

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 FY2016 Capital Budget, which is recommended to the Finance Committee and ultimately to Town Meeting for consideration. The projects presented for FY2017-FY2020 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 FY2016 capital budget is shown in Table 1.

The general fund cash capital recommendation is broken into two components – Tier 1 and Tier 2. Tier 2 cash capital is recommended only if additional revenue, not yet identified, becomes available. Recurring requests for on-going programs and replacement schedules represent by far the largest portion of the available cash capital allocation – 69% of the General Fund Tier 1 category for fiscal year 2016. The FY2016 – FY2020 Capital Plan reflects the Board of Selectmen’s priority of 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 creative financing alternatives, and alignment of capital and maintenance needs with appropriate funding sources.

Table 1
FY2016 Proposed Financing Plan

Capital Recommendation Summary	Cash	Debt	Other	Total
General Fund Tier 1	\$2,394,911	\$5,000,000		\$7,394,911
General Fund Tier 2	\$457,200	\$4,000,000		\$4,457,200
General Fund Total	\$2,852,111	\$9,000,000	\$0	\$11,852,111
Community Preservation Fund	\$3,037,000			\$3,037,000
Solid Waste Enterprise	\$0			\$0
Sewer Enterprise	\$670,500			\$670,500
Water Enterprise	\$1,162,104	\$635,000		\$1,797,104
Total (all funds)	\$7,721,715	\$9,635,000	\$0	\$17,356,715

FY2016 Highlights

According to the General By-Laws of the Town of Needham, Section 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 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. Changes to the CIP include primarily the realignment of spending for traditional capital items with appropriate funding sources. These include:

- Transitioning items that do not meet the capital expenditure definition (such as items that cost less than \$25,000 or that have a useful life of less than five years) to the operating capital line of the appropriate department. For FY2016, this includes High School graphics equipment (\$9,900), School musical instruments (\$15,000), School fitness equipment (\$20,020), School interactive whiteboards (\$12,600), and the School 1:1 Devices (\$202,000).
- Transitioning the Public Facilities Maintenance Program (\$570,000) to a financial warrant article, given that the program supports maintenance activities, and many of the projects do not meet the capital expenditure test. This warrant article covers annual necessary maintenance of public buildings throughout the Town and School department including but not limited to: asbestos abatement, small equipment replacement, duct cleaning, painting, and other repairs and necessary upgrades. Unless circumstances require otherwise, the FY2016 program will fund duct cleaning at the Pollard School, Fire Station #2, and Broadmeadow School; xeriscape gardening at the High School; wood floor refinishing in various school buildings; asbestos abatement at the Pollard School; flooring replacement at the Pollard School; renovation of two restrooms at the Pollard School; repairs to the auditorium at the Pollard School, and replacement of a portion of the lockers at the Pollard School.
- Allocating sidewalk needs assessment (\$100,000) funding through a financial warrant article rather than in the cash capital article. This study, which would prioritize sidewalks for renovation and repair, would also identify opportunities for the removal of sidewalks in certain areas to allow the Town to target spending for the most critical sidewalk needs.
- Transitioning the Public Works Infrastructure Program from a predominantly debt financed program to a cash-based program over five years, beginning in FY2016. Because the program has been and will continue to be recommended annually, the annual debt service payments for infrastructure improvements – which by their nature are on a five year repayment schedule – tend to crowd out other large scale capital that would be recommended for funding through debt financing. Given the age of some of the Town's other capital assets, and the number of projects that are in the queue, it is prudent to assume that additional capital investment within the Town's tax levy supported debt will be required in the near term. Transitioning the Public Works Infrastructure program provides greater flexibility in that regard.

- The General Fund and Enterprise Fund Fleet Replacement Program was consolidated beginning in FY2015. Over the next few years, the plan will include updated replacement schedule matrices. The goals of the fleet replacement program are: replacing vehicles before service delivery is negatively impacted, maximizing vehicle availability for all user departments, minimizing costs from vehicle downtime and emergency maintenance and operational costs, taking advantage of opportunities to implement new technology to achieve fuel conservation and reduced emissions, promoting safety, reliability and operational efficiencies, and enhancing the public image of the Town's fleet.

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.

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, it is often more costly to operate a larger and more modern facility. 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.

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 and costly duplication is avoided. 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 FY2016 - FY2020 Capital Improvement Program and its associated FY2016 Capital Budget involves active participation by the Town Manager, Assistant Town Managers, and requesting departments. 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 12, 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.

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. Finance Committee and Community Preservation Committee Liaisons are invited to participate in these meetings.
- *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* – 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 cannot 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 to support on-going operations by limiting such use to no more than 2% of the prior year's appropriated departmental budgets, or the actual turn back, whichever is lower. The recommended plan includes \$2,394,911 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 no projects to be funded from the Athletic Facility Improvement 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 12. The policies contain reserve targets to ensure liquidity and stability of operations. Surplus funds above the target are considered available for appropriation. This plan includes \$834,536 in funding from the enterprise fund retained earnings accounts.

Debt – The Board of Selectmen's debt management policies (Section 12) provide guidance in translating capital expenditures into annual debt service. Section 4 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 4. This plan includes a recommendation for \$5,000,000 in projects to be funded through General Fund debt in the Tier 1 category and an additional \$4,000,000 in the Tier 2 category. The plan also includes \$635,000 to be funded through Enterprise Fund debt.

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 \$3,037,000 in projects contingent upon Community Preservation Funding.

Other Available Funds – From time to time there are capital projects funded by cash for which the work has been completed, all the bills paid, and for which no other encumbrance remains. These funds are available for repurposing by Town Meeting. This plan includes \$457,200 in funding from Other Available Funds in the General Fund category and \$298,068 in Other Available Funds in the Enterprise Fund category.

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 - \$108,669,932 Million Over Six Years

Asset preservation is defined as committing necessary resources to preserve, repair, or adaptively re-use current assets. Expenditures for asset preservation are intended to keep the physical plant and infrastructure in reliable operating condition for their present use. As noted in previous years, despite the most recent economic downturn and decades of financial uncertainty for municipal governments, the Town of Needham has made an extraordinary investment in public infrastructure during the past decade. While significant investment in many capital facilities is still required and, in some cases, overdue, the Town should be proud of this achievement. 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. Such prioritization of spending on infrastructure that is often "invisible" is the hallmark of a community that has refrained from diverting funding from the capital budget to fund operating budget programs and services that are needed and desired.

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 2 ½ 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-1990's and continuing today. Table 2 shows the Town's investment in facilities and infrastructure over the past six years.

Table 2
Facility and Infrastructure Investment
2010 to 2015

Description	2010	2011	2012	2013	2014	2015	Total	Average
Open Space	\$920,000	\$800,000	\$0	\$0	\$0	\$0	\$1,720,000	\$286,667
Municipal Facilities	\$18,204,837	\$548,000	\$8,075,000	\$40,000	\$2,771,500	\$105,779	\$29,745,116	\$4,957,519
Townwide Facilities and Community Services	\$507,200	\$455,600	\$622,500	\$1,247,315	\$951,828	\$750,219	\$4,534,662	\$755,777
Public Works Infrastructure Program	\$1,000,000	\$2,186,300	\$1,300,000	\$6,128,000	\$600,000	\$1,760,000	\$12,974,300	\$2,162,383
School Facilities	\$27,668,728	\$4,052,000	\$1,078,000	\$85,000	\$4,292,276	\$200,000	\$37,376,004	\$6,229,334
Drains, Sewer, and Water Infrastructure	\$2,533,300	\$1,483,800	\$8,269,500	\$1,079,300	\$7,670,900	\$1,283,050	\$22,319,850	\$3,719,975
Total	\$50,834,065	\$9,525,700	\$19,345,000	\$8,579,615	\$16,286,504	\$4,099,048	\$108,669,932	\$18,111,655

Investment in Equipment, Technology, and Fleet - \$13,776,146 Million Over Six Years

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 Townwide technology, and School copiers and equipment. Table 3 shows the Town's investment in these categories of capital spending for the six year period FY2010 through FY2015.

Town of Needham
Capital Improvement Plan
January 2015

**Table 3
Equipment, Technology, & Fleet Capital
2010 – 2015**

Description	2010	2011	2012	2013	2014	2015	Total	Average
Equipment	238,681	\$799,603	\$378,763	\$430,200	\$829,995	\$141,797	\$2,819,039	\$480,065
All Other Functions	25,000	\$68,000	\$0	\$0	\$146,250		\$239,250	\$47,850
Public Facilities & Works	132,000	\$623,953	\$259,063	\$235,000	\$480,100	\$29,797	\$1,759,913	\$293,319
Public Safety	0	\$0	\$0	\$40,000	\$27,500		\$67,500	\$13,500
Public School	81,681	\$107,650	\$119,700	\$155,200	\$176,145	\$112,000	\$752,376	\$125,396
Technology	194,393	\$389,400	\$306,596	\$832,800	\$663,800	\$1,250,940	\$3,637,929	\$606,322
All Other Functions	25,000	\$282,800	\$145,000	\$160,000	\$30,000	\$130,000	\$772,800	\$128,800
Public Facilities & Works	0	\$0	\$0	\$0	\$0	\$33,000	\$33,000	\$5,500
Public Safety	0	\$68,000	\$112,496	\$0	\$0	\$408,615	\$589,111	\$98,185
Public School	169,393	\$38,600	\$49,100	\$672,800	\$633,800	\$679,325	\$2,243,018	\$373,836
Fleet	1,361,233	\$1,161,746	\$1,418,500	\$1,680,618	\$1,105,242	\$591,839	\$7,319,178	\$1,219,863
All Other Functions	0	\$0	\$52,000	\$0	\$0	\$0	\$52,000	\$8,667
Public Facilities & Works	1,326,233	\$1,131,746	\$966,500	\$895,618	\$1,011,000	\$343,572	\$5,674,669	\$945,778
Public Safety	35,000	\$30,000	\$400,000	\$785,000	\$94,242	\$248,267	\$1,592,509	\$265,418
Public School	0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total	1,794,307	\$2,350,749	\$2,103,859	\$2,943,618	\$2,599,037	\$1,984,576	\$13,776,146	\$2,306,249

Project Summaries – Recommended Projects for Fiscal Year 2016

GENERAL GOVERNMENT

NETWORK HARDWARE SERVERS AND SWITCHES

The request is to replace older servers, both application and data, with newer, faster, and more energy efficient models including hardware to install virtualization software. This will also include the replacement of the spam filter, virus firewall, and internet filtering. The request would also be for replacement of older network switches to connect buildings, departments, and workstations throughout the Town. Newer models of both servers and switches will be better able to take advantage of the Town fiber and increase the speed of data within the Town's fiber network. Not replacing or updating this equipment can have an effect on email, financial applications, internet access, data accessibility, and backups between the Town's datacenters. *(Submitted by: Finance Department)*

The Town Manager's recommendation for Network Hardware Services and Switches is \$30,000 in the Tier 1 cash capital category.

MAIL PROCESSING MACHINE REPLACEMENT

The mail processing machine replacement is for two pieces of equipment - folding/stuffing and mail - used by the Information Technology Center (ITC) to support multiple departments. The folding/stuffing machine is used almost daily for various tasks by the ITC in support of the Finance Department and in response to requests from external departments. The mail machine is used daily in support of multiple departments for postage and mailing.

The Town Manager's recommendation for Mail Processing Machine Replacement is \$30,645 in the Tier 1 cash capital category.

PUBLIC SAFETY

THERE ARE NO PUBLIC SAFETY CAPITAL REQUESTS FOR FISCAL YEAR 2016.

PUBLIC SCHOOLS

SCHOOL COPIER REPLACEMENT

In May 2003, Town Meeting authorized \$60,000 in first-year funding to establish a replacement cycle for school photocopiers. School photocopiers are located in all of 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 48 copy machines. The FY2016 request replaces four copy machines. Copier replacement is planned on a lifecycle analysis, which projects when a copier should be replaced based on actual usage and the manufacturer's total estimated capacity. Copiers that are heavily used are replaced more frequently than copiers that are lightly used. A seven-year maximum duty life 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 redeployed 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 \$62,740 in the Tier 1 cash capital category.

SCHOOL FURNITURE

This request continues the replacement cycle for school furniture in poor and fair condition at Hillside, Mitchell, Newman and Pollard Schools. In these schools, furniture is 10-20+ years old and in a state of disrepair after decades of heavy use. In FY2005, Town Meeting approved funding to begin the replacement of furniture in poor condition. By FY2015, all furniture in poor condition will have been replaced at these schools. The FY2016 funding request will continue with the replacement of furniture in fair condition at these schools and will allow for the purchase of furniture needed for enrollment growth. In addition, these funds would be used for new classroom furniture as needed. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Furniture is \$45,405 in the Tier 1 cash capital category.

TECHNOLOGY REPLACEMENT

The Technology Replacement Program includes the School Department's regular replacement cycle for technology devices, including computers, printers, and servers. The request includes:

Hardware Replacement The FY2016 request is \$222,000 for 226 replacement devices: 35 teacher and administrator computers and 191 lab/classroom computers at Broadmeadow, Mitchell, Newman, and the High School. The majority of the computers

being purchased will be deployed at the High School – FY2016 represents the second year of the anticipated five-year timeframe to replace the High School computers. The student stations will be replaced in critical lab locations.

Printer Replacement This portion of the request totals \$12,000 in FY2016. The School Department is in the process of changing its printer replacement strategy to incorporate fewer, more efficient and more cost effective printers. The Department has moved to a shared printing model for Pollard teachers and is planning to do the same for the Mitchell School. The FY2016 request includes the replacement of 36 printers throughout the District.

Interactive Whiteboard and Projector Replacements This is a new category of the technology replacement program. During the past year, the Department has experienced the failure of some of the early installations of LCD projectors and SMART Boards. Summer maintenance has revealed a significant number of possible failures that are still being assessed at Eliot, Hillside, Newman, Pollard and the High School. The FY2016 funding request for replacement is \$75,000.

Infrastructure Hardware Infrastructure hardware includes servers, network hardware (switches, UPSs) and wireless infrastructure. The server request for FY2016 is \$30,000 and includes the replacement of servers that have been running 24/7 for three and four years. The servers will be repurposed to less critical functions for two and three years respectively. The network hardware request includes \$27,000 in FY2016: \$5,000 for UPS replacements and upgrades, as well as funds to update switches. Last year, the District began to update its switches to accommodate growing Internet bandwidth requirements, completing the 1 GB to 10 GB upgrade at the core and the head end room. In FY2016, \$12,000 is allocated to complete the Eliot backup installation. In addition, there is a need to replace many of the switches around the district. Switches are typically installed as part of building projects and have not been included as part of the replacement cycle in the past. The request includes \$10,000 for this purpose. Finally, the request includes \$37,000 for the expansion of wireless infrastructure to support Internet functions at the Broadmeadow and Eliot elementary schools. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School Technology Replacement is \$403,000 in the Tier 1 cash capital category.

HIGH SCHOOL CLASSROOM EXPANSION

This project requests funding to add classroom and cafeteria space at Needham High School to support the anticipated student population of over 1,700 students by September 2015. Enrollment is expected to remain at or over 1,700 students through FY2023. The existing capacity of the school is 1450. The preliminary concept for classroom expansion would include the installation of six new prefabricated classrooms, representing a total of approximately 5,600 s.f. of classroom space. The Permanent Public Building Committee is in the process of overseeing a feasibility study to determine the best plan for the installation of classrooms. The cafeteria project includes the expansion of the existing cafeteria and servery area. The preliminary scope includes: adding 2,462 s.f. to the existing cafeteria space and creating an expanded seating area; reconfiguring the seating by replacing round tables with bench-style seats; reconfiguring table placement and installing

counters with moveable chairs around the periphery of the dining room; adding a sixth cash register and pushing the cash register lines out of the servery area and into the dining room; reconfiguring the serving line to allow for better student flow; upgrading furnishings and fixtures in the dining room area; and installing a second walk-in freezer in the kitchen/storeroom area. All features of the High School classroom expansion project are subject to decisions made after the feasibility report is complete. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for High School Classroom Expansion is \$4,000,000 in the Tier 2 debt financing category and \$457,000 in the Tier 2 Other Available Funds – General Fund category dependent on the outcome of the feasibility study.

PUBLIC WORKS

FUEL SYSTEM SOFTWARE/HARDWARE UPGRADE

This project will improve the Town's fuel management system. The Town currently utilizes a fuel dispensing system ("Gasboy") that is outdated and requires manual entry and authentication by vehicle drivers. The current operating system is outdated and is no longer fully supported by the manufacturer. This upgrade of the fuel management system and software will provide more automated control of fuel. It will allow for quicker fueling by eliminating manual entry, reduce input errors, and will provide for more accurate reporting data of fuel usage. Additionally, hardware installed in late model equipment (1996 and newer) will automatically report vehicle information to the system for maintenance planning at the time of fueling, including: mileage, maximum vehicle speed, oil level and pressure, check engine light status, and any faults. The fuel system hardware can be removed and installed at a new location if deemed appropriate in the future, and the software is capable of managing multiple fueling locations. This upgrade will provide for the installation of 140 automotive modules into vehicles/equipment, 240 fuel keys for vehicles/equipment, new nozzles, fuel island controls and kiosk, and a hard and/or wireless data connection. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Fuel System Software/Hardware Upgrade is \$94,500 in the Tier 1 cash capital category.

MOBLIE COLUMN LIFT

This request would be to replace an existing permanently-mounted above ground automotive lift with a portable mobile four column lift. The existing 7,000 lb. two post automotive lift is unable to lift many vehicles and equipment serviced by the DPW. The lift is also outdated and in need of repairs. Parts are unavailable, and would need to be manufactured for needed repairs. The original lift was acquired second hand from a school program. A mobile four column lift will lift all the vehicles currently serviced, and will provide greater flexibility by allowing vehicles to be lifted on any flat surface. It can be used in any of the bays, and can be used to service vehicles in the DPW yard. This lift will come with additional jack stands so that vehicles can be raised, evaluated, and remain on those stands while waiting for parts. This will increase efficiency as vehicles will not need to be raised and lowered more than once in order to perform maintenance on multiple pieces of equipment. *(Submitted by:*

Department of Public Works)

The Town Manager's recommendation for a Mobile Column Lift is \$73,500 in the Tier 1 cash capital category.

CENTRAL AVENUE/ELLIOT STREET ("COOKS") BRIDGE REPLACEMENT RECONSTRUCTION

In the spring of 2013, the Central Avenue/Elliot Street ("Cooks") Bridge was identified by the state as having structural deficiencies. The Town of Needham and the City of Newton engaged a structural engineer to further evaluate the bridge. A report by the structural engineer completed in the late summer of 2013 indicated that further monitoring was necessary. The Town has been monitoring of the bridge for over a year and will continue monitoring the bridge until repairs are made to ensure the safety of all who use the bridge. The monitoring that was conducted over the past year has provided sufficient information for the Town to determine the type of repairs needed. While less extensive than the worst case scenario of a total replacement, the repairs will require that the bridge be shut down for a period of time. The construction estimate for the project is based on the cost of rehabilitation, which is referred to as the "root canal" approach. This will require supporting the structure, removing the asphalt and dirt interior of the bridge and the replacing it with concrete. This methodology also accounts for the need to preserve the historic nature of the bridge. The requested funding is for the total cost of the project; however, the Town expects that these costs will be shared equally with the City of Newton. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Central Avenue/Eliot Street Bridge reconstruction is \$4,000,000 in the Tier 1 debt financing category.

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. Due to the additional need for drainage work related to the Labor Day storm in 2013, several components of the Public Works Infrastructure Program the have been reprioritized within the five year Capital Improvement Plan.

Street Resurfacing This program is essential to improve the structural and surface integrity of the Town's 123 linear miles of accepted streets. 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. In the summer of 2014, the Town received additional funding from the Commonwealth (\$137,000) for crack filling and pothole repair which supplemented the Town's efforts in those areas. Target funding for street resurfacing in FY2016 is \$475,000.

Traffic Signal & Intersection Improvements This program funds traffic signal improvements and intersection improvements, and new traffic signal installations where none currently exist. No funding is targeted for this program in FY2016.

Sidewalk Program This Program funds improvements to the network of sidewalks throughout the community. There are over 160 miles of accepted sidewalks in Needham, and more than half do not comply with current standards and require significant improvements including the installation of handicapped ramps. All sidewalk improvements must comply with Federal and State laws and construction standards. Current estimates have identified over \$20,000,000 in backlogged sidewalks in need of repair. Unless circumstances dictate otherwise, the target funding for the sidewalk program in FY2016 is \$225,000.

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 flooding problems and illicit discharge. Locations for improvements have been prioritized within the plan. Since the issuance of the Stormwater Master Plan, numerous multi-unit developments have been built or are 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. Unless circumstances dictate otherwise, FY2016 funding is targeted for the Greendale Avenue area (engineering - \$120,000 and construction - \$350,000).

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. FY2016 funding is targeted for the replacement of ten feet of pipe underneath a culvert on Edgewater Drive, the replacement of a badly damaged 100 foot section of 18" reinforced concrete drain pipe within a Town easement adjacent to 470 South Street, and various small projects related to the Labor Day 2013 storm drainage remediation (\$203,500).
(Submitted by: Department of Public Works)

Brooks and Culverts – Repair and Maintenance The increasing number of severe storms has resulted in numerous complaints and subsequent investigations of the Town's brooks, streams and culverts. The conditions observed were significant. 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 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 current conditions are beyond the means of DPW equipment and personnel. Such repairs require detailed investigation, plan of recommended improvements, design drawing and specifications, environmental permitting and bidding of construction to be overseen by the Town's Engineering Division. This will eventually 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 improvements to water quality of brooks and culverts. Unless circumstances dictate otherwise, FY2016 funding is planned for continued wall repair along Rosemary Brook (\$80,000).

The Town Manager's recommendation for the Public Works Infrastructure Program is \$1,000,000 in the Tier 1 debt financing category and \$453,500 in the Tier 1 cash capital category.

PUBLIC FACILITIES

PUBLIC FACILITIES ENERGY EFFICIENCY UPRADE IMPROVEMENTS

The May, 2011 Special Town Meeting appropriated funding for an engineering study for energy upgrades at ten key buildings. The results of this study illustrate that the Town's investment in selected and recommended energy upgrades will pay for themselves within 10 years. Unless circumstances dictate otherwise, FY2016 funding is targeted for retro-commissioning the HVAC controls at the Eliot School and converting lighting to more energy efficient induction lighting at the Eliot School and at Fire Station #2. *(Submitted by: Public Facilities Department)*

The Town Manager's recommendation for the Public Facilities Maintenance Program is \$96,323 in the Tier 1 cash capital category.

COMMUNITY SERVICES

MILLS FIELD IMPROVEMENTS

The purpose of this project is to provide safety and aesthetic improvements to the park. These improvements include: creating new parking area at circular drive (approximately 20 spaces) and parking along Hampton Avenue (approximately 10 spaces), and adding an area of permeable pavers along existing parking on Ellis Street; improving the basketball court, including surface, lining, poles and backboards; adding a modular construction restroom building; replacing sod on the 60' diamond; replacing picnic tables, bike racks, and grills; and planting areas of xeriscape gardening. Prior projects already completed include: tennis court replacement, playground replacement, safety fencing between baseball and tennis, replacement of backstop and outfield fencing, addition of fencing around playground, painting of dugouts, and installation of batting cage and scoreboard. Mills Field is located in Needham Heights. Park amenities include a 60' baseball diamond, 4 tennis courts, the Needham Rockets playground donated by Parent Talk in honor of Needham astronaut Suni Williams, a full size basketball court, picnic area, and shaded open space used by many residents. The parking improvements will help ensure that neighbors are not

blocked from their driveways and emergency vehicles will have full access to the park. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Mills Field Improvements is \$510,000 contingent on Community Preservation Funding.

NEWMAN SCHOOL PLAYING FIELD RECONSTRUCTION

Representatives of the School Department, DPW, Conservation Department, and Park and Recreation Department worked with an engineering firm over the past year to develop design plans for the renovation of the athletic fields behind the Newman School, including two 60' diamonds and a large multi-purpose field. The reconstruction would involve elevating the level of the fields, the addition of drainage, a new irrigation system, backstops and fencing, a walking path around the fields, and other small amenities. The improved fields will drain appropriately into the adjacent wetlands, allowing for full use by the students at the Newman School, the afterschool programs, Needham High athletics, and youth sports organizations. The Newman school has the largest elementary school population. The outdoor areas are used for physical education and recess. Too often, the athletic field areas are not usable as they are too wet and do not drain properly. The improved fields will be available more often, and the walking path can be incorporated into the educational program and be used by residents and for special events, including Relay for Life. The field areas will be used by after school programs, including Needham High Athletic club teams such as Ultimate Frisbee and rugby. Youth organizations would have regular use for baseball, soccer or other sports that use diamonds or multi-purpose fields. Design work is also underway for improvements to the adjacent Eastman Conservation Area, and a funding request is being submitted separately. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Newman School Playing Field Renovation is \$1,527,000 contingent on Community Preservation Funding.

GENERAL FUND FLEET REPLACEMENT PROGRAM

The Town's fleet replacement program was established in FY2015. This represents a budget and schedule for the Town's rolling stock fleet of appropriately 200 vehicles, trailers, and large specialized attachments. General purpose vehicles include pickup trucks, a variety of sedans, SUV's, vans, and police vehicles (75). They comprise approximately 37 percent of the entire fleet. General purpose vehicles are utilized in every department and are relatively interchangeable. 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 47 trailers which represents approximately 23 percent of the fleet. Specialized, high value vehicles, and snow and ice equipment comprise of the other 40 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 high value vehicles such as ambulances, large dump trucks, fire engines, street sweepers, and others for which appropriations need to be planned. The vehicle replacement program will involve several components to be implemented over the course of FY2016 and beyond. *(Submitted by: Multiple Departments)*

CORE FLEET REPLACEMENT

Unit	Division	Year	Description – Existing	Description - Request	Miles	Cost
705	Public Facilities	2006	Ford Econ Van E250	Same or Similar	57,460	\$28,049

The Town Manager’s recommendation for Core Fleet Replacement is \$28,049 in the Tier 1 cash capital category.

FLEET REPLACEMENT - SPECIALIZED EQUIPMENT

Unit	Division	Year	Description – Existing	Description - Request	Miles/Hours	Cost
7	DPW-Highway	2000	International 4900 Dump	International 7300 Dump	43,414	\$219,746
49	DPW-Highway	2002	Volvo Tractor	International 7600 Multi-body Dump	98,562	\$269,930
73	DPW-Parks	2008	Ford F-350 Dump	Ford F-550	42,648	\$78,296
74	DPW-Parks	2008	Ford F-550 Dump	Ford F-550/Hook Loader	48,043	\$104,102
75	DPW-Parks	2008	Ford F-550 Dump	Ford F-550	37,353	\$78,296

The Town Manager’s recommendation for the Fleet Replacement – Specialized Equipment is \$750,370 in the Tier 1 cash capital category.

FLEET REPLACEMENT - SNOW AND ICE EQUIPMENT

Unit	Division	Year	Description – Existing	Description - Request	Hours	Cost
106	DPW-Highway	2002	Sidewalk Tractor/Track	Same or Similar	1,017	\$152,912
117	Highway	2000	Sidewalk Tractor	Same or Similar	1,135	\$173,967

The Town Manager’s recommendation for Fleet Replacement Snow and Ice Equipment is \$326,879 in the Tier 1 cash capital category.

RECYCLING/TRANSFER STATION (RTS) ENTERPRISE FUND

THERE ARE NO CAPITAL REQUESTS FOR THE RTS FOR FISCAL YEAR 2016.

SEWER ENTERPRISE FUND

SEWER SPECIALIZED EQUIPMENT

This request is for a new piece of equipment that will be used to clean sewer lines and drains in difficult to access or remote locations that cannot be reached by standard methods using existing equipment. This easement machine will attach to the existing vacator truck or jet truck and is able to jet clear sewers and drains that cannot be reached by the existing equipment. This would be used to perform preventative maintenance in areas that are not presently being reached by machinery and must be hand-serviced, and to respond more effectively to sewer back-ups. *(Submitted by: Department of Public Works)*

Unit	Division	Year	Description – Existing	Description - Request	Miles/Hours	Cost
New	Sewer	n/a	n/a	Easement Machine	n/a	\$70,500

The Town Manager’s recommendation for the Sewer Fleet Replacement – Specialized Equipment is \$70,500 funded by Sewer Retained Earnings.

SEWER PUMP STATION IMPROVEMENTS

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. Canister pump stations at Lake Drive, Cooks Bridge (Milo Circle), Alden Rd and Reservoir “A” are each 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. FY2016 funding is targeted for engineering, design and construction of the Reservoir Street “A” Station (\$550,000). *(Submitted by: Department of Public Works)*

The Town Manager’s recommendation for Sewer Pump Station Improvements is \$550,000: \$433,857 is proposed for funding by Sewer Retained Earnings, and \$116,143 by Other Available Funds – Sewer Enterprise.

SEWER SERVICE CONNECTIONS

There are 108 homes that have access to sewer mains, but which have no lateral connections to the street. These residents have chosen not to connect to the sewer system at this time. The purpose of this request is to provide the lateral sewer line from the sewer main to the property line so that the homeowners may connect should they choose to or should their septic systems fail. The lateral sewer line is to be installed at least one year prior to a road reconstruction/paving project. If the services are not replaced prior to roadway improvements, an element of the subsurface infrastructure remains susceptible to failure before the useful life of the reconstructed roadway has been realized. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Sewer Service Connections is \$50,000 funded by Sewer Retained Earnings.

WATER ENTERPRISE FUND

MOBILE RECORD KEEPING DEVICES

This funding will support an upgrade in the manner in which the Department of Public Works conducts data collection, data retrieval, and work order completion in the field. The Department is presently working with updated Geographic Information System (GIS) and database software that will interact with portable devices to provide Department field staff on-site access to valuable data. The software will enable personnel to upload and update record drawings within hours as opposed to the months that it currently takes to update these same records. The mobile record-keeping devices will enable personnel to retrieve information at the scene of a job site rather than traveling to the Public Works Department to search out the information, thereby reducing response time. This will allow employees to more quickly locate shut off valves during an emergency situation that could have impacts on homeowners and business owners. Additionally, these devices will provide onsite access to work orders and records, such as the catch basin records, that will allow real time updating and retrieval of data. These devices will be placed in a pool, and staff who requires them to conduct their daily functions will sign them out as needed. This request is to purchase mobile devices and to scan existing drawings into the network for remote access. Project funding will support 12 devices (\$20,000) and scanning and coding (\$15,000). *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Mobile Record Keeping Devices is \$35,000 funded by Water Retained Earnings.

WATER SUPPLY DEVELOPMENT

In April 2013, the Town redeveloped Well #3, restoring the yield of the well to approximately one third of its original capacity. The original capacity of the well was 50 gallons per foot, and the redevelopment brought the well up to 18 gallons per foot. (Prior to the redevelopment the yield of the well was as low as five gallons per foot). Since this last redevelopment in April 2013, the well is already showing signs of losing further capacity, and is pumping seven gallons per foot as of September 2014. Water supply development funds for FY2015 had been intended for the design and engineering of a new fourth well. Based on

the condition of Well #3, this funding has been redirected to the replacement of Well #3. The permitting process with the Massachusetts Department of Environmental Protection (DEP) for this replacement would be considerably shorter - approximately one year - rather than the seven to ten year process for establishing a new well. Once the capacity in Well #3 has been reestablished, planning for the fourth well will begin. The fourth well at the Charles River Well Field would provide reliability and redundancy while other wells are taken offline for routine maintenance or repair. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Water Supply Development Design is \$700,000 funded by Water Retained Earnings.

WATER SERVICE CONNECTIONS

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 at least one year prior to a road reconstruction/paving project. If the services are not replaced prior to roadway improvements, an element of the subsurface infrastructure remains susceptible to failure before the useful life of the reconstructed roadway has been realized. Prior appropriations are currently under contract with water service connection replacements estimated to be one and a half years ahead of the road resurfacing program. The FY2016 funding will provide approximately one year's value of water service replacements, which will fall in line with the road resurfacing program schedule. System wide, there are approximately 2,500 services that still need to be replaced. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Water Service Connections is \$200,000 funded by Water Retained Earnings.

WATER SYSTEM REHABILITATION PROGRAM

The Town's water infrastructure is routinely analyzed to assess functionality and performance, and to identify areas in need of repair. Water infrastructure requires ongoing attention and periodic replacement. 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 reliable 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, FY2016 funding will support the construction of new 8 inch water mains on Pleasant Street from Howland Street to Dedham Avenue (1,160 lf) and on Norfolk Street from Warren Street to Webster Street (1,300 lf). *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for Water System Rehabilitation is \$820,500, of which \$635,000 is proposed to be funded through Water Enterprise Fund debt, \$181,925 from Other Available Funds - Water Enterprise, and \$3,575 from Water Retained Earnings.

ENTERPRISE FUND FLEET REPLACEMENT PROGRAM

CORE FLEET REPLACEMENT

Unit	Division	Year	Description - Existing	Description - Request	Miles/Hours	Cost
21	Water	2010	F-150 Pick-up	F-250 Pick-up	31,729	\$41,604

(Submitted by: Department of Public Works)

The Town Manager's recommendation for Enterprise Fund Core Fleet Replacement is \$41,604 funded by Water Retained Earnings.