

Capital Planning

INTRODUCTION

Boston's five-year \$1.7 billion capital plan, "Together, We CAN," is an investment program for the City's future. The underlying framework for the plan emphasizes (1) the strategic use of infrastructure to promote economic development, neighborhood revitalization, quality education, health care, and public safety, (2) comprehensive planning to lay the foundation for future growth, and (3) effective government management to deliver necessary municipal services efficiently.

The program name "Together, We CAN" reinforces the ideas that "Cities Are Neighborhoods" and that the capital plan is a strategic tool shaped by many hands and designed to enhance the livability of a city that draws strength from its neighborhoods.

The Office of Budget Management (OBM) is responsible for managing the City's capital plan and budget. OBM coordinates the evaluation of capital requests, forecasts the timing and financial requirements of new construction and rehabilitation, and recommends the allocation of current and future resources by monitoring capital expenditures.

FY12-FY16 Capital Plan Overview

The FY12-FY16 capital plan supports ongoing efforts and initiatives across the City in the areas of education and youth development, neighborhood stabilization, recreation opportunity, technology enhancement for improved service delivery and economic development. The capital plan is a long-range and flexible planning tool. It allows the City to identify long-term goals and projects within a financial framework that remains flexible so that it can adjust to near-term fiscal challenges and adjust again when conditions change.

The City is prepared to move forward in this year's capital plan on several projects that were deferred due to the recent economic stresses. The Administration believes that these projects are important for their respective neighborhoods but one in particular is

significant in its City-wide impact – that, of course, is the relocation of the School Department's headquarters from Downtown to Dudley Square, the centerpiece of the Mayor's recently announced Dudley Plan.

The Dudley Plan: Two Strategies, One Unique Place

The Dudley Plan is a roadmap for revitalizing Boston's core neighborhood; a plan for a significant and historic business district.

The City will utilize a public-private development structure to construct a new Dudley Square office building. The City will own and finance the building but will issue a Request for Proposal (RFP) to hire a firm to provide advice and expertise during the course of the project as well as attract retail tenants and provide property management services once the building is operational.

This \$115 million facility will anchor a revitalization effort that will extend into and around Dudley Square. The City will issue an RFP for the commercial redevelopment of the old Area B-2 police station site, and will renovate the Dudley Branch Library and encourage the private development of Parcels 8, 9 and 10 along Melnea Cass Boulevard which will create a retail and commercial gateway to Dudley Square.

Efforts are underway to move the project forward – the City will select a project designer before the end of FY11 and construction on the new facility is expected to begin as early as next spring.

Along a parallel path, the City will begin the realignment of its administrative office space. Once the School Department relocates to Dudley Square, their current headquarters at 26 Court Street will be renovated and back-filled by other City departments. In this way, the number of administrative office buildings will be reduced from nine to four.

In addition, the realignment plan will relocate the Fire Department's headquarters to upgraded facilities at 1010 Massachusetts Avenue and establish a new

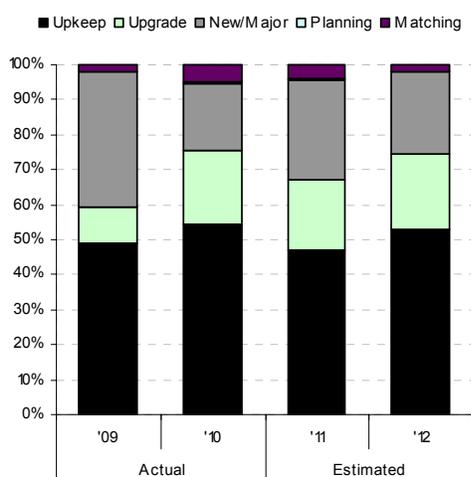
central permitting center to better serve businesses and homeowners.

FY12 Expenditure Allocation

All projects in the capital plan are categorized as Upkeep, New/Major Renovation, Upgrade, Planning or Matching Funds. OBM tracks the overall distribution of these categories to maintain a balance between the upkeep of existing assets and the expansion or introduction of new ones.

Upkeep: Upkeep represents projects that maintain the City’s assets, a fundamental priority of the Capital Plan. Fully half of the projected spending in FY12 supports Upkeep projects. These include roof and masonry repairs, the replacement of play equipment in parks, HVAC and boiler replacement, and critical repair funds for departments to address relatively small but vital repair projects not covered by routine maintenance. A substantial part of the upkeep portion of allocated spending is on-going roadway programs, including bridge, street, sidewalk, and street lighting repairs that ensure the City’s streets and sidewalks are safe and in good condition.

New/Major Renovation: 23% of the FY12 allocations represent major renovations and new buildings. New facilities and rehabilitation projects for schools, libraries, parks and community centers enable the City’s facilities to adapt to fit the needs of today’s programs, improve the ‘green’ performance of facilities, and extend the useful life of historic assets. This category also includes implementation of new technology systems.



Capital Expenditure Allocation
FY09-FY12

Figure 1

Upgrade: Upgrade represents projects that improve existing assets by adding new capacity or innovations. This year’s upgrade allocations include the replacement of 7,200 mercury vapor street lights with new energy efficient LED street lights.

Planning or Matching Funds: About 2% of the FY12 budget is assigned to matching fund requirements with the state and less than 1% of the FY12 allocation is dedicated to planning projects. Comprehensive planning projects, which analyze a group of buildings or program needs, provide the groundwork for targeted investments in the categories of Upgrade and New/Major Renovations. Matching funds for MassDOT and the Massachusetts Bay Transportation Authority (MBTA) projects unlock state and federal funds for local investment.

The distribution of allocations this year—23% for New/Major Rehabilitations, 22% for Upgrades, 53% for Upkeep, 1% for planning and 2% for matching roadwork—maintains the relative balance of these project categories (See Figure 1). The balance will shift towards New/Major Renovation over the next couple of years as the Dudley Plan projects move into construction.

Capital Planning Process

Capital needs and resource availability are assessed annually through a capital planning process that results in a five-year capital plan. The first year of the spending plan is considered the City’s capital budget. Expenditures against this budget are closely monitored. To emphasize the balance between needs and resource availability, the budget document (in Volume II and III) includes both capital authorizations and expenditure projections for each project.

The annual capital planning process begins with a capital improvement project request schedule where all departments have an opportunity to identify their facility, equipment, infrastructure, and planning needs in a systematic manner and to forward their proposals to OBM for funding consideration. The development of department project requests may involve both internal assessments of current needs as well as a review of external constituent requests.

All capital improvement projects requesting funding consideration must meet at least one of the following minimum criteria:

- Complies with Americans with Disabilities Act;
- Improves health and safety;
- Supports economic development;
- Enhances general government effectiveness;
- Mitigates an environmental hazard;
- Responds to a legal, legislative or administrative mandate; or,
- Preserves existing municipal facilities.

A project request includes a cost estimate, a description of the proposed scope of work and a useful life statement.

The total cost of a proposed project must account for its short-term and long-term effect on the City's operating budget. Accordingly, project requests that OBM determines may impact the City's operating budget are subject to additional review to determine the anticipated effect on personnel, utilities, maintenance, and supply costs as well as expected changes in service demand or delivery of departmental programs. As a practical matter, it is assumed that certain types of projects such as energy conservation and energy efficiency projects (e.g. heating system upgrades or roof and window replacements) provide operating budget savings. OBM works with departments to measure these savings.

OBM reviews project proposals to determine the extent to which private purposes or benefits may exist, a process that allows the City of Boston to maintain its tax-exempt financing status.

New capital requests that are recommended for funding are placed into a multi-year spending plan along with projects previously authorized. The Mayor submits the capital plan to the City Council each year. The City Council, in turn, holds public hearings to consider project authorizations. This year's capital plan identifies 293 new and continuing projects and proposes \$168.8 million in new project authorizations.

Highlights of the FY12 – 16

Capital Plan

Investing in Youth and Families

Shelburne Community Center
 O'Bryant School of Math & Science Renovation
 Draper and Hunt/Almont Playground
 Redesign and Reinvest
 Ball Field and Court Renovations
 Schoolyard Initiative
 Youth and Human Services Technology Initiative
 Student Information System

Improving Neighborhoods

East Boston Library
 East Boston Stadium
 New Fire Apparatus and Fire Boat
 Strategic Bicycle Network
 NICE Program
 Expanded Street Tree Plantings
 Old Colony Housing Infrastructure
 Sidewalks and Pedestrian Ramps

Strengthening the Economy

New Dudley Square Municipal Building
 Area B-2 Police Station
 Computer Aided Dispatch
 Permit and Inspection System
 Energy Conservation Program
 Dorchester Avenue
 Centre Street / South Street
 Road Resurfacing and Reconstruction
 Boston Marine Industrial Park Improvements

Descriptions of all 293 projects can be found in Volumes II and III of the Budget. Project descriptions include authorizations and funding sources, projected expenditures, a scope of work summary and whether or not there is an operating budget impact.

The parks and facilities within the five-year capital plan are searchable by neighborhood, department or status and displayed in an interactive map (www.cityofboston.gov/maps). Projects that involve Citywide planning efforts or technology improvements are not shown on the map.

In the next years, OBM plans to increase its capacity to map other infrastructure projects such as street lighting and for analysis based on location. Adding geographic information provides an additional way of evaluating projects based on demographics, the relationship between projects, and a project's proximity to other programs or resources.

Financing the FY12-FY16 Capital Plan

The capital plan is financed with general obligation bonds, state and federal funds, trust funds, and other funds.

General Obligation (G.O.) Bonds

General obligation bonds represent 64.8% of all project funding. This year's plan assumes \$715 million in new general obligation borrowings over the next five years to support ongoing capital needs.

State and Federal Funds

Funds for capital financing are currently estimated at \$175.9 million from state programs and \$352.7 million from federal programs. Specific financing programs provide key resources for Boston's capital plan. Programs include the School Building Assistance program, Chapter 90 and the Transportation Improvement Program.

School Building Assistance Program: The School Building Assistance (SBA) program, administered by the Massachusetts School Building Authority (MSBA), is an important revenue source for school renovation and construction. Annually, the MSBA accepts new project requests from cities, towns and school districts and if a project is ultimately approved, the MSBA will pay 40% to 80% of the project's cost. Currently, the MSBA has authorized project feasibility studies for two schools, the Quincy Upper School and the Dearborn

School. The studies will determine whether these projects qualify for MSBA funding.

For the period FY12-16 total payments from the MSBA are estimated at \$42.7 million to offset debt service costs for projects previously approved by the MSBA.

Chapter 90 Funds: Administered by the Massachusetts Highway Department, Chapter 90 funds are allocated by formula through state bond authorizations and through the state budget to all cities and towns in the Commonwealth. The City uses Chapter 90 allocations to fund road resurfacing and reconstruction projects as well as sidewalk reconstruction projects. The City expects an allocation of approximately \$14 million in FY12.

Transportation Improvement Program (TIP): The Transportation Improvement Program is a statewide road and bridge construction advertisement program developed under the management of the Massachusetts Department of Transportation (MassDOT). It includes locally-owned roads and bridges as well as state-owned roads and bridges. The TIP's funding sources include state-issued general obligation bonds and federal funds made available through the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA LU).

American Recovery and Reinvestment Act of 2009 (ARRA): The City was awarded \$39 million in federal support through ARRA for roadway resurfacing, roadway reconstruction and traffic safety and management improvements. The projects are managed through MassDOT.

Trust Funds

The City's Treasury Department manages trust funds and bequests from private citizens dedicated to Boston's public spaces. Grants from the Edward Ingersoll Browne Trust Fund have been used for the restoration of neighborhood parks, schoolyards, and public spaces. The George Robert White Fund is used to support facilities owned by the Fund.

Other Funds

The City uses funds from the Street Opening Account to finance utility restoration projects. Private donors including the Schoolyard Funders Collaborative also provide funding support to certain for capital projects such as schoolyard improvements. These sources of capital financing are currently estimated at \$74.8 million.

Fiscal Year 2011 Expenditures

Total capital expenditures in FY11 are forecast at \$126.9 million.

Major Projects: The Brighton Branch Library reopened in December 2010, following a major renovation featuring improved accessibility and lighting and energy efficiency. The City is applying for a LEED (Leadership in Energy and Environmental Design) Silver designation by the U.S. Green Building Council.

Public Safety: The Police Department will begin operating out of the new Area B-2 Police Station in Dudley Square by mid-June. Construction on the facility, which is designed to LEED Silver standards, is nearly complete. The Fire Department signed a contract for the construction of a new fireboat.

Parks: The Parks Department was awarded four state grants totaling \$1.6 million for improvements at Cronin/Wainright Playground in Dorchester, and Howes Playground, Lavisount Park and Kittredge Square Park in Roxbury. In FY12 construction and renovation work will begin at all four parks. A major renovation of Statler Park in Back Bay was completed.

Technology: The Department of Innovation and Technology (DoIT) began implementing an enterprise-wide asset management system. This technology will enhance the ability of City departments to actively manage and monitor their fixed assets from the largest school buildings and City Hall right down to the street lights and traffic signals scattered throughout the City. The initial phase includes Public Works Street Lighting Division, the Boston Public Library and the Fire Department.

Schools: Extensive HVAC improvements were completed at English High in Jamaica Plain, access improvements and life safety improvements are underway at the Wheatley School in Roxbury. The design for a substantial exterior renovation at the Mattahunt School in Mattapan is complete. Construction will begin during the summer. There are several other roof and masonry projects either in construction or just out to bid including the Taylor School, the Condon School, and the Wilson School. Construction on six new schoolyards was completed in FY11. The ongoing partnership with the Boston Schoolyard Initiative successfully completed projects at the Mozart School in Roslindale, the Mather School in Dorchester, and the Perry School in South Boston. Outdoor classrooms were built at the Russell School in

Dorchester, the Mendell School in Roxbury and the Condon School in South Boston

Public Works: In FY11, the City reached the goal of installing 19 miles of bike lanes. The program will continue this summer with the addition of 15-20 miles of lanes.

Phase I of a two year project to retrofit 18,000 inefficient mercury vapor street lights began in December 2010. The existing lights are being replaced with energy efficient LED street lights.

Construction continued along Dorchester Avenue. Major intersection and traffic signal improvements will be completed this fall at four locations.

FY11 marked the second year of a multi-year project to replace the Chelsea Street Bridge in East Boston. The new Chelsea Street Bridge is scheduled for completion in January 2012.

Fiscal Year 2012 Expenditures

Total capital expenditures in FY12 are forecast at \$163 million. This estimate includes \$143 million for general obligation (G.O.) bond spending and \$20 million from various grants and other sources.

The Dudley Plan: Design will begin on a new \$115 million administrative office building in Dudley Square for the School Department and other youth-focused agencies. Programming studies will begin for 26 Court Street and 1010 Massachusetts Avenue.

Schools: Improvements to more than a dozen school buildings are necessary to accommodate additional students as a result of the School Department's closure plan. The Redesign and Reinvest effort will create new science labs for the Community Academy for Science and Health program which will be moved to the former Cleveland School building in Dorchester. Interior renovations to classrooms, libraries and bathrooms at the Umana School in East Boston and the Ohrenberger School in West Roxbury will be completed by September. Interior renovations are also scheduled at the Wilson School in Dorchester and at the Dorchester Education Complex.

At the O'Bryant School for Math & Science, a new entrance to the building will be completed. This project, as well as the previous addition and update of labs is the outcome of the accreditation renewal process. Phase II construction will begin this summer.

The Green Repair program, funded in part by the MSBA, will replace boilers at the Edison School in

Brighton and the Edwards School in Charlestown and replace roofs at the Irving School in Roslindale, the Edison School in Brighton, the Lee School in Dorchester and the South Boston Education Complex.

Round ten of the City's partnership with the Boston Schoolyard Initiative will include three new schoolyards and equipment maintenance at previous sites. New schoolyards will be built at the Edison in Brighton, at the Elihu Greenwood in Hyde Park and at the Young Achievers Pilot School in Mattapan.

Public Safety: The Fire Department's new fireboat will be delivered in late summer. Funding for the project is supported in part by a Department of Homeland Security Port Security grant.

The Fire Department will also take delivery of three pumper trucks. New emergency generators will be installed in phases at 17 fire stations. Design will begin for the installation of a new station alerting system funded in part through a public safety grant. Renovations will begin at the Police Department's training academy in Hyde Park as well as the Area C Police Station in Dorchester.

Community Assets: The renovation of the Shelburne Community Center in Roxbury will continue into FY12. Phase II of renovations at Curtis Hall Community Center will begin this summer including a new roof, masonry repairs, interior refurbishments, HVAC, electrical and plumbing upgrades. Design will begin at the Flaherty and Draper Pools in Roslindale and West Roxbury on general building renovations and improvements to "bring the outside in".

The design for a new branch library in East Boston will be completed this calendar year with construction possibly beginning next spring. A grant application that would fund a portion of the total project cost is pending with the Massachusetts Board of Library Commissioners.

The NICE (Neighborhood Improvements through Capital Expenditures) program invites community groups to work collaboratively with the City on small scale projects that improve their neighborhoods.

The final renovation phase of East Boston Stadium will be completed in FY12. This phase includes improved stadium egress, renovated locker rooms and concession spaces and the construction of a new maintenance building.

Playlot and landscape improvements will occur at Draper Playground in West Roxbury, Martin

Playground in Dorchester, Brewer Burroughs in Jamaica Plain, Cook Street in Charlestown, Laviscount in Roxbury, and Sumner and Lamson Playground in East Boston. The ball field at Barry Playground in Charlestown will also be renovated. Neighborhood park improvements are scheduled for Brighton Square and Childe Hassam and Ringgold in the South End. In addition, renovations to tennis, basketball and street hockey courts are scheduled in nine parks. Finally, the Parks Department will plant 700 street trees in support of the Boston Urban Forest Initiative.

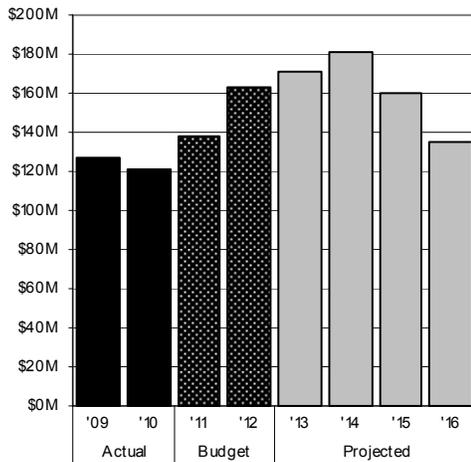
The City signed a Project Participation Agreement earlier this year with the Army Corps of Engineers (ACOE). The agreement clears the way for construction to begin on Phase I of the Muddy River flood control and restoration project. The project is a partnership between the City of Boston, the Army Corps of Engineers, the Town of Brookline and the Commonwealth of Massachusetts.

Technology: The Department of Innovation and Technology (DoIT) will continue with key public safety projects including the implementation phase of a new Computer Aided Dispatch system, preparing for FCC mandated narrowbanding of emergency communication radio channels, and updating public safety mobile communications. In FY12, DoIT will continue upgrading its core technology and greening program which includes data center consolidation, server virtualization, enterprise storage, and business interruption planning.

The BostONE Card program will expand to all high school students. This one card will serve as a school student ID, a Boston Public Library card, a BCYF community centers membership card and as a MBTA student pass.

A new Integrated Library System (ILS) will be procured in FY12. The upgrade will improve technology services in branch libraries, from public computing to circulation and self-check out. The new ILS will also support the Boston Public Library's web-based services such as digital book lending and other electronic resources available to the public 24-hours a day.

The School Department will begin the implementation of a new Student Information System (SIS) that will integrate currently independent administrative systems for school assignment, attendance, health records, and transportation and student performance, into one enterprise-wide application. The new SIS will also allow parents to view their child's school



Capital Expenditures
FY09- FY16

Figure 2

progress including homework assignments, MCAS score, grades and attendance.

Public Works: Reconstruction of the Old Colony Housing Roadways will begin this summer, kicking off a multi-phase project that leverages federal HOPE VI funds to improve the entire residential area.

The Public Works Department will continue a \$15 million multi-year program of pedestrian ramp upgrades and repairs. The annual street lighting improvement program will include piloting new technologies with both the electric and gas street lights.

MassDOT, with funding from ARRA, will finish resurfacing projects started in FY11. Approximately 20% of the original 21 miles of city roads, 450 pedestrian ramps and bicycle lanes remains to be done. These roadway improvements are in addition to the City's annual resurfacing program.

ARRA also supports finishing the construction of the Dorchester Avenue project. Four key intersections, Peabody Square, Fields Corner, Glover's Corner and Andrew Square will be reconstructed to improve pedestrian safety, facilitate traffic-flow and increase bicycle accommodation.

Design will start on three new salt sheds to be located in East Boston, Allston/Brighton and at the Central Maintenance Facility (CMF) on Frontage Road. In addition, substantial renovations are scheduled for the structured garage at the CMF as well as floor repairs in the heavy and light maintenance bays. A new

vehicle wash system will also be installed in one of the CMF buildings.

FY13-FY16 Planned Expenditures: Planned G.O. expenditures in FY13 will increase to \$155 million, \$166 million in FY14, \$145 million in FY15 and \$120 million in FY16. Future grant expenditures are estimated at approximately \$16 million in FY13 and approximately \$15 million annually between FY14 and FY16. Figure 2 displays total capital spending from all sources since FY09 and projected expenditures through FY16.

The City continues to aggressively pursue grant funds, maximize the use of Chapter 90 funds for road and sidewalk projects, and actively manage its projects to ensure that spending does not exceed projections and that priority projects move forward. Together, these strategies will enable the City to maintain a reasonable level of capital spending and borrowing and prudently manage its outstanding debt.

Operating Budget Impacts

Quantifying operating budget impacts related to proposed capital investments is essential to the capital budgeting process. OBM evaluates proposed projects in part based on how they impact the City's operating budget (personnel, contracted services, equipment and utilities). Increased costs are often justified through improved or expanded service delivery, or are unavoidable due to legal mandates or regulatory requirements.

The Office of Budget Management has augmented the individual capital project summaries to include a statement on whether or not there is an operating impact associated with the project.

The projects which are identified as having near-term operating impacts are summarized in Figure 3. While many projects may be assumed to have a marginal impact on energy savings or personnel demands, only those projects which will likely result in an increase or decrease in a budget appropriation are included here. Increases or decreases are further categorized by the budget line in which they would occur: personnel, contracted services, or utilities.

Savings: The capital plan supports investments that will decrease operating expenses by reducing costs associated with emergency repairs, maintenance of old systems and energy inefficiency. A substantial portion of the capital plan is focused on these types of basic

facility improvements. The City has committed to designing new buildings and selected major renovations to attain U.S. Green Building LEED certification. Applications for LEED Silver designation were submitted for the Brighton Branch Library and for the new police station in Dudley Square. In addition to reducing building waste and improving indoor air quality, these projects will reduce utility costs through energy efficient systems.

In the area of renewable energy, design and permitting will continue on a wind turbine for Moon Island in Boston Harbor. A wind study and subsequent financial analysis indicate that a 1.65 mW turbine would generate substantial revenue while promoting renewable energy. The capital plan includes \$3.7 million for this project's implementation. The City has submitted an application for a grant from the Massachusetts Consumer's Alliance to help fund a portion of the total cost.

In 2007, Boston became one of thirteen inaugural Solar City Partners with the U.S. Department of Energy (DOE) under the Solar America Initiative. This program funded a preliminary feasibility analysis of a solar installation at the City's Archives and Records Management Center in West Roxbury. The study indicates that this building is an excellent site for installing a large solar array. The City will use ARRA funds and rebates from the state's Commonwealth Solar initiative to acquire a 150kW system. Over a 25-year lifetime, a system of this size could be expected to produce 4,665 megawatt hours of electricity.

In FY11, ARRA funds and existing capital dollars were

leveraged in a rebate program with NStar to begin replacing mercury vapor street lights with LED street lights. This program will continue through FY12. Utility cost savings of approximately \$1.7 million are expected in FY12.

The School Department is aggressively pursuing capital projects to save energy and reduce operating costs. These projects include ongoing efforts to update energy management systems, replace windows, upgrade HVAC systems and install green roofs and rooftop solar panels.

The capital plan includes window replacement projects at a number of schools. Due to recent changes in the Massachusetts State Building Code, these window projects will improve insulation and provide future energy savings.

LED lighting fixtures were installed in classrooms at Boston Latin Academy in FY11. The change in energy usage will be monitored through the School Department's central energy management system.

The City also looks to technology improvements and enhancements to reduce costs and improve efficiency. In FY09, DoIT began eliminating leased lines used for data communications as it lights up a City-owned fiber optic cable system. Ongoing savings are estimated at \$1.2 million to \$1.5 million now that the project is completed.

The Core Technology Infrastructure project provides for the creation of virtual servers, enterprise storage and improved network reliability. In conjunction with the fiber optic project, this capital investment will allow the City to consolidate data centers currently located in various buildings. Consolidation and virtual

Department	Project	Personnel	Contracted			Comment
			Services	Utilities		
Fire Department	Fire Boat	--	--	▼		Maintenance Savings
Innovation and Technology	Core Technology Infrastructure	--	▼	▼		Maintenance and Energy Savings
Innovation and Technology	CRM/WOM and Call Center Technology	▼	--	--		Staff Reduction
Innovation and Technology	Fiber Optic Network (project completed)	--	--	▼		Utility Reduction
Environment	Energy Conservation Program	--	--	▼		Energy Savings
Environment	Wind Turbine at Moon Island	--	--	▼		Energy Savings
Library	Brighton Branch Library (project completed)	--	--	▼		Energy Savings
Library	East Boston Branch Library	--	--	▼		Energy Savings
Library	HVAC Replacement at 3 Branch Libraries	--	--	▼		Energy Savings
Library	Johnson Building Energy Improvements	--	--	▼		Energy Savings
Library	Johnson Building Piping Infrastructure	--	▼	▼		Energy Savings, Utility Reduction
Neighborhood Development	Strand Theatre	--	▼	--		Eliminate Rentals
Police Department	Area B-2 Station	▲	--	▲		Staff, Energy Increase
Property and Construction Management	1010 Massachusetts Ave.	--	--	▲		Mechanical Increase
Property and Construction Management	City Hall Energy Efficiency	--	--	▼		Energy Savings
Public Works	Central Maintenance Facility Vehicle Wash	--	--	▼		Utility Reduction
Public Works	Street Light LED Conversion	--	--	▼		Energy Savings
School	HVAC at Charlestown High School	--	--	▼		Energy Savings
School	HVAC at English High School (project completed)	--	--	▼		Energy Savings
School	Lighting Improvements at Boston Latin Academy	--	--	▼		Energy Savings

Figure 3
Operating Impacts

servers will reduce the amount of hardware needed, as well as the space and energy needed to maintain the remote locations.

Debt Management Policies and Debt Implications of the Plan

Effective debt management ensures that the City can meet its capital infrastructure and facility needs. Debt management requires a series of decisions about the amount, timing, purposes and structure of debt issuance. Long-term debt related to capital investment has two main purposes:

- (1) It finances acquisition, construction, repair, and renovation of City-owned buildings and equipment that are necessary to provide public services; and
- (2) It finances infrastructure improvements to ensure the City's continued growth and safe roadway conditions.

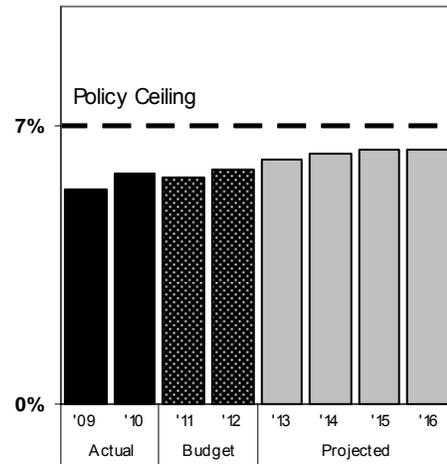
The Treasury Department manages all borrowings according to the City's debt management policies. These policies address issues such as debt affordability and limitations on the level of variable rate debt the City will use. The City's goal is to rapidly repay debt, maintain a conservative level of outstanding debt, and ensure the City's continued positive financial standing with the bond market.

Key components of the debt management policies ensure that:

- combined net direct debt does not exceed 3% of taxable assessed value;
- at least 40% of the overall debt is repaid within five years and 70% within ten years;
- annual gross debt service costs do not exceed 7% of general fund expenditures;
- variable rate debt does not exceed 20% of the City's total currently outstanding bonded debt (the City has no variable debt).

For further discussion of the City's financial policies and management controls, refer to the chapter on Financial Management.

The City's debt service forecast assumes general obligation borrowing of \$160 million in FY12, \$175 million in FY13, \$140 million in FY14 and \$120 each year in FY15 and FY16. On April 1, 2011, the City issued \$127.8 million in general obligation bonds and



Gross Debt Service as a Percent of Total General Fund Expenditures
FY09 - FY16

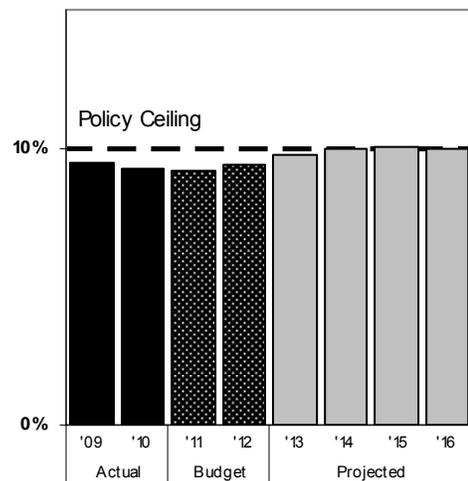
Figure 4

\$52.7 million in general obligation refunding bonds. The debt tables at the end of this chapter detail the City's outstanding debt service obligations and demonstrate the City's rapid retirement of its debt.

The City's gross debt service requirement will remain under 7% of total General Fund expenditures through FY16 (See Figure 4).

The ratio of debt service to the City's primary revenue source, the property tax levy, declined significantly in the early part of this decade. This ratio is projected to increase through FY16 (See Figure 5).

The City's current overall debt burden (net direct debt



Gross Debt Service as a Percent of the Net Property Tax Levy
FY09 - FY16

Figure 5

to assessed property value of \$86.80 billion) is approximately 1.11% as of April 1, 2011. The City's net direct debt per capita currently stands at approximately \$1,489.15 as of April 1, 2011.

Boston has been conservative about assuming long-term debt and aggressive about retiring debt expeditiously. As of April 1, 2011, the City's debt retirement schedule shows that 42.0% of its principal will be retired five years out, before the end of FY16 (See the Debt Retirement table at the end of this chapter).

In March 2011, Moody's Investors Service and Standard & Poor's Rating Services affirmed Boston's credit rating at Aaa and AA+, respectively. A bond rating is a statement of credit quality and is analyzed when determining the interest rate that should be paid for a municipality's bonds. A higher bond rating translates into lower interest rates and real dollar savings for the City.

Capital Project Financing

Fiscal Years 2012 - 2016

	Existing Authorization	FY12 Authorization	FY13-16 Authorization	State	Federal	Other	Trust	Total
Boston Center for Youth and Families	23,710,669	4,745,000	14,669,546	0	0	0	0	\$43,125,215
Boston Redevelopment Authority	2,940,000	0	0	2,513,500	0	0	0	\$5,453,500
Department of Innovation and Technology	56,287,925	10,600,000	3,515,000	0	0	0	0	\$70,402,925
Environment Department	5,417,000	0	500,000	50,000	0	800,000	0	\$6,767,000
Fire Department	25,296,019	5,860,000	33,675,000	1,945,000	2,000,920	0	0	\$68,776,939
Library Department	17,937,462	16,575,000	37,765,000	7,295,000	0	2,188,026	0	\$81,760,488
Neighborhood Development	16,625,600	1,275,000	0	234,000	0	0	0	\$18,134,600
Parks and Recreation Department	48,973,320	15,175,000	16,913,000	22,709,250	61,400,000	3,721,457	275,000	\$169,167,027
Police Department	32,735,000	790,000	0	0	0	0	0	\$33,525,000
Property and Construction Management Department	33,110,420	41,375,000	124,210,000	0	0	0	0	\$198,695,420
Public Health Commission	7,228,000	2,375,000	1,250,000	0	0	0	0	\$10,853,000
Public Works Department	143,175,678	29,875,000	71,170,000	123,823,099	278,864,000	54,596,050	0	\$701,503,827
School Department	89,715,941	36,000,000	104,939,811	0	0	13,452,000	0	\$244,107,752
Transportation Department	22,569,698	4,140,000	12,140,000	17,320,000	10,480,000	50,000	0	\$66,699,698
Total	525,722,732	168,785,000	420,747,357	175,889,849	352,744,920	74,807,533	275,000	1,718,972,391

City of Boston
Outstanding Principal by Statute as of April 1, 2011

Statute:		Outstanding @ April 1, 2011	Percent of Total Outstanding Debt
<u>General Purpose:</u>			
C44 s7 (13)	Acquisition of Fire or Police Boats	172,289	0.017
C44 s7 (20)	Acquisition of Land; Cemeteries	230,166	0.022
C44 s7 (21)	Architectural Services for Plans and Specifications	9,824	0.001
C44 s7 (22)	Engineering or Architectural Services	3,649,304	0.353
C44 s7 (25)	Acquisition of Land; Parks and Playgrounds	67,411,622	6.527
C44 s7 (28)	Computer Hardware	26,277,844	2.544
C44 s7 (29)	Computer Software	12,756,517	1.235
C44 s7 (9)	Departmental Equipment	17,338,102	1.679
C44 s7 (9A)	Firefighting Apparatus - Remodeling, Re-Constr.	44,552	0.004
C44 s7 (3B)	Energy Conserv., Alternative Energy Improvements	1,767,182	0.171
C659 Acts 1986	BCH - Constr., Equipping, Furnishing	0	0.000
		\$ 129,657,405	12.553
<u>Urban Development:</u>			
C121B s20	Urban Redevelopment and Renewal	\$ 13,196,262	1.278
C1097 s11 Acts 1971	Economic Development and Industrial Corp.	1,720,676	0.167
		\$ 14,916,938	1.444
<u>Schools:</u>			
C645 s8 Acts 1948	School Project Loan	\$ 38,995,034	3.775
C642 s7 Acts 1966	Capital Improvements; Act of 1966	0	0.000
C642 s7A Acts 1973	Capital Improvements; Act of 1973	0	0.000
C642 s7B Acts 1991	Capital Improvements; Act of 1991	8,511,340	0.824
C642 s7C Acts 1996	Capital Improvements; Act of 1996	20,635,438	1.998
		\$ 68,141,812	6.597
<u>Public Buildings:</u>			
C44 s7 (3)	Construction of Buildings; Acquisition Of Land	\$ 120,568,592	11.673
C44 s7 (3A)	Remodeling and Extraordinary Repairs	449,708,823	43.540
C152, Act '97	Convention Center Refunding Bond	38,295,000	3.708
C642 s7 Acts 1966	Capital Improvements; Act of 1966	23,553	0.002
C642 s7A Acts 1973	Capital Improvements; Act of 1973	4,216,106	0.408
C642 s7B Acts 1991	Capital Improvements; Act of 1991	25,023,951	2.423
C642 s7C Acts 1996	Capital Improvements; Act of 1996	26,461,732	2.562
		\$ 664,297,757	64.317
<u>Public Works:</u>			
C44 s7 (1)	Construct/Re-Construct of Surface Drains, Sewers, et	\$ 2,057,247	0.199
C44 s7 (4)	Construction and/or Re-Construction of Bridges	45,017,071	4.359
C44 s7 (5)	Construction of Public Ways	51,901,516	5.025
C44 s7 (6)	Construction of Sidewalks	9,113,616	0.882
C44 s7 (7)	Construction of Walls or Dikes	18,301	0.002
C44 s7 (14)	Traffic Signal and Public Lighting Install., etc.	34,731,393	3.363
C44 s8 (4)	Reservoir Constr/Enlrg; Water Trmt Bldgs	1,016,157	0.098
C44 s8 (5)	Water Mains Laying, Re-Laying, Construct.	3,325,986	0.322
C44 s8 (7A)	Water Meter Purchase & Installation	161,857	0.016
C44 s8 (7C)	Water Dept. Equip.; Purchase, Replace., Rehab.	1,200,482	0.116
C44 s8 (24) C29C	Landfill; Closing, Opening, Improve. to (MWPAT)	7,298,830	0.707
		\$ 155,842,456	15.088
	Grand Total =	\$ 1,032,856,367	100.00 %

CITY of BOSTON
BOND - GROSS DEBT SERVICE PAYMENTS

@ April 1, 2011

- Stated in Five Year Intervals -
(\$ in thousands)

DATE OF ISSUE	TYPE	AMOUNT ISSUED	@ 4/ 1/11		FY'17 through FY'21		FY'22 through FY'26		FY'27 through FY'31		@ 4/ 1/11	
			FY'11 through FY'16	FY'17 through FY'21	FY'22 through FY'26	FY'27 through FY'31	FY'11 through FY'16	FY'17 through FY'21	FY'22 through FY'26	FY'27 through FY'31	Principal	Interest
April 1, 2011	GO	86,190	32,610	24,220	15,020	14,340	1,835	\$86,190	\$32,586			
April 1, 2011	QSCB	41,620	0	5,000	36,620	0	0	\$41,620	\$22,708			
April 1, 2011	REF	14,425	14,425	0	0	0	0	\$14,425	\$1,713			
April 1, 2011	Conv Ctr Ref	38,295	9,235	11,600	14,285	3,175	127	\$38,295	\$14,517			
April 1, 2010	QSCB	17,415	0	4,423	17,415	0	0	\$17,415	\$11,541			
April 1, 2010	Ref	68,345	18,560	40,805	6,202	8,740	382	\$68,105	\$18,640			
April 1, 2010	RZEDB	16,685	2,200	9,845	2,200	2,985	838	\$16,685	\$6,698			
April 1, 2010	BAB	30,905	0	2,900	7,505	5,464	1,688	\$30,905	\$22,162			
April 1, 2010	GO	39,995	23,750	10,070	1,414	720	42	\$34,990	\$6,880			
November 4, 2009	QSCB	20,000	7,637	7,273	0	4,727	0	\$19,637	\$0			
May 27, 2009	REF	31,485	23,745	6,995	487	0	0	\$30,740	\$4,351			
March 18, 2009	GO	100,000	28,995	24,260	11,074	21,350	5,867	\$88,220	\$35,757			
March 18, 2009	REF	8,940	25	8,905	867	0	0	\$8,930	\$2,564			
March 20, 2008	GO	126,185	33,685	29,440	14,866	29,410	7,733	\$105,735	\$46,444			
March 20, 2008	REF	28,155	16,585	0	0	0	0	\$16,585	\$1,294			
March 22, 2007	GO	100,000	27,860	13,895	8,100	13,060	2,833	\$59,505	\$26,128			
March 22, 2007	REF	85,425	8,740	57,060	6,042	18,270	444	\$84,070	\$19,535			
January 31, 2006	GO	80,000	20,550	6,260	3,386	12,625	1,575	\$39,435	\$6,357			
February 1, 2005	REF	52,775	35,020	6,180	177	0	0	\$38,265	\$12,056			
February 1, 2005	GO	75,000	19,875	11,645	3,738	10,640	1,064	\$42,160	\$12,118			
April 1, 2004	REF	42,330	3,345	0	0	0	0	\$3,345	\$84			
February 1, 2004	REF	35,870	8,050	0	0	0	0	\$8,050	\$1,013			
February 1, 2004	GO	65,000	16,890	14,140	3,268	7,710	646	\$38,740	\$10,653			
February 1, 2003	REF	28,515	10,580	0	0	0	0	\$10,580	\$1,078			
February 1, 2003	GO	25,000	3,900	0	0	0	0	\$3,900	\$390			
February 1, 2003	GO	33,500	4,310	0	0	0	0	\$4,310	\$446			
February 1, 2003	GO	75,000	11,590	0	0	0	0	\$11,590	\$1,124			
August 15, 2002	REF	48,640	27,165	15,715	1,736	0	0	\$42,880	\$8,206			
February 1, 2002	GO	100,000	10,145	0	0	0	0	\$10,145	\$615			
April 1, 2001	REF	52,025	5,835	0	0	0	0	\$5,835	\$146			
February 1, 2001	GO	120,000	4,655	0	0	0	0	\$4,655	\$205			
February 1, 2001	MW/PAT	13,389	3,615	3,300	335	0	0	\$6,915	\$1,674			
			\$433,577	\$306,573	\$228,942	\$63,765		\$1,032,857	\$63,364			
			\$182,839	\$98,910	\$41,610			\$329,723	\$70,129			
			\$618,416	\$405,483	\$270,552			\$1,362,580				

@ 4/1/11:

% of Total Principal and Interest Retired in 5 Years: **42.0%**

55.5%

% of Total Principal and Interest Retired in 10 Years: **71.7%**

85.5%

% of Total Principal and Interest Retired in 15 Years: **93.8%**

98.1%

% of Total Principal and Interest Retired in 20 Years: **100.0%**

100.0%

CAPITAL FUND - DEBT SERVICE REQUIREMENTS - FISCAL YEARS 2010 through 2016

	Actual FY10	Projected FY11	Projected FY12	Projected FY13	Projected FY14	Projected FY15	Projected FY16
Gross Debt Service Requirements - Bonded Debt:							
Total Principal:	91,783,669.00	93,077,272.72	98,719,545.44	106,269,545.44	112,289,545.44	118,014,454.44	123,119,545.44
Total Interest:	41,298,634.40	44,434,163.92	48,434,798.31	52,454,313.81	56,049,356.91	58,406,818.21	59,796,509.15
(1) Total:	133,082,303.40	137,511,436.64	146,974,343.75	158,723,859.25	168,338,902.35	176,421,272.65	182,916,054.59
Less: Revenue Deemed Available from Related Sources:							
Boston Medical Center	735,912.49	721,834.22	742,397.75	703,414.19	375,290.96	350,764.54	327,963.38
Boston Public Health Commission	673,202.78	670,790.36	661,374.13	527,203.26	211,477.71	182,393.13	0.00
Water and Sewer Payments	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Premium and Subsidies	3,896,932.06	3,784,994.07	3,970,716.67	10,716,621.03	9,321,801.53	6,323,379.97	6,303,028.43
Accrued Interest	0.00	0.00	100,000.00	100,000.00	100,000.00	100,000.00	100,000.00
(2) Irrigation Project	246,810.26	239,661.59	231,495.12	223,246.26	214,914.96	206,501.24	199,022.83
(3) 1010 Massachusetts Avenue Project	1,754,534.00	1,753,636.00	1,809,579.00	1,872,838.00	1,919,708.00	2,285,656.00	2,265,029.00
(4) Pension Management System	1,432,246.80	1,432,246.80	2,628,349.53	2,628,160.13	1,196,161.27	1,196,471.22	1,195,920.21
(5) Room Occupancy Excise Fund	0.00	0.00	3,300,375.00	3,298,625.00	3,300,375.00	3,302,175.00	3,301,925.00
Plus: Interest on Temporary Loan Notes and Additional Items:							
Revenue Anticipation	0.00	2,112,150.00	3,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00	3,000,000.00
Cost of Issuance	648,273.27	750,000.00	500,000.00	500,000.00	500,000.00	500,000.00	500,000.00
Dudley Sq. Site / Sec. 108	505,000.00	505,000.00	505,000.00	505,000.00	505,000.00	505,000.00	505,000.00
School B.A.N.'s	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Debt Service/Budget Summary:	125,495,938.28	132,275,423.60	137,535,056.55	142,658,751.38	155,704,172.92	166,478,931.55	173,228,165.74
Additional Adjustments:							
Less:							
School Construction Assistance	12,956,404.00	11,157,748.00	9,847,753.00	8,833,043.00	8,474,584.00	8,175,513.00	7,344,337.00
(6) Room Occupancy Excise Fund	8,270,862.50	2,273,831.25	0.00	0.00	0.00	0.00	0.00
Plus:							
(6) Convention Center Special Obligation Bonds	8,270,862.50	2,273,831.25	0.00	0.00	0.00	0.00	0.00
Total Net Debt Service Requirements:	112,539,534.28	121,117,675.60	127,687,303.55	133,825,708.38	147,229,588.92	158,303,418.55	165,883,828.74

NOTES:

- FY11 - On April 1, 2011 the City issued:
 \$86,190 million in General Obligation Bonds with a 20-year maturity and an average interest rate of 4.27 %.
 \$38,295 million in Convention Center Refunding Bonds with a 16-year maturity and an average interest rate of 4.14 %.
 \$41,620 million in Qualified School Construction Bonds with a 15-year maturity and an average interest rate of 2.77 %.
 \$14,425 million in General Obligation Refunding Bonds with a 5-year maturity and an average interest rate of 3.00 %.

Assumptions:
 FY12 - Assumes General Obligation debt issuance of \$120 million, plus \$40 million General Obligation Debt Issuance for the Dudley Project, each with a 20 year maturity and an average interest rate of 5.0 %.
 FY13 - Assumes General Obligation debt issuance of \$120 million, plus \$55 million General Obligation Debt Issuance for the Dudley Project, each with a 20 year maturity and an average interest rate of 5.0 %.
 FY14 - Assumes General Obligation debt issuance of \$120 million, plus \$20 million General Obligation Debt Issuance for the Dudley Project, each with a 20 year maturity and an average interest rate of 6.0 %.
 FY15 through FY16 - Assumes General Obligation debt issuance of \$120 million per year, each with a 20 year maturity and an average interest rate of 6.0 %.
- Debt Service Costs will be offset by the "Fund for Parks and Recreation".
- Debt Service Costs will be offset by charging City departments for the space they occupy.
- Debt Service Costs will be offset by semi-annual payments from the Retirement Board.
- On April 1, 2011, the City refunded the remaining balance of the April 15, 2002 Special Obligation Bonds for the Convention Center -- See footnote (1).
 Pledged revenues will be dedicated to the repayment of the debt service.
- On April 15, 2002, the City issued \$116.9 million in Special Obligation Bonds for the Convention Center with a 25 year maturity and an average interest rate of 4.83 %.
 Pledged revenues were dedicated to the repayment of the debt service.

CITY of BOSTON RATE of PRINCIPAL RETIREMENT on GENERAL OBLIGATION BONDS:

Fiscal Years Ending June 30, 2011 - 2031

@ April 1, 2011

<u>Fiscal Year Ended June 30,</u> @ 4/1/11	<u>Amount</u>	<u>Percentage of</u> <u>Total Principal</u> <u>Amount Retired:</u>
2011 - 2016	\$ 433,576,367.13	41.98 %
2017 - 2021	306,572,727.20	29.68 %
2022 - 2026	228,942,272.88	22.17 %
2027 - 2031	63,765,000.00	6.18 %
	<u>\$ 1,032,856,367.21</u>	<u>100.00 %</u>

