

Town of Needham
Capital Improvement Plan
January 2011

EXECUTIVE SUMMARY

**PROGRESS TOWARD ADEQUATE AND SUSTAINABLE CASH CAPITAL FUNDING
IS ACHIEVABLE THROUGH SACRIFICE**

Despite the most recent economic downturn and decades of financial uncertainty for municipal governments, the Town of Needham has made a truly 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 is willing to forgo growth in programs and services that are needed and desired in order to fund improvements to buildings and other capital assets, such as roads, bridges, sidewalks, and sewer, drain and water infrastructure. Table 1 shows the Town’s investment in facilities and infrastructure over the past five years.

Table 1
Facility and Infrastructure Investment
2007 to 2011

Description	2007	2008	2009	2010	2011	Total	Five Year Average
Open Space				920,000	800,000	1,720,000	344,000
Municipal Facilities	79,960	180,000	7,760,000	18,204,837	548,000	26,772,797	5,354,559
Townwide Facilities and Community Services	391,000	291,500	1,870,000	556,291	455,600	3,564,391	712,878
Public Works Infrastructure Program	900,000	1,150,000	1,090,000	1,000,000	2,186,300	6,326,300	1,265,260
School Facilities	1,366,000	20,475,000	1,030,000	27,668,728	4,052,000	54,591,728	10,918,346
Drains, Sewer, and Water Infrastructure	3,336,950	2,956,800	4,322,500	2,533,300	1,483,800	14,633,350	2,926,670
Total	6,073,910	25,053,300	16,072,500	50,883,156	9,525,700	107,608,566	21,521,713

The need for this level of investment in facilities and infrastructure is generally attributable to three factors. First, the Town is nearly

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300 years old, so its infrastructure, much of which was first installed in the early part of the 20th century, is aging. Second, as a built-up community, the Town has a high number of streets and sidewalks to maintain. There are 138 +/- miles of roadway in Needham, which is a community of approximately 12.5 square miles. Similarly-sized communities that are less-developed (as defined by a roadway density ratio) will require less capital and maintenance investment (including snow and ice removal). Table 2 shows several similarly sized and abutting communities with a range of roadway density ratios. While reliable data on miles of sidewalk is not readily available, it stands to reason that communities with high roadway density ratios also have a high number of sidewalks to maintain and clear of snow.

Table 2 Roadway Density in Comparable Communities			
Community	Square Miles	Road Miles	Roadway Density Ratio
Sherborn	16.89	55.70	3.30
Dover	15.16	62.26	4.11
Millis	12.17	51.74	4.25
Lincoln	14.56	62.60	4.30
Bedford	13.73	80.40	5.86
Ashland	12.41	79.11	6.37
Medway	11.16	73.90	6.62
Westwood	11.15	88.46	7.93
Dedham	10.50	106.40	10.13
Natick	14.88	154.53	10.39
Needham	12.50	138.14	11.05
Wellesley	10.05	130.16	12.95

Source: MMA Municipal Directory 2010 - 2011

Finally, the Town's population grew significantly in the years after the Second World War, from 12,445 in 1940 to 16,262 in 1950 to 25,793 in 1960, according to Town census records. As a result, investment in school buildings increased significantly in the 1950's and 1960's. In fact, with the exception of the High School, all of the other seven school buildings currently in use were built in the same 10 year period from 1951 to 1960. Then, after the advent of Proposition 2 ½ in the early 1980's, the community found it difficult to make necessary investment in its array of school buildings. The result? A need for complete replacement or rehabilitation of the entire system beginning in the mid-1990's and continuing today. Table 3 shows the date of construction and renovation or rebuilding (if any) of the School and Municipal buildings currently in use in Needham.

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Table 3
Construction of School and Municipal Buildings Currently in Use in the Town of Needham

School Buildings	Year Constructed	Year Renovated or Rebuilt	Municipal Buildings	Year Constructed	Year Renovated or Rebuilt
Broadmeadow Elementary School	1951	2002	Town Hall	1902	2011
Eliot Elementary School	1955	2004	Public Library	1915	2006
High Rock School - Sixth Grade Center	1955	2009	Public Works/470 Dedham Avenue	1961	1966
Hillside Elementary School	1960	1968	Public Services Administration Building	2009	
Mitchell Elementary School	1951	1968	Police/Fire Station 1	1931	1989
Newman Elementary School	1960	1993	Fire Station 2	1906	
Pollard Middle School	1957	1992			
Needham High School	1930	2008			
Emery Grover School Administration	1898				

The position of the Town with respect to its equipment and technology capital investment is also encouraging. Major categories of this capital spending include Public Safety vehicles and equipment, Public Works and Public Facilities vehicles and equipment, School and Townwide technology, and School copiers, furniture and musical equipment. Table 4 shows the Town's investment in these categories of capital spending for the five year period FY2007 through FY2011.

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Table 4
Vehicles, Equipment and Technology Capital
2007 to 2011

Description	2007	2008	2009	2010	2011	Total	Five Year Average
Equipment	278,478	1,241,235	448,061	1,083,681	1,364,903	4,416,358	883,272
All Other Functions		25,000	43,500	25,000	68,000	161,500	32,300
Public Facilities & Works	173,329	1,081,200	352,511	977,000	1,189,253	3,773,293	754,659
Public Safety		58,700				58,700	11,740
Public School	105,149	76,335	52,050	81,681	107,650	422,865	84,573
Technology	199,000	219,079	443,520	194,393	389,400	1,445,392	289,078
All Other Functions				25,000	282,800	307,800	61,560
Public Facilities & Works			85,280			85,280	17,056
Public Safety	33,000	25,000	100,000		68,000	226,000	45,200
Public School	166,000	194,079	258,240	169,393	38,600	826,312	165,262
Vehicles	623,975	804,123	862,427	635,133	743,334	3,668,992	733,798
All Other Functions			14,000			14,000	2,800
Public Facilities	54,000	28,500			65,046	147,546	29,509
Public Safety	176,162	197,832	343,034	153,900	176,888	1,047,816	209,563
Public Works	393,813	577,791	505,393	481,233	501,400	2,459,630	491,926
Total	1,101,453	2,264,437	1,754,008	1,913,207	2,497,637	9,530,742	1,906,148

Financing Methods

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.

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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.

Undesignated Fund Balance (or “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, it should not be relied upon 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. As such, the Plan includes as much as \$2,444,459 to be funded from General Fund revenue (of which \$1,711,359 is in the primary cash capital category).

Capital Improvement Fund – In 2004, the Annual Town Meeting 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. The December 30, 2010 balance in the fund is \$560,114. This plan includes no projects to be funded from the Capital Improvement Fund.

Capital Facility Stabilization Fund – In 2007, the Annual Town Meeting created a Capital Facility 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. The December 30, 2010 balance in the fund is \$732,035. This plan includes no projects to be funded from the Capital Facility 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 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 \$1,775,000 in funding from the enterprise fund retained earnings accounts.

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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 \$15,947,000 in projects to be funded through debt (\$2,778,000 in General Fund debt, an \$8,000,000 placeholder for the Senior Center, \$152,000 in RTS Enterprise Fund debt, and \$5,017,000 in Sewer 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 was approved at the May, 2004 Annual Town Meeting and by voters at the November 2, 2004 election. The CPA mandates that each fiscal year Needham must spend, or set aside for later spending, at least 10% of the annual revenues in the Town of Needham 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 Fund 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.

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 FY2012 Capital Budget, which is recommended to the Finance Committee and ultimately Town Meeting for consideration. The projects presented for FY2013-FY2016 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. Projects recommended for funding in this plan have been reviewed in light of the core budget priorities adopted by the Board of Selectmen. The proposed financing plan for the recommended FY2012 capital budget is shown in the Table 5.

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The general fund cash capital recommendation is broken into two components – primary and secondary. Secondary cash capital is recommended only if additional revenue, not yet identified, becomes available. In several of the past few years, the Town has been fortunate in that we have been able to supplement the primary cash capital recommendation with funds held in the Reserve Fund for snow and ice removal that was not needed. This was certainly true for items identified in the fiscal year 2011 capital budget.

Recurring requests for on-going programs and replacement schedules represent by far the largest portion of the available cash capital allocation – 77% of the “primary” category for fiscal year 2012. In collaboration with the Finance Committee, we continue to explore methods of increasing resources dedicated to cash capital needs.

Table 5
FY2012 Proposed Financing Plan

2012 Capital Recommendation Summary	Cash	Debt	Total
General Fund Tier 1 (Primary)	\$1,711,359	\$2,578,000	\$4,289,359
General Fund Tier 2 (Secondary)	\$733,100	\$200,000	\$933,100
Solid Waste Enterprise	\$86,000	\$152,000	\$238,000
Sewer Enterprise	\$825,000	\$5,017,000	\$5,842,000
Water Enterprise	\$864,000		\$864,000
Extraordinary		\$8,000,000	\$8,000,000
Total (all funds)	\$4,219,459	\$15,947,000	\$20,166,459

The Capital Improvement Plan (CIP) is primarily a planning document. It is updated annually, and is subject to change as the needs of the community become more defined. Used effectively, the capital improvement planning process can provide advance project identification, evaluation, scope definition, design, public discussion, cost estimating, and financial planning. 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;

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- 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.

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 sudden changes in debt service payments. 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 (there are only a few dozen in Massachusetts) and allows the Town to borrow at a lower interest rate.

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 handicapped accessibility standards;
- the project is necessary to protect the health and safety of residents or Town employees; 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.

Project Summaries – Recommended Projects

GENERAL GOVERNMENT

DOCUMENT RECORD MANAGEMENT SYSTEM (Request: \$90,000)

A document management system (DMS) is a computer system used to track and store electronic documents and/or images of paper documents. It is also used to manage work flow needed to collaboratively create, edit, review, index, search, publish and archive various kinds of digital media and electronic text. This type of application is especially important in work areas with limited storage space, and when staff members have the need to find documents, records, or images associated with a specific project or request. In the renovated Town Hall, a document management system will allow departments to access electronically historical documents that in the past were stored locally and which will now be stored off-site or in remote locations. Document record management systems store not only letter or legal size documents, but also plan-size drawings. This project would include the purchase of the software application and the hardware to be used for scanning. *(Submitted by: Finance Department)*

The Town Manager's recommendation for the document record management system is \$90,000 in the primary cash capital category.

NETWORK SERVERS AND SWITCHES (Request: \$30,000)

This project will replace older application and data servers with newer, faster and more energy-efficient models. Hardware also includes the replacement of the spam and virus firewalls and internet filtering. Older network switches that are used to connect buildings, departments, and workstations throughout the Town are replaced with newer models for faster and more efficient communications. Not replacing or updating this equipment can affect email, financial applications, internet access, and data accessibility. If network attached devices and hardware are unavailable, departments are not able to communicate with the various application packages needed to run their operations. *(Submitted by: Finance Department)*

The Town Manager's recommendation for network servers and switches is \$30,000 in the primary cash capital category.

PUBLIC SAFETY

FIRE ENGINE (Request: \$400,000)

This request, in conformance with the Fire Department's established vehicle/apparatus replacement plan, is to replace Engine 2, which is a 1989 Emergency One pumper. At the time of replacement, the truck will be 23 years old, three years beyond the scheduled replacement of a back-up Engine. This truck was moved to "ready reserve" status (primary back-up) in 2005. The newly purchased Engine will be placed in service as Engine 1, a front-line emergency response vehicle, and the current Engine 1 (a 1999 Emergency One pumper) will be moved into ready reserve as Engine 2. In FY2004, the existing 1989 Engine 2 was partially refurbished (at a cost of \$39,000) to extend its useful life. *(Submitted by: Fire Department)*

The Town Manager's recommendation for the fire engine replacement is \$400,000 in the primary debt financing category.

PUBLIC SAFETY RADIO BASE STATION (Request: \$112,496)

This project will fund the replacement of the Police Department's base radio station system based on changes in technology and aging of existing equipment. The upgrade of the Town's public safety dispatch radio communications equipment is required to conform to new technology specifications and FCC regulation changes relative to reallocation of the public safety communications bandwidth spectrum. The existing radio communications products were originally installed in 1990, and have reached the limits of expected use. Console furniture and racks to store additional new equipment were installed with E-911 grant funding in June, 2009. *(Submitted by: Police Department)*

The Town Manager's recommendation for the public safety radio base station is \$112,496 in the primary cash capital category.

PUBLIC SCHOOLS

SCHOOL COPIER REPLACEMENT (Request: \$66,950)

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 44 copiers and 7 RISO duplicating machines. Since FY2004, 42 copy/RISO machines have been replaced throughout the district. The FY2012 request is to replace an additional seven machines for \$66,950. In FY2009, the School Department modified its methodology for predicting copier replacement, to reflect the lifecycle analysis based on actual usage and model capacity. Using the lifecycle analysis, the Department projects copier replacement needs based on actual usage and the

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manufacturer's total estimated capacity, which may be more than seven years if the copier is lightly used, or less than seven years for heavily used machines. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School copier replacement is \$66,950 in the primary cash capital category.

SCHOOL FURNITURE AND MUSICAL INSTRUMENTS (Request: \$52,750)

In FY2005, the Town implemented a funding program to replace furniture in school facilities not scheduled to undergo capital renovation/addition projects in the near future (Hillside, Mitchell, Newman and Pollard). In these schools, furniture is 10-20+ years old and in a state of disrepair after decades of heavy use. This request would provide ongoing funding for regular replacement. The FY12 request for \$37,750 will target replacement at Pollard, Mitchell and Hillside. At the end of FY15, the Department expects that all furniture in "poor" condition will have been replaced at these four schools, and future year requests will target furniture in "fair" condition.

Also in FY2005, the Town established a replacement cycle for school musical instruments. After eight years of funding, the School Department has experienced a marked improvement in the quality of musical instruments for students to use. The final year of this replacement cycle is FY2014, after which time the Department will have replaced its stock of old and/or un-repairable equipment. At that time, the Department requests funding for inventory expansion to accommodate the large classes beginning to enter the middle and high schools, where there will be a need for larger-sized instruments in the brass and string families. The preliminary replacement plan for FY2012 (\$15,000) is for two cellos or basses (determined by student need) and some large middle school percussion instruments and updating of elementary Orff percussion instruments. Actual purchases may differ to accommodate changes in instrument condition and program. *(Submitted by: Needham Public Schools)*

The Town Manager's recommendation for School furniture and musical instruments is \$52,750 in the primary cash capital category.

**SCHOOL PORTABLE DEVICE PILOT, NEW TECHNOLOGY, AND TECHNOLOGY REPLACEMENT
(Total Request: \$551,000)**

Portable Device Pilot (\$86,900)

In 2007-2008, the Laptop Study Committee recommended that a 1:1 student laptop program be implemented in Needham to better prepare students for 21st century life and learning. The pilot was put on hold because the devices were not "ready". By FY2012, however, it is expected that the quality and variety of devices has improved enough to enable the pilot program. In addition to meeting the needs of students, the pilot program would serve as a way to evaluate the viability of moving towards a technology

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model where students would bring a portable device to school in Grades 8 – 12 for writing, research and collaboration. This project would fund 110 devices to accommodate a cluster of approximately 105 students. The devices would be used by the students only during the school day. The pilot will also require the purchase and installation of 25 additional wireless access points and the purchase of four laptop/portable device storage carts. There is no plan to purchase additional portable devices – the intent is that by FY2014 students would begin to bring their own devices to Grade 8 at Pollard and to the High School.

New Technology (\$159,500)

In an effort to provide 21st century learning tools in all classrooms, the School District has made a commitment to using interactive whiteboards to enrich the learning environment with multimedia resources and provide the student, as well as the teacher, the ability to interact with these resources and support emerging curricula. SMART Boards and Mimios are the two brands of interactive whiteboards in use in the School Department. To date, the Department has installed SMART Boards at Needham High School, High Rock, Eliot, and Hillside. Schools that have partial interactive board installation include Pollard, Mitchell, Broadmeadow and Newman. This request funds the purchase of new boards and the mounting of existing boards at Broadmeadow, Hillside, Mitchell, Pollard and Newman.

Technology Replacement (\$304,600)

The annual technology replacement program will fund the replacement of two network servers and the High School Foreign Language Lab server. The network servers are critical to the continuous use of the district's information systems. As critical servers are replaced, they are delegated to a less critical function and kept in the inventory for approximately six years. The Foreign Language Lab server has also reached the end of its life cycle and needs to be replaced. Also included in this category are replacements of 11 UPS battery backup devices that support and protect the servers. This request also includes 151 administrative and teacher computers that have reached end-of-life cycle, or are not repairable, 50 laptop computers and 65 desktop computers for students at Broadmeadow, Eliot, and Hillside, one laptop cart for Eliot, one laptop cart for Broadmeadow, and a replacement printer at Pollard for one of the instructional labs. *(Submitted by: Needham Public Schools)*

<p>The Town Manager's recommendation for School technology is \$349,100 in the primary cash capital category and \$201,900 in the secondary cash capital category.</p>
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POLLARD SCHOOL INTERIOR AND EXTERIOR IMPROVEMENTS “PHASE 1” (Request: \$758,000)

Several improvements are needed to the Pollard Middle School in order to accommodate the incoming Newman School students during the 2011/12 school year. Young students will be relocated to the Pollard modular classrooms while construction is taking place at the Newman School. The scope of this project will include retrofits to the modular classrooms and improvements to both the parking areas and vehicular access. The modular retrofits are anticipated to include sub-dividing three classrooms into units/offices (involving the installation of partitions and adjustments to lighting and ventilation), bathroom and drinking fountain modifications, modifications to four classrooms that will accommodate preschoolers, and door modifications. The parking and access improvements are likely to include the installation of an access road from Dedham Avenue to the lower lot, and expansion and reconfiguration of the lower parking area. The November 2010 Special Town Meeting appropriated \$357,000 for retrofitting the modular classrooms, and \$85,000 for continued development of traffic and parking options for the 2011/2012 school year. This project would fund the design and construction of parking and access improvements.

The November, 2010 Special Town Meeting also appropriated \$3.5 million for the replacement of the Pollard roof, which will be partially funded by the Massachusetts School Building Authority. A condition assessment of the Pollard Middle School is scheduled to be completed in 2011 in an effort to identify long-term repairs and upgrades needed to extend the useful life of the Pollard Middle School facility. Long-term repairs/upgrades to the Pollard Middle School will be proposed in a future project (“Phase 2.”) *(Submitted by: Needham Public Schools)*

The Town Manager’s recommendation for Pollard School “Phase 1” is \$758,000 in the primary debt financing category.

HIGH SCHOOL ROOF – C BUILDING (Request: \$320,000)

The High School C Building Roof was last replaced in the mid 1980s. This is an asphalt shingle roof, which has an expected lifespan of 30 years. The Department of Public Facilities – Operations has repaired this roof twice in the past two years and shingles continue to blow off. The NHS C Building Roof was not included in the High School renovation project as the roof was within its useful lifespan at the beginning of that MSBA-funded project. *(Submitted by: Public Facilities Department)*

The Town Manager’s recommendation for the High School C Building roof is \$320,000 in the primary debt financing category.

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PUBLIC WORKS

CONSTRUCTION EQUIPMENT (Request: \$39,700)

This grouping consists of equipment primarily used in the heavy maintenance, construction, or reconstruction of the Town's infrastructure. Unless circumstances require otherwise, the equipment scheduled to be replaced in FY2012 includes:

Unit	Division	Year	Description	Cost
131	Highway	2000	Street Roller	\$39,700

(Submitted by: Department of Public Works)

The Town Manager's recommendation for construction equipment is \$39,700 in the secondary cash capital category.

CORE FLEET (Request: \$304,000)

The Core fleet consists of passenger vehicles such as sedans and wagons, vans, pick-up trucks, small dump trucks, and utility trucks. Unless circumstances require otherwise, the vehicles scheduled to be replaced in FY2012 include:

Unit	Division	Year	Description	Miles	Cost
92	Engineering	2003	Expedition	40,364	\$42,000
32	Highway	2005	4WD Pickup Truck	61,714	\$50,000
57	Highway	2006	4WD Pickup Truck	56,979	\$50,000
9	Drains	1996	Six Wheel Dump Truck	58,540	\$162,000

(Submitted by: Department of Public Works)

The Town Manager's recommendation for the core fleet is \$304,000 in the primary cash capital category.

LARGE SPECIALTY EQUIPMENT (Request: \$139,000)

Public Works specialty equipment consists of power-assisted equipment or other specialized tools used by the Department in the performance of its work. The Groundmaster mower is an ultra-precise cutting machine that is suited for high visibility sports fields. This piece of equipment will improve productivity, overall aesthetics, and quality of turf. Unless circumstances require otherwise, the vehicles scheduled to be replaced in FY2012 include:

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Unit	Division	Year	Description	Cost
336	Parks	2000	16 Foot Mower	\$59,000
New	Parks	New	Groundmaster Mower	\$80,000

(Submitted by: Department of Public Works)

The Town Manager's recommendation for large specialty equipment is \$139,000 in the secondary cash capital category.

SMALL SPECIALTY EQUIPMENT (Request: \$64,500)

This program provides funding to purchase new and replace existing Public Works specialty equipment. This equipment is critical for the efficient operation of the Drains, Highway, and Parks and Forestry Division's maintenance programs. The purchase of this equipment will increase productivity and expand the use of maintenance dollars. Unless circumstances require otherwise, the vehicles scheduled to be replaced in FY2012 include:

Unit	Division	Year	Description	Cost
233	Highway	2004	Sidewalk Paver	\$29,500
334	Parks	1996	Turfcut Mower	\$35,000

(Submitted by: Department of Public Works)

The Town Manager's recommendation for small specialty equipment is \$64,500 in the primary cash capital category.

SNOW AND ICE EQUIPMENT (Request: \$165,000)

This request will provide funding for equipment used primarily in the Snow and Ice Program. Unless circumstances require otherwise, the vehicles and equipment proposed for replacement in FY2012 are as follows:

Unit	Division	Year	Description	Cost
112	Highway	1989	Sidewalk tractor (Wheel w/blower)	\$135,000
9A	Highway	1988	Material Spreader	\$30,000

(Submitted by: Department of Public Works)

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The Town Manager's recommendation for snow and ice equipment is \$165,000 in the secondary cash capital category.

SALT STORAGE SHED FEASIBILITY AND DESIGN (Request: \$75,000)

The existing 1,200 ton salt storage building located at the rear of 470 Dedham Ave was constructed during the 1970s with a grant from the Massachusetts Highway Department. Repairs have been made to the roof and walls within the last decade but the structure is showing signs of significant deterioration, especially the sliding access door system, making it difficult to open when required. The shed will be removed from service. The new salt storage shed, which will be designed to hold 5,000 tons of salt, is proposed to be sited at the RTS on Central Avenue. This project will fund a feasibility study to determine the most advantageous location and preliminary design. Building construction and related site work is projected at a cost of approximately \$1.5 million. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for the salt storage shed feasibility and design is \$75,000 in the primary cash capital category.

PUBLIC WORKS INFRASTRUCTURE PROGRAM (Request: \$1,300,000)

The Public Works Infrastructure Program funds improvements to roads, bridges, intersections, drainage systems, brooks and culverts. This roadway program is essential to maintaining the structural and surface integrity of the Town's network of accepted streets. The primary strategy in this program is asphalt paving and incidental work directly associated with paving. Incidental work in support of the structural overlay paving may include corner reconstruction, handicap ramps, leveling, utility adjustments, minor drainage improvements, some drain extension work, street sign replacement, asphalt curbing with grass shoulders and pavement markings. Many streets have insufficient pavement thickness, are poorly shaped, lack curbing and require some drainage improvements. Applying this repair strategy in a timely manner will help defer costly and disruptive street reconstruction significantly on all but the most highly traveled roadways. Paving roadways in a timely manner will extend the useful life of the roadway system in the most cost effective manner.

Unless circumstances require otherwise, the FY2012 program will also include traffic signalization and reconstruction of the High Street at Greendale Avenue intersection, sidewalk repair and resurfacing on School Street from Chestnut Street to Warren Street (North side), Dedham Avenue opposite Grant Street to Bradford Street (North side), and Warren Street from School Street to Great Plain Avenue (West side). The DPW has been placing greater emphasis on sidewalk improvements in recent years to overcome deteriorating conditions. In the past, the sidewalk work has been primarily focused on the sidewalks used as school walking routes by the School Department. A portion of this program's funding has been targeted to increase this effort and to incorporate other sidewalks throughout town that are in as equally poor condition.

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This Infrastructure program has been modified to include components of the storm drainage system including brooks and culvert work. The storm drain system is a functional component of a road system. Likewise, storm drains typically discharge into brooks and streams that pass beneath the roads in key locations through culverts. Structural work on these culverts and on brook walls has now been included in this program. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for the Public Works infrastructure program is \$1,100,000 in the primary debt financing category and \$200,000 in the secondary debt financing category.

PUBLIC FACILITIES

CORE FLEET (Request \$25,000)

The Core fleet consists of passenger vehicles such as sedans and wagons, vans, pick-up trucks, small dump trucks, and utility trucks. Unless circumstances require otherwise, the vehicles scheduled to be replaced include the following:

Unit	Division	Year	Description	Miles	Cost
700	PFD	1996	F250 Electrician Van	61,314	\$25,000

(Submitted by: Public Facilities Department)

The Town Manager's recommendation for the core fleet is \$25,000 in the primary cash capital category.

SMALL SPECIALTY EQUIPMENT (Request: \$29,563)

This program provides funding to purchase new and replace existing Public Facilities specialty equipment. This equipment is critical for the efficient operation of the Public Facilities Department's operations. The purchase of this equipment will increase productivity and expand the use of maintenance dollars. Unless circumstances require otherwise, the vehicles scheduled to be replaced in FY2012 include:

Unit	Division	Year	Description	Miles	Cost
New	PFD	New	Closed Cab Mower/Blower	n/a	\$29,563

(Submitted by: Public Facilities Department)

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The Town Manager's recommendation for small specialty equipment is \$29,563 in the primary cash capital category.

FACILITIES MAINTENANCE PROGRAM (Request: \$450,000)

This project allows for on-going building maintenance efforts, including, but not limited to flooring, painting, ductwork cleaning, and window replacement. With respect to flooring, the program allows for the replacement of worn, damaged, unsafe, and unsightly floor surfaces. In addition, it provides for the removal of asbestos containing floor tile and allows for its replacement with vinyl composition floor tile in classrooms and carpeting in offices.

Unless circumstances require otherwise, FY2012 funding will provide for asbestos abatement in the classrooms, hallways, and office spaces at the Pollard school, Mitchell school crawl space, and the Media Center at the Hillside school. Duct Cleaning will be performed at the Eliot school and Library. In addition, funding from this article will support efforts to enhance energy efficiency and reduce energy consumption including, but not limited to replacing windows with dual pane glass where possible, and installing infrared and motion sensors for lighting, insulating, and correcting envelope issues. Additionally this program will allow the Department to address building systems determined to be in need of rebuilding or replacement. *(Submitted by: Public Facilities Department)*

The Town Manager's recommendation for the facilities maintenance program is \$400,000 in the primary cash capital category and \$50,000 in the secondary cash capital category.

COMMUNITY SERVICES

LIBRARY COLLECTION SUPPLEMENT (Request: \$30,000)

This recurring request supports an increase in the Library's collections to a level that will satisfy the needs of Needham citizens for their reading, listening, and viewing requirements. The goal is to have the number of items borrowed by Needham patrons from other Minuteman libraries equal the number of items the library lends to other Minuteman libraries. *(Submitted by: Needham Public Library)*

The Town Manager's recommendation for the Library collection supplement is to increase the operating budget by \$30,000 to permanently fund this increase to the Library collection.

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LIBRARY TECHNOLOGY REPLACEMENT (Request: \$25,000)

The Library has established a plan for replacing computer and other technology-related equipment, the bulk of which was purchased at the time that the Library was renovated in 2006. The FY2012 request will support the acquisition of 15 public computers and one server. *(Submitted by: Needham Public Library)*

The Town Manager's recommendation for the Library technology replacement is \$25,000 in the primary cash capital category.

SENIOR TRANSPORT VAN (Request: \$52,000)

The Senior Center's wheel chair accessible van operates daily, predominantly for local trips that require frequent stops which create stress on the vehicle. The van has traveled approximately 10,000 miles per year since it was placed in service in 2004. Due to safety, reliability and maintenance concerns, the present vehicle is scheduled for replacement in fiscal year 2012. The proposal is for acquisition of a 14 passenger accessible vehicle as a replacement for the E350 van. *(Submitted by: Human Services Department)*

Unit	Division	Year	Description	Miles	Cost
402	Senior Center	2004	E350 to be replaced With a 14 passenger bus	59,000	\$52,000

The Town Manager's recommendation for the senior transport van is \$52,000 in the primary cash capital category.

ATHLETIC FACILITY IMPROVEMENTS (Request \$137,500)

The Department of Public Works and Park and Recreation Department have developed a maintenance plan for all fields, which includes new or 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. The project proposed for FY2012 is the renovation of the Walker Gordon Facility, including field reconstruction, bleachers, player benches, irrigation, backstops and fencing. This project dovetails with the Town's acquisition of the adjacent parcel at 174 Charles River which will expand the 90 foot ball diamond, and a companion proposal to install modest playground structures at the Walker Gordon site. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for athletic facility improvements is \$137,500 in the secondary cash capital category.

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PLAYGROUND STRUCTURE REPLACEMENTS (Request: \$25,000)

Walker-Gordon has a small playground area that is in need of some additional playground features. The requested funds will allow for equipment for young children to be purchased and installed. *(Submitted by: Park and Recreation Department)*

The Town Manager's recommendation for the playground structure replacements is \$25,000 in the primary cash capital category.

CRICKET FIELD BUILDING RENOVATION FEASIBILITY (Request: \$10,000)

The Cricket Field building is used throughout the year by Park and Recreation summer programs, Needham High Girls Soccer and Girls Lacrosse, and storage for Park and Recreation and DPW Parks & Forestry. The goals of the Park and Recreation Commission are to keep the building in use for years to come, improve health and safety of the building, develop handicap accessible access to the site and building, provide public restrooms to all park users, create more effective storage system, and enable the department to get more use of the building for revenue-generating programs. The wood frame structure is approximately 1,250 square feet. This request would fund a feasibility study to determine the best course of action to meet the stated goals. *(Submitted by: Park and Recreation Department)*

The Town Manager's recommendation for the Cricket Field Building feasibility study is \$10,000 in the alternative financing source category.

NEW SENIOR CENTER (Request: \$8,000,000)

The Senior Center provides services that help older residents of Needham and their families maintain their health, independence, and ultimately optimal level of functioning. The existing Senior Center is located in a basement that has environmental issues. The parking is inadequate with 29 spaces on and off the street, while the Center services 75 – 100 people per day. The facility has inadequate programming space, with no room for expansion, forcing programs to be held in inappropriate spaces. On occasion, programs requiring space for a significant number of people have been discontinued or relocated. The facility does not have appropriate office space, which limits productivity and confidentiality.

The Board of Selectmen created a Senior Center Exploratory Committee in 2008 to explore and make recommendations to the Board on the appropriate location, size and design, projected cost, and other matters related to the construction of a new senior center. The November 8, 2010 Special Town Meeting appropriated \$500,000 for the design of a new facility at the Needham Heights MBTA Commuter Parking Lot at the intersection of Hillside Avenue and West Street. *(Submitted by: Board of Selectmen)*

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The Town Manager's recommendation for construction of a new senior center is in the range of \$8,000,000 depending on the design of the new building.

RECYCLING/TRANSFER STATION (RTS) ENTERPRISE FUND

CONSTRUCTION EQUIPMENT (Request: \$86,000)

This grouping consists of equipment primarily used in the heavy maintenance, construction, or reconstruction of the Town's infrastructure. Unless circumstances require otherwise, the equipment scheduled to be replaced in FY2012 include:

<u>Unit</u>	<u>Division</u>	<u>Year</u>	<u>Description</u>	<u>Cost</u>
61	RTS	1992	Skid Steer Loader Replace with forklift	\$86,000

(Submitted by: Department of Public Works)

The Town Manager's recommendation for RTS construction equipment is \$86,000 from RTS Retained Earnings.

LARGE SPECIALTY EQUIPMENT (Request: \$152,000)

Public Works specialty equipment consists of power-assisted equipment or other specialized tools used by the Department in the performance of its work. Unless circumstances require otherwise, the vehicles scheduled to be replaced in FY2012 include:

<u>Unit</u>	<u>Division</u>	<u>Year</u>	<u>Description</u>	<u>Miles</u>	<u>Cost</u>
34	RTS	2001	Semi-Tractor	292,351	\$152,000

(Submitted by: Department of Public Works)

The Town Manager's recommendation for RTS Large Specialty Equipment is \$152,000 in the debt financing category.

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SEWER ENTERPRISE FUND

CORE FLEET (Request \$65,000)

The Core fleet consists of passenger vehicles such as sedans and wagons, vans, pick-up trucks, small dump trucks, and utility trucks. Unless circumstances require otherwise, the vehicles scheduled to be replaced in FY2012 include:

Unit	Division	Year	Description	Miles	Cost
17	Sewer	1997	One Ton Dump	37,331	\$65,000

(Submitted by: Department of Public Works)

The Town Manager's recommendation for Sewer core fleet is \$65,000 from Sewer Enterprise Fund Retained Earnings.

LARGE SPECIALTY EQUIPMENT (Request: \$185,000)

Public Works specialty equipment consists of power-assisted equipment or other specialized tools used by the Department in the performance of its work. Unless circumstances require otherwise, the equipment scheduled to be replaced in FY2012 includes:

Unit	Division	Year	Description	Miles	Cost
16	Sewer	1997 (cab) 2008 (equipment)	CCTV Truck	20,329	\$185,000

(Submitted by: Department of Public Works)

The Town Manager's recommendation for Sewer large specialty equipment is \$185,000 from Sewer Enterprise Fund Retained Earnings.

SEWER SYSTEM INFILTRATION AND INFLOW PROGRAM (Request: \$575,000)

This program supports the identification and removal of Infiltration and Inflow (I/I) in existing sewer systems. The requested funding for FY2012 is for infiltration, which is defined as groundwater or storm water runoff that enters the system through deteriorated pipe or manhole structures. On the basis of volumes of flow and knowledge of local sewer system overflows (SSO) or basement flooding, an order of priority has been established to determine the scheduling of the engineering, design and remediation work. The highest priorities relate to locations of known surcharging with sewage overflow or release or basement flooding. Unless

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circumstances require otherwise, infiltration work in FY2012 is proposed to continue in Area 16 (the Webster Street, High Street, Tower Avenue, Brookline Street area) and Area 22 bounded by Great Plain Avenue from Eaton Road to the Railroad and along the Railroad to Coulton Park. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for the Sewer system infiltration and inflow program is \$575,000 from Sewer Enterprise Fund Retained Earnings.

SEWER PUMP STATION IMPROVEMENTS – RESERVOIR B (Request: \$5,017,000)

This project is for the replacement of the Reservoir "B" Station (this is the second oldest station in the system) constructed and put into operation in 1949 prior to the development of the Industrial Park (now known as the New England Business Center) and the new Route 128 during the 1950s. Renovations were made shortly thereafter due to the significant impacts of these major new developments. The discharge location was redirected to run parallel to Route 128 to relieve the tremendous volume of sewage being discharged and overloading the existing sewer system in Needham Heights. During the 1970s, using in-house staff for design and installation, the station underwent improvements primarily to the pumps, motors, motor control center and to install an auxiliary engine to serve as a standby to operate a single pump during a power failure. During the mid-1990s and early 2000s components of the major discharge piping failed creating emergency situations for extended periods of time. More recently the standby engine has failed and pumps are in need of constant maintenance and frequent repair. The proposed replacement of the Reservoir B Station was intended to occur earlier but was deferred until a zoning study of the center was undertaken and amendments to the Zoning By-Law were approved by Town Meeting. The amount of activity anticipated in the Needham Business Center as a result of the zoning amendments will have an impact on both the Kendrick Street and Reservoir "B" Stations. The Kendrick Street Station was renovated to accommodate some of the initial redevelopment currently underway in the area tributary to that station. The proposed replacement of the Reservoir B stations is critical for the future development in the center. The station is currently operating at capacity and any increase in flow from new or expanded facilities may not be allowed if the replacement is not complete. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for sewer pump station improvements – Reservoir B is \$5,017,000 in the debt financing category.

WATER ENTERPRISE FUND

CORE FLEET (Request \$69,500)

The Core fleet consists of passenger vehicles such as sedans and wagons, vans, pick-up trucks, small dump trucks, and utility trucks. Unless circumstances require otherwise, the vehicles scheduled to be replaced in FY2012 include:

Unit	Division	Year	Description	Miles	Cost
25	Water	1997	Utility Body	80,908	\$69,500

(Submitted by: Department of Public Works)

The Town Manager's recommendation for Water core fleet is \$69,500 from Water Enterprise Fund Retained Earnings.

FILTER MEDIA REPLACEMENT (Request: \$70,000)

The filter media (greensand) used at the Charles River Water Treatment Facility (CRWTF) for manganese removal was installed during construction. The original media installed in all four filters was replaced with natural greensand in 2008. Under the current operating conditions, based on an examination and testing of the media when removed, the filter media should be replaced every five years. This proposal is for the replacement of the media in one filter in order to establish a pattern for the media replacement of all filters on a five year cycle. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for filter media replacement is \$70,000 from Water Enterprise Fund Retained Earnings.

SCADA SYSTEM AND VIDEO SURVEILANCE (Request: \$40,000)

A Supervisory Control and Data Acquisition (SCADA) is a computer system used for gathering and analyzing real time data to monitor and control the Charles River Water Treatment Plant. The system gathers information, transfers the information to a monitoring station, and alerts on-call personnel to allow for timely response. The CRWTF is linked with the Saint Mary's Pump Station, from which the Town draws from the MWRA system, and the Town's two water storage tanks with an outdated dedicated copper communication line for real time monitoring. The copper lines have had failures and are unreliable. In addition, new technology is not adaptable to the old copper communication lines. The intent of this project is to update the system and to add video monitoring equipment at these locations (interior and exterior) for facility security purposes. Adding video provides real time information at the CRWTF and will address homeland security concerns. Using SCADA the operation of the facility can be monitored by plant personnel remotely. Abnormal operating conditions or unauthorized access of the facilities are communicated

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electronically to the operators by means of alarms which can result in the operator taking corrective action well before arrival at the plant. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for the SCADA system and video surveillance is \$40,000 from Water Enterprise Fund Retained Earnings.

WATER SYSTEM REHABILITATION PROGRAM (Request: \$684,500)

The annual Water System Rehabilitation Program draws from the recommendations of the Water System Master Plan. This master plan recommends that pipes 85 years or older be considered for replacement or relining. This list of older pipes is evaluated and prioritized, and then cross-referenced with work proposed for other utilities, road repairs, or reconstruction. Unless circumstances require otherwise, projects for FY2012 include Lincoln Street and/or Highland Avenue. *(Submitted by: Department of Public Works)*

The Town Manager's recommendation for water system rehabilitation is \$684,500 from Water Enterprise Fund Retained Earnings.