corridors Near Band Room (#1.17 \$131,400), Remove Borrowed Lights in 1958 Building (#2.02, \$47,085), Sprinkler Remaining Building (#2.03, \$1,620,600), New Science Classroom Addition Option 3 (#3.01.3, \$6,745,200), Relocate Administration & Convert Existing Administration to Classroom (#3.02, \$1,423,500), Renovate Multi-Stall Toilet Rooms Near Auditorium (#3.03, \$952,650), Renovate Auditorium (HVAC, Light, Flooring, Seating) (#3.08, \$2,392,575), Replace Existing Signage (#4.05, \$4,380), Upgrade Elevator Controls (#4.07, \$43,800), Accessibility Improvements to Choral Room & Lecture Hall (#4.08, \$19,710), Sell or Demolish Modular Classrooms (#5.1, \$9,855), Replace Water Distribution Piping (#5.15, \$416,100), Replace Classroom Sinks (#5.17, \$76,650), Remove Pneumatic Control System & Replace with Electronic (#5.19, \$697,515), Replace Classroom Unit Ventilators & Repairs to Roof (#5.21, \$660,285), In Core & Assembly Areas & Replace with VAV Heat/Cool RTUs (#5.22, \$1,018,350), Electrical Service Upgrade (#5.24, \$996,450), Replace Fire Alarm Control Panels (#5.25, \$48,180), Replace PA System Head End (#5.26, \$52,000), New Site Drainage Structures & Pipe (#5.28, \$181,770), and Provide New Server & Water Line Connections (#5.29, \$153,300.) The cost of item #3.01.3 is based on “Science Option 3,” which constructs a 14,500 s.f. science wing addition to the school. A Statement of Interest will be filed with the MSBA to initiate a dialog about this facility. It is possible that a modified project scope could be considered. Final decisions will be made upon project acceptance and a feasibility study, completed jointly with the MSBA.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Pollard School Renovation

Fiscal Year: 2027

Preliminary Project Schedule:

Feasibility Study: FY27
Schematic Design/Project Funding Year: FY28
Pollard Moves to Swing Space: FY29
Construction: FY29-30
Renovated School Opens: September 2030 (FY31)

Preliminary Budget:

Project costs based on Dore & Whittier Facilities Assessment, 2014. The total project budget is \$72,004,100 and is broken out in the chart below. Costs escalated at 6%/year (FY15 & FY16), and 5%/year, thereafter. The preliminary MSBA reimbursement rate for this project is 32.47%. This project is revised from prior years to use a 5% escalation factor in fiscal years beginning FY17, as directed by the PPBC.

Parameters Addressed:

Project Costs Not Included: See Project Budget narrative above.
Permitting: As required by Town Boards.
Building Improvements: The PPBC and Public Facilities Department support this request.
Operating Budget Increase: Improvements to HVAC, electrical system may increase building maintenance expense by more than \$100,000/year. This placeholder estimate to be revised

**Pollard Improvements
Dore & Whittier, Comprehensive Facilities Assessment, 2014**

<i>From Condition Assessment - Pollard Long-Term Improvements</i>	Construction
1.03 Replace Corridor/Doors w Fire Rated Doors	113,880
1.17 Renovate Exit Corridors Near Band Room	131,400
2.02 Remove Borrowed Lites in 1958 Building	47,085
2.03 Sprinkler Remaining Building	1,620,600
3.01.3 New Science Classroom Addition (Option 3)	6,745,200
3.02 Relocate Admin, Convert Existing Admin to Classrooms	1,423,500
3.03 Multi-Stall Toilet Rooms Near Auditorium	952,650
3.08 Renovate Auditorium AHVAC, Lighting, Flooring, Seating	2,392,575
4.05 Replace Existing Signage	4,380
4.07 Upgrade Elevator Controls	43,800
4.08 Accessibility Improvements to Choral Room & Lecture Hall	19,710
5.1 Sell or Demolish Modular Classrooms; Regrade Area	9,855
5.15 Replace Water Distribution Piping	416,100
5.17 Replace Classrom Sinks	76,650
5.19 Remove Pneumatic Control System & Replace with Electronic	697,515
5.21 Replace Classroom Unit Ventilators, Repairs to Roof	660,285
5.22 In Core & Assembly Areas, Replace with VAV Heat/Cool RTUs	1,018,350
5.24 Electrical Service Upgrade	996,450
5.25 Replace Fire Alarm Control Panels	48,180
5.26 Replace PA System Head End	52,000
5.28 New Site Drainage Structures & Pipe	181,770
5.29 Provide New Server & Water Line Connections	153,300
Subtotal Condition Assessment Cost	17,805,235

Assume
Feasibility - 1 year
Design - 1 year
Construction - 2 Years

Assume
Feasibility Funding Year - FY27
Project Funding Year - FY28
Midpt of Constr - FY29 (15 Years Escalation)

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request					
Project Title:	Pollard School Renovation			Fiscal Year:	2027
	General Conditions Allowance	1,780,524	10% of construction	6.00%	FY15 & FY16
	Escalation to Mid Point of Construction	21,910,889	15 Yrs to 2029	5.00%	Afterward
	Subtotal A Construction	41,496,648			
	Bonds	414,966	1% of Subtotal A		
	Insurance	414,966	1% of Subtotal A		
	Subtotal B Construction	42,326,581			
	Fee	534,157	3% of Condition Assessment Cost		
	Design & Pricing	6,348,987	15% of Subtotal B		
	Total Construction Cost	49,209,725			
	Project Contingency - Construction	7,381,459	15% of Total Construction		
	Project Contingency - Owner	2,460,486	5% of Total Construction		
	Subtotal Contingency	9,841,945			
	Soft Cost (OPM, A/E, Survey, etc)	12,302,431	25% of Total Construction		
	FF&E	-			
	Total	71,354,101			
	<u>Summary</u>				
	Construction Cost	49,209,725			
	Project Contingency	9,841,945			
	Soft Cost	12,302,431			
	FF&E	-			
	Total	71,354,101	(Excluding Feasibility)		
		Total	Rounded Total		
	Feasibility	650,000	650,000		
	Schematic Design	9,841,945	9,841,900		
	Construction	56,591,184	56,591,200		
	Owners Project Contingency (Other)	2,460,486	2,460,500		
	Construction Management	2,460,486	2,460,500		
	Total	72,004,101	72,004,100		

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Renovate/Reconstruct Emery Grover Building at Highland Avenue Location **Fiscal Year:** 2020

Purpose:	Construction	Classification:	Building	Status:	Amended Request from the Prior CIP
Department:	Needham Public Schools			Supports:	Public Education
Partners:	Community Preservation			Useful Life:	More than twenty-five (25) years

Parameters

Response

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	Yes
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Yes
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	Yes
6. If funded, will additional permanent staff be required?	Yes
Total New FTE's:	2
7. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	Yes
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	Yes
Project Cost:	\$14,694,500
How was the Project Cost Determined:	Hired Consultant
Budget Impact:	May increase annual operating expenses by more than \$100,000

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$1,494,100		\$1,494,100					
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$11,156,600			\$11,156,600				
Construction Management	\$111,100		\$111,100					
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$611,800			\$611,800				
Technology Hardware/Software	\$0							
Other Expenses	\$1,320,900			\$1,320,900				
TOTAL	\$14,694,500	\$0	\$1,605,200	\$13,089,300	\$0	\$0	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Renovate/Reconstruct Emery Grover Building at Highland Avenue Location

Fiscal Year:

2020

Project Description and Considerations

The 2005 Facilities Master Plan indicated that the Emery Grover School Administration Building is in need of additional office and storage space, as well as extensive repair and modernization. The needed scope of renovation includes reorganizing office and meeting spaces, making the building fully ADA accessible, removing remaining asbestos and lead paint, and replacing deteriorating systems, including: windows, HVAC, electrical and plumbing. These renovations would allow for a more efficient use of space, as well as full utilization of all four floors and full handicapped accessibility.

A feasibility study was conducted in August 2013 by DesignLAB Architects, which identified several options for the building, including: renovation of the existing building, the purchase/renovation of commercial property, and new construction on an alternate Town-owned parcel. This request is for the renovation of the existing Emery Grover building at its present location. Based on a preliminary budget developed by DesignLAB, the \$9.7 million total cost (2013 \$) could be reduced by Community Preservation Act funding of approximately 67% of construction and related soft costs. The budget includes funds to temporarily re-locate staff to swing space during construction.

Preliminary Project Schedule:

Feasibility Study: FY14 (\$30,000)

Feasibility Study Refresh: FY19 (see separate request)

Design: FY20 (May '19 ATM)

Project Funding Year: FY21 (May '20 ATM)

Emery Grover Occupies Swing Space: FY21-FY22 (July '20 - Sept '22)

Construction: FY21-FY22

New Building Opens: 9/2022 (FY23)

Project Budget:

The above referenced project budget excludes \$30,000 approved at May 2013 Annual Town Meeting for feasibility design, as well as a \$50,000 request in FY19 to 'refresh' the results of the feasibility study conducted in FY14 for the purpose of updating the cost estimates, examining temporary relocation requirements and identifying possible changes to the building code to accommodate the intended use. The feasibility 'refresh', which is presented as a separate capital request, could be funded from CPA funds. The "Other Expenses" category includes \$1,267,740 to occupy leased swing space for one year, while the building is being renovated, including moving expense, plus \$53,200 in legal expense. If, alternatively, the modernized Hillside School is used as swing space, the project budget could be reduced by the lease expense. (The project to modernize Hillside for use as swing space is presented separately.) All costs include 8 years of escalation to the mid-point of construction, using 6%/year (FY14-FY16) and 5.0%/year thereafter.

This project reflects a 5% cost escalator for fiscal years starting FY17, based on advice from the PPBC. It is likely that the final design budget will need to include 2% construction management expense (compared to 1%), but that adjustment is not reflected above, in order to preserve the integrity of the source information.

Parameters Addressed:

Project Costs Not Included: See Project Budget narrative above.

Permitting: As required by Town Boards.

Technology: The School Instructional Technology Department is in support of this request. The estimated project cost includes a full FF&E budget for this new facility, including technology.

Building Improvements: The PPBC and Public Facilities Department support this request.

FTE: Estimate 1.0 Additional Custodian; 1.0 Additional Building Maintenance.

Operating Budget Increase: Improvements to HVAC, electrical system may increase building maintenance expense by more than \$100,000/year. This placeholder estimate to be revised

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Renovate/Reconstruct Emery Grover Building at Highland Avenue Location

Fiscal Year: 2020

Supplemental Information

Emery Grover Renovation Cost Estimated, Based on 2013 DesignLab Study

21,235 SF Building		Feasibility	Construction	A/E	Constr Mgmt	Temporary	FF&E	Other	Total	Cost/SF	Less CPA	Net Cost
FY13 Project Cost (DesignLab)		-	7,339,550	982,906	73,120	834,000	402,500	35,000	9,667,076		8,350,000	1,317,076
TOTAL		-	7,339,550	982,906	73,120	834,000	402,500	35,000	9,667,076	\$455	8,350,000	1,317,076
		0%	76%	10%	1%	9%	4%	0%	100%			
6.00%	FY14 Cost Multiplier @ 6%	-	7,779,923	1,041,880	77,507	884,040	426,650	37,100	10,247,101	\$483	8,350,000	1,897,101
6.00%	FY15 Cost Multiplier @ 6%	-	8,246,718	1,104,393	82,158	937,082	452,249	39,326	10,861,927	\$512	8,350,000	2,511,927
6.00%	FY16 Cost Multiplier @ 6%	-	8,741,521	1,170,657	87,087	993,307	479,384	41,686	11,513,642	\$542	8,350,000	3,163,642
5.00%	FY17 Cost Multiplier @ 5%	-	9,178,598	1,229,190	91,441	1,042,973	503,353	43,770	12,089,324	\$569	8,350,000	3,739,324
5.00%	FY18 Cost Multiplier @ 5%	-	9,637,527	1,290,649	96,014	1,095,121	528,521	45,958	12,693,791	\$598	8,350,000	4,343,791
5.00%	FY19 Cost Multiplier @ 5%	-	10,119,404	1,355,182	100,814	1,149,877	554,947	48,256	13,328,480	\$628	8,350,000	4,978,480
5.00%	FY20 Cost Multiplier @ 5%	-	10,625,374	1,422,941	105,855	1,207,371	582,694	50,669	13,994,904	\$659	8,350,000	5,644,904
5.00%	FY21 Cost Multiplier @ 5%	-	11,156,643	1,494,088	111,148	1,267,740	611,829	53,203	14,694,649	\$692	8,350,000	6,344,649
8	TOTAL PROJECT COST	-	11,156,643	1,494,088	111,148	1,267,740	611,829	53,203	14,694,649	\$692	8,350,000	6,344,649
	TOTAL COST (ROUNDED)	-	11,156,600	1,494,100	111,100	1,267,700	611,800	53,200	14,694,500	\$692	8,350,000	6,344,500

Square Footage 21,235

Note - costs escalated at rates shown above, to midpoint of construction (FY21). There are 2 construction years, FY21 and FY22. EG opens FY23 (July 2022). FY14 & FY19 are feasibility funding years; FY20 is SD/DD. CPA Funding is assumed at 67%.

Project Funding Schedule	FY14	FY20	FY21	FY14-21 Total
Pre-Design	30,000			-
Engineering & Design		1,494,100		1,494,100
Construction	0	111,100	13,089,300	13,200,400
Total	30,000	1,605,200	13,089,300	14,694,500
			Plus FY14 Design:	30,000
				14,724,500

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: School Copiers					Fiscal Year: 2019				
Purpose:	Acquisition	Classification:	Equipment	Status:	Amended Request from the Prior CIP				
Department:	Needham Public Schools			Supports:	Public Education				
Partners:	None			Useful Life:	More than five (5) years				
Parameters								Response	
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?									No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?									No
3. Does this project require any permitting by any Town or State agency?									No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?									No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?									No
6. If funded, will additional permanent staff be required?								Total New FTE's:	No
7. If funded, will the operating budget need to be increased to cover operating expenses?									No
8. If funded, will this project lower the requesting Department's operating costs?									No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?									No
10. If the project is NOT funded, will current Town revenue be reduced?									No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?									No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?									No
13. Is this a request in response to a Court, Federal, or State order?									No
14. Is this a request in response to a documented public health or safety condition?									No
15. Is this a request to improve or make repairs to extend the useful life of a building?									No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?									No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?									No
18. Will any other department be required to provide assistance in order to complete the project?									No
19. If funded, will this project increase the operating expense for any other department?									No
Project Cost:	\$359,850	How was the Project Cost Determined:			Industry References				
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000								
Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025	
Planning/Feasibility	\$0								
Design/Engineering	\$0								
Land/ROW Acquisition	\$0								
Site Preparation	\$0								
Construction	\$0								
Construction Management	\$0								
Equipment	\$359,850	\$84,190	\$52,470	\$84,690	\$86,360	\$52,140			
Furniture, Fixtures, and Equipment	\$0								
Technology Hardware/Software	\$0								
Other Expenses	\$0								
TOTAL	\$359,850	\$84,190	\$52,470	\$84,690	\$86,360	\$52,140	\$0	\$0	

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: School Copiers

Fiscal Year: 2019

Project Description and Considerations

In May of 2003, Town Meeting authorized \$60,000 in first year funding to establish a replacement cycle for school photocopiers. School photocopiers are located in all the schools and the administration building, and are used both by administrative and teaching staff. Teachers use the machines to reproduce classroom materials, including homework sheets, exams, teaching packets etc. Currently the School Department owns 47 copy machines. The FY19-FY23 request replaces the following numbers of copy machines.

Fiscal Year	#of Copy Machines Replaced
FY18 (Requested)	5
FY19 (Requested)	6
FY20 (Requested)	2
FY21 (Requested)	6
FY22 (Requested)	8
FY23 (Requested)	4

Copier replacement is planned on a cycle analysis, which projects when a copier should be replaced based on actual usage and the manufacturer's total estimated capacity. Copiers which are heavily used, are replaced more frequently than copiers that are lightly used. A seven-year maximum is assumed for most machines, even if they have not yet reached maximum copy allowances, given the additional operating expense associated with servicing and maintaining older equipment, as well as the difficulty in obtaining replacement parts. This analysis assumes that copiers are re-deployed around the District as needed, to match copier use with equipment capacity.

This request is revised from the prior CIP to reflect updated life cycle calculations (based on copier usage and current condition), which have shifted replacement priorities in some cases.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: **School Copiers**

Fiscal Year: **2019**

Supplemental Information

Building	Location	Make	Model	Purchase Year	% of Useful Life					Replacement Cost					Age at Repl'm't
					FY19	FY20	FY21	FY22	FY23	FY19	FY20	FY21	FY22	FY23	
Administration	SECOND FLOOR	XEROX	5755APT	12/11/12	82%	12%	25%	37%	50%	\$10,330	-	-	-	-	7
Administration	Production Center	Konica	KM1025	9/1/15	103%	130%	27%	54%	82%	-	\$38,590	-	-	-	5
Administration	FIRST FLOOR	Konica	KM 754 e	2/26/14	13%	16%	18%	20%	2%	-	-	-	\$7,090	-	8
Administration	Production Center	XEROX refurb	D125	12/11/12	94%	9%	18%	26%	35%	\$36,750	-	-	-	-	7
Broadmeadow	Teacher Lounge	Konica	KM 654 E	2/26/14	51%	59%	68%	8%	17%	-	-	\$14,570	-	-	9
Broadmeadow	Teachers Room	Konica	KM 654 E	10/15/14	18%	21%	25%	29%	4%	-	-	-	\$7,090	-	8
High School	Main Office	Konica	KM 364E	8/15/15	100%	106%	112%	6%	12%	-	-	\$6,750	-	-	6
Broadmeadow	ETC	XEROX	3550	4/1/12	30%	34%	39%	4%	9%	-	-	\$2,250	-	-	9
High School	Media	XEROX	3550	4/1/12	12%	14%	15%	16%	18%	-	-	-	-	-	
High School	Athletics	Konica	KM 454E	8/23/16	31%	47%	62%	78%	94%	-	-	-	-	\$7,440	7
High School	Math/Sci Rm 205	XEROX	5775PT	11/15/11	4%	9%	13%	17%	21%	-	-	-	-	-	
High School	World Lang 704	Konica	KM 654 e	2/26/14	44%	53%	61%	70%	27%	-	-	-	\$15,300	-	8
High School	Health Office 607	XEROX	WC3550 X	12/11/12	8%	9%	10%	11%	12%	-	-	-	-	-	
High School	Bookkeeper's Office	XEROX	WC3550 X	12/11/12	51%	57%	63%	69%	76%	-	-	-	-	-	
High School	Music	Konica	KM 654 E	8/23/16	6%	9%	12%	14%	17%	-	-	-	-	-	
High School	PE	XEROX	WC3550 X	12/11/12	48%	50%	51%	53%	55%	-	-	-	-	-	
High School	College 503	Konica	KM 364 e	2/26/14	44%	52%	59%	67%	8%	-	-	-	\$2,360	-	8
High School	Media Center	Konica	KM 454 e	2/26/14	19%	20%	22%	23%	25%	-	-	-	-	-	
High School	SPED Rm 801	XEROX	5740APT	12/11/12	113%	17%	34%	51%	68%	\$10,330	-	-	-	-	7
High School	SS/English 703	Konica	KM 754 e	2/25/14	35%	39%	43%	47%	50%	-	-	-	-	\$16,070	9
High School	Eng/SS	Konica	KM 754 e	9/1/15	45%	57%	68%	80%	11%	-	-	-	\$15,300	-	7
High School	Grade Level	XEROX	WC5740APT	12/11/12	34%	36%	37%	39%	41%	-	-	-	-	-	
High School	Math/Sci	Konica	KM 754 e	9/1/15	51%	64%	77%	91%	104%	-	-	-	-	\$16,070	8
Hillside	Main Office	XEROX	5755APT	12/11/12	36%	45%	46%	55%	65%	-	-	-	-	-	
Hillside	Downstairs	XEROX	5765PT	11/15/11	41%	18%	22%	27%	31%	-	-	-	-	-	
Hillside	Main Office	Konica	KM 754E	2/25/14	71%	94%	118%	141%	165%	-	-	-	-	-	
Mitchell	Back Door	Ricoh	MP8001	2008	1%	2%	3%	5%	6%	-	-	-	-	-	
Mitchell	5th grade wing	XEROX	5765PT	11/15/11	33%	35%	37%	39%	41%	-	-	-	-	-	
Mitchell	Front Office	Konica	KM654E	10/15/14	52%	62%	73%	83%	10%	-	-	-	\$11,960	-	8
Newman	Front Office	XEROX	5775PT	12/11/12	69%	81%	12%	23%	35%	-	\$13,880	-	-	-	7

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request																
Project Title:		School Copiers										Fiscal Year:				2019
Newman	Hall Outside Office	Konica	KM 654 E	8/23/16	15%	23%	30%	38%	45%	-	-	-	-	-	-	
Newman	Hallway near caf	XEROX	5765PT	11/15/11	2%	4%	6%	8%	10%	-	-	-	-	-	-	
Newman	Down Stairs Hall	XEROX	5755APT	12/11/12	79%	11%	21%	32%	42%	\$10,330	-	-	-	-	7	
Newman	Main Office	XEROX	3550X	12/11/12	22%	25%	28%	3%	7%	-	-	\$2,360	-	-	9	
Pollard	8th Grade Hallway	konica	KM 654 e	9/1/15	26%	33%	41%	48%	55%	-	-	-	-	\$12,560	8	
Pollard	teacher's Lounge	XEROX	5765PT	11/15/11	2%	4%	6%	8%	10%	-	-	-	-	-	-	
Pollard	Main Office	Konica	KM 754E	2/25/14	58%	67%	76%	9%	18%	-	-	\$15,300	\$0	-	7	
Pollard	7th Grade work area	Konica	KM654E	10/15/14	40%	47%	55%	62%	7%	-	-	-	\$11,960	-	8	
Pollard	modulars	XEROX	5740APT	12/11/12	2%	3%	5%	6%	8%	-	-	-	-	-	-	
Pollard	Media Com -OP	XEROX	3550	4/1/12	14%	16%	18%	20%	22%	-	-	-	-	-	-	
High Rock	Room 207	Konica	KM 654E	8/23/16	11%	17%	22%	28%	33%	-	-	-	-	-	-	
High Rock	Main Office	Konica	KM 754E	10/15/14	33%	39%	45%	51%	6%	-	-	\$15,300	-	-	8	
Eliot Elementary	Main Office	Konica	KM754 E	2/25/14	24%	28%	32%	36%	40%	-	-	-	-	-	-	
Eliot Elementary	Room 151	Xerox	5765PT	11/15/11	44%	6%	12%	18%	24%	\$10,330	-	-	-	-	8	
Eliot Elementary	Room 210	Xerox	5135PT	11/15/11	114%	18%	37%	55%	74%	\$6,120	-	-	-	-	8	
Kase Cong Church	Main Office	Canon	R2230	8/1/05	33%	35%	36%	37%	38%	-	-	-	-	-	-	
Administration	Color Copier Product	Xerox	Color 560	2/25/14	57%	67%	77%	10%	20%	-	-	\$43,460	-	-	7	
Totals										\$84,190	\$52,470	\$84,690	\$86,360	\$52,140		

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: School Department Technology Request **Fiscal Year:** 2019

Purpose:	Acquisition	Classification:	Technology	Status:	Amended Request from the Prior CIP
Department:	Needham Public Schools			Supports:	Public Education
Partners:				Useful Life:	More than five (5) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Yes
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	Total New FTE's:
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$2,354,225	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$0							
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$2,354,225	\$303,600	\$566,100	\$556,325	\$500,200	\$428,000		
Other Expenses	\$0							
TOTAL	\$2,354,225	\$303,600	\$566,100	\$556,325	\$500,200	\$428,000	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: School Department Technology Request

Fiscal Year:

2019

Project Description and Considerations

The FY19-23 CIP request funds the purchase of School Department technology, including computers, printers, interactive white boards (IWBs), specialized instructional labs, projectors, video displays, and security cameras. The request also includes funding for school technology infrastructure, including servers, network hardware, wireless infrastructure data cabling and access points. This request reflects the decision in FY17 to move Digital Learning Devices (DLDs) and staff laptops to the operating budget, as well the new classroom technology standard. A chart summarizing the five-year request is included on the next page.

The FY19-23 Capital Improvement Plan (CIP) for school technology totals \$2,354,225 and includes \$1,789,225 for school hardware replacement and \$565,000 for school technology infrastructure. The hardware request represents the replacement of school technology with a life cycle of five years or more. (In FY17, funding for devices with a lifespan of less than five years was shifted to the Operating Budget. These devices included Digital Learning Devices (DLDs) such as iPads and Chromebooks, and laptops.)

The \$1,789,225 hardware component includes the following: \$849,200 for specialized lab replacement (including \$92,000 to replace the NHS Graphic Arts Lab equipment); \$510,000 for interactive whiteboard replacement (including \$90,000 for IWBs in the Kindergarten classrooms, starting FY20); \$298,500 for desktop computer replacement; \$87,525 for printer replacement; \$24,000 for video displays; and \$20,000 to replace the NHS security camera system in FY22. Desktop computers have an assumed life of five years, the replacement cycle for which now includes administrative support staff desktops, specialized special education classroom desktops, science center support staff desktops, and specialized preschool student computers. Whiteboards are replaced after six years, although the industry-recommended replacement cycle is five years. (Past experience indicates that this is a reasonable assumption and will require approximately 30 IWB/year on average. The average cost of replacing an IWB is \$5,000. Newer technology associated with the replacement IWBs may necessitate additional electrical outlets that would have to be installed by the Town's electrician. Any additional costs to the town are not budgeted in this request.) Specialized labs are replaced as needed, based on the age and condition of the equipment contained therein. The five-year plan includes the following labs: computer labs at Pollard in FY19-FY23 (@\$8,100/year in FY19 & 20, and \$40,500 per year in FY22 and FY23), computer lab replacement at Mitchell and Newman in FY21 (\$81,000, or \$40,500/lab), and computer lab replacement at Broadmeadow, Eliot, Hillside and High Rock in FY23 (\$162,000, or \$40,500/lab.) At NHS, six science labs will be replaced in FY20 (\$54,000, or \$9,000/lab), a computer lab and two writing labs will be replaced in FY21 (\$121,500, or \$40,500/lab), two art labs/classrooms and a music lab will be replaced in FY22 (\$121,500, or \$40,500/lab), the graphic arts labs will be updated in FY19-20 at 46,000 per year (or \$92,000), and the NHS TV Studio will be replaced in FY19-22 at a total cost of \$120,000. The remaining science labs at NHS will not need to be replaced, given the proliferation of 1:1 technology at NHS.

An additional \$565,000 will be allocated to infrastructure upgrades, including servers, network hardware, wireless access points and cabling.

This five year capital request is largely unchanged from the prior year submission, except for the addition of the FY23 request and a \$52,700 increase in the cost of lab replacement at Pollard and NHS. There are no changes to the infrastructure request in FY19-22. A summary of changes from the prior year is presented on the next page.

The FY19 request is for \$303,600 and represents a \$11,600 increase over the FY19 projection included in the FY18-22 CIP. The \$303,600 request increase consists of \$190,600 in hardware replacement and \$113,000 in infrastructure improvements. The hardware replacement budget of \$227,000 increases \$11,600 from the prior year and reflects the additional cost of computer lab replacement at Pollard and NHS.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: School Department Technology Request

Fiscal Year:

2019

Supplemental Information

Summary	FY19	FY19	FY19	FY20	FY20	FY20	FY21	FY21	FY21	FY22	FY22	FY22	FY23	FY19-23
Hardware	Prior	New	Change	Prior	New	Change	Prior	New	Change	Prior	New	Change	New	Total
Classroom Digital Learning Devices	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shared Cart Digital Learning Devices	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laptops	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin iPads	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Teacher iPads	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Student iPads	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laptop Cart	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lab	40,500	54,100	13,600	40,500	54,100	13,600	202,500	202,500	-	121,500	162,000	40,500	202,500	675,200
Science Lab	-	-	-	54,000	54,000	-	-	-	-	-	-	-	-	54,000
Desktop Computers	22,500	22,500	-	123,000	123,000	-	108,000	108,000	-	22,500	22,500	-	22,500	298,500
Security Camera System	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Graphics Art Labs	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TV Studio	30,000	30,000	-	30,000	30,000	-	30,000	30,000	-	30,000	30,000	-	-	120,000
Printers	-	-	-	22,000	22,000	-	22,825	22,825	-	42,700	42,700	-	-	87,525
IWB - Gr 1-12	80,000	60,000	(20,000)	80,000	80,000	-	80,000	80,000	-	110,000	110,000	-	90,000	420,000
IWB - Kindergarten	-	-	-	90,000	90,000	-	-	-	-	-	-	-	-	90,000
Projectors	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Video Displays (Gym, Café)	6,000	24,000	18,000	13,000	-	(13,000)	-	-	-	-	-	-	-	24,000
Security Cameras	-	-	-	-	-	-	-	-	-	20,000	20,000	-	-	20,000
Subtotal	179,000	190,600	11,600	452,500	453,100	600	443,325	443,325	-	346,700	387,200	40,500	315,000	1,789,225
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Summary	FY19	FY19	FY19	FY20	FY20	FY20	FY21	FY21	FY21	FY22	FY22	FY22	FY23	FY19-23
Infrastructure	Prior	New	Change	Prior	New	Change	Prior	New	Change	Prior	New	Change	New	Total
Servers	30,000	30,000	-	30,000	30,000	-	30,000	30,000	-	30,000	30,000	-	30,000	150,000
Network Hardware	20,000	20,000	-	20,000	20,000	-	20,000	20,000	-	20,000	20,000	-	20,000	100,000
Wireless Infra. Data Cabling	5,000	5,000	-	5,000	5,000	-	5,000	5,000	-	5,000	5,000	-	5,000	25,000
Wireless Infra. Access Points	58,000	58,000	-	58,000	58,000	-	58,000	58,000	-	58,000	58,000	-	58,000	290,000
Subtotal	113,000	113,000	-	113,000	113,000	-	113,000	113,000	-	113,000	113,000	-	113,000	565,000
Summary	FY19	FY19	FY19	FY20	FY20	FY20	FY21	FY21	FY21	FY22	FY22	FY22	FY23	FY19-23
Grand Total	Prior	New	Change	Prior	New	Change	Prior	New	Change	Prior	New	Change	New	Total
Hardware	179,000	190,600	11,600	452,500	453,100	600	443,325	443,325	-	346,700	387,200	40,500	315,000	1,789,225
Infrastructure	113,000	113,000	-	113,000	113,000	-	113,000	113,000	-	113,000	113,000	-	113,000	565,000
Grand Total	292,000	303,600	11,600	565,500	566,100	600	556,325	556,325	-	459,700	500,200	40,500	428,000	2,354,225

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: School Document Management System **Fiscal Year:** 2020

Purpose:	Construction	Classification:	Building	Status:	Amended Request from the Prior CIP
Department:	Needham Public Schools			Supports:	Public Education
Partners:				Useful Life:	More than five (5) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Yes
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	Total New FTE's:
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$176,900	How was the Project Cost Determined:	In-House Estimate
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$0							
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$0							
Technology Hardware/Software	\$36,100		\$36,100					
Other Expenses	\$140,800		\$140,800					
TOTAL	\$176,900	\$0	\$176,900	\$0	\$0	\$0	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: School Document Management System

Fiscal Year:

2020

Project Description and Considerations

This is a request to purchase and implement a document management system for the efficient storage and retrieval of school documents, including student files, financial and administrative information. The acquisition cost also includes the cost to convert existing paper-based records to electronic format.

The document management system provides electronic storage and retrieval, automated document indexing and networked access for group workflow and email capability. The acquisition cost is based on a 2015 purchase estimate of \$32,000 and \$125,000 cost of document conversion, escalated at a cost of 3%/year. The document conversion cost is based on approximately 856 cubic feet of documents (Human Resources, Special Education) and is phased over two years.

Project timing based on planned renovation/reconstruction of Emery Grover School Administration Building in FY21-22, and is timed to precede the relocation of staff to swing space in FY21 during construction. The project is revised to accelerate the timing by one year in order to address document management before Administration moves to swing space.

This project is revised from the prior submission, which had included phased funding in FY19 and FY20. This request is for full funding in FY20. Project costs have adjusted slightly as a result of eliminating the phasing.

Parameters Addressed:

Technology: The School Instructional Technology Department is in support of this request.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: School Document Management System

Fiscal Year:

2020

Supplemental Information

Document Management Purchase & Document Conversion Expense

Emergy Grover <u>Active Files</u>	# Cabinets <u>Small (1)</u>	# Cabinets <u>Large (2)</u>	Cubic <u>Feet</u>	Calculated <u># Boxes</u>	Calculated <u>Pages</u>	Box Pickup <u>Service (3)</u>	Scanning <u>Service</u>	Total <u>Cost</u>	
Human Resources	3	9	312	260	689,000	650	44,785	45,435	
Financial Operations	0	0	-	-	-	-	-	-	
Payroll	0	0	-	-	-	-	-	-	
Food Service	0	0	-	-	-	-	-	-	
Special Education	24	11	544	453	1,201,333	1,133	78,087	79,220	
Subtotal	27	20	856	713	1,890,333	1,783	122,872	124,655	
<u>Other Files</u>									
Financial Operations	0	0	-	-	-	-	-	-	Assume major storage is IV
Subtotal	0	0	-	-	-	-	-	-	
Grand total	27	20	856	713	1,890,333	1,783	122,872	124,655	
								125,000	

(1) Small: 1'W x 4'H x 2'D

8 Cubic Feet

(2) Small: 4'W x 4'H x 2'D

32 Cubic Feet

(3) Pickup estimate is \$2.50/box

(3) Estimated cost of prepping, scanning, indexing is \$0.05 - \$0.08/page. Estimate based on \$0.065/page mid-rate.

Conversion

1 Small Bankers Box = 1.2 Cubic Feet

1 Small Bankers Box = 2650 Pages

Document Management
Purchase & Installation

			Software Acquisition	Document Conversion	Total Cost	
2015 Acquisition Cost	FY16	Doc Star	32,000	125,000	157,000	
x Escalation	FY17	3%	33,000	128,800	161,800	
x Escalation	FY18	3%	34,000	132,700	166,700	
x Escalation	FY19	3%	35,000	136,700	171,700	
x Escalation	FY20	3%	36,100	140,800	176,900	Conversion Completed Prior to EG Renovation
					176,900	

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: School New and Replacement Furniture **Fiscal Year:** 2019

Purpose:	Acquisition	Classification:	Equipment	Status:	Amended Request from the Prior CIP
Department:	Needham Public Schools			Supports:	Public Education
Partners:				Useful Life:	

Parameters	Response
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	No
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	No
6. If funded, will additional permanent staff be required?	No
Total New FTE's:	
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	No
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$180,500	How was the Project Cost Determined:	Industry References
Budget Impact:	Negligible impact on the annual operating expenses less than \$5,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$0							
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$180,500	\$60,500	\$45,000	\$25,000	\$25,000	\$25,000		
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$180,500	\$60,500	\$45,000	\$25,000	\$25,000	\$25,000	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: School New and Replacement Furniture

Fiscal Year: 2019

Project Description and Considerations

This request continues the replacement cycle for school furniture in poor and fair at the Schools. Furniture at the Pollard Middle School is 25-30+ years old and in a state of disrepair after decades of heavy use.

In FY05 Town Meeting approved funding of \$20,500 to begin the replacement of furniture in poor condition. By FY15, all furniture in 'poor' condition was replaced in the schools. The FY19-FY23 funding request will continue with the replacement of furniture in fair condition at Pollard and in addition, these funds will be used for new classroom furniture as needed. In FY19 \$30,500 will be used to reface the cabinets in three Pollard science classrooms and to install new counters in four science classrooms. The poor condition of these cabinets is depicted in the sample photo below. An additional \$30,000 is requested in FY19 to purchase classroom furniture for Needham High School. In FY20, \$20,000 is budgeted to complete the replacement of furniture in 'fair' condition at Pollard School. Starting in FY20, \$25,000 per year also is allocated to purchase new or classroom furniture as necessary in all school buildings.

This request is revised from the prior year to add an FY23 funding request and to direct replacement funding to Pollard in FY19 and FY20.

The anticipated furniture replacement schedule is depicted below:

Funding Plan	Request FY19	Request FY20	Request FY21	Request FY22	Request FY23	TOTAL
Pollard	\$30,500.00	\$20,000.00	\$0.00	\$0.00	\$0.00	\$50,500.00
New Classrooms	\$30,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$130,000.00
	\$60,500.00	\$45,000.00	\$25,000.00	\$25,000.00	\$25,000.00	\$180,500.00



Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: School Phone System Replacement **Fiscal Year:** 2019

Purpose:	Acquisition	Classification:	Equipment	Status:	New Request
Department:	Needham Public Schools			Supports:	Public Education
Partners:				Useful Life:	

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	No
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	No
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Yes
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	Yes
6. If funded, will additional permanent staff be required?	No
7. If funded, will the operating budget need to be increased to cover operating expenses?	No
8. If funded, will this project lower the requesting Department's operating costs?	Yes
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	Yes
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	No
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	No

Project Cost:	\$319,000	How was the Project Cost Determined:	Industry References
Budget Impact:	The project should reduce the operating expenses		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0							
Design/Engineering	\$0							
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$0							
Construction Management	\$0							
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$319,000	\$88,000	\$114,000	\$117,000				
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$319,000	\$88,000	\$114,000	\$117,000	\$0	\$0	\$0	\$0

\$0

Capital Project Request

Project Title: School Phone System Replacement

Fiscal Year:

2019

Project Description and Considerations

The telephone system currently in use by the School Department consists of 8 separate phone systems of varying ages from 5 to over 15 year old (estimated.) The systems employ manufacturer discontinued equipment, are unstable and are in constant need of repair. The phone systems in three buildings - Hillside, Mitchell and Emery Grover - have failed, leaving the buildings with no phone access. All systems require frequent repairs, which can only be done by a contract technician via a technical service maintenance appointment. The existing system, in addition to being old and unstable, runs on antiquated PBX technology that uses traditional Verizon POTS (copper) lines for external calls and Centrex to connect internally within a network of Town departments. This type of system supports a limited number of concurrent external connections per building and a limited number of concurrent Centrex connections per building; when concurrent lines are maximized within a building, users receive a busy signal until a line becomes available. Accessibility of the current voicemail system also is a concern particularly for teachers who transition to different classrooms and locations throughout the day; their voicemail is only available from their "home" location. The monthly invoice reconciliations are time consuming for Public Facilities staff and the level of customer service through Verizon is very poor. Finally, the Centrex system is expensive to operate - in FY16, over \$78,000 was spent on service and maintenance calls, including \$55,000 for service and \$23,000 for maintenance.

This request would replace the antiquated PBX system with a new phone system that would combine all of the buildings into a unified IP-based phone system. The new system would utilize our fiber network and pooled SIP trunks to reduce overall cost while maintaining a secure, robust and reliable phone system. It would allow for 'tiered' user licenses that are customized to roles and responsibilities. Administrative staff would be able to update accounts without the assistance of an outside vendor during a maintenance call. The system would have all the features of a modern phone system, such as voicemail-to-email, callerID, presence, conference calling, unified contacts, 'do not disturb' and softphones. The School Department would manage the new technology-based system, which would no longer be maintained by the Public Facilities Department as a 'utility.' Finally, the Town's annual operational expense associated with maintaining the system would diminish significantly. Preliminary estimates suggest that the associated operating expense could be reduced from approximately \$78,000 to \$39,000 per year.

This proposal is to purchase a new, unified phone system for all school buildings, according to a phased implementation plan. In Year 1 (FY19), the system would be implemented for School Administration, and the Mitchell and High Rock schools. In Year 2, the Williams, NHS and Eliot School systems would be installed. In Year 3, the system at Broadmeadow, Pollard and Newman would be replaced. During the phased roll-out, Public Facilities would continue to manage and maintain the existing systems. Upon full installation, the Verizon and CTI service contracts with the Town could be terminated and the Town's operating budget reduced. A chart summarizing the projected capital and operating impact of the new system is shown below, derived from industry references.

Town of Needham
 Capital Improvement Plan
 January 2018

Capital Project Request

Project Title: School Phone System Replacement

Fiscal Year: 2019

Supplemental Information

3-year Plan Harbor Networks

	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>Grand Total</u>
EG		\$37,000				\$37,000
Mitchell		\$27,000				\$27,000
HighRock		\$24,000				\$24,000
NHS			\$71,000			\$71,000
Hillside/Williams			\$20,000			\$20,000
Eliot			\$23,000			\$23,000
Broadmeadow				\$30,000		\$30,000
Pollard				\$46,000		\$46,000
Newman				\$41,000		\$41,000
Capital Plan		\$88,000	\$114,000	\$117,000		\$319,000

Annual Software Assurance Expense (SWA) Operating Expense*

	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>
EG			\$3,000	\$3,000	\$3,000
Mitchell			\$2,000	\$2,000	\$2,000
HighRock			\$2,000	\$2,000	\$2,000
NHS				\$7,000	\$7,000
Hillside/Williams				\$2,000	\$2,000
Eliot				\$2,000	\$2,000
Broadmeadow					\$3,000
Pollard					\$4,000
Newman					\$4,000
Total SWA Expense			\$7,000	\$18,000	\$29,000

to be offset by decreasing Verizon ECTI expense carried on Town Budget (FY16 est \$78,151)

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Sustain the Hillside School as Swing Space for Future Town Use **Fiscal Year:** 2021

Purpose:	Construction	Classification:	Building	Status:	Same Request from the Prior CIP
Department:	Needham Public Schools			Supports:	Public Education
Partners:				Useful Life:	More than eighteen (18) years

Parameters **Response**

1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?	Yes
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?	No
3. Does this project require any permitting by any Town or State agency?	Yes
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?	Yes
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?	Yes
6. If funded, will additional permanent staff be required?	No
Total New FTE's:	No
7. If funded, will the operating budget need to be increased to cover operating expenses?	Yes
8. If funded, will this project lower the requesting Department's operating costs?	No
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?	No
10. If the project is NOT funded, will current Town revenue be reduced?	No
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?	No
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?	No
13. Is this a request in response to a Court, Federal, or State order?	No
14. Is this a request in response to a documented public health or safety condition?	No
15. Is this a request to improve or make repairs to extend the useful life of a building?	Yes
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?	No
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?	No
18. Will any other department be required to provide assistance in order to complete the project?	Yes
19. If funded, will this project increase the operating expense for any other department?	Yes

Project Cost:	\$18,960,500	How was the Project Cost Determined:	Hired Consultant
Budget Impact:	May increase annual operating expenses by more than \$100,000		

Project Budget Elements	Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$100,000			\$100,000				
Design/Engineering	\$2,607,400				\$2,607,400			
Land/ROW Acquisition	\$0							
Site Preparation	\$0							
Construction	\$13,969,600					\$13,969,600		
Construction Management	\$651,900					\$651,900		
Equipment	\$0							
Furniture, Fixtures, and Equipment	\$1,631,600					\$1,631,600		
Technology Hardware/Software	\$0							
Other Expenses	\$0							
TOTAL	\$18,960,500	\$0	\$0	\$100,000	\$2,607,400	\$16,253,100	\$0	\$0

\$0

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Sustain the Hillside School as Swing Space for Future Town Use

Fiscal Year:

2021

Project Description and Considerations

Constructed in 1960, the Hillside Elementary School has undergone both addition and renovation (with modulars) over the past 40 years, but is in need of total replacement to address building deficiencies and modernize the learning environment. Several options for renovating/reconstructing this facility are presented in this Capital Improvement Program request.

This is a project to modernize the existing Hillside School for use as swing space for other school and Town projects, after the new Hillside school opens in September 2020 (FY21.) A potential schedule for use of this swing space is: Emery Grover Renovation (FY21-FY22 - prior to modernizing the building), Mitchell Renovation (FY27-FY28), Pollard Renovation (FY29-FY30.) This schedule assumes that modernization will take up to two years to complete, and that relocating the Emery Grover population to the Hillside school is preferable to leasing office space for use during that construction project.

This cost and scope of this project is based on the "Option A" 'base repair project estimate developed by Dore & Whittier Architects in 2014 and renovates the existing Hillside School to update all major building systems to comply with current codes and regulations. (It is the renovation option best described as the 'base repair' scenario for comparative purposes.) The scope of this option does NOT include adding modular classrooms to accommodate the Mitchell School population or a full grade of Pollard students. The Feasibility Study scope should update the above preliminary cost estimate to include the needed modular component, as well as a comparative analysis of the relative cost effectiveness of an alternate project to demolish the school and create modular swing space on this site.

This project is revised from prior years to reflect a July 2024 completion date and a 5% inflation escalator for fiscal years beginning FY17.

Preliminary Project Schedule:

Feasibility Design: FY21

Design: FY22

Override Ballot Question: FY22

Site Construction: FY23-FY24

Modernized Hillside Opens: July, 2024

Parameters Addressed:

Project Costs Not Included: See Project Budget narrative above.

Permitting: As required by Town Boards.

Technology: The School Instructional Technology Department is in support of this request. The estimated project cost includes anFF&E budget for this new facility, including classroom technology.

Building Improvements: The PPBC and Public Facilities Department support this request.

Operating Budget Increase: Improvements to HVAC, electrical system may increase building maintenance expense by more than \$100,000/year. This placeholder estimate to be revised during design process.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request

Project Title: Sustain the Hillside School as Swing Space for Future Town Use

Fiscal Year:

2021

Supplemental Information

**Hillside School Modernization, Based on 2014 Dore & Whittier PreFeasibility Study
Option A, Repair Hillside School for 430 Students
Scheduled opening: July 2024 (FY25)**

45,005 SF Building		Feasibility	Construction*	A/E	FF&E	Constr Mgnt	Total	Cost/SF
FY14 Project Cost (D&W)		-	8,835,814	1,649,200	1,032,000	412,300	11,929,314	
TOTAL		-	8,835,814	1,649,200	1,032,000	412,300	11,929,314	\$265
		0%	74%	14%	9%	3%	100%	
6.00%	FY15 Cost Multiplier @ 6%	-	9,365,963	1,748,152	1,093,920	437,038	12,645,073	\$281
6.00%	FY16 Cost Multiplier @ 6%	-	9,927,921	1,853,041	1,159,555	463,260	13,403,777	\$298
5.00%	FY17 Cost Multiplier @ 3.8%	-	10,424,317	1,945,693	1,217,533	486,423	14,073,966	\$313
5.00%	FY18 Cost Multiplier @ 3.8%	-	10,945,532	2,042,978	1,278,410	510,744	14,777,664	\$328
5.00%	FY19 Cost Multiplier @ 3.8%	-	11,492,809	2,145,127	1,342,330	536,282	15,516,548	\$345
5.00%	FY20 Cost Multiplier @ 3.8%	-	12,067,450	2,252,383	1,409,447	563,096	16,292,375	\$362
5.00%	FY21 Cost Multiplier @ 3.8%	100,000	12,670,822	2,365,002	1,479,919	591,251	17,206,994	\$382
5.00%	FY22 Cost Multiplier @ 3.8%	100,000	13,304,363	2,483,252	1,553,915	620,813	18,062,343	\$401
5.00%	<u>FY23 Cost Multiplier @ 3.8%</u>	<u>100,000</u>	<u>13,969,581</u>	<u>2,607,415</u>	<u>1,631,611</u>	<u>651,854</u>	<u>18,960,461</u>	<u>\$421</u>
9 Years	TOTAL PROJECT COST	100,000	13,969,581	2,607,415	1,631,611	651,854	18,960,461	\$421
	TOTAL COST (ROUNDED)	100,000	13,969,600	2,607,400	1,631,600	651,900	18,960,500	\$421

* Excludes modular temporary classrooms

Square Footage 45,005

Note - costs escalated at rates shown above, to midpoint of construction (FY23). There are 2 construction years, FY23 and FY24. Modernized Hillside opens July 2024 (FY25.) Mitchell moves to swing space FY23. FY21 is feasibility funding year; FY22 is schematic design & full funding year;

	FY21	FY22	FY23	
Feasibility	100,000			100,000
Arch/Engineering		2,607,400		2,607,400
<u>Construction</u>			<u>16,253,100</u>	<u>16,253,100</u>
	100,000	2,607,400	16,253,100	18,960,500

Major Public Facilities

Section 4

**Significant Public Facilities
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Significant Public Facilities

Needham High School

609 Webster Street

Assessed Value: \$48,715,600
 Parcel ID: Map 226 Block 10
 Lot Size: 14 acres
 Original Construction: 1930; reconstruction in 2008

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
A Gym Upgrade				130,557		130,557
Cafeteria Expansion			2,100,000			2,100,000
Class Room Expansion			150,000			150,000
Class Room Expansion Alternatives Study				65,000		65,000
High School Expansion and Improvements					14,263,000	14,263,000
Program Room Configuration Changes		200,000				200,000
Totals	-	200,000	2,250,000	195,557	14,263,000	16,908,557

Other significant maintenance/repairs in Calendar Year 2017 included:

- Replaced the variable frequency drive for the rooftop HVAC unit 4
- Repainted the parking lot
- Replaced window parts in rooms 214, 216, and 223
- Replaced the circuit compressors and motor controls in the HVAC units
- Replaced hot bypass and repaired rooftop HVAC unit 9
- Repaired elevator 1 in the main lobby
- Repaired stove in room 805
- Replaced the gas pressure regulator for boiler 4
- Repaired door 1
- Replaced supply fan motor for rooftop HVAC unit 2
- Repaired roof leaks above room 901
- Installed ice makers in new refrigerators in the Science Department room
- Repaired loading dock doors

Other significant maintenance/repairs in Calendar Year 2016 included:

- Converted metal halide lighting in the B gym to LED
- Replaced BMS server and reloaded information onto new server
- Installed a concrete slab in the bus loop by the building's main entrance
- Changed out kitchen grease traps
- Installed a new water bottle station in the café
- Repaired boilers 2 and 4
- Installed, maintained, and removed rental chiller
- Installed a wall and door in room 211
- Repaired boiler #4 insulation
- Installed shelves in work shop
- Repaired shingles on roof of C building
- Repaired uninvents in room 909, 910, and 807
- Repaired roof leak in room 909
- Insulated pipes for roof top HVAC units
- Repaired broken valve system in mixing valve
- Programming support for intranet capability to reprogram RTUs
- Replaced water damaged dry wall

Other significant maintenance/repairs in Calendar Year 2015 included:

- Repaired parking pole lights
- Painted balconies on the back side of the building
- Repaired lighting in the gym
- Subdivided and improved rooms 707 and 728, including painting, repairing leaks, and installing clocks, phones, Intercoms, and folding wall
- Retrofitted exterior lighting to LED lighting
- Repointed and sealed the grand stairwell
- Replaced the emergency phone and repaired the emergency lights, installed hoistway door restrictors and replaced missing hand rail
- Replaced the sprinkler elbow and reset the system
- Cleaned all parts and assembled motor for overhaul blower
- Replaced combustion heads on all four boilers
- Replaced #5 circulating pump
- Repaired boilers #2 and #3
- Disconnected and relocated kitchen ice maker in the Athletics Department, reworked electrical for both the ice maker and the Athletics Department
- Troubleshoot and tuned boilers
- Painted balconies on the back side of the school

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- Repaired phones in multiple rooms
- Repaired motor
- Shut down and winterized the chiller
- Grinded down wall for monument plaque
- Replaced shingles on the roof of C building
- Removed interior wall in room 608
- Repaired six parking lot lights, one small pole light, and one walk way light
- Repaired damaged guard rail
- Installed electrical service for new drying cabinet in the Graphic Arts Room
- Repaired RTU-9
- Replaced combustion heads and swirlers on boilers 1, 2, 3, and 4
- Moved light bank and relocated outlets, cable, and other devices to install folding wall
- Installed two fountains with bottle filling stations

Other significant maintenance/repairs in Calendar Year 2014 included:

- Mounted a 4'x6' plaque in main lobby
- Replaced broken lights in A gym
- Installed crash bars on doors to the auditorium
- Created new reception desk in front lobby
- Upgraded the CCTV monitoring system
- Power washed and re-pointed exterior
- Installed electric univent in room 602
- Replaced the gas fired domestic hot water heater
- Installed carpet in the lobby area
- Replaced outside stairway with new concrete stairs
- Upgraded heating controls on boilers
- Installed two dietic entrematic devices on two door openers in order to make door #1 and #12 handicap accessible
- Repaired flooring and replaced built in carpet entry mat in A Gym and B Gym
- Repurposed room 101 to be a robotics lab

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired exterior doors and upgraded hardware on doors
- Installed analog cameras in loading dock area and kitchen
- Replaced damaged gutters and downspout on the front and rear of the building
- Repaired bleachers in A gym to make operational
- Installed new heaters on the chiller
- Cleaned and sealed the stone work on the walls in the main lobby
- Repaired all pole lights and walkway lights in the parking lot

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- Built two separate office spaces within the Guidance Suite
- Refinished floors in A gym and band room
- Converted copy room into the a new conference room
- Duct cleaning in the C, D, and E buildings
- Poured new concrete on 9 ramps and installed new detectable warnings
- Replaced circulating pump in boiler room
- Installed access control on door 15
- Replaced flooring in room 608 and 608A

Other significant maintenance/repairs in Calendar Year 2012 included:

- Cleaned duct work in buildings A & B
- Cleaned condenser coils
- Repaired chiller
- Replaced elevator piston in center connector lobby elevator
- Repaired 13 exterior lights by the parking lot
- Replaced and epoxied capstones on bottom wall, middle wall, and top wall
- Repaired existing free standing interlocking block wall at the main entrance
- Repairs to walk way
- Repaired AAB ramp on Webster Street side, installed concrete pads for benches, and repaired two drains on the center connector
- Repaired A Gym bleacher arm that failed
- Replaced bad condenser fan motors in 2 units in the auditorium
- Replaced tandem compressors for circuit #1 in RTU-6
- Relined parking lot on Webster Street side
- Repaired pipe handrail and stairwell on main staircase on Highland Ave. side
- Replaced cracked stone treads on main staircase on Highland Ave. side
- Installed washer and dryer in gym storage room
- Installed new manual winches on main basketball backboards

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Replace C building roof
- Weeded & mulched entire landscape on the Webster Street side.
- Refinished floor in A Gym and Band Space
- Repaired fence that was damaged during winter storm
- Repaired block wall in front of grand staircase
- Painted exterior awning to cafeteria
- Repaired several exterior lights

- Reconfigured stairway in hallway near B gym
- Installed modine heater in space between location of domestic hot water heater and A gym
- Installed lighting display for athletics display case

Other significant maintenance/repairs in Calendar Year 2010 included:

- Weeded & mulched entire landscape on the Webster Street side.
- Rebuilt circulation pump # 6
- Roof repairs C Building
- Replaced heating coils in multiple rooms and spaces
- Refinished floors in A gym and B gym
- Repainted traffic markings and installed signs
- Installed handicapped signs where required
- Insulated interior walls of Athletic Suite

Other significant maintenance/repairs in Calendar Year 2009 included:

- Upgraded Building Management Software and server, to improve energy efficiency
- Reprogrammed heating and cooling system to stagger start during morning start up, reducing load on energy grid
- Removed 13 univents, reinsulated, reflashed, replastered and reinstalled
- Replaced the control drive for the supply fan on RTU 4
- Replaced the control drive for the return fan on RTU 15
- Installed Lutron exterior lighting system to reduce energy consumption
- Enrolled emergency generator in Demand Response program
- Provided power and electrical outlets for wood shop
- Provided additional electrical outlets and for new school store
- Add additional electrical outlets in Art room to accommodate potting wheels
- Installed chair rails in nurses office
- Excavated trenches along sidewalks of plaza and installed 1 ½" trap rock improve drainage and prevent erosion
- Refinished floor in the A Gym
- Roof repairs

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William F Pollard Middle School

200 Harris Avenue

Assessed Value: \$19,981,400
 Parcel ID: Map 35 Block 1
 Lot Size: 26.57 acres
 Original Construction: 1957; reconstruction in 1992; modular classrooms installed in 2002

Identified Future Capital Projects						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Air Conditioning Upgrade				100,000	550,000	650,000
Blue and Green Gym Upgrades	540,000	30,000				570,000
Locker Room Retrofit			60,000	630,000		690,000
Parking Lot Improvements					25,000	25,000
Phased Improvement Feasibility Study	65,000					65,000
New Facility (Pending Request 2027)						-
Totals	605,000	30,000	60,000	730,000	575,000	2,000,000

Five Year Capital Appropriation Summary						
Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Bathroom Improvements					650,000	650,000
Blue and Green Gym Upgrades					45,000	45,000
Boiler Replacement	800,000					800,000
Locker Replacement				41,157		41,157
Telephone System	53,000					53,000
Totals	853,000	-	-	41,157	695,000	1,589,157

Other significant maintenance/repairs in Calendar Year 2017 included:

- Reconstructed one set of restrooms
- Completed the locker replacement throughout the school
- Replaced shades in multiple classrooms
- Repaired the wall in the green gym
- Repaired the wall padding in the gyms
- Repaired the fan for the kitchen hood
- Installed new safety edge in elevator
- Reprogrammed card reader in the media room
- Removed rug and installed vinyl composition tile in the kitchen storeroom
- Repaired roof leak
- Repainted parking lot
- Repaired light covers in media center

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- Replaced the seating and flooring in the Pollard Auditorium
- Converted portion of the teachers' lounge into storage area

Other significant maintenance/repairs in Calendar Year 2016 included:

- Reconfigured main office and media center, including installing a new wall, installing a 4 receptacle, installing 3 sprinklers, installing 5 strobes, terminating 28 new data drops, and changing extensions
- Relocated aiphone
- Repaired dry wall throughout building
- Repaired damaged section of sidewalk in the main entrance
- Repaired leaking pipe in kitchen
- Replaced VFD drive and control board in circulation pump
- Painted new walls
- Replaced and installed new blinds
- Replaced display screen and gaskets on boiler #3
- Repaired exterior side panels on modular units
- Repaired boilers #1 and #2
- Repainted and repaired wall in kitchen

Other significant maintenance/repairs in Calendar Year 2015 included:

- Replaced lights in gym with LED high bay lights
- Removed and replaced 452 lockers
- Repaired broken lighting
- Installed 3 additional spot lights in the auditorium
- Completed asbestos monitoring and air sampling, as well as asbestos abatement and tile replacement
- Removed and replaced heating and AC systems in rooms 278 and 281
- Replaced a sprinkler head and a sprinkler feeder pipe
- Painted the back wall of the auditorium
- Performed cleaning of ductwork in HVAC system
- Fixed heat exchange problem
- Conducted asbestos abatement and tile replacement on the floor
- Disconnected 16 electrical floor mounted boxes and replaced breaker #14
- Painted the bare concrete areas of the Auditorium floor
- Painted the exterior wood trim on the front of the school
- Removed and replaced heating and air conditioning systems

Other significant maintenance/repairs in Calendar Year 2014 included:

- Installed new countertops and cabinets in room 208
- Removed asbestos flooring and replaced with new tile flooring

- Installed two door access control systems
- Replaced handrail near loading dock
- Pressure washed the north exterior wall of the modular classrooms
- Converted exterior flood lights from HID lights to LED lights
- Replaced four exhaust fans
- Installed and programmed a new Master Clock System
- Constructed wall and installed new door in order to form an additional classroom in room 212
- Replaced tile flooring in room 100
- Connected two domestic hot water pumps to the building automation and time scheduling system

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced air handling units and exhaust fans
- Replaced sump pumps
- Repaired boiler #2
- Repaired intercom system and bells
- Replaced phone system
- Painted walls in Blue Gym and Green Gym
- Converted room 227 into two separate rooms
- Installed insulation in both gyms
- Repaired rubber flooring in both gyms
- Repaired wall padding in both gyms
- Replaced all rear outdoor light poles with new induction lighting
- Replaced all water cooler fountains
- Repaired sidewalk and walkway

Other significant maintenance/repairs in Calendar Year 2012 included:

- Installed new sink in classroom 210
- Converted classroom 210 to an engineering classroom
- Installed Sentricon termite control
- Upgraded kitchen from pneumatic to electronic heating control
- Retrofitted heat valves in 12 office areas
- Restored phone service to the modular classrooms
- Converted bathrooms in modular classrooms to standard fixtures
- Repaired boiler (section replacement)
- Installed motion sensors
- Installed new sink faucets in girls' restroom
- Removed and replaced urinals in boys' restroom
- Installed drain piping for 4 new serving tables

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- Replaced 3 exterior light pole ballasts and lamps
- Installed boosters for fire alarm panel
- Replaced carpet in classrooms 227 and 132 with VCT
- Installed 2 new coils in café UV's
- Removed wall dividers in blue gym and replaced with flexible partitions in both blue & green gym
- Installed new sinks, drain lines, faucets, and water lines in classroom 251
- Restored modular classroom M6 and M7 back to original condition prior to Newman at Pollard

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Abated asbestos flooring and installed new tile
- Installed new front sign
- Repaired several exterior lights
- Installed split air conditioning system in room 209
- replaced Victaulic couplings with welded pipe over Boiler #1 and Boiler #2
- Installed drain, water feed, sink, and fixtures in room 288 for new science classroom
- Rekeyed interior of building
- Installed insulation on roof drains

Other significant maintenance/repairs in Calendar Year 2010 included:

- Replaced the skirt under the modular classrooms
- Reactivated AHU-5
- Installed sink and extended water and drain service for room 286
- Installed motion light switches in all rest rooms, storage areas and small meeting rooms
- Asbestos abatement in various areas
- Stripped and reconstructed girls bathroom
- Rebuilt heating circulator pump
- Replaced heating circulator pump
- Interior painting

Other significant maintenance/repairs in Calendar Year 2009 included:

- Converted classroom to science room, installing counter, sink and extending water and drain service
- Converted Art classroom to Wood Working classroom, upgrading electrical service and installed counters and cabinets
- Asbestos abatement in rooms 260 and 200 (Administrative Offices)
- Carpet installed in rooms 260 and 200 (Administrative Offices)
- Remove VCT tile and installed cushioned flooring in the weight room
- Installed Rentar Fuel Catalyst to reduce oil consumption
- Cleaned all duct work
- Painted a number of corridors, bathrooms and boys locker room

- Replaced all exterior doors and locks
- Refinished Auditorium Stage floor
- Roof repairs

Newman Elementary School

1155 Central Avenue

Assessed Value: \$28,810,100
 Parcel ID: Map 216 Block 21
 Lot Size: 60.7 acres
 Original Constructions: 1961 as a Junior High School; reopened in 1993 as an Elementary School; major systems upgrade in 2012

Identified Future Capital Projects						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Preschool Playground Custom Shade Shelter		49,800				49,800
						-
Totals	-	49,800	-	-	-	49,800

Five Year Capital Appropriation Summary						
Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Preschool Playground	60,000					60,000
						-
Totals	60,000	-	-	-	-	60,000

Other significant maintenance/repairs in Calendar Year 2017 included:

- Fixed communication issues with Building Management System
- Repaired concrete steps
- Fixed leak in radiator in the gym
- Replaced leaking circulation pump
- Replaced broken window on second floor
- Repaired media center air conditioner

Other significant maintenance/repairs in Calendar Year 2016 included:

- Disassemble and reconnect boiler stacks
- Repaired door that was not closing properly
- Repaired heat in the gym
- Replaced multiple broken windows
- Repaired breaker in the gym power panel

- Repaired ERU 11 and ERU 6
- Repaired parking lot light pole
- Installed additional bookshelves in room 110
- Replaced floor tiles in hallway as needed

Other significant maintenance/repairs in Calendar Year 2015 included:

- Installed programmable time clock
- Fixed lights on the canopy over the entrance to the school
- Replaced lights in gym with LED high bay lights
- Repaired ramp and stairs leading to the courtyard
- Repaired drain system for the two Camus boilers
- Reattached and better secured shelving unit in room 222
- Removed, repaired, and reinstalled pumps
- Repaired Newman control
- Replaced combustion air actuator on domestic PVI hot water heater and replaced amplifier

Other significant maintenance/repairs in Calendar Year 2014 included:

- Connected domestic hot water pumps to the building automation system

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced floor in the media center
- Installed new condensing unit for the science center animal room
- Secured the window curtain on the bridge

Other significant maintenance/repairs in Calendar Year 2012 included:

- Repair windows in classrooms 118 and 219
- Repaired pole lights in the parking lot
- Replaced damaged angle on the elevator car

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Refinished gym floor

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed new AC compressor in the administration area.
- Replaced 3 sections in boiler # 1 & 3 sections in boiler #2
- Cleaned all sections in boiler #1 & #2
- Refinished the floor in the gym

- Interior painting
- Installed domestic hot water pump
- Replaced solid gym divider with flexible divider
- Replaced shaft and bearing in fan room # 5
- Continued evaluation of 10,000 gallon underground storage tank and surrounding soils

Other significant maintenance/repairs in Calendar Year 2009 included:

- Painted hallways, stairwells, and band room
- Evaluated 10,000 gallon underground oil storage tank and surrounding soils
- Refinished Gym and Auditorium Stage floor
- Installed new HVAC control compressor
- Installed Rentar Fuel Catalyst to reduce oil consumption
- Replace 28' of 8" steam pipe between the east wing and west wing
- Replace sidewalk due to steam pipe project
- Replaced 6 boiler sections in the number two boiler
- Installed new steamer and kettle in kitchen
- Roof repairs

Mitchell Elementary School

187 Brookline Street

Assessed Value: \$8,286,600
 Parcel ID: Map 56 Block 1
 Lot Size: 12.47 acres
 Original Construction: 1951; addition constructed in 1968

Identified Future Capital Projects						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Bathroom Improvements			60,000			60,000
Locker Replacement	70,000					70,000
New Facility (Pending Request 2025)						-
Totals	70,000	-	60,000			130,000

Five Year Capital Appropriation Summary						
Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Modular Classrooms	2,729,276					2,729,276
						-
Totals	2,729,276	-	-	-	-	2,729,276

Other significant maintenance/repairs in Calendar Year 2017 included:

- Upgrade PA system throughout building and added additional speakers
- Added door access system to the back door
- Replaced egress door 6
- Rebuilt steam traps
- Added additional airphone monitors for the front office
- Painted areas of the building

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired steam valve and replaced temperature sensor in boiler #1
- Installed new shades
- Repaired bathroom stall
- Repaired roof leaks
- Replaced new motor in boiler
- Installed start capacitors on air conditioner
- Repaired broken window

Other significant maintenance/repairs in Calendar Year 2015 included:

- Painted the front, left side, and rear of the school

- Repaired windows in lobby
- Repaired air conditioning unit
- Repaired steam weld
- Conducted asbestos abatement
- Replaced batteries and booster for the fire alarm as well as signal service

Other significant maintenance/repairs in Calendar Year 2014 included:

- Performed cleaning of ductwork in HVAC system
- Upgraded electrical wiring and panel in the kitchen and wired new range and steamer
- Installed new fence in courtyard

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired granite steps at main entrance
- Installed occupancy sensors in all bathrooms
- Installed new induction lights in the parking lot
- Installed new awning over rear door
- Painted all door frames and hallways
- Asbestos abatement and re-insulation
- Boiler room upgrade
- Removed oil fired domestic hot water heater and replaced with natural gas fired unit
- Converted boiler burners to natural gas units

Other significant maintenance/repairs in Calendar Year 2012 included:

- Grouped exterior lights together
- Installed induction lights in place of existing wall packs
- Replaced motors on boiler room exhaust fan
- Installed new grease trap in kitchen
- Replaced doors and changed out locks
- Painted exterior of school
- Completed exhaust fan work and oil containment work
- Replaced 13 exterior windows in the gym

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Refinished wood floors in gym and cafeteria
- Installed lighting motion sensors throughout the entire building
- Weeded and mulched
- Replaced louvers and installed cages on exterior of building

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed motion detector light switches in all bathrooms, storage rooms and small meeting rooms
- Repaired stairs in the kindergarten area
- Refinished the floors in gym, cafeteria and stage
- Interior painting
- Added additional graphics to the Building Management System

Other significant maintenance/repairs in Calendar Year 2009 included:

- Installed new electrical service for new kitchen refrigerator and freezer
- Replaced boiler number two
- Installed Rentar Fuel Catalyst to reduce oil consumption
- Asbestos abatement in eleven classrooms and school administration area
- Installed VCT tile in all abated areas
- Installed twelve low flow toilets (MWRA Grant)
- Cleaned all duct work
- Replaced electrical service from building to parking lot lights
- Refinished Cafeteria, Stage and Gym floors
- Painted two class rooms, principles office, nurses office and stage ceiling
- Installed covers over AC units for the winter
- Converted pneumatic heating controls to digital controls and added to Building Management System

Hillside Elementary School

28 Glen Gary Road

Assessed Value: \$78,406,200
 Parcel ID: Map 102 Block 1
 Lot Size: 24.6 acres
 Original Construction: 1960; addition constructed in 1968; modular classrooms installed in 1996

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Boiler Upgrade		11,000	220,000			231,000
Renovate Hillside as Swing Space for Mitchell Feasibility			750,000			750,000
Renovate Hillside as Swing Space for Other Uses			100,000	2,607,400	16,253,100	18,960,500
Totals	-	11,000	1,070,000	2,607,400	16,253,100	19,941,500

The table below shows the appropriations related to the replacement of the Hillside School with the Sunita L. Williams Elementary School.

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Land Acquisition - 609 Central Avenue				762,500		762,500
Land Acquisition - Owens Farm			7,000,000			7,000,000
Outside Play Area				250,000		250,000
New Elementary School	650,000		45,000	57,542,500		58,237,500
Walking Trails					210,000	210,000
Totals	650,000	-	7,045,000	58,555,000	210,000	66,460,000

Other significant maintenance/repairs on the Hillside School building in Calendar Year 2017 included:

- Painted the exterior of the building
- Cleared scale blockage in the boilers
- Repaired steam traps
- Installed new airphone system
- Repaired areas of the roof
- Replaced breaker in the panel
- Repaired the uninvent motor
- Fixed communication issues with Building Management System
- Installed HVAC in the kindergarten area

Other significant maintenance/repairs in Calendar Year 2016 included:

- Cleared blockage in boiler
- Repaired and replaced windows
- Repaired electrical controller for boiler
- Repaired outdoor lighting near playground
- Converted lighting in gym to LED
- Conducted mold testing
- Installed new air conditioning units
- Repaired PA speakers

Other significant maintenance/repairs in Calendar Year 2015 included:

- Installed Lexan guards on railings to both the gym and cafeteria to close gaps in stairwell
- Installed a dedicated circuit for the special education classroom
- Installed insulated shades in all classrooms
- Repaired the flooring in the portable's boys' bathroom
- Repaired a steam leak on the boiler system
- Repaired a water main break
- Conducted asbestos abatement
- Installed insulated shades in Rooms 10 and 10A
- Repaired piping and put the systems back together for both boilers and condensate system; tuned and tested fire boilers

Other significant maintenance/repairs in Calendar Year 2014 included:

- Repaired boiler #1 in order to bring back online
- Replace floor tiles in modular classrooms and hallway
- Installed single door access control system

Other significant maintenance/repairs in Calendar Year 2013 included

- Installed Lexan guards on railings to close gaps in stairwell
- Removed existing carpet and installed VCT flooring in Kindergarten classroom
- Upgraded the boiler room
- Installed fob access system on exterior door
- Replaced outdoor lights with induction lighting and LED lighting

Other significant maintenance/repairs in Calendar Year 2012 included

- Replaced all window AC units with Energy Star Rated units
- Replaced pump and did oil containment work
- Replaced flooring

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Replaced domestic hot water heater
- Installed storage area in gym/auditorium on stage
- Weeded and mulched
- Replaced grease trap in cafeteria kitchen
- Rebuilt steam traps throughout the school
- Installed lighting motion sensors throughout the entire building
- Refinished gym wood flooring

Other significant maintenance/repairs in Calendar Year 2010 included:

- Converted pneumatic HV control system to digital HV control system and added to the Building Management System (stimulus funding)
- Replaced heating coil in cafeteria air handling unit
- Replaced heating coil in room 10
- Refinished gym floor
- Install new bathroom stalls in three girls bathrooms and 3 boys bathrooms
- Refurbished flag pole
- Replaced two condensate pumps
- Cleaned duct work

Other significant maintenance/repairs in Calendar Year 2009 included:

- Removed and replaced decks and stairs for modular class rooms
- Replaced main water valve and secondary hot and cold water valves
- Replace four large exhaust fans
- Installed two AC's, including electrical service
- Replaced all faucet fixtures in bathrooms and class rooms
- Installed second Rentar Fuel Catalyst to reduce oil consumption
- Painted interior fire doors, interior door casings, selected hallway areas
- Refinished Gym floor
- Replaced light lenses
- Replaced bathroom stalls in one bathroom
- Replaced exterior doors
- Installed fence around dumpsters
- Caulked all exterior openings and AC units
- Installed covers over AC units for winter

Broadmeadow Elementary School

120 Broad Meadow Road

Assessed Value: \$13,193,900
 Parcel ID: Map 13 Block 3
 Lot Size: 11.2 acres
 Original Construction: 1951; reconstruction and addition in 2002

Identified Future Capital Projects						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Facility Assessment*	50,000					50,000
						-
Totals	50,000	-	-	-	-	50,000

*multiple facilities the amount is a portion of the total

Five Year Capital Appropriation Summary						
Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2017 included:

- Repaired rooftop HVAC unit 1 and replaced fan motor
- Cleaned exterior windows
- Replaced burner control module
- Replaced the boiler brain for boiler 2
- Repaired multiple leaks in the roof
- Replaced fan motor for rooftop HVAC unit 2

Other significant maintenance/repairs in Calendar Year 2016 included:

- Upgraded intercom system to comply with ALICE
- Installed Smartboards in various classrooms
- Installed new supplying motor in RTU 1
- Repaired broken window
- Replaced circulator pumps
- Removed damaged light pole

Other significant maintenance/repairs in Calendar Year 2015 included:

- Replaced combustion chamber on RTU 3
- Repaired elevator by installing a new electronic door and repairing heat detector in hoist way on elevator
- Performed cleaning of ductwork in HVAC system

- Retrofitted exterior lighting to LED lighting
- Replaced lights in gym with LED high bay lights
- Replaced the top pipe on the fence around the garden

Other significant maintenance/repairs in Calendar Year 2014 included:

- Created a reception area desk in the ETC office
- Installed two door access control systems
- Replaced the ignition controls on two boilers
- Upgraded interior lighting – replaced all standard switches with sensor/motion detection switches
- Installed a new exhaust fan in kindergarten room
- Retro- commissioned the HVAC system
- Removed and replaced floor tiles in the main lobby area

Other significant maintenance/repairs in Calendar Year 2013 included:

- Installed occupancy sensors in all bathrooms
- Installed airphone system on exterior door
- Replaced flooring in hallways and various classrooms

Other significant maintenance/repairs in Calendar Year 2012 included:

- Installed LED bulbs in performance center and hallway
- Replaced water temperature sensor in generator room
- Installed 42 new clocks and new master unit
- Installed new airphone system
- Installed new exhaust fans on the roof
- Replaced flooring in music room
- Installed new diffuser in room 113
- Replaced condenser fans on RTU 4

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Replaced two compressors in RTU 3
- Replaced mixed air damper in RTU 5
- Replaced main breaker in RTU 2
- Repaired fence that was damaged during winter storm
- Replaced flooring in entrance way, performance, and rooms 4, 35, and 36
- Repaired several exterior lights
- Weeded and mulched

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed main compressor in RTU 3
- Replaced the flooring in rooms 55, 56, 60, 61 and the cafeteria
- Cleaned entire air handling system (duct cleaning)
- Refinished gym floor and stairs in Performance Center
- Replaced three circulator pumps for the domestic hot water system
- Interior painting

Other significant maintenance/repairs in Calendar Year 2009 included:

- Install split AC unit in head end room
- Replaced the motor, for the supply fan on RTU 2
- Painted selected hallway areas and bathrooms
- Replaced three way heat valve in Air Handling ceiling unit in gym

John Eliot Elementary School

135 Wellesley Avenue

Assessed Value: \$11,798,700
 Parcel ID: Map 91 Block 19
 Lot Size: 7.9 acres
 Original Construction: 1955; replaced in 2004

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Facility Assessment*	50,000					50,000
						-
Totals	50,000	-	-	-	-	50,000

*multiple facilities the amount is a portion of the total

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2017 included:

- Replaced cracked section of boiler 1
- Repaired coolant leaks on rooftop HVAC unit 2
- Repaired the generator
- Repaired leaking coil in the gym

- Replaced domestic hot water heater

Other significant maintenance/repairs in Calendar Year 2016 included:

- Installed an additional aiphone
- Replaced various broken windows
- Repaired lighting in auditorium
- Replaced electronic lighting control panel in mechanical room
- Installed new actuators in RTU1
- Installed a new supply motor for RTU3
- Repaired air conditioning system for IT server equipment
- Repaired intercom

Other significant maintenance/repairs in Calendar Year 2015 included:

- Retrofitted exterior lighting to LED lighting
- Replaced lights in gym with LED high bay lights
- Installed compressor for RTU 1
- Repaired ballast and lamps in four parking lot pole lights and three walkway lights
- Repaired air conditioning circuit for RTU 1 and RTU 2
- Investigated Cold Room

Other significant maintenance/repairs in Calendar Year 2014 included:

- Replaced motor on the ductless split unit
- Replaced fence along the driveway
- Wired and programmed the boiler controls for better energy efficiency
- Installed two door access control systems
- Repaired boiler #2 to bring back online

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced expansion tank for the domestic boiler
- Replaced flooring in hallways
- Replaced exterior lighting control panel

Other significant maintenance/repairs in Calendar Year 2012 included

- Installed airphone system on main entrance
- Replaced/repaired flooring in hallways
- Installed padding behind basketball nets

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Weeded and mulched
- Repaired fence that was damaged during winter storm
- Repair several exterior lights
- Replaced actuator and fixed damper in RTU 3
- Cleaned duct work

Other significant maintenance/repairs in Calendar Year 2010 included:

- Replaced all the seals in boiler #1
- Repaired marnolium flooring in the cafeteria and lobby area.
- Refinished gym and stage floors
- Replaced main breaker in electrical room
- Repainted traffic markings

Other significant maintenance/repairs in Calendar Year 2009 included:

- Replaced the control drive for the supply fan for RTU 3
- Repaired flooring in Performance Center

High Rock School

77 Sylvan Road

Assessed Value: \$13,863,900
 Parcel ID: Map 133 Block 41
 Lot Size: 8.75 acres
 Original Constructions: 1955; reconstruction and addition in 2009

Identified Future Capital Projects						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Locker Room Improvement Design					20,000	20,000
						-
Totals	-	-	-	-	20,000	20,000

Five Year Capital Appropriation Summary						
Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2017 included:

- Replaced control module
- Repaired Linden Street fence
- Repaired domestic hot water heater
- Repainted parking lot

Other significant maintenance/repairs in Calendar Year 2016 included:

- Terminate and certify data lines
- Install module for boiler #3
- Installed new actuator and software for air conditioning unit
- Installed compressor in air conditioning unit
- Installed a new waterless urinal

Other significant maintenance/repairs in Calendar Year 2015 included:

- Replaced damaged pole light
- Converted parking lot lighting to LED lighting
- Repaired John Deere tractor

Other significant maintenance/repairs in Calendar Year 2014 included:

- Installed guardrails and new fencing in upper parking lot

- Performed cleaning of ductwork in the HVAC system
- Replaced controller on boiler #1

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced cracked glass over main entrance door
- Installed new aluminum fence
- Repaired all outdoor lights

Other significant maintenance/repairs in Calendar Year 2012 included:

- Repaired 6 pole lights in the upper parking lot
- Relined parking lot

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Repair several exterior lights
- Weeded and mulched
- Refinished wood floor on stage
- Repaired fence that was damaged during winter storm
- Repaired domestic hot water heater

Other significant maintenance/repairs in Calendar Year 2010 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2009 included:

- Installed a 2.34 KW Solar Array

Emery Grover

1330 Highland Avenue

Assessed Value: \$2,204,700
 Parcel ID: Map 53 Block 2
 Lot Size: 1.06 acres
 Finished Square Feet: 14,742
 Original Construction: 1898

Identified Future Capital Projects						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Feasibility Study Update	70,000					70,000
Renovate/Reconstruct Facility		1,605,200	13,089,300			14,694,500
Roof Replacement #			15,000	160,000		175,000
Window Partial Replacement #		30,000	330,000			360,000
Totals	70,000	1,635,200	13,434,300	160,000	-	15,299,500

Five Year Capital Appropriation Summary						
Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Underground Oil Tank Removal & Replacement			73,000			73,000
						-
Totals	-	-	73,000	-	-	73,000

Other significant maintenance/repairs in Calendar Year 2017 included:

- Repaired roof leaks
- Repaired fire alarm panel
- Tested for asbestos
- Remodeled interior of main conference room

Other significant maintenance/repairs in Calendar Year 2016 included:

- Applied surface preparation to back wall in production center
- Replaced charcoal canister in fan system
- Installed a wall to separate payroll office into two sections
- Repaired broken cover to light fixture

Other significant maintenance/repairs in Calendar Year 2015 included:

- Repaired roof, including numerous leaks in roof
- Abated stair treads and replaced with new treads
- Removed underground storage tank
- Installed new above ground double walled tank

- Moved temporary fuel tanks to the right of present location
- Patched the cement on exterior side stairs
- Conducted asbestos abatement

Other significant maintenance/repairs in Calendar Year 2014 included:

- Painted hallways and offices on both floors
- Replaced fencing and gate around dumpster in the parking lot
- Replaced stair treads on interior stairways

Other significant maintenance/repairs in Calendar Year 2013 included:

- Installed insulation in the attic
- Installed awning over door entrance
- Replaced deteriorated metal cornices on roof
- Repaired brick archways on building

Other significant maintenance/repairs in Calendar Year 2012 included:

- Installed new indoor and outdoor units for heat pump system and adjusted system for dehumidification

Other significant maintenance/repairs in Calendar Year 2011 included:

- Reconstructed bathroom in basement
- Repaired to gutters and downspouts
- Removed all knob and tube wiring
- Removed finish floor, wall panels, and sub floor in ETC. Insulated walls, installed wall panels and sub floor, and finished floor.

Other significant maintenance/repairs in Calendar Year 2010 included:

- Asbestos abatement in several areas
- Installed rug in all abated areas (Administrative Areas)
- Removed and replaced floor and build outs along exterior foundation wall of ETC office
- Install vapor barrier throughout ETC office, insulated and reconstructed build outs along foundation walls
- Repoint bricks around the ETC office
- Repair and replace the gutters and down spouts on the north side of the building
- Installed new handrails in entrance
- Repainted traffic markings

Other significant maintenance/repairs in Calendar Year 2009 included:

- Asbestos abatement in several areas
- Installed rug in all abated areas (Administrative Areas)
- Exterior Painting
- Painted selected interior spaces

Town of Needham
Capital Improvement Plan
January 2018

- Install covers over all AC's which cannot be removed
- Installed Rentar Fuel Catalyst to reduce oil consumption
- Upgraded electrical service in the production center

Town Hall

1471 Highland Avenue

Assessed Value: \$10,363,100
 Parcel ID: Map 51 Block 1
 Lot Size: 1.23 acres
 Original Construction: 1902; reconstruction and addition in 2011

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Town Hall Stair Modifications					200,000	200,000
						-
Totals	-	-	-	-	200,000	200,000

Other significant maintenance/repairs in Calendar Year 2017 included:

- Repaired belt monitoring in elevator
- Replaced granite transaction counter
- Repaired roof leaks
- Repaired door closer
- Repaired AC chiller
- Repaired back flow preventer
- Implemented new security measures for remote access to Building Management system

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired columns
- Repaired handicap accessible ramp
- Replaced the DAU
- Replaced steel hand rail and replaced missing steel grate
- Install outdoor electrical receptacle in the Needham bank parking lot

- Repaired elevator
- Repaired door
- Repaired broken roll up window in Town Manager's office
- Removed fir flooring in the small office
- Repaired windows

Other significant maintenance/repairs in Calendar Year 2015 included:

- Replaced door

Other significant maintenance/repairs in Calendar Year 2014 included:

- Repaired the Voltape Bird Control System on the roof
- Repaired and repainted columns in Powers Hall auditorium

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired automatic temperature controls

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- Put back in service October 2011

Other significant maintenance/repairs in Calendar Year 2010 included:

- Taken out of service February 2010

Department of Public Works/Operations

470 Dedham Avenue

Assessed Value: \$3,106,400 (DPW Building)
Parcel ID: Map 302 Block 5
Lot Size: 17.7 acres
Original Constructions: 1960; addition in 1966

Identified Future Capital Projects						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Boiler Replacement#	34,000	400,000				434,000
Facility Improvements (Pending Results of Study)		2,950,000		35,000,000		37,950,000
DPW Equipment Storage Facility	7,900,000					7,900,000
Totals	7,934,000	3,350,000	-	35,000,000	-	46,284,000

Five Year Capital Appropriation Summary						
Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
DPW Equipment Storage Facility					150,000	150,000
DPW/Public Services Administration Building Location Feasibility Study*			20,000			20,000
Facility Improvements Garage Bays	1,100,000					1,100,000
Fuel Island Relocation and Upgrade				131,000	1,320,000	1,451,000
Garage Lift	110,000					110,000
Totals	1,210,000	-	20,000	131,000	1,470,000	2,831,000

*multiple facilities the amount is a portion of the total

Other significant maintenance/repairs in Calendar Year 2017 included:

- Removed underground storage tank
- Upgraded lighting in the garage area to LED
- Fixed voicemail
- Replaced skid on generators
- Replaced entrance door at Charles River Water Treatment Plant
- Replaced muffler on Hillcrest Water Tower

Other significant maintenance/repairs in Calendar Year 2016 included:

- Removed asbestos in the garage and repaired asbestos containing pipe and insulation
- Replaced rotted pipes in garage
- Reattached exhaust heat pipe
- Install electric baseboard heat and wall thermostat

Other significant maintenance/repairs in Calendar Year 2015 included:

- Installed lighting in sidewalk bays
- Repaired boiler
- Replaced stay bolts
- Removed asbestos on insulation from the piping for the modine heater over the generator area in the garage
- Changed the door and frame for door #2
- Reinstalled insulation and exterior metal sheeting on the boiler

Other significant maintenance/repairs in Calendar Year 2014 included:

- Installed new shower valves in men's restroom
- Installed a new door to the garage office
- Replaced VFD in boiler motor
- Added additional lighting hardware outside of building

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired block column which was damaged
- Replaced expansion tank #2 in boiler room

Other significant maintenance/repairs in Calendar Year 2012 included:

- Repaired and re-tubed boiler in boiler room
- Replaced expansion tank #1 in boiler room
- Changed cores on office doors on second floor

Other significant maintenance/repairs in Calendar Year 2011 included:

- Removed snow from roof
- Repaired exterior brick
- Repaired boiler
- Glazed and painted exterior of windows
- Reconfigured building to storage space

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed additional exterior back lot lighting for DPW employees
- Contracted with utility to have natural gas main brought to Water Building and DPW
- Converted oil fired burner to natural gas fired burner
- Clean out oil water separator at the DPW building
- Install new down spouts at Water Building
- Installed two urinals and flushometers in the Water Building
- Install new furnace at the Charles River Water Treatment Plant

Other significant maintenance/repairs in Calendar Year 2009 included:

- Repaired main boiler vessel
- Replace HVAC control compressor
- Installed Rentar Fuel Catalyst to reduce oil consumption
- Constructed Men’s and Women’s bathrooms in Water Building
- Installed new high efficiency propane heating system in Water Building
- Install water meter test bench in St. Mary’s Pump Station

Public Services Administration Building

500 Dedham Avenue

Assessed Value: \$5,827,200
 Parcel ID: Map 302 Block 3
 Lot Size: 2.67 acres
 Original Constructions: 2009

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
DPW/Public Services Administration Building Location Feasibility Study*			20,000			20,000
						-
Totals	-	-	20,000	-	-	20,000

*multiple facilities the amount is a portion of the total

Other significant maintenance/repairs in Calendar Year 2017 included:

- Re-programmed Building Management System

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired the front door
- Repaired leaking ceiling tile

Other significant maintenance/repairs in Calendar Year 2015 included:

- Converted exterior lighting to LED lighting
- Repaired Schweiss Doors
- Removed and replaced Seimens soft start and reprogrammed all safety settings for the fire alarm

Other significant maintenance/repairs in Calendar Year 2014 included:

- Repaired seams in the linoleum flooring in the hallways
- Performed cleaning of ductwork in the HVAC system

Other significant maintenance/repairs in Calendar Year 2013 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- Repainted office spaces for new occupants

Other significant maintenance/repairs in Calendar Year 2010 included:

- No significant repairs

Recycling & Transfer Station

1407 Central Avenue

Assessed Value: \$3,965,200
 Parcel ID: Map 308 Block 2
 Lot Size: 22 acres
 Original Construction: 1988

Identified Future Capital Projects						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Facility Upgrades and Improvements	645,000	27,000	120,000	120,000		912,000
Stormwater Plan		250,000	275,000			525,000
Totals	645,000	277,000	395,000	120,000	-	1,437,000

Five Year Capital Appropriation Summary						
Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Facility Upgrades and Improvements				68,000		68,000
Facility Upgrades and Improvements					290,000	290,000
Message Board		30,000				30,000
Stormwater Plan				50,000		50,000
Transfer Station Building Tipping Floor Replacement					166,000	166,000
Transfer Station Office Trailer		75,779				75,779
Totals	-	105,779	-	118,000	456,000	679,779

Other significant maintenance/repairs in Calendar Year 2017 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired the roof of the 3 bay garage
- Installed roof purlins in the 3 bay garage and the tipping floor
- Replaced faulty steel gussets for the tilt floor
- Rehung and secured sprinklers pipe
- Disconnected and removed overhead lights in tipping floor
- Installed electrical power to new town sign
- Repaired the heat in the employee trailer
- Replaced the compressor in the air conditioner
- Connected plumbing services for the RTS trailer
- Installed LED lights inside transfer station
- Installed new faucets

Other significant maintenance/repairs in Calendar Year 2015 included:

- Removed and replaced 3' of sheetrock and insulation in all office and bathroom areas

Other significant maintenance/repairs in Calendar Year 2014 included:

- Replaced eight roof mounted exhaust fans
- Replaced all exterior lights with induction lighting in order to be more energy efficient
- Re-lamped all interior lights

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced flooring in the main office
- Repaired track on overhead door #2
- Repaired center column

Other significant maintenance/repairs in Calendar Year 2012 included:

- Installed steel barricade for the electrical switches in the garage
- Repaired damaged conduit
- Evaluated all overhead doors

Other significant maintenance/repairs in Calendar Year 2011 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed AC in Superintendents office
- Repaired service power to overhead door
- Replaced overhead doors

Salt Shed

1407 Central Avenue

Assessed Value: \$1,811,800
 Parcel ID: Map 308 Block 2
 Lot Size: 22 acres
 Original Construction: 2013

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
						-
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2017 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired overhead door

Other significant maintenance/repairs in Calendar Year 2015 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2014 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2013 included:

- No significant repairs

Morse-Bradley House/Ridge Hill

461-463 Charles River Street

Assessed Value: \$3,030,000
 Parcel ID: Map 306 Block 1
 Lot Size: 223.1 acres
 Original Construction: 1907 and 1929

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2017 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired the fascia, soffit, and gutter
- Removed asbestos in the main house
- Installed electric supplemental heat in the basement of the main house

Other significant maintenance/repairs in Calendar Year 2015 included:

- Repaired slate roof
- Installed six LED high bay lights
- Replaced all fixtures

Other significant maintenance/repairs in Calendar Year 2014 included:

- Repaired two broken windows
- Constructed two kiosks

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired damaged roof on the garage

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- Installed alarm system
- Installed downspouts and drains

Other significant maintenance/repairs in Calendar Year 2010 included:

- Install 5/8" AC plywood to protect hard wood floors
- Winterized Plumbing
- Install new downspouts

Public Safety Buildings **88 Chestnut Street/99 School Street/707 Highland Avenue**

Assessed Value: \$3,408,800 (88 Chestnut Street/99 School Street)
 \$1,708,800 (707 Highland Ave)
 Parcel ID: Map 47 Block 56 (88 Chestnut Street)
 Map 70 Block 5 (707 Highland Avenue)
 Lot Size: 1.04 acres (88 Chestnut Street/99 School Street)
 1 acre (707 Highland Avenue)
 Original Construction: 1931 (88 Chestnut Street/99 School Street); renovation in 1989
 1906 (707 Highland Avenue)

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Public Safety and Station 2 Building Replacements	65,405,000					65,405,000
						-
Totals	65,405,000	-	-	-	-	65,405,000

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Underground Storage Tank Removal	28,500					28,500
Fire Station 2 Feasibility Study			50,000			50,000
Public Safety Building Replacement Feasibility				90,000		90,000
Public Safety and Station 2 Building Replacements					4,000,000	4,000,000
Totals	28,500	-	50,000	90,000	4,000,000	4,168,500

Other significant maintenance/repairs in Calendar Year 2017 included:

- Repaired air conditioning in Police sever room
- Repaired radiator unit at Fire Station 2

Other significant maintenance/repairs in Calendar Year 2016 included:

- Fire Station 1 & Police Station
 - Installed split AC, including new electrical service
 - Repaired multiple lights
 - Repaired light pole
 - Repaired garage door
- Fire Station 2
 - Repaired hanging heaters in apparatus bay
 - Repaired boiler

Other significant maintenance/repairs in Calendar Year 2015 included:

- Fire Station 1 & Police Station
 - Repaired leaks on walls and roof defects
 - Installed karnak and mesh to leave watertight
 - Installed two additional recessed lighting in the police server room
 - Inspected and repaired all masonry joints and flashing around chimney
 - Installed a split unit in the Server Room at the Police Station and completed electrical work
- Fire station 2
 - Replaced batteries, pull stations, and flow and pressure switch for sprinkler system

Other significant maintenance/repairs in Calendar Year 2014 included:

- Fire Station 1 & Police Station
 - Removed and replaced five shower stalls on the fire side.
 - Repaired boiler in order to bring it back online
- Fire station 2
 - Replaced fourteen windows on the second floor level as part of the energy efficiency upgrades

Other significant maintenance/repairs in Calendar Year 2013 included:

- Fire Station 1 & Police Station
 - Repaired chair lifts
 - Installed 10 new toilets in jail cells
 - Installed new induction lighting in parking lot
- Fire station 2
 - Installed new faucets in kitchen

Other significant maintenance/repairs in Calendar Year 2012 included:

- Fire Station 1 & Police Station
 - Installed air compressor and auto condensate drain in the garage
 - Furnished and installed a copper chimney cap and screening
 - Replaced parking lot pole
 - Replaced voltage regulator and adjusting potentiometer
 - Installed new sink
 - Installed sentricon termite system
 - Painted exterior of Police station
 - Replaced section in overhead door in garage
 - Renovated kitchen
 - Repaired door #1 on Police side

- Replaced all showerheads
- Painted interior of stairwell in fire station
- Fire Station 2
 - Replaced main doors in apparatus bay
 - Replaced spiral duct and low voltage wiring
 - Cleaned gutters and repaired parts of the roofs
 - Sanded and painted exterior doors, trim, and handrails

Other significant maintenance/repairs in Calendar Year 2011 included:

- Fire Station 1 & Police Station
 - Repaired overhead doors
 - Repaired several exterior lights
 - Repaired Plymovent exhaust system in garage
 - Cleaned duct work and abated mold
 - Replaced chiller and air handler
- Fire Station 2
 - Replaced boiler with condensing boiler
 - Cleaned duct work
 - Repaired Plymovent exhaust system in garage
 - Replaced 8 windows in building
 - Repaired overhead doors
 - Replaced gas stove and microwave in kitchen

Other significant maintenance/repairs in Calendar Year 2010 included:

- Repaired police and fire station overhead doors
- Exterior sprinkler repair at both station # 1 & station # 2
- Repaired natural gas line at station # 2
- Cleaned out gas/oil separator at Station # 1

Other significant maintenance/repairs in Calendar Year 2009 included:

- Completed repairs to police and fire station overhead doors
- Roof repairs
- Replaced roof on Public Safety Building
- Replaced carpeting in all administrative spaces in police station
- Painted all administrative spaces in police station
- Repaired natural gas leak in Fire Station #2
- Upgraded one main electrical service panel in Fire Station #2

Daley Building

257 R Webster Street

Assessed Value: \$1,076,100
 Parcel ID: Map 70 Block 29
 Lot Size: .92 acres
 Original Construction: 1960

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2017 included:

- Installed guards and safety measures to equipment
- Replaced hot water heater

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired cracks in the walls

Other significant maintenance/repairs in Calendar Year 2015 included:

- Completed various roof repairs
- Repaired masonry block walls

Other significant maintenance/repairs in Calendar Year 2014 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2013 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- Repaired overhead doors
- Repaired security alarm system
- Repaired exterior masonry on northeast corner of building

Other significant maintenance/repairs in Calendar Year 2010 included:

- Installed Burner Booster (pilot) to reduce fuel oil consumption

Other significant maintenance/repairs in Calendar Year 2009 included:

- Roof repairs

Needham Public Library

1139 Highland Avenue

Assessed Value: \$13,772,800
 Parcel ID: Map 226 Block 55
 Lot Size: 1.05
 Original Construction: 1915; reconstruction and addition in 2006

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
						-
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2017 included:

- Repaired leaking gland seal on hydraulic ram in the "A" elevator
- Secured all ceiling panels
- Repaired irrigation system
- Replaced hand dryers
- Repaired leaks in roof
- Converted multiple sections of lights to LED
- Repaired PA system
- Repaired fire alarm panel

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired the chiller
- Replaced and repaired multiple lights
- Installed new EPDM roof over awning
- Replaced hand dryers
- Calibrate t-stats in the Library
- Fixed coil and condensation leaks
- Installed cooling valve

Other significant maintenance/repairs in Calendar Year 2015 included:

- Improved the library's chiller by installing 3 new contractors for #1 compressor, recharging the system, and pressure testing circuit 2
- Replaced heat valve on ERU 3
- Assisted with installation of new equipment and demo in the Library community room
- Repaired leaks in Library archive room, skylight, conference room, and hallway
- Replaced 8 failed valve bodies
- Rehung fan powered box in children's room
- Cleaned exterior windows
- Repaired elevators by replacing telescopic twin post packing, adding cat oil to heads, resinking, and replacing oil injectors
- Required lighting circuitry and relocated three low voltage switches
- Repaired the air conditioning unit in the archive room
- Demolished four wall hung closets and carriers in first floor women's room and installed rough and finished plumbing for four new Gerberit wall hung concealed tank water closets
- Replaced one of the sewage ejector pumps
- Fixed chiller circuit #2
- Converted exterior lighting to LED lighting
- Replaced CPU panel
- Changed pressure transducer, replaced flow switch, and troubleshot problems on the chiller

Other significant maintenance/repairs in Calendar Year 2014 included:

- Installed lettering of clear printed names on balustrade
- Repaired compressor on chiller
- Replaced handicap door operator
- Replaced station cards and updated Samsung phone system
- Repaired damaged sheetrock in conference room
- Reset capstone wall, repaired ramp, and repaired stone pavers outside of the entrance to the building
- Repaired exterior concrete stairs
- Repaired book drop doors
- Painted exterior of front entrance

Other significant maintenance/repairs in Calendar Year 2013 included:

- Repaired all lighting throughout building
- Installed new capstone in stone knee wall outside of building

Other significant maintenance/repairs in Calendar Year 2012 included:

- Repaired clock facing Highland Avenue

- Removed and replaced cork flooring on second and first floor
- Upgraded controls on boiler #1
- Repaired pole lights in parking lot
- Repaired and improved handicapped door opener at rear entrance
- Replaced first floor window panel in children's room
- Repaired chiller – roof
- Repaired mortar on corner stones
- Repaired broken glass partition on 2nd floor
- Installed film and railings on glass balustrades

Other significant maintenance/repairs in Calendar Year 2011 included:

- Repaired Boiler #1 & # 2
- Repaired some exterior lighting
- Repaired cork flooring in main level
- Cleaned duct work

Other significant maintenance/repairs in Calendar Year 2010 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2009 included:

- Installed low volume ventilation system in Children's Room
- Removed the Wave in the Children's Room
- Patched and paint walls in Children's Room
- Installed cove base in Children's Room

Center at the Heights (Senior Center)

300 Hillside Avenue

Assessed Value: \$7,064,600
 Parcel ID: Map 99 Block 14
 Lot Size: 1.64 acres
 Original Construction: 2013

Identified Future Capital Projects						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Space Utilization Study					30,000	30,000
Totals	-	-	-	-	30,000	30,000

Five Year Capital Appropriation Summary						
Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
						-
Totals	-	-	-	-	-	-

Other significant maintenance/repairs in Calendar Year 2017 included:

- Replaced door opener

Other significant maintenance/repairs in Calendar Year 2016 included:

- Installed new electrical outlet for new refrigerator
- Installed new window shades

Other significant maintenance/repairs in Calendar Year 2015 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2014 included:

- Installed new AED holders
- Installed six hoods for the Mitsubishi roof top units

Other significant maintenance/repairs in Calendar Year 2013 included:

- No significant repairs

Rosemary Complex

Rosemary Street

Assessed Value: \$3,573,000
 Parcel ID: Map 225 Blocks 01;02;03;31
 Lot Size: 36.49 acres Includes camp and lake (lake equals 11.8 acres +/- camp equals 19 acres +/-)
 Original Construction: Camp 1942, Pool 1960, and Buildings 1972

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
						-
						-
Totals	-	-	-	-	-	-

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Pool Replacement Feasibility & Design			450,000	550,000		1,000,000
Rosemary Pool and Office Complex					15,800,000	15,800,000
Totals	-	-	450,000	550,000	15,800,000	16,800,000

Other significant maintenance/repairs in Calendar Year 2017 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired broken hand rails

Other significant maintenance/repairs in Calendar Year 2015 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2014 included:

- Repaired showers and sinks that were leaking in the women’s restroom
- Installed new screens in windows
- Installed new diving board and new pedestal mount

Other significant maintenance/repairs in Calendar Year 2013 included:

- Replaced door knobs with new ADA compliant handsets
- Repaired wooden deck
- Repaired block wall

Other significant maintenance/repairs in Calendar Year 2012 included:

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- Replaced all showerheads
- Replaced old hot water heaters with new energy efficient hot water heaters

Other significant maintenance/repairs in Calendar Year 2011 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2010 included:

- Replacement of two major pumps: lift pump and circulation pump

Other significant maintenance/repairs in Calendar Year 2009 included:

- Replaced two exterior doors and two handicapped doors
- DPW replaced a leaking pipe
- DPW did all the pool prep work including replacing deck boards
- Replaced light fixtures in filter room, underground storage, concession room, and handicap bathrooms
- Rebuilt center dock
- Replaced the fencing and gate around the DE pit
- Installed covering over stairs

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Memorial Park

1154 Highland Avenue

Assessed Value: \$913,100
Parcel ID: Map 226 Block 30
Lot Size: 13.08 acres
Original Construction: 1985

Identified Future Capital Projects Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Memorial Park Field House Replacement and Improvements to the Grounds	5,900,000					5,900,000
						-
Totals	5,900,000	-	-			5,900,000

Five Year Capital Appropriation Summary Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Drainage Improvements				310,000		310,000
Improvements to Memorial Park Buildings and Grounds Feasibility Study				50,000		50,000
Memorial Park Field House Replacement and Improvements to the Grounds					375,000	375,000
Memorial Park Improvements		35,000				35,000
Totals	-	35,000	-	360,000	375,000	770,000

Other significant maintenance/repairs in Calendar Year 2017 included:

- Replaced window

Other significant maintenance/repairs in Calendar Year 2016 included:

- Repaired the steps on the gazebo
- Installed new hand dryers
- Repaired window in office
- Installed new railings for the gazebo

Other significant maintenance/repairs in Calendar Year 2015 included:

- Replaced heat detector and strobe
- Replaced heat detector in football storage room 5
- Replaced one horn strobe on second floor
- Replaced fire alarm control panel and changed all devices to an addressable style
- Removed urinal and replaced with pedestal sink in first level unisex restroom

Other significant maintenance/repairs in Calendar Year 2014 included:

- Water sealed the wood stairs at Memorial Park
- Installed new water heater at Memorial Park Field House
- Changed locks and door hardware on both doors at Memorial Park

Other significant maintenance/repairs in Calendar Year 2013 included:

- Installed new gas furnaces at Memorial Park

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- Replaced all exterior doors at Memorial Park
- Repainted awning on exterior of Memorial Park

Other significant maintenance/repairs in Calendar Year 2010 included:

- Repainted traffic markings

Other significant maintenance/repairs in Calendar Year 2009 included:

- No significant repairs

Chestnut Street Annex (reserved for public safety expansion)

66 – 70 Chestnut Street

Assessed Value: \$1,294,400
Parcel ID: Map 47 Block 57
Lot Size: .58 acres
Original Construction: Purchased 12/18/2013

Other significant maintenance/repairs in Calendar Year 2017 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2016 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2015 included:

- Removed sign from property

Other significant maintenance/repairs in Calendar Year 2014 included:

- No significant repairs

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Capital Improvement Plan
January 2018

Needham Parks

Assessed Value: Multiple
Parcel ID: Multiple
Lot Size: Multiple
Original Construction: Multiple

Identified Future Capital Projects						
Project	FY2019	FY2020	FY2021	FY2022	FY2023	Total
Artificial Turf Carpet Replacement	55,000	2,500,000				2,555,000
Asa Small Field Improvements		34,000	152,000			186,000
Claxton Field Improvements	510,000		17,500	120,000		647,500
Cricket Building and Field Improvements		542,000	649,000			1,191,000
McLeod Field Improvements			35,000	450,000		485,000
Playground Improvements Townwide	300,000	400,000				700,000
Rosemary Camp and Trail Improvements	50,000	200,000				250,000
Rosemary Lake Sediment Removal	2,400,000					2,400,000
Town Common Redesign		52,000	906,000			958,000
Town Reservoir Sediment Removal			126,500	1,035,000		1,161,500
Wildwood Drive Pond	25,000					25,000
Totals	3,340,000	3,728,000	1,886,000	1,605,000	-	10,559,000

Five Year Capital Appropriation Summary						
Project	FY2014	FY2015	FY2016	FY2017	FY2018	Total
Cricket Building and Field Improvements					35,000	35,000
Mills Field Improvements	40,000		510,000			550,000
Newman School Fields			1,527,000			1,527,000
Newman School Trail	248,000		800,000			1,048,000
Rail Trail Improvements			100,000			100,000
Reservoir and Ridge Hill Trails	85,000					85,000
Reservoir Trail					935,000	935,000
Rosemary Lake Sediment Removal Project				118,000		118,000
Totals	373,000	-	2,937,000	118,000	970,000	4,398,000

Other significant maintenance/repairs in Calendar Year 2017 included:

- Installed new electrical service to Mills Field building

Other significant maintenance/repairs in Calendar Year 2016 included:

- Installed two new hand dryers at the DeFazio Field bathroom facility
- Replace missing stall doors at the DeFazio Field bathroom facility

Other significant maintenance/repairs in Calendar Year 2015 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2014 included:

- Replaced locks and door hardware on restroom doors at Claxton Field

Other significant maintenance/repairs in Calendar Year 2013 included:

- Installed two new toilets in women's bathroom at Cricket Field

Other significant maintenance/repairs in Calendar Year 2012 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2011 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2010 included:

- No significant repairs

Other significant maintenance/repairs in Calendar Year 2009 included:

- No significant repairs

Glossary

Section 5

GLOSSARY

Provided below are some of the commonly used terms in budget and capital planning and fiscal and debt management.

Account - A classification of appropriation by type of expenditure.

Accounting Period – A period of time (e.g., one month, one year) where the Town determines its financial position and results of operations.

Accrual Basis - The basis of accounting under which transactions are recognized when they occur, regardless of the timing of related cash flows.

Actuarial - A person or methodology that makes determinations of required contributions to achieve future funding levels by addressing risk and time.

ADA - Americans with Disabilities Act

Athletic Facility Improvement Fund - This fund was created at the 2012 Annual Town Meeting. The purpose of this fund is to allow the Town to reserve funds for the renovation and reconstruction of the Town's athletic facilities, with particular emphasis on the turf fields installed at the Memorial Park and DeFazio Field.

American Reinvestment and Recovery Act - The American Recovery and Reinvestment Act of 2009, abbreviated ARRA or Federal Stimulus, is an economic stimulus package enacted by Congress in February 2009. The Act includes federal tax cuts, expansion of unemployment benefits and other social welfare provisions, and domestic spending in education, health care, and infrastructure, including the energy sector.

Appropriation – A legal authorization granted by Town Meeting to expend money and incur obligations for specific public purposes.

ARRA - See American Reinvestment and Recovery Act

Assessment – The official valuation of property for purposes of taxation.

Available Funds – Balances in the various fund types that represent non-recurring revenue sources. As a matter of sound practice, they are frequently appropriated to meet unforeseen expenses, for capital expenditures or other onetime costs. Examples of available funds include free cash, stabilization funds, overlay surplus, and retained earnings.

Balanced Budget – A budget is balanced when planned funds or total revenues equal planned expenditures, that is, total

outlays or disbursements, for a fiscal year.

Betterment (Special Assessment) – Whenever part of a community benefits from a public improvement, or betterment (e.g., water, sewer, sidewalks, etc.), special property taxes may be assessed to the property owners of that area to reimburse the governmental entity for all, or part, of the costs it incurred in completing the project. Each property parcel receiving the benefit is assessed a proportionate share of the cost which may be paid in full, or apportioned over a period of up to 20 years.

Bond – A written promise to pay a specified sum of money (called the face value or principal amount) at a specified date or dates in the future (called the maturity date), together with periodic interest at a specified rate. The difference between a note and a bond is that the latter runs for a longer period of time and requires greater legal formality.

Bond Anticipation Note (BAN) – Short-term interest-bearing notes issued by a government in anticipation of bonds to be issued at a later date. Notes are retired from proceeds from the bond issue to which they are related and/or from a cash payment and/or Town appropriation.

Capital Budget - A plan for capital expenditures for projects to be included during the first year of the capital improvement plan.

Capital Exclusion – A *temporary* increase in the tax levy to fund a capital project or make a capital acquisition. Exclusions require 2/3 vote of the entire Board of Selectmen and a majority vote in a town-wide election. The exclusion is added to the tax levy only during the year in which the project is being funded and may increase the tax levy above the levy ceiling.

Capital Facility Stabilization Fund - This fund was created at the 2007 Annual Town Meeting. The purpose of this fund is to allow the Town to reserve funds for design, maintenance, renovation or reconstruction relating to the structural integrity, building envelope or MEP (mechanical, electrical, plumbing) systems of then existing capital facilities. For this purpose, capital facility refers to any building or structure which is located on Town property and is under the jurisdiction of the Town Manager, including any Town owned building, structure, room, or space within a building, facility, park or plaza, open space, driveway, landscaped area, or other physical improvements under the administrative control of the Town.

Capital Improvement Fund – This fund was created at the 2004 Annual Town Meeting. The purpose of this Fund is to allow the Town to reserve funds for the acquisition of new equipment and/or the replacement of existing equipment (for which the Town may borrow money for a period of five years or more), and/or for building/facility improvements with a cost of less than \$250,000 (for which the Town may borrow money for a period of five years or more). Only general fund capital that has been recommended in the Capital Improvement Plan (CIP) is eligible for funding in this manner.

Capital Improvement Plan (CIP) – A financial planning and management tool that identifies public facility and equipment requirements and schedules them for funding and implementation.

Capital Project – Major, non-recurring expenditure involving one or more of the following: acquisition of land for a public purpose; construction of or addition to a facility such as a public building, water or sewer lines, play field, etc.; rehabilitation or repair of a building, facility, or equipment, provided the cost is \$25,000 or more and the improvement will have a useful life of five years or more; purchase of equipment costing \$25,000 or more, with a useful life of five years or more; and any planning, engineering, or design study related to an individual capital project.

Cash Basis - A basis of accounting under which transactions are recognized only when cash changes hands.

Chapter 90 – Massachusetts General Laws Chapter 90, Section 34 authorizes the Commonwealth to allocate funds to municipalities, through the Transportation Bond Issue, for highway construction, preservation and improvement projects that create or extend the life of capital facilities; routine maintenance operations such as pothole filling and snow and ice removal are not covered. The formula for determining the Chapter 90 level of funding is based on a municipality's miles of public ways, population and level of employment. Municipalities receive Chapter 90 reimbursement only for pre-approved projects.

Cherry Sheet - Originally printed on a cherry-colored form, this document reflects all Commonwealth charges, distributions and reimbursements to a city or town as certified by the state Director of the Bureau of Accounts.

Collective Bargaining - The process of negotiations between the Town and bargaining units (unions) regarding the salary and fringe benefits of town employees.

Community Preservation Act (CPA) – Enacted as Massachusetts General Laws Chapter 44B in 2000, CPA permits cities and towns accepting its provisions to establish a restricted fund from which monies can be appropriated only for a) the acquisition, creation and preservation of open space; b) the acquisition, preservation, rehabilitation, and restoration of historic resources; and c) the acquisition, creation and preservation of land for recreational use; d) the creation, preservation and support of community housing; and e) the rehabilitation and restoration of open space, land for recreational use and community housing that is acquired or created using monies from the fund. The local program is funded by a local surcharge up to 3 percent on real property tax bills and funds from the state generated from registry of deeds fees. The voters of Needham approved a 2 percent surcharge effective July 1, 2005.

Community Preservation Fund - A special revenue fund established pursuant to Massachusetts General Laws Chapter 44B to receive all monies collected to support a community preservation program, including but not limited to, tax surcharge receipts, proceeds from borrowings, funds received from the Commonwealth, and proceeds from the sale of certain real estate.

Conservation Fund – The Town may appropriate money to a conservation fund. This money may be expended by the Conservation Commission for lawful conservation purposes as described in Massachusetts General Laws Chapter 40 Section 8C. The money may also be expended by the Conservation Commission for damages arising from an eminent domain taking provided that the taking was approved by two-thirds vote of Town Meeting.

Contingent Appropriation – An appropriation that authorizes spending for a particular purpose only if subsequently approved in a voter referendum. Under Massachusetts General Laws Chapter 59 Section 21C (m), towns may make appropriations from the tax levy, available funds or borrowing, contingent upon the subsequent passage of a Proposition 2½ override or exclusion question for the same purpose. If initially approved at an annual Town Meeting, voter approval of the contingent appropriation must occur by certain date after the Town Meeting dissolves. The question may be placed before the voters at more than one election, but if not approved by the applicable deadline, the appropriation is null and void.

Debt Exclusion – A *temporary* increase in the Town's levy limit (and possibly the levy ceiling) to exclude the payment of debt from the limits of Proposition 2½. The debt service is added to the levy limit for the life of the debt only. To place a debt exclusion question on the ballot requires a 2/3 vote of the entire Board of Selectmen. The debt exclusion question requires a majority vote by voters for passage.

Debt Exclusion Offset – Other funds that are used to reduce the amount of the debt paid by the tax levy. An example is a bond premium which is the difference between the market price of a bond and its face value. A premium will occur when the bond's stated interest rate is set higher than the true interest cost (the market rate). Additions to the levy limit for debt exclusion are restricted to the true interest cost incurred to finance the excluded project. Premiums received at the time of sale must be offset against the stated interest cost in computing the debt exclusion. If receipt of the premium and the payment of interest at maturity of an excluded debt occur in different fiscal years, reservation of the premium for future year's debt service is required at the end of the fiscal year when the premium was received.

Debt Limit – The maximum amount of gross or net debt that is legally permitted under State Law.

Debt Policy – Part of an overall capital financing policy that provides evidence of a commitment to meet infrastructure needs through a planned program of future financing. The Town of Needham has debt policies that have been developed in consultation with the Finance Committee and reviewed and approved by the Board of Selectmen.

Debt Service – The amount paid annually to cover the cost of both principal and interest on a debt issuance until its retirement.

Department - A service providing entity of the town government.

Division - A budgeted sub-unit of a department.

Encumbrance – The setting aside of funds to meet known obligations.

Enterprise Fund – A municipal fund established for the operation of a municipal utility, health care, recreational, or transportation facility whereby the operations are fully funded by the fees associated with that enterprise rather than by the tax levy. The "surplus" or retained earnings generated by the operation of the enterprise remain with the fund to offset future

capital improvements, extraordinary maintenance expenses, or to reduce future fees and charges of the fund.

Expenditure Account Code - An expenditure classification according to the type of item purchased or service obtained, for example, regular compensation, energy expense, communications, educational supplies, and vehicle equipment.

Fiscal Year - The twelve-month financial period used by the Town beginning July 1 and ending June 30 of the following calendar year. The Town's fiscal year is numbered according to the year in which it ends.

Fixed Assets - Assets of a long-term character, which are intended to continue to be held or used, such as land, building, and improvements other than buildings, machinery, and equipment.

Formula Grant - Federal funding for which the allocation methodology is strictly determined in federal statute or regulation, and for which a government agency prepares a single application and receives subsequent years' allocation without re-application.

Free Cash - Free cash is the amount of the General Fund unassigned fund balance that may be used as a source to fund appropriations. The Massachusetts Department of Revenue certifies the amount of "free cash" resulting from closing the financial books as of June 30, the end of the fiscal year. Free cash may only be used after the certification process by the Department of Revenue is complete. For example, the July 1, 2012 certified amount may be used to fund supplemental appropriations voted during fiscal year 2013, or applied as a revenue source to support the fiscal 2014 appropriations that may be voted in the spring of 2013.

Fringe Benefits - Employee-related costs other than salary, e.g., insurance and retirement costs.

Full Faith and Credit - A pledge of the general taxing power for the payment of debt obligations. Bonds carrying such pledges are referred to as general obligation bonds or full faith and credit bonds.

Full-time Equivalent Position (FTE) - A concept used to group together part-time positions into full-time units.

Fund - An independent fiscal and accounting entity with a self-balancing set of accounts recording cash and/or other resources with all related liabilities, obligations, reserves, and equities that are segregated for specific activities or objectives. Among the fund types used by the Town are General, Special Revenue, Capital Projects, Trust, and Enterprise.

FY - Fiscal Year

GASB - This refers to the Governmental Accounting Standards Board which is currently the source of generally accepted accounting principles (GAAP) used by state and local governments in the United States. It is a private, non-governmental organization. The GASB has issued Statements, Interpretations, Technical Bulletins, and Concept Statements defining GAAP for

state and local governments since 1984.

GASB 34 – GASB Statement Number 34 set new GAAP requirements for reporting major capital assets, including infrastructure such as roads, bridges, water and sewer facilities, and dams. The Town of Needham has implemented the Governmental Accounting Standards Board's (GASB) Statement Number 34, Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments, financial reporting model. This standard changed the entire reporting process for local governments, requiring new entity-wide financial statements, in addition to the current fund statements and other additional reports such as Management Discussion and Analysis.

GASB 45 – The Town of Needham's financial statements are required to implement Governmental Accounting Standards Board (GASB) Statement Number 45 for other post employment benefits (OPEBs) including health care, life insurance, and other non-pension benefits offered to retirees. This new standard addresses how local governments should account for and report their costs related to post employment health care and other non-pension benefits, such as the Town's retiree health benefit. Historically, the Town's cost was funded on a pay-as-you-go basis. GASB 45 requires that the Town accrue the cost of the retiree health insurance and other post employment benefits during the period of employees' active employment, while the benefits are being earned, and disclose the unfunded actuarial accrued liability in order to accurately account for the total future cost of post employment benefits and the financial impact on the Town. This funding methodology mirrors the funding approach used for pension/retirement benefits. The Town has established Fund and annually appropriates the required contribution based on updated reports. The Fund will allow the Town to capture long-term investment returns and make progress towards reducing the unfunded liability.

Generally Accepted Accounting Principles (GAAP) - The basic principles of accounting and reporting applicable to state and local governments, including the use of the modified accrual or accrual basis of accounting, as appropriate, for measuring financial position and operating results. These principles must be observed to provide a basis of comparison for governmental units.

General Fund - The fund into which the general (non-earmarked) revenues of the municipality are deposited and from which money is appropriated to pay the general expenses of the municipality.

General Obligation Bonds – Bonds for the payment of which the full faith and credit of the issuing government are pledged.

Infrastructure – The underlying foundation or basic framework of an organization or system, e.g., roads, bridges, buildings, land, and natural resources.

Lease-Purchase Agreements – Contractual agreements which are termed "leases," but which in substance amount to purchase contracts in which the financing is provided by an outside party.

Levy Limit – Property tax levy limits that constrain the total amount of revenue that can be raised from the property tax. In

Massachusetts, the levy limit is governed by Proposition 2½.

Mandate – A requirement from a higher level of government that a lower level government perform a task in a particular way or in conformance with a particular standard.

Massachusetts Water Pollution Abatement Trust (MWPAT) - A statewide revolving fund that commenced operations in 1990 to address necessary environmental actions outlined in the Federal Clean Water Act.

Massachusetts Water Resources Authority (MWRA) - The Massachusetts Water Resources Authority is a Massachusetts public authority established by an act of the Legislature in 1984 to provide wholesale water and sewer services to 2.5 million people in 61 metropolitan Boston communities. The Town of Needham disposes all wastewater through the MWRA system and purchases drinking water as needed from the MWRA during the year.

Modified Accrual Basis - The accrual basis of accounting adapted to the governmental fund type, wherein only current assets and current liabilities are generally reported on fund balance sheets and the fund operating statements present financial flow information. Revenues are recognized when they become both measurable and available to finance expenditures of the current period. Expenditures are recognized when the related fund liability is incurred except for a few specific exceptions. All governmental funds and expendable trust funds are accounted for using the modified accrual basis of accounting.

Note Payable – In general, an unconditional written promise signed by the maker to pay a certain sum in money on demand or at a fixed or determinable time either to the bearer or to the person designated therein.

Official Statement - The municipal equivalent of a bond prospectus.

Operating Budget - A budget making appropriations for the ordinary maintenance or administration of activities for the fiscal year.

Operating Equipment - Equipment that has a life expectancy of more than one year and a value of less than \$25,000 dollars. Equipment with a useful life of five or more years and a value greater than \$25,000 dollars is capital equipment.

Overlay Surplus - Any balance in the overlay account of a given year in excess of the amount remaining to be collected or abated can be transferred into this account. At the end of each fiscal year, unused overlay surplus is “closed” out to fund balance, in other words, it becomes a part of Free Cash (see Undesignated Fund Balance).

Override - A permanent increase of the Town's levy limit (but not the levy ceiling) when a majority of voters in an election approve such an override. The override amount becomes part of the levy base when setting the next year's levy limit. To place an Override question on the ballot requires a majority vote of the Board of Selectmen.

Pay-As-You-Go – A term used to describe the financial policy of a government which finances all of its capital outlay from current revenues rather than by borrowing. A government which pays for some improvements from current revenues and others by borrowing is said to be on a partial or modified pay-as-you-go basis.

Pay-As-You-Use – A term used to describe the financial policy of a government which finances its capital outlays from borrowing proceeds and pays for capital assets over their useful life.

Performance Measure - An indicator of progress toward a goal or strategy. Measures can be defined for identifying output, work or service quality, efficiency, effectiveness, and productivity.

Proposition 2½ - That measure which limits municipal property taxes to 2½ percent of the community's full and fair cash value (levy ceiling), and which limits the amount of revenue a municipality can raise through property taxes (levy limit) to 2½ percent each year, plus a factor for new growth. A municipality may exceed its levy limit in two ways: override or debt exclusion.

Provisional Capital – A capital request that is submitted by a department to identify a future need or obligation, but the department is not in the position to provide the necessary details so that the request can be evaluated.

Reserve Fund - An amount set aside annually by a vote of Town Meeting to provide a funding source for extraordinary or unforeseen expenditures. Only the Finance Committee can authorize transfers from the reserve fund. Any balance remaining in the reserve fund at the end of the fiscal year is "closed" out to fund balance and ceases to be available.

Special Revenue Fund - Used to account for the proceeds of specific revenue sources (other than special assessments, expendable trusts, or sources for major capital projects) that are legally restricted to expenditures for specific purposes. A special revenue fund is accounted for in the same manner as a General Fund.

Stabilization Fund – Massachusetts General Laws Chapter 40, Section 5B allows a municipality to appropriate annually to such fund an amount to be raised in the preceding fiscal year; the aggregate amount in the fund shall not exceed ten percent of the equalized valuation of the municipality. The Treasurer shall be custodian of the fund and may invest the proceeds legally; any interest earned shall remain with the fund. The Stabilization Fund may be appropriated by Town Meeting. The appropriation may be used for any lawful purpose.

Technology Infrastructure - The hardware and software that support information requirements, including computer workstations and associated software, network and communications equipment, and system-wide devices.

Town Meeting - Town Meeting is both an event and a governmental body. As an event, it is a gathering of a Town's representative Town Meeting Members (TMM), and is referred to as "the Town Meeting." As a governmental body, it is the legislative body for the Town of Needham, and is referred to simply as "Town Meeting."

Trust Funds - Funds held by the Town in a fiduciary role, to be expended for the purposes specified by the donor.

Uniform Procurement Act - Enacted in 1990, Massachusetts General Laws Chapter 30B establishes uniform procedures for local government to use when contracting for supplies, equipment, services and real estate. The act is implemented through the Office of the Inspector General.

Warrant - The warrant lists a Town Meeting's time, place, and agenda. A warrant is also known as a warning. A Town Meeting's action is not valid unless the subject was listed on the warrant.

Appendices

Section 6

- A. Capital Improvement Policies
- B. Debt Management Policies
- C. Retained Earnings Policy for Water & Sewer Enterprise Funds
- D. Retained Earnings Policy for Solid Waste Enterprise Funds
- E. Capital Request Guidelines

CAPITAL IMPROVEMENT POLICIES

A. General Provisions

1. Capital items for the purpose of this Capital Improvement Plan shall be defined as follows:
 - Items requiring an expenditure of at least \$25,000 and having a useful life of more than five years.
 - Projects consisting of real property acquisitions, construction, capital asset improvements, long-life capital equipment, or major maintenance/repair of and existing capital item, as distinguished from a normal operating expenditure.
 - Items obtained under a long-term lease.
2. Town departments will submit spending requests that provide sufficient funding for adequate maintenance and orderly replacement of capital plant and equipment.
3. All assets will be maintained at a level that protects capital investment and minimizes maintenance and replacement costs.
4. All equipment replacement needs for the coming five years will be projected and the projection will be updated each year.
5. Future operating and maintenance costs for all new capital facilities will be fully costed out.

B. Capital Improvement Fund (CIF)

1. In accordance with the provisions of M.G.L. c. 40 Section 5B, as amended by Section 14 of Chapter 46 of the Acts of 2003 and Section 19 of Chapter 140 of the Acts of 2003, the Town of Needham has established a General Fund Cash Capital Equipment and Facility Improvement Fund hereinafter referred to as the Capital Improvement Fund or CIF (Article 58/2004 ATM). The purpose of the CIF is to allow the Town to reserve funds to use for general fund cash capital.
2. Appropriations from the CIF are restricted to the following items for which the Town may borrow for a period of five years or more: the acquisition of new equipment; the replacement of existing equipment; and building and facility improvements which cost less than \$250,000.
3. Only General Fund capital items that have been identified in the CIP for a period of three (3) years or more, and that have been recommended in the Capital Improvement Plan for the current year, are eligible for funding from the CIF.
4. The CIF may be used to pay for recurring equipment replacement needs that have been identified in the CIP and funded in at least three (3) of the five (5) immediately preceding fiscal years.
5. Appropriations into the CIF and interest earnings on the Fund become part of the Fund.

C. Capital Facility Fund (CFF)

1. In accordance with the provisions of M.G.L. c. 40 Section 5B, as amended by Section 14 of Chapter 46 of the Acts of 2003, and as further amended by Section 19 of Chapter 140 of the Acts of 2003, the Town of Needham has established a Capital Facility Fund (Article 10/2007 ATM). The purpose of this Fund is to allow the Town, from time to time, by appropriation, to reserve funds for the design, maintenance, renovation, or reconstruction relating to the structural integrity, building envelope, or MEP (mechanical, electrical, plumbing) systems of then existing capital facilities.
2. For the purpose of the Fund, the term "capital facility" shall refer to any building or structure which is located on Town property and is under the jurisdiction of the Town Manager.
3. The term "building or structure " shall include, but not be limited to, any Town-owned building, structure, room, or space within a building, facility, park or plaza, open space, driveway, landscaped area, or other physical improvements under the administrative control of the Town
4. Appropriations into the CFF and interest earnings on the Fund become part of the Fund.

D. Athletic Facility Improvement Fund (AFIF)

1. In accordance with the provisions of M.G.L. c. 40 Section 5B, as amended by Section 14 of Chapter 46 of the Acts of 2003, and as further amended by Section 19 of Chapter 140 of the Acts of 2003, the Town of Needham has established an Athletic Facility Improvement Fund under Article 39 of the 2012 Annual Town Meeting. The purpose of this fund is to allow the Town, from time to time, by appropriation, to reserve funds for the design, maintenance, renovation, reconstruction, or construction of athletic facilities.
2. For the purpose of the fund, the term "athletic facility" shall refer to any Town-owned building, structure, pool, synthetic and natural grass turf playing field or ball diamond, and associated grounds and parking areas whose primary purpose is for organized athletic events for Needham children, adults and public school teams.

E. Debt Service Stabilization Fund

1. In accordance with the provisions of M.G.L. c. 40 Section 5B, as amended by Section 14 of Chapter 46 of the Acts of 2003, and as further amended by Section 19 of Chapter 140 of the Acts of 2003, the Town of Needham has established a Debt Service Stabilization Fund to allow the Town, from time to time, by appropriation, to reserve funds to pay the debt service for engineering and design, renovation, reconstruction or construction of Town facilities.

Approved May 1991; Revised December 20, 2005; Revised May 11, 2010; Revised October 8, 2013; Revised December 20, 2016.

DEBT MANAGEMENT POLICIES

1. Proceeds from long-term debt will not be used for current, ongoing operations.
2. The Town will strive to limit total debt service, including debt exclusions and self-supporting debt, to ten percent (10%) of gross revenues.
3. The Town will allocate or reserve three percent (3%) of projected General Fund revenue (e.g. property taxes less debt exclusions, state aid, and local receipts) for debt service.
4. The Town will limit annual increases in debt service to a level that will not materially jeopardize the Town's credit rating.
5. For those previously authorized bonded projects with residual balances, the Town Manager shall propose the reallocation of these balances for other capital projects in conformance with MGL Chapter 44, Section 20.
6. For those previously authorized projects funded with available revenue (tax levy or reserves), that have residual balances in excess of \$5,000, the Town Manager shall propose the reallocation of these balances for other future capital projects in conformance with MGL Chapter 44, Section 33B. This practice will avoid abnormally inflating general fund surplus with one-time receipts.
7. For those previously authorized projects funded with available revenue (tax levy or reserves), with residual balances of less than \$5,000, the Assistant Town Manager/Finance Director may authorize the Town Accountant to close these balances to the appropriate fund surplus.
8. The Town will attempt to limit bond sales in any calendar year to \$10,000,000 in order to maintain bank qualifications and thereby receive lower interest rates on bonded debt.
9. Long-term borrowing will be confined to capital improvements too expensive to be financed from current revenues. In general, the Town will attempt to finance purchases costing less than \$100,000 with operating revenues.
10. Bonds will be paid back within a period not to exceed the expected useful life of the capital project.
11. To the extent practicable, user fees will be set to cover the capital costs of enterprise type services or activities - whether purchased on a pay-as-you-go basis or through debt financing - to avoid imposing a burden on the property tax levy.
12. Ongoing communications with bond rating agencies will be maintained, and a policy of full disclosure on every financial report and bond prospectus will be followed.

Approved May 1991; Revised December 1998, April 7, 2009

RETAINED EARNINGS POLICY FOR WATER AND SEWER ENTERPRISE FUNDS

It shall be the policy of the Board of Selectmen to maintain a level of unreserved retained earnings sufficient to address the financing of: working capital; revenue shortfalls; unanticipated increases in MWRA wastewater assessments; and unanticipated and emergency expenditures.

Unreserved retained earnings are cumulative surplus funds, as certified by the Massachusetts Department of Revenue, that are available for appropriation by Town Meeting to support any capital expense of the enterprise or to reduce user charges.

The rationale for, and the calculation of, unreserved retained earnings to be maintained by the Town are described below and are referred to as the "Liquidity Method" and the "Credit Quality Method." Retained earnings targets shall be calculated using both methods, and shall be set using the method which represents the higher number in any given year. Under the Liquidity Method, the total amount of retained earnings to be maintained shall be equal to 80 percent of the sum of the following individual calculations. The factor of 80 percent is based on the assumption that the likelihood of all factors occurring in one fiscal year is small; therefore there is no need to maintain one hundred percent of the calculated level of retained earnings. Under the Credit Quality Method, the total amount of retained earnings should not be less than fifteen percent of the operating revenue of the most recent audited fiscal year.

Liquidity Method

Working Capital: For those periods where monthly expenses exceed available cash, the water and sewer enterprises must have access to working capital to finance operations. In the absence of retained earnings, operations would require the use of General Fund cash which would reduce General Fund cash available for investment, and consequently reduce General Fund Revenue. To avoid the use of General Fund cash as working capital for the water or sewer operations, retained earnings shall be maintained at a level to provide sufficient working capital to finance the operations of these enterprise funds. The amount retained for this purpose shall be equal to the average of the largest monthly operating deficit of the prior three years.

Consumption Contingency: Annual water and sewer revenue is a function of the amount of water purchased by customers. If, in any year, purchases are less than projected, a revenue shortfall will occur. Retained earnings shall be maintained at a level sufficient to offset any loss in revenue due to unanticipated decreases in purchases. That level shall be equal to the difference of the consumption used for rate making purposes versus the lowest level of consumption for the prior six fiscal years, multiplied by the current sewer rates and water rates shown as Step 3 of the Town's step rate structure. Step 3 is selected as it generally represents the point at which discretionary purchases of water begin. The scenario envisioned here is a wet year in which customers will not need to make discretionary purchases of water.

MWRA Assessment Mitigation: The Town's MWRA wastewater assessment is levied on a fiscal year basis, yet it is a function of the volume of effluent discharged into the MWRA system in the prior calendar year. The Town's wastewater system is subject to high levels of infiltration and inflow (I/I) given its age. Infiltration and inflow can substantially increase the volume of effluent

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discharged into the MWRA system. Following a year in which high levels of I/I occur, the Town's MWRA assessment will increase at a rate that substantially exceeds the average increase for all MWRA members. An increase of this magnitude can adversely affect rates charged to Town customers. Consequently, retained earnings shall be maintained at a level sufficient to mitigate rate increases needed to fund large increases in the Town's assessment. That level shall be equal to the largest annual amount - for the prior six year period - by which the average rate of increase in assessments for all MWRA members exceeds the rate of increase in the Town's assessment, multiplied by the most current MWRA assessment.

Unanticipated Budgetary Fluctuation: Retained earnings shall be maintained at a level sufficient to fund unanticipated or emergency capital or operating expenditures. It shall be a goal to maintain an amount equal to 6% of the annual sewer operating budget and 10% of the annual water-operating budget.

Restoration of Depleted Retained Earnings: If, in any year, retained earnings fall below the targets established by this policy, it shall be the policy of the Board of Selectmen to set future rates to restore retained earnings to the target level over the following three year period.

Adopted by the Needham Board of Selectmen on April 20, 1999; revised June 6, 2003, revised January 12, 2010

RETAINED EARNINGS POLICY FOR THE SOLID WASTE ENTERPRISE FUND

It shall be the policy of the Board of Selectmen to maintain a level of unreserved retained earnings sufficient to address the financing of: working capital; unanticipated and emergency expenditures; revenue shortfalls; depreciation expense; pollution control surcharges; and unanticipated increases in the recycling costs.

Unreserved retained earnings are cumulative surplus funds, as certified by the Massachusetts Department of Revenue. In proposing the annual Solid Waste Disposal/Recycling operating budget, the Board of Selectmen shall recommend to Town Meeting the use of retained earnings that are available for appropriation by Town Meeting to support any capital expense of the enterprise or to reduce user charges, or both, as provided by State Law.

The rationale for, and the calculation of, unreserved retained earnings to be maintained by the Town are described below and are referred to as the "Liquidity Method" and the "Credit Quality Method." Retained earnings targets shall be calculated using both methods, and shall be determined using the method which represents the higher number in any given year. Under the Liquidity Method, the total amount of retained earnings to be maintained shall be equal to 80 percent of the sum of the individual calculations for working capital, unanticipated and emergency expenditures, revenue shortfalls, pollution control surcharges, and, unanticipated increases in the recycling costs and 100 percent of cumulative depreciation expense net any amounts appropriated for equipment replacement. The factor of 80 percent is based on the assumption that the likelihood of all factors occurring in one fiscal year is small; therefore there is no need to maintain one hundred percent of the calculated level of retained earnings. The use of a factor of 100 percent for depreciation expense is based on the assumption that all of these funds will be needed for equipment replacement. Under the Credit Quality Method, the total amount of retained earnings should not be less than fifteen percent of the operating revenue of the most recent audited fiscal year.

Liquidity Method

Working Capital: For those periods where monthly expenses exceed available cash, the RTS enterprise must have access to working capital to finance operations. In the absence of retained earnings, operations may require the use of General Fund cash which would reduce General Fund cash available for investment, and consequently reduce General Fund Revenue. To avoid the use of General Fund cash as working capital for the RTS operation, retained earnings shall be maintained at a level to provide sufficient working capital to finance the operations of this enterprise fund. The amount retained for this purpose shall be equal to the average of the largest cumulative monthly operating deficit of the prior three years.

Further, any general fund support of the RTS enterprise fund shall be made on a 1/12 basis throughout the fiscal year to preclude the RTS fund's use of general fund cash before the need truly exists.

Reserve for Unanticipated and Emergency Expenditures: Retained earnings shall be maintained at a level sufficient to fund unanticipated or emergency capital or operating expenditures as recommended to the Board of Selectmen annually by the Director of

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the Department of Public Works and the Director of Finance.

Reserve for Revenue Shortfall: Annual RTS revenue is, in part, a function of the amount of solid waste disposed of by Town residents. If, in any year, the amount disposed is less than projected, a revenue shortfall may occur. Retained earnings shall be maintained at a level sufficient to offset any loss in revenue due to unanticipated decreases in disposal.

Reserve for Depreciation Expense: Annually, the Director of Finance shall procure from the Director of Public Works, an inventory of all capital equipment used to support the operation of the RTS. This list shall be comprised of those pieces of equipment that cost \$50,000 or less and will include the purchase price and estimated useful life of each piece. Based on this information, the annual depreciation expense for each piece shall be calculated and revenues shall be raised to finance this expense. At the end of each fiscal year, the amount of revenue raised to offset depreciation expense shall constitute a reservation of retained earnings for the future replacement of capital equipment and shall be added to existing reservations attributable to prior years' depreciation. The purpose of this policy is to limit annual increases or decreases in RTS fees to fund small capital replacement.

Reserve for Pollution Control Surcharge - The Town's contract with Wheelabrator/Millbury for the tipping of solid waste contains a provision that allows Wheelabrator/Millbury to impose a pollution control surcharge on the Town to recoup the costs of installing pollution control equipment required by state and federal regulatory agencies. Retained earnings shall be maintained at a level needed to finance one year of pollution control surcharges imposed on the Town. Based on a surcharge imposed in FY92, that level shall be calculated annually at an amount equal to 3% of the current tipping fee multiplied by the tonnage tipped at the Wheelabrator Facility in the prior fiscal year.

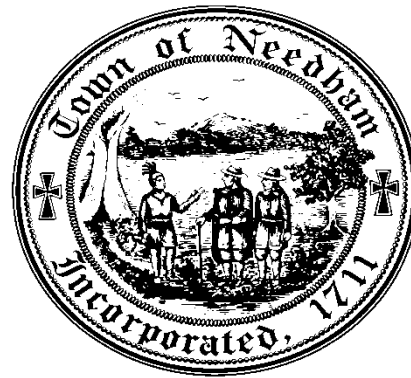
Reserve for Unanticipated Increases in the Recycling Market - Notwithstanding any contract the Town may have for the collection and disposal of recyclable material collected at the RTS, the volatile nature of the recycling market poses the possibility that any contractor with whom the Town has an agreement could go out of business on short notice, leaving no alternative but to pay current market prices for disposal of recyclables. This exposure shall be calculated annually by the Directors of Public Works and Finance and shall be based on a comparison of costs reflected in any of the Town's active recycling contracts and the spot market for tipping and hauling at the time of this annual assessment. The amount of the exposure shall be recommended to the Board of Selectmen as a reservation of retained earnings.

Restoration of depleted Retained Earnings: If, in any year, retained earnings fall below the targets established by this policy, it shall be the policy of the Board of Selectmen to set future rates to restore retained earnings to the target level over the following three year period.

Approved by the Needham Board of Selectmen November, 1999; revised January 12, 2010

TOWN OF NEEDHAM

**Fiscal Year 2019 - 2023
Capital Request Guidelines**



Released August 1, 2017

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FY2019 - FY2023 CIP SUBMISSION CHECKLIST

- ___ 1. Read the Guidelines.
- ___ 2. Attend the Overview Session (9:00 A.M. Thursday, August 3, 2017 at the Town Hall).
- ___ 3. Complete the required forms. If any amount in the capital plan from last year (FY2018-FY2022) has changed, you need to make the change and explain why the amount has changed. Any capital submission that was not recommended for funding in the FY2018-FY2022 plan would need to be resubmitted (on a new form) if you want it to be considered for inclusion in the FY2019-FY2023 capital plan; projects that were not recommended will not automatically roll over to the new CIP. All forms can be found on the Common Drive in the FY2019 Budget Files folder. If you cannot access the file, please contact the Assistant Town Manager/Director of Finance to make other arrangements.
- ___ 4. Vehicle Request (CIP-VR) forms are due back to the Finance Department by Friday, August 11, 2017. Any vehicle that was scheduled to be replaced for FY2019 but the forms are not properly submitted will NOT be considered for funding.
- ___ 5. Review all your narratives, to ensure they are written for the layperson.
- ___ 6. Re-check all figures - all costs should be rounded UP to the next whole dollar. The cost should be based on current information. Re-check all totals to make certain they total correctly.
- ___ 7. Submit all final capital request forms electronically by posting under the designated capital submission folder. Completed requests are due by **12 Noon Friday, September 8, 2017.**
- ___ 8. Send an email to ddavison@needhamma.gov indicating that you have submitted your Department's capital requests and the total number of capital project requests forms you have submitted.
- ___ 9. Prepare for your appointment to discuss your Department's requests. The schedule will be distributed at the overview sessions.

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KEY DATES FOR THE FY2019 BUDGET PROCESS

Date			Activity
August	1	2017	Capital improvement plan guidelines are released.
August	3	2017	Capital submission overview session held at 9:00 A.M. Thursday, August 3, 2017 at Town Hall in the Powers Hall.
August	11	2017	Deadline to notify another department of a capital request which requires assistance or input to properly submit a request.
August	11	2017	Vehicle Request Forms due back to Finance Department by 12 Noon.
August	15	2017	Town Manager's budget consultation with the Board of Selectmen
September	12	2017	Town Manager's budget consultation with the Board of Selectmen
September	8	2017	Capital Requests Due
September	6	2017	Town Manager's budget consultation with the Finance Committee
September	25	2017	Budget guidelines released
September	28	2017	Budget submission review sessions at Town Hall in the Great Plain room – four sessions.
October	2	2017	Special Town Meeting
October	6	2017	Deadline for a department to submit budget request to another department, e.g., building maintenance needs, technology needs, etc.
October	10	2017	Town Manager's budget consultation with Board of Selectmen.
October	27	2017	FY2019 department spending requests are due.
November	14	2017	Town Manager's budget consultation with the Board of Selectmen
December	13	2017	Department spending requests are due to Finance Committee from the Town Manager and School Superintendent.
December	19	2017	Board of Selectmen votes CIP recommendation.
January	2	2018	FY2019 – FY2023 Capital Improvement Plan is released.
January	2	2018	Town Manager's budget consultation with the School Committee.
January	31	2018	Town Manager's Balanced Budget Due to Finance Committee
February	5	2018	Warrant articles for 2018 Annual Town Meeting are due to the Board of Selectmen.
February	22	2018	Finance Committee's FY2019 draft budget is due to the Town Manager.
March	15	2018	Finance Committee's budget recommendations are due for inclusion in the ATM Warrant.
April	10	2018	Annual Town Election
May	7	2018	Annual Town Meeting
July	1	2018	START OF FY2019

CAPITAL IMPROVEMENT PLAN INTRODUCTION

Under section 2.2.2 of the Town's General By-laws the Town Manager is required to prepare and present an updated Capital Improvement Plan. The text of the relevant By-law is as follows:

2.2.2.1 All boards, departments, committees, commissions and officers of the town shall annually, at the request of the Town Manager, submit to him or her in writing a detailed estimate of the capital expenditures required for the efficient and proper conduct of their respective departments and offices for the ensuing fiscal year and the four year period following thereafter. The Town Manager, after consultation with the Board of Selectmen, shall submit in writing to the Board of Selectmen a careful, detailed estimate of the recommended capital expenditures for the aforesaid periods, showing specifically the amount necessary to be provided for each office, department and activity and a statement of the amounts required to meet the debt service requirements or other indebtedness of the town. The Selectmen shall transmit a copy of the capital budget to the Finance Committee along with the Board of Selectmen's recommendations relative thereto. The Selectmen shall transmit the capital budget to the Finance Committee no later than the first Tuesday after the first Monday in January.

2.2.2.2 A capital expenditure is defined as the acquisition, construction, renovation, betterment or improvement involving land, public buildings and facilities; water and sewer system laterals, mains, and appurtenances; and equipment or vehicles; provided the cost is \$25,000 or more and the improvement will have a useful life of five years or more; or any planning, feasibility, engineering or design study in preparation for such capital expenditures.

2.2.2.3 The Capital Improvement Plan shall include: (a) a list of all capital improvements proposed to be undertaken during the next five years, together with supporting data; (b) cost estimates, methods of financing, and recommended time schedule; and (c) the estimated annual cost of operating and maintaining any facility to be constructed or acquired. The first year of the Capital Improvements Program shall constitute the proposed capital improvements budget for the coming fiscal year and the ensuing four years of the plan are included for planning purposes.

All questions regarding the instructions, Capital Improvement Plan request forms, or project financing should be directed to the Assistant Town Manager/Director of Finance.

AN OVERVIEW TO THE CAPITAL REQUEST FORMS

Please do not change any **margin settings** or the **font styles or sizes** [the primary font is CALIBRI 9]. They have been predetermined so that the Capital Improvement Plan will have a uniform look throughout, and can be more easily bound so that text will not be hidden. If you need or want to bring attention to a particular word, phrase, or sentence you may **bold** or underline as appropriate. You may also use **highlighting** or *italics*, but please be aware that they don't photocopy as well. The two text boxes (in the CIP-CPR form) will expand as you type, you are not limited to default box size. Remember to use whole dollar amounts and to have "\$" precede any dollar figure so it is not confused with a numerical entry.

Capital Request Forms

The capital request forms are to be used at the department level. Departments may, but are not required to, prepare forms on a divisional level as well.

CIP-CPR: Capital Project Request – this form is to be used for all capital requests **except for vehicles**. The form is to put forward all requests for purchase of equipment (excluding rolling stock), furniture, machinery, technology, or other items that satisfies the capital expenditure definition. MGL. Chapter 30B procurement law usually, but not always, governs these purchases.

The CIP-CPR form is to be used to request improvements to buildings and other public facilities, or projects that are upgrading a specific feature or operational system of a building (e.g., roof replacement, bathroom upgrade, boiler replacement, floor replacement, window or door replacements, etc.). These type projects will fall under the public building construction (Chapter 149) and likely the designer selection (Chapter 7) procurement statutes. Any individual project request that repairs, replaces in-kind, or upgrades obsolete elements to current standards involving multiple aspects to allow a fixed asset to continue to be used for its intended purposes and has a total cost of less than \$500,000 should use this form.

The CIP-CPR form is also to be used to submit a capital request that is extraordinary in scope, size, and/or cost greater than \$500,000. Primarily involves the purchase, design, and/or construction of a new public building, facility, or expansion of infrastructure, or a substantial change to an existing building or facility. Any major repair project that could be viewed as facility renovation that modifies multiple elements of a fixed asset to accommodate new, expanded, or relocated occupancies as required to support goals of the Town should be requested using this form.

The form will also be used for regular ongoing infrastructure improvement programs for existing systems and networks (e.g., roads, sidewalks, bridges and culverts, water and sewer lines, system operation refreshing such as filter in treatment plants). These projects usually will be governed by public works (Chapter 30) procurement laws.

This form may be used to request a study or long-range plan to look into an identified problem that may require a capital outlay, the feasibility of doing a project, or updating an existing or developing a new long-range plan for major systems or facility improvements. Such a request may seek funding in order to secure an independent study of a capital need and review alternatives, or develop cost estimates and scenarios that then could be used as a resource to submit a capital request in the future. This approach should provide more solid data and reference materials in order to allow stakeholders to have meaningful dialogue on a proposal.

Important: do not submit non-dependent dissimilar capital together in the same request. Equipment, building, and infrastructure investments are considered separate and unique capital requests. You should include them in a single request when they are directly related, e.g., furnishings for a building construction project, or combined improvements to a sewer pump and the building that it is housed.

Any capital equipment replacement request should be accompanied with a completed **Designation of Surplus** form for each capital equipment item that the department is seeking funding for FY2019. The forms and instructions can be found on the common drive in the **Finance Policies and Procedures** folder. Any questions about how to complete the form may be directed to the Assistant Town Manager/Director of Finance.

Finally this form would be used to identify other projects that the requester does not want to submit for an official review for funding or is unable to provide the required information in order to submit a formal capital request. Projects will be considered as submitted but will not be reflected in any of the five-year funding request recommendation schedules. However, only projects that would involve the construction or reconstruction of a public building or infrastructure purchase of land or buildings, or participation in a regional capital outlay would be considered a future project request.

CIP-VR: Vehicle Request -This form is to be completed and submitted to the Finance Department for any

vehicle that the Department seeks to have replaced in FY2019. You must identify any change to the current preliminary replacement schedule for vehicles between FY2020 and FY2024. The Town submits the vehicle rolling stock capital as a single request. The Finance Department and subsequently the Town Manager will rely upon the Department to provide detailed information regarding the current use and condition of the vehicle to be replaced, and what purpose and function does the vehicle play in the running of the Department's operations. The form contains specific information about the vehicle that is under the control of the department. Some information should not change (e.g., vehicle identification number), other information will change (e.g., mileage/hours of operations), and other information may have changed (e.g., unit number). This form is used to update the master list which is maintained to track where equipment is stored and the insurance coverage. The form is **due back to the Finance Department August 11, 2017.**

**Capital Project Request
CIP-CPR Form
This is an Excel Form
Instructions**

Purpose of this form is to provide the required information for the CIP Review Team to determine the purpose, need, and costs associated with the capital purchase or improvement and to address the merit, scope, cost, and ongoing operational expenses that may be connected project.

General Information

1. **Project Title:** Provide a short descriptive title indicating the nature of the request, e.g., Mitchell School Classroom Furniture, Claxton Bath House Roof Replacement, Pollard School Door Replacement, Water Tank Restoration, or Central Avenue Sewer Lateral Replacement.
2. **Fiscal Year:** Indicate the fiscal year for which funding is being requested from the drop down menu. For a multiyear funding request, indicate the first year that funding is requested.
3. **Purpose:** Indicate the primary purpose of this request from the drop down menu.
 - Acquisition:** Select this option if the primary use of funds is to purchase an asset, i.e., land, building, equipment, technology, etc.
 - Construction:** Select this option if the primary use of funds will be for construction or reconstruction of buildings, additions to such buildings, remodeling, reconstructing or making extraordinary repairs to public buildings, for landscaping, paving and other site improvements of public property; for the construction or reconstruction of bridges, drainage systems, roads, sidewalks, and other public ways; for the construction or extraordinary repairs of sewers, sewerage systems and sewage treatment and disposal facilities; for the construction or reconstruction of filter beds, standpipes, pumping stations, water mains and tanks.
 - Design/Engineering:** Select this option if the primary use of funds will be for the cost of architectural services for plans and specifications for any proposed building, additions to buildings, or extraordinary repairs to existing public buildings; for engineering services for any public infrastructure improvement, expansion or redevelopment.
 - Feasibility Study:** Select this option if the primary use of funds will be for a feasibility study of a specific future project, e.g., conducting groundwater inventory and analysis of the Town's water supply, including pump tests and quality tests relating to the development of using groundwater as an additional source or a new source of water supply.

4. **Classification:** Indicate the asset classification which project primarily falls under from the drop down menu.
- Building:** Building is defined as a permanent enclosed structure occupied by a Town or School department, or planned to be used by a Town or School department, e.g., Elementary School, Middle School, Public Safety Building, Senior Center, or Administrative Offices. This classification also includes something designed, built, installed, etc., to serve a specific function affording a convenience or service: seasonal buildings (e.g., park bathrooms, concession stand).
- Equipment:** Equipment is defined as a single item or single purchase with a total cost of \$25,000 or more, is freestanding and has a use life of five (5) or more years. This is tangible property (other than buildings, facilities, infrastructure, and land) which is used in the operation of town/school activities. Examples of equipment include devices, machines, and tools. It also includes furniture, fixtures, or other equipment that are not permanently connected to the structure of a building, facility, or the utilities (desks, chairs, equipment, tables, bookcases, and movable partitions). Also equipment for streets and other public areas, such as signs, benches, or litter bins. This category also encompasses large pieces of equipment designed for construction and earthwork, for aggregation and recycling, asphalt and concrete, for forestry and wood processing, or for snow and infrastructure maintenance. However, we separately classify Technology; refer below for the definition.
- Infrastructure:** Road, bridge, and sidewalks, drainage systems, sewer laterals or systems, or water supply distribution systems.
- Land:** Purchase or improvements to land, e.g., baseball field, football field, playgrounds, and walking trails.
- Technology:** Hardware, networking systems, communication systems, (including wireless systems and software).
5. **Status:** Indicate the status for this request from the drop down menu.
- New Request:** Select this option for a capital request that **did not** appear in the prior CIP. In most instances, this would be a capital request for the fifth year of the CIP (2023) as requests for the first four years (2019 – 2022) should have been previously disclosed in the prior CIP.
- Amended Request from the Prior CIP:** Select this option for projects that were included in the prior CIP, but the information, timing, details, costs, etc. have been changed from that which appeared in the prior CIP.
- Partially Funded Request:** Select this option for a project that has been funded in part from a prior request. This is usually the case for building projects where the design/engineering was funded in a prior year and now the construction funding is being sought.
- Same Request from the Prior CIP (no Changes):** Select this option for a project that appeared in the prior CIP and the information has NOT changed.
- Informational Only Request Details Incomplete:** Select this option to identify a project that the requester does not want to submit for an official review for funding or is unable to provide the required information in order to submit a complete capital request. The project request will be considered as submitted but will not be reflected in any of the five-year funding request recommendation schedules. Only projects that involve the construction or reconstruction of a public building or infrastructure, the purchase of land or buildings, or

participation in a regional capital outlay would be considered as a future project request. **You must indicate the Fiscal Year (see item #2) that the Department will formally present the capital request.**

6. **Department:** Indicate the name of the department making the request from the drop down menu. If the request comes from more than two departments and/or boards or committees, select the department that will be the lead.

7. **Supports:** Indicate the primary governmental function that the capital asset(s) will support from the drop down menu.

Community Services: Functions that provide direct services to residents, visitors, or businesses in the Town. Community services include public health, senior services, youth services, and veterans' services.

Culture and Leisure: Functions that provide cultural and leisure opportunities for Needham residents and visitors. This would include athletics, historic preservation, libraries, parks and trails.

General Government: General Government serves as the support function, assisting all Town Departments in the conduct of their daily operations and serves as the business and residential development, land use planning, conservation, and economic development for the Town. General Government functions include the Board of Selectmen, the Town Manager's Office, Human Resources, Town Clerk and Elections, Town Counsel, Accounting, Budgeting and Finance, Treasury and Collections, Planning and Land Use, Information Technology Center, and non-departmental.

Public Education: Public education serves the public educational needs of Needham's children and adults. Public Education is comprised of the Needham Public School and Minuteman Regional Vocational High School.

Public Safety: Public Safety serves as the safety and security function, providing assistance to all Town residents, visitors, and business with life and property protection. Public Safety is comprised of Animal Control, Police, Parking Enforcement, Traffic Supervisors, Fire, Fire Prevention, Fire Training, and Emergency Management, Emergency Medical Services, and Building Code Enforcement and Weights and Measures.

Transportation Network: Functions that provide for the management, travel, support of private and public transportation. This includes roads, bridges, sidewalks, parking lots, road and pedestrian intersections, bicycle paths, movement, and buses.

Utilities: Functions that provide for the supply, treatment, and distribution of clean water, sanitary sewers, stormwater management, the collection, processing, and removal of trash, recyclables, and hazardous waste.

Other: Functions not otherwise falling into one of the above categories. Please explain under the **Project Description and Considerations** section of the capital form.

8. **Partners:** Disclose any other departments, boards, and/or committees that have a material role in making the request or carrying it out should it be approved. Also disclosed any third party partners that will financially participate in the funding of project. Explain how this relationship is to work under the **Project Description and Considerations** section of the capital form.

9. **Useful Life:** Indicate the estimated useful life of the asset from the drop down menu.
Less than five (5) years – DOES NOT QUALIFY AS CAPITAL.
More than five (5) years but less than eight (8) years
Between eight (8) and twelve (12) years
Between twelve (12) and eighteen (18) years
Between eighteen (18) and twenty-five (25) years
More than twenty-five (25) years
10. **Parameters:** Review and answer the questions regarding the capital request by marking selecting the drop down menu to the right of the question under the Response column. Please provide responses to the following questions (any **YES** response **must** be explained under **Project Description and Considerations** section of the form):
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are **NOT** included in this request?
 2. Are there recommendations or costs identified by other departments which are **NOT** factored into the request? *You are required to consult with the managers of the other Town and/or School departments before answering this question.*
 3. Does this project require any permitting by any Town or State agency? *Please indicate any Town boards and committees and or state agencies that permits or approvals must be obtained in order to commence with the project.*
 4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request? *All technology requests require the review and recommendation of the Information Technology Center (ITC). In most instances, the ITC will be tasked with the implementation of a capital technology project.*
 5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request? *All improvements must be supported and recommended by the Town's building maintenance division of Public Works. Projects with an estimated cost of \$500,000 or more are likely to be overseen and managed by the Public Facilities Construction Department.*
 6. If funded, will additional permanent staff be required? *Full time and/or part time. You must also state the number of FTE's (refer to #11).*
 7. If funded, will the operating budget need to be increased to cover operating expenses? *If operating expenses are paid from an external funding source (such as a revolving fund) the response should still view the funding source as an operating budget.*
 8. If funded, will this project lower the requesting Department's operating costs?
 9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted? *Examples include maintenance agreements, supplies, licensing rights, etc.*
 10. If the project is **NOT** funded, will current Town revenue be reduced?

11. *Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?*
12. *Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?*
13. *Is this a request in response to a Court, Federal, or State order?*
14. *Is this a request in response to a documented public health or safety condition?*
15. *Is this a request to improve or make repairs to extend the useful life of a building?*
16. *Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use? Please consult with the Public Facilities Department before submitting a request to ensure that the request does not conflict with other requests.*
17. *Is this a request to repair or otherwise improve public property which is **NOT** a building or infrastructure? Examples include a playing field renovation, walking trail upgrade, a municipal parking lot, etc.*
18. *Will any other department be required to provide assistance in order to complete the project? This would be for services, financial assistance, or staff that would not usually be required of the department in carrying out its primary responsibilities. This would be beyond standard administrative or regulatory requirements of a department, i.e., bid preparation, contract execution, issuance of a building permit, etc.*
19. *If funded, will this project increase the operating expense for any other department?*

11. **Total New FTE's:** Indicate the full time equivalent (FTE) number of employees that would be added if the requested project is funded. If no additional FTE's will result, enter "0". This relates to question six.
12. **Project Cost:** Enter the total amount requested for this project. This amount must equal the total from the Project Budget column from the Project Budget Elements table (see item 15) for details.
13. **How was the Project Cost Determined:** Indicate the primary factor used to determine the estimated project cost from the drop down menu. Was the estimated cost determined by use of a paid consultant or engineer, in-house (staff), industry references, or from another source? Other sources may include a fixed price per unit multiplied by the number of units, or based on prior bids (contracts), construction industry reference guides, formula driven by project size (square footage multiplied by price per square foot), consultant or design specification documents, etc. Disclose the methods under the Project Description and Considerations section.
 - Current Contract
 - Hired Consultant
 - Industry References
 - In-House Estimate
 - No Estimate Has Been Determined
14. **Budget Impact:** Indicate the estimated annual impact on the operating budget from the drop down menu.
 - The project will generate revenue in excess of cost
 - The project should reduce the operating expenses

Negligible impact on the annual operating expenses - less than \$5,000
May increase annual operating expenses - between \$5,001 and \$25,000
May increase annual operating expenses - between \$25,001 and \$50,000
May increase annual operating expenses - between \$50,001 and \$100,000
May increase annual operating expenses - by more than \$100,000

15. **Project Budget Elements:** Enter the dollar amount requested for each of the five fiscal years; for a project that may be requested for funding in the later years of the five-year CIP window, which may have a follow up appropriation beyond the fifth year, you should show those costs in year six or seven, as applicable. This would likely be a project design funding request which falls within the five year CIP window, but may have a construction appropriation request that is outside the five year period. However, in most instances, the funding request will be for a single fiscal year. However, equipment and facility improvements on a regular replacement schedule will probably require funding in more than one fiscal year and therefore should be explained under the **Project Description and Considerations** section. The requested amount is to include cost of the equipment, components and/or accessories, and incidental expenses. Incidental expenses may include items such as training, maintenance contract, start-up supplies, etc. The amount should also include acquisition, delivery, set up, and any other related costs required to procure and receive the equipment. Request for building, facility, or infrastructure improvements are to include the costs to complete the requested project. If the request is for a study, then only the cost to perform the study is necessary; however if the request is to replace a roof, both the engineering and construction costs are to be included in the request. Any extraordinary expense included in a request must be disclosed under the **Project Description and Considerations** section at the end of the form. Provide a dollar breakdown of the estimated cost for the request by the identified components.

Planning/Feasibility – are costs for consultants, professional services, materials and other resources required to develop a long range plan related to capital investment or a specific project.

Design & Engineering – this would be for professional services in the development of architectural and engineering documents, consulting services, design services, permitting assistance, contract management, inspectional services, and other associated services. The cost for a feasibility study should be reported under this line.

Land/ROW Acquisition – are costs for the purchase of real estate or the rights to use property (easements).

Site Preparation – are costs for land improvements.

Construction Expenses – are the costs for the construction, including but not limited to, construction, restoration, labor and materials, indirect costs, but not so-called “soft costs”.

Construction Management – are cost for construction management services.

Equipment – are costs for items such as office and school furniture, specialty items, construction and maintenance equipment, and vehicles. This would be for purchases which are usually stand-alone requests.

Furniture, Fixtures, and Equipment – are costs for such items acquired as part of a building or infrastructure improvement project but are not part of the construction costs. The supplies and materials that are used as part of the site work or construction are to be reported on those lines respectively.

Technology Software/Hardware - are the costs for capital investment in stand-alone technology systems and/or software which are not part of a building or infrastructure construction project that would routinely be provided by the construction contractor and reported under construction costs.

Other Expenses – this would be used to report other expenses that do not fall under one of the other expense lines or an expense. Example, if a project is proposed to be financed by debt, the total project budget should be multiplied by .05 and the calculated result (rounded to the nearest thousand, but not less than \$5,000) should be included in other expenses.

16. **Project Description and Considerations:** Provide a short descriptive narrative about the project. What is it, how did the request come about, and why it is needed. Describe the project you are proposing, its location, what type of work will be done; or if the request is for equipment explain the purpose and use of the item(s). Routine acquisitions may be briefer than a request to increase or introduce new equipment or a project that is new, unexpected, or extraordinary. Indicate whether the purpose of the project is to maintain, replace, enhance, or expand Town facilities or infrastructure. Clearly state whether the project is an acquisition, new construction, or renovation to an existing asset. Provide statistical data and reference any reports and/or studies that provide additional information as to the need, condition or cost. Provide the size and scope of the project, such as the square footage to be renovated in a building or the length of the roadway to be reconstructed. Multi-year and high dollar requests will require more information and specifics. Explain what alternative solutions have been examined, if any. If there is special funding available for the project (i.e., grant, state funding, donation,) please explain how the funds will be obtained and who will secure the funds. Your explanations for affirmative responses to the parameter questions are to be detailed in this section. Explain what may be the impact of not doing the project.

This information is expected to provide the narrative that is provided to Town Meeting in the warrant. Write for the layperson who may not be familiar with the history, purpose, or terminology. Do not use uncommon abbreviations or acronyms in your narrative without an explanation of its meaning.

17. **Supplemental Information:** This is an additional text box to provide information if the Project Description Considerations box space was insufficient to provide all the information. Project requests of an extraordinary nature will very likely require additional information than just a basic project description and the clarifications to your yes responses under the parameter section. You will probably need to use this section if the request is to acquire land or buildings or to newly construct or add to an existing building or facility, or will increase the annual operating costs by \$50,001 or more. Please contact the Assistant Town Manager/Director of Finance to

assist you in the preparation of items. Projects with an estimated annual budgetary impact of \$50,000 or more will require a detailed explanation of those costs. This would be supplied under the supplemental information box. These would be costs not currently in place or required. Provide the estimated additional full time equivalent (FTE) staff to operate and/or support the facility requested and the costs for any temporary personnel. For indirect costs contact the Finance Department for the appropriate factor. Provide an estimated cost for contracted services, supplies, and materials, and ongoing equipment needs for the project. Include an estimated impact on energy costs. Provide an estimate of any revenue that may be generated to offset operating and maintenance expenses (not the capital costs) that would be incurred if the project is approved. The revenue must be new or additional, which otherwise would not be generated if the project was not undertaken. Identify the revenue types and the amount expected from year by year. Please explain the analysis involved in preparing the revenue estimates. List any restrictions on the usage of the funds.

Town of Needham
Capital Improvement Plan
January 2018

Capital Project Request									
Project Title: (Refer to Instruction #1)					Fiscal Year: (Refer to #2)				
Purpose:	(Refer to #3)		Classification:	(Refer to #4)		Status:	(Refer to #5)		
Department:	(Refer to #6)				Supports:	(Refer to #7)			
Partners:	(Refer to #8)				Useful Life:	(Refer to #9)			
Parameters							Response		
1. Are there any costs to bid, design, construct, purchase, install, implement, or otherwise complete the project which are NOT included in this request?							(Refer to #10)		
2. Are there recommendations or costs identified by other departments which are NOT factored into the request?							(Refer to #10)		
3. Does this project require any permitting by any Town or State agency?							(Refer to #10)		
4. If this request is for Technology, has the Department communicated with ITC, and does ITC support the request?							(Refer to #10)		
5. If this request is for Building Improvements, has the Department communicated with the Building Maintenance (BM) division, and does BM support the request?							(Refer to #10)		
6. If funded, will additional permanent staff be required?						Total New FTE's:	(Refer to #11)		(Refer to #10)
7. If funded, will the operating budget need to be increased to cover operating expenses?							(Refer to #10)		
8. If funded, will this project lower the requesting Department's operating costs?							(Refer to #10)		
9. If funded, will this project require ongoing assistance from vendors at an additional expense to the Town which is NOT already budgeted?							(Refer to #10)		
10. If the project is NOT funded, will current Town revenue be reduced?							(Refer to #10)		
11. Is specialized training or annual licensing required that the Town will need to pay in order to use the asset?							(Refer to #10)		
12. Is this a project for which an Initial Eligibility Project Application can be filed with the Community Preservation Committee (CPC)?							(Refer to #10)		
13. Is this a request in response to a Court, Federal, or State order?							(Refer to #10)		
14. Is this a request in response to a documented public health or safety condition?							(Refer to #10)		
15. Is this a request to improve or make repairs to extend the useful life of a building?							(Refer to #10)		
16. Is this a request to purchase apparatus/equipment that is intended to be permanently installed at the location of its use?							(Refer to #10)		
17. Is this a request to repair or otherwise improve public property which is NOT a building or infrastructure?							(Refer to #10)		
18. Will any other department be required to provide assistance in order to complete the project?							(Refer to #10)		
19. If funded, will this project increase the operating expense for any other department?							(Refer to #10)		
Project Cost:	(Refer to #12)	How was the Project Cost Determined:			(Refer to #13)				
Budget Impact:	(Refer to #14)								
Project Budget Elements		Project Budget	2019	2020	2021	2022	2023	2024	2025
Planning/Feasibility	\$0	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)
Design/Engineering	\$0	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)
Land/ROW Acquisition	\$0	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)
Site Preparation	\$0	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)
Construction	\$0	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)
Construction Management	\$0	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)
Equipment	\$0	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)
Furniture, Fixtures, and Equipment	\$0	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)
Technology Hardware/Software	\$0	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)
Other Expenses	\$0	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)	(Refer to #15)
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Project Description and Considerations

(Refer to #17)

Supplemental Information

(Refer to #18)

**Vehicle Request
CIP-VR Form
This is an Excel Form
Instructions**

1. **Assigned:** Indicate Department/Division which the vehicle is assigned from the drop down menu.
2. **Unit #:** Type in the Town assigned unit number of the current vehicle.
3. **Year:** Type in the model year of the current vehicle.
4. **Make:** Type in the make of the current vehicle.
5. **Model:** Type in the model of the current vehicle.
6. **Fuel Type:** Indicate the type of fuel used by the current vehicle from the drop down menu: Diesel, Electric, Gasoline, Hybrid, Not Applicable, or Solar. If the vehicle has no fuel source, e.g., a trailer you would select "Not Applicable".
7. **Plate #:** Type in the vehicle registration number (license plate) of the current vehicle.
8. **VIN:** Type in the vehicle identification number (VIN) of the current vehicle.
9. **License:** Indicate the type of license required to operate the current vehicle from the drop down menu.
 - Class A:** Any combination of vehicles with a Gross Combination Vehicle Weight Rating (GCWR) of 26,001 lbs. or more provided the Gross Vehicle Weight Rating (GVWR) of the vehicle(s) being towed is in excess of 10,000 lbs., except a school bus. With a Class A license and the appropriate endorsements, a driver may operate any vehicle covered within Classes B and C.
 - Class B:** Any single vehicle with a GVWR of 26,001 lbs. or more, or any such vehicle towing another vehicle not in excess of 10,000 lbs. GVWR, except a school bus. With a Class B license and appropriate endorsements, a driver may operate any vehicle covered within Class C.
 - Class C:** Any vehicle that is either less than 26,001 lbs. GVWR or any such vehicle towing a vehicle not in excess of 10,000 lbs. GVWR or a vehicle placarded for hazardous materials or designed to transport 16 or more persons, including the operator, except a school bus.
 - Class D:** Any single vehicle or combination except a semitrailer unit, truck trailer combination, tractor, or truck having a registered gross weight in excess of 26,000 lbs., a bus, or a school bus.

Class M: Motorcycle. If operator has a Class D license, he or she may opt for a Class M endorsement on their driver's license.

License Not Required: A driver's license is not required to operate the identified vehicle.

10. **Mileage:** Enter the present mileage of the vehicle, if unknown type "NA".
11. **Hours:** Enter the present number of hours that the vehicle has been in operation (engine hours), if unknown type "NA".
12. **Reading Date:** Enter the date that the mileage/hours were read. The date MUST be provided.
13. **Expiration:** Enter the month and year that the current vehicle inspection sticker expires. This is the state mandated inspection.
14. **Disposal Intentions:** Indicate what the department's intentions are for the current vehicle from the drop down menu:
 - Auction/Trade** = the request is to sell the vehicle at auction or use it as trade when acquiring the replacement vehicle. The final decision is made by the Finance Department so the Department should not assume any credit or reduction in price resulting from a trade. The estimated price should be based on no trade.
 - Not Applicable** = "Not Applicable" should be selected when there is no current vehicle related to this request.
 - Retain** = the request is to retain the current vehicle in its present capacity; meaning that the department will increase the number of vehicles in regular use by the department.
 - Scrap** = the request is that the vehicle should be disposed as scrap; it is unsafe for use or of limited value.
 - Transfer** = the request is to transfer the vehicle to another department for use.
 - Pool Vehicle** = the request is to retain the current vehicle to be used as a pool vehicle by the Town.
15. **Primary Functions:** Describe the primary functions (daily operations) that the requested vehicle will provide for the department and why the vehicle is needed. What other options did the department factor before making this request? Include information that will be helpful in determining why the request is being made and why you think the vehicle needs to be purchased.
16. **Funding Year:** Indicate the fiscal year for which funding is being requested from the drop down menu.
17. **Funding Amount:** Enter the funding amount requested. The form has been designed to calculate an estimate based on current pricing that you should use.

18. **Vehicle Type:** Indicate the type of vehicle being requested from the drop down menu:

Automobile

Delivery Vehicle

Emergency Response

Flat Bed Truck

Heavy Truck (trucks with a Gross Vehicle Weight (GVW) of 6,000 pounds or more)

Light Truck (trucks with a Gross Vehicle Weight (GVW) under 6,000 pounds)

Motorcycle

Passenger Van

School Bus

Snow and Ice Equipment (this selection is for vehicles that are just meant for snow and ice removal, not vehicles that may be used in snow and ice removal operations)

SUV (Sport Utility Vehicle)

Tractor

Trailer

Van (which is not designed for passenger transport)

19. **Make:** Type in the anticipated make of the requested vehicle.

20. **Model:** Type in the anticipated model of the requested vehicle.

21. **Current Cost of Vehicle:** Type in the cost of the vehicle (not including attachments and special equipment which are required for the intended purpose but are not provided by the vehicle manufacturer). The cost should be current prices (2016). This figure and any amounts for special equipment and/or other costs will be used to calculate the estimated amount to be requested for the funding year. The estimated cost of the equipment has been calculated and is shown by fiscal year in the "Estimated Cost by Fiscal Year" column to the right). Please attach the documentation which shows how the current cost was determined.

22. **Special Equipment:** Describe any added equipment or special preparation which is required before the vehicle could be operational for the intended use. The additional cost to purchase and install/apply is to be disclosed in this box with the amount entered in the box to the right (refer to #23). Please attach the documentation which shows how the current cost was determined.

23. **Special Equipment Cost:** Enter the current cost of the special equipment identified to the left (refer to #22).

24. **Other Cost:** Describe any other expense related to this request which is not included in the vehicle price (refer to

#21) or the special equipment costs (refer to #22 and #23) and enter the cost to the right. Examples include, but not limited to, insurance coverage for the first year, additional paint and decal work, decommissioning costs for the asset being retired.

25. **Other Cost Amount:** Enter the other cost amount identified to the left (refer to #24).

Town of Needham
Capital Improvement Plan
January 2018

Vehicle Request CIP-VR				
Current Vehicle		Requested Vehicle		Estimated Cost by Fiscal Year
Assigned	(Refer to #1)	Funding Year	(Refer to #16)	2018
Unit #	(Refer to #2)	Funding Amount	(Refer to #17)	2019
Year	(Refer to #3)	Vehicle Type	(Refer to #18)	2020
Make	(Refer to #4)	Make	(Refer to #19)	2021
Model	(Refer to #5)	Model	(Refer to #20)	2022
Fuel Type	(Refer to #6)	Current Cost of Vehicle*	(Refer to #21)	2023
Plate #	(Refer to #7)			2024
VIN	(Refer to #8)	(Refer to #22)	(Refer to #23)	2025
License	(Refer to #9)	(Refer to #22)	(Refer to #23)	2026
Mileage	(Refer to #10)	(Refer to #22)	(Refer to #23)	2027
Hours	(Refer to #11)	(Refer to #22)	(Refer to #23)	2028
Reading Date	(Refer to #12)	Subtotal		\$0 2029
Expiration	(Refer to #13)	(Refer to #24)	(Refer to #25)	2030
Disposal Intentions	(Refer to #14)	(Refer to #24)	(Refer to #25)	2031
Primary Functions		(Refer to #24)	(Refer to #25)	2032
(Refer to #15)		(Refer to #24)	(Refer to #25)	2033
		Subtotal		\$0 2034
		Total Current Cost		2035
* Vehicle cost for --> 2016				

Additional Information to be Included in the Annual Town Meeting Warrant

A large, empty rectangular box with a thin black border, positioned centrally below the section header. It is intended for providing additional information to be included in the Annual Town Meeting Warrant.

Town of Needham
Capital Improvement Plan
January 2018

VEHICLE CONDITION CRITERIA TABLE

Please use the criteria below to assess the vehicle's overall condition. As a rule of thumb, if a vehicle meets the criteria of one or more classifications, the lowest category should be attributed.

EXCELLENT	<p style="text-align: center;">Vehicle is in excellent mechanical condition, has glossy paint and perfect interior</p> <ul style="list-style-type: none"> ✓ Looks new ✓ Excellent mechanical condition ✓ Has not had paint or body work ✓ Shows no rust, no visible wear and tear, stains, no "chips" or "dings" ✓ Engine is clean, has no missing parts and no fluid leaks ✓ Tires exhibit no uneven wear patterns ✓ Has complete and verifiable service records ✓ Has passed annual vehicle and safety emissions inspection
GOOD	<p style="text-align: center;">Vehicle is free of major defects and only has minor visual blemishes</p> <ul style="list-style-type: none"> ✓ Has no major defects ✓ No major mechanical problems ✓ Paint is still shiny, body and interior may have minor blemishes, which should be easily repaired ✓ Has little or no signs of rust and very few visible interior or exterior defects ✓ May or will need reconditioning if re-sold ✓ Tires match and have substantial thread wear left ✓ Has passed annual vehicle and safety emissions inspection
FAIR	<p style="text-align: center;">Vehicle has some mechanical or cosmetic defects but is in safe running condition</p> <ul style="list-style-type: none"> ✓ Reasonable running condition ✓ Has some mechanical or cosmetic defects that need servicing. All issues must be repairable. ✓ Paint, body and/or interior show visual flaws and need work performed by a professional ✓ May have small rust, minor dents ✓ May have defects in the engine or other mechanical systems ✓ Tires may need replacement ✓ Has passed annual vehicle and safety emissions inspection
POOR	<p style="text-align: center;">Vehicle has had severe mechanical and/or cosmetic defects</p> <ul style="list-style-type: none"> ✓ Significant mechanical and/or cosmetic defects ✓ Is in poor running condition ✓ Paint job is faded or missing ✓ Shows excessive rust ✓ May have problems that cannot be readily fixed such as damage frame ✓ Mileage cannot be confirmed ✓ Needs major repair in order to pass annual inspection