

INFRASTRUCTURE CAPITAL REQUESTS

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF										
Project Title		Brook and Culvert Repair and Maintenance					Fiscal Year		2008 2012	
Requestor		Department of Public Works - Drains								
Primary User		Town	X	School		Classification			Infrastruc ture	
Location		Various								
Funding		General Fund					CPA Eligible?		No	
Type		Acquisition		New Construction/Addition			Reconstruction/Renovation		X	
New Technology		Corrects a Public Health or Safety Problem			Federal or State Mandated Project			X		
Project Description and Justification										
<p>The severe storms of October 1996, June 1998 and 2006 have resulted in numerous complaints and subsequent investigations of the Town's brooks, streams and culverts. The conditions observed were significant. The DPW has developed a repair and maintenance program which is a combination of contracted work and use of town forces. It is the intention of the DPW to expend Capital Funds to address the issue of flooded and poor draining brooks, streams, waterways and culverts throughout the Town that have been severely neglected for many years. Lack of routine maintenance has caused the failure of retaining walls, loss of soils behind the walls, and brooks have become silted allowing the overgrowth of vegetation that has an impact on the level of the water flows. This neglect has resulted in the loss of useable abutting property and flooded basements. The current conditions are beyond the means of DPW equipment and personnel. It will require a detailed investigation, a plan of recommended improvements, a design drawing and specifications, environmental permitting and bidding of construction to be overseen by the Town's Engineering Division. This will return the waterways to a condition that the DPW will be able to maintain. FY06 funding for this program included cleaning of Hurd Brook and culverts, from Central Avenue to the Wellesley Line and a portion of Alder Brook. FY07, No Funding was appropriated. FY08 funding would complete Alder Brook</p>										
Estimated Useful Life		10 years			Estimated Capital Cost			500,000		
Project Manager		Engineering Division								
Project Timeline				Timing Considerations						
Total Project Duration		9 months								
Preliminary Work		2 months								
Engineering and Design Work		2 months								
Preconstruction Work		-								
Construction Work		5 months								
Estimated Project Completion Date		03/08								
Next Phase (if applicable)										
Project Budget Request										
Project Element		FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total			
Pre-design										
A, D, & E										
Site Costs										
Construction		100,000	100,000	100,000	100,000	100,000	500,000			
Other										
Equipment										
Contingency										
Total		100,000	100,000	100,000	100,000	100,000	500,000			
Method to Determine Estimated Capital Cost										
Prior Bids		Industry References		Consultant		UOM (Specify)		Other	X	
<p>Due to the varied nature of the necessary work from brook to brook, and sometimes from section to section, the cost varies. As much work as possible is undertaken with the funding provided. The annual amount requested is 100,000.</p>										
Operational and Maintenance Considerations										
Are there any operational costs to be incurred that are no currently provided for within the affected department budgets? (If so explain)						YES		NO	X	
Will additional staff be required?						YES		NO	X	
Permanent						YES		NO	X	
Temporary						YES		NO	X	

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Town of Needham Capital Project Request CIP-BIF					
Project Title	Brook and Culvert Repair and Maintenance	Fiscal Year		2008 2012	
Can existing staff operate and/or maintain the facility?		YES	X	NO	
Will additional services/supplies be required to operate the facility?		YES		NO	X
Will additional equipment or other capital investment be required?		YES		NO	X
Will this project correct a public health or safety hazard?		YES	X	NO	
Is this project required to comply with a Federal or State mandate order?		YES	X	NO	
Will Town revenues be negatively impacted if the project is not done?		YES		NO	X
Will the investment generate additional revenue for the Town?		YES		NO	X

Town of Needham
Capital Improvement Plan

Town of Needham Future Project Request Summary CIP-F							
Project Title	Storm Drain Discharge Improvements – Water Quality				Fiscal Year	2009 - 2012	
Department	Department of Public Works				Division	Water & Sewer	
Primary User	Town	X	School		Classification	Infrastructure	
Location	Various				Estimated Capital Cost	150,000	
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?	No
					X		
Project Purpose and Highlights							
<p>In 1995 the DPW was under order from the EPA to embark on a Stormwater discharge investigation for all illicit discharges to the Charles River. Illicit Discharges identified in this investigation were pursued and improvements undertaken to eliminate them in 1996 and 1997. This investigation led to the Town entering into a Memorandum of Understanding (MOU) with the EPA to commence a Town-wide investigation and to the development of a Stormwater Master Plan. This Master Plan was completed in 2002. Incorporated into this Stormwater Master Plan are improvements to the Storm Drainage System to upgrade the quality of the water discharged to the Charles River in Needham. Further investigation and sampling continues year to year. When the EPA Stormwater Discharge Permit took effect, there were a number of projects identified to better manage Stormwater quality. The first projects that have been identified include:</p> <p>FY09 - Rosemary Glen (Perry Gorge) Engineering, Design, Permitting / Construction 40,000 FY10 - DPW Facility SWMP , Engineering / Design / Permitting 25,000 FY11 - DPW Facility SWMP, Construction 50,000 FY12 – Water Shed Management Plan 35,000</p>							
Project Manager	Richard Merson / Robert Lewis						

Town of Needham Future Project Request Summary CIP-F							
Project Title	Storm Water Master Plan Drainage Improvements (Capacity)				Fiscal Year	2009 - 2011	
Department	Department of Public Works				Division	Water & Sewer	
Primary User	Town	X	School		Classification	Infrastructure	
Location	Various				Estimated Capital Cost	See Below	
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?	
					X		
Project Purpose and Highlights							
<p>The March 2002 Storm Water Master Plan, identified a number of areas throughout the Town where improvements are required to resolve flooding problems and illicit discharges. Locations for improvements have been prioritized within the Plan. Drainage improvements to Bradford Street and Carey Road were determined to be most critical. The funding request also includes installation of additional storm drains between Lantern Lane and Gayland Road and to replace, increase capacity and extend storm drains on Manning St, Hoover Rd and Concord Rd & Burnside Rd. Since the issuance of this report numerous multi-unit developments have been built or planned in the Town of Needham. These developments incorporate new roads with drainage structures and roof or sump connections which are then connected to the existing town owned system. These new connections have increased the load on the current system and causes flooding in some areas.</p> <p>FY 2009 Bradford Street (Eng.) - Lantern Lane & Gayland Road 30,000</p> <p>FY 2010 Taylor Street/Central Ave (Eng), Carey Road (Eng.); 30,000 Bradford Street (Construction) 225,000,</p> <p>FY 2011 Carey Road (Construction); 150,000 Taylor Street/Central Ave -Construction & Engineering – 450,000</p>							
Project Manager	Richard Merson / Robert Lewis						

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF										
Project Title		Needham Center/ Chestnut Street Streetscape & Pedestrian Facility Improvements					Fiscal Year		2008 - 2012	
Requestor		Department of Public Works								
Primary User		Town	<input checked="" type="checkbox"/>	School	<input type="checkbox"/>	Classification		Infrastructure		
Location		Needham Center /Chestnut Street								
Funding		General Fund					CPA Eligible?		<input type="checkbox"/>	
Type		Acquisition	<input type="checkbox"/>	New Construction/Addition	<input type="checkbox"/>	Reconstruction/Renovation		<input checked="" type="checkbox"/>		
New Technology		<input type="checkbox"/> Corrects a Public Health or Safety Problem			<input type="checkbox"/> Federal or State Mandated Project					
Project Description and Justification										
<p>In 1995 the Needham Design Guidelines Partnership consisting of members of the Planning Board, the Design Review Board and the Needham Business Association secured funding from public and private sources to produce a report entitled "Town of Needham Design Guidelines for the Business Districts". Utilizing a consultant, this group held several meetings including workshops where both public and private participants could provide input to develop this guideline. This guideline is offered to private developers to encourage them to incorporate these treatment recommendations as their properties undergo improvements. Several of these recommendations have been incorporated into the recent reconstruction of the Great Plain Ave near Pickering St. and the Highland Ave/Chapel St. /May St. intersection and the reconstruction of Chapel St. and the Chestnut St. Parking Lots. This has allowed property owners to enhance their rear entrances or improve their entrance areas such as on Chapel St, as prescribed in the guidelines. There is a separate section devoted to public improvements. These improvements include recommendations for improved streetscape character involving the use of pedestrian-scale light fixtures, landscaping, including additional trees and plantings, and other public amenities such as benches, trash receptacles and bicycle racks. More significantly, it recommends more public accessibility. These are accomplished with wider sidewalks, additional crosswalks and safer crossing at intersections. This work is proposed to be undertaken in 3 stages. First the development of conceptual plans in order to determine the desired outcome followed by the engineering / designs then the construction. Funding for the construction could be sought from the State under a special program, however, funds for these are not in large amounts and competition is heavy.</p>										
Estimated Useful Life		20 Years			Estimated Capital Cost			Amount Not Yet Known		
Project Manager		Engineering Division								
Project Timeline				Timing Considerations						
Total Project Duration		18 months								
Preliminary Work		-								
Engineering and Design Work		18 months								
Preconstruction Work		-								
Construction Work		-								
Estimated Project Completion Date		12/08								
Next Phase (if applicable)		-								
Project Budget Request										
Project Element		FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total			
Pre-design										
A, D, & E		125,000								
Site Costs										
Construction										
Other (explain)										
Equipment										
Contingency										
Total		125,000	Amount Not Yet Known	Amount Not Yet Known	Amount Not Yet Known	Amount Not Yet Known	Amount Not Yet Known			
Method to Determine Estimated Capital Cost										
Prior Bids	<input type="checkbox"/>	Industry References	<input type="checkbox"/>	Consultant	<input type="checkbox"/>	UOM (Specify)	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	
In-house estimate										
Other Considerations										

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Town of Needham Capital Project Request CIP-BIF				
Project Title	Needham Center/ Chestnut Street Streetscape & Pedestrian Facility Improvements	Fiscal Year	2008 - 2012	
<p>The potential of receiving State and/or Federal Public Works Economic Development (PWED) funding or Enhancement funding is not likely without the downtown design study and, possibly, a fully engineered design.</p>				
Operational and Maintenance Considerations				
Are there any operational costs to be incurred that are not currently provided for within the affected department budgets? (If so explain)	YES	X	NO	
Will additional staff be required?	YES		NO	X
Permanent	YES		NO	X
Temporary	YES		NO	X
Can existing staff operate and/or maintain the facility?	YES	X	NO	
Will additional services/supplies be required to operate the facility?	YES	X	NO	
Will additional equipment or other capital investment be required?	YES	X	NO	
Will this project correct a public health or safety hazard?	YES		NO	X
Is this project required to comply with a Federal or State mandate order?	YES		NO	X
Will Town revenues be negatively impacted if the project is not done?	YES		NO	X
Will the investment generate additional revenue for the Town?	YES		NO	X
Budgetary Considerations				
<p>The plantings and landscaping will likely require some maintenance depending upon what is selected in the final plan. Additional trash receptacles will require greater collection response. Greater snow removal effort on widened sidewalks may also result.</p>				

Town of Needham
Capital Improvement Plan

Town of Needham Future Project Request Summary CIP-F							
Project Title	Mark Lee Road Parking Lot				Fiscal Year	2009	
Department	Department of Public Works				Division	Engineering	
Primary User	Town	X	School		Classification	Infrastructure	
Location	Mark Lee Road				Estimated Capital Cost	215,000	
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?	NO
	X						
Project Purpose and Highlights							
<p>This is the third part of a three part program to reconstruct or repave the Municipal Parking Lots in the Downtown Business District. The Chapel and Eaton Square Lots were completed in the 1997 construction season. The Chestnut Street and Lincoln Street Lots were completed in the 2000 construction season. The Dedham Avenue Lot resurfacing is completed and landscaping improvements are underway. The remaining municipal lot in need of repair is the Mark Lee Road Lot in Needham Heights. Engineering design for this lot is proposed to be completed in-house and repairs to this lot are proposed in FY09.</p> <p>Chapel Street and Eaton Square Parking Lots - FY97, Completed</p> <p>Chestnut Street and Lincoln Street Parking Lots - FY00, Completed</p> <p>Dedham Avenue Parking Lot - FY04, Construction Ongoing</p> <p>Mark Lee Road Parking Lot - FY09, Proposed \$215,000</p>							
Project Manager	Richard Merson / Anthony Del Gaizo						

Town of Needham Future Project Request Summary CIP-F							
Project Title	Streetscape Improvements				Fiscal Year	2009	
Department	Department of Public Works				Division	Engineering	
Primary User	Town	X	School		Classification	Infrastructure	
Location	Various				Estimated Capital Cost	25,000	
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?	
	X						
Project Purpose and Highlights							
<p>There are areas within the Town's right-of-way throughout Town that provide the opportunity for beautification. Areas such as traffic islands, small parks or locations at intersecting streets that have been improved for safer vehicle management and pedestrian safety. They also create areas that require maintenance. The simplest solution is to plant grass in these areas, however, this adds to the DPW mowing workload. These can be beautified to improve the appearance of the community while limiting the on-going maintenance requirements. These funds would be used to develop these sites and prepare them for treatment. The actual beautification is being pursued through a local community organization.</p>							
Project Manager	Richard Merson /Anthony Del Gaizo						

Town of Needham
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Town of Needham Future Project Request Summary CIP-F								
Project Title	Retaking Monumentation of Street Layouts				Fiscal Year	2009 - 2012		
Department	Department of Public Works				Division	Engineering		
Primary User	Town	X	School		Classification	Infrastructure		
Location	Various				Estimated Capital Cost	160,000		
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?		
	X							
Project Purpose and Highlights								
<p>The program would fund the survey and drafting efforts required to determine and record the layout of various streets throughout the Town. A retaking plan and installation of stone bounds are included in the project.</p> <p>FY09 - Broad Meadow Road - 40,000 FY10 - Hunnewell Street - 40,000 FY11 - Webster Street - 40,000 FY12 – To Be Determined – 40,000</p>								
Project Manager	Richard Merson / Anthony Del Gaizo							

Town of Needham Future Project Request Summary CIP-F								
Project Title	Traffic Signal LED Replacement Program				Fiscal Year	2009		
Department	Department of Public Works				Division	Engineering		
Primary User	Town	X	School		Classification	Infrastructure		
Location	Town Wide				Estimated Capital Cost	75,750		
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?		
	X							
Project Purpose and Highlights								
<p>The DPW Engineering Division and Highway Division have been exploring a new development relative to traffic signal lamps. This proposal is to retrofit all of the existing red and green lamps which use 116 watt incandescent bulbs (average life 1 year) with a 6 watt/12 watt Light Emitting Diode (LED) unit (guaranteed 5 year life with up to 10 years life for those currently in service around the country). These LED displays provide efficient, durable and reliable service. They also offer the added benefit of improved brightness for safety and easy maintenance by only having to be replaced every 5-10 years vs. once per year. The Massachusetts Highway Department began retrofitting their signals over several years ago and the Town of Framingham and City of Newton have also undertaken retrofits.</p>								
Project Manager	Richard Merson / Anthony Del Gaizo							

Town of Needham
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Town of Needham Future Project Request Summary CIP-F							
Project Title	Needham Heights Streetscape & Pedestrian Facility Improvements				Fiscal Year	2009 - 2012	
Department	Department of Public Works				Division	Engineering	
Primary User	Town	X	School		Classification	Infrastructure	
Location	Needham Heights				Estimated Capital Cost	Amount Not Yet Known	
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?	
	X						
Project Purpose and Highlights							
<p>In 1995 the Needham Design Guidelines Partnership consisting of members of the Planning Board, the Design Review Board and the Needham Business Association secured funding from public and private sources to produce a report entitled "Town of Needham Design Guidelines for the Business Districts". Utilizing a consultant, this group held several meetings including workshops where both public and private participants could provide input to develop this guideline. This guideline is offered to private developers to encourage them to incorporate these treatment recommendations as their properties undergo improvements. Several of these recommendations have been incorporated into the recent reconstruction of the Chapel St. and the Chestnut St. Parking Lots. This has allowed property owners to enhance their rear entrances as prescribed in the guidelines. There is a separate section devoted to public improvements. These improvements include recommendations for improved streetscape character involving the use of pedestrian-scale light fixtures, landscaping, including additional trees and plantings, and other public amenities such as benches, trash receptacles and bicycle racks. More significantly, it recommends more public accessibility. These are accomplished with wider sidewalks, additional crosswalks and safer crossing at intersections. This work is proposed to be undertaken in 3 stages. First the development of conceptual plans in order to determine the desired outcome followed by the engineering and designs then the construction. There are 2 separate submittals being proposed to address the downtown area: Needham Center/Chestnut St. Business Districts, and the Needham Heights area. Funding for the construction could be sought from the State under a special program, however, funds for these are not in large amounts and competition is heavy.</p>							
Project Manager	Richard Merson /Anthony Del Gaizo						

Town of Needham Future Project Request Summary CIP-F							
Project Title	Street Light Replacement Program				Fiscal Year	2012	
Department	Department of Public Works				Division	Engineering	
Primary User	Town	X	School		Classification	Infrastructure	
Location	Town Wide				Estimated Capital Cost	75,000	
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?	
	X						
Project Purpose and Highlights							
<p>This program is for the conversion of the, now Town-owned, street lights from high energy consuming mercury vapor street lighting fixtures to high pressure sodium (HPS) fixtures.</p> <p>The Town currently has approximately 2900 street light fixtures, consisting of a variety of incandescent, mercury vapor, and high pressure sodium lights.</p> <p>The DPW has been working with the current streetlight maintenance vendor and NStar to enter into a program to be reimbursed for the conversion to HPS.</p> <p>The proposed program would include the initial funding for the program to be reimbursed to the general fund.</p>							
Project Manager	Richard Merson / Anthony Del Gaizo						

Town of Needham
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Town of Needham Future Project Request Summary CIP-F								
Project Title	Bridge Repairs				Fiscal Year	2009 - 2012		
Department	Department of Public Works				Division	Engineering		
Primary User	Town	X	School		Classification	Infrastructure		
Location	Various				Estimated Capital Cost	Amount Not Yet Known		
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?		
	X							
Project Purpose and Highlights								
<p>Surrounded on three sides by the Charles River, the Town jointly maintains a number of bridges with neighboring communities. The Massachusetts Bridge Inspection Program has identified a number of bridges to have some level of deficiency and has recommended repairs. This program is essential to improve the structural and/or surface integrity of all bridges throughout Needham. The South Street/Willow Street Bridge and the Kendrick Street Bridge are both in need of repair. Capital Project costs will include surveying, engineering evaluation, design, and repair or reconstruction. Recent reports from Mass Highway indicated that the conditions of the South Street/Willow Street bridge and the Kendrick Street bridge are worsening and are in immediate need of repair. The State has agreed to pay for the repairs of the Willow Street bridge, which will be designed under the direction of the Town of Dover. Bridges are one of the infrastructure assets whose value and depreciation are now tracked under the GASB 34 program</p> <p>FY09 - Kendrick Street Bridge Evaluation and Design - 120,000</p> <p>FY10 - Kendrick Street Bridge Construction - - Amount Not Yet Known</p> <p>FY10 - FY12 – Locations and Amounts - Amount Not Yet Known</p>								
Project Manager	Richard Merson/ Anthony Del Gaizo							

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF									
Project Title		Sidewalk Repair and Resurfacing non-school walking routes				Fiscal Year		2008 - 2012	
Requestor		Department of Public Works - Highway							
Primary User		Town	<input checked="" type="checkbox"/>	School		Classification		Infrastructure	
Location		Various							
Funding		General Fund				CPA Eligible?		NO	
Type		Acquisition		New Construction/Addition			Reconstruction/Renovation		<input checked="" type="checkbox"/>
New Technology		Corrects a Public Health or Safety Problem		<input checked="" type="checkbox"/>	Federal or State Mandated Project				
Project Description and Justification									
<p>This program would provide funding for sidewalk repair and resurfacing not covered under the "school walking route" program.</p> <p>FY08– Mellen St., Maple St., Mark Lee Rd., Alfreton Rd. and Norfolk Rd. FY09 – Coolidge Rd, Prince St, Plymouth Rd, Wilshire Pk, Peacedale Rd and Intervale Rd FY10 – Hillcrest Rd. (Great Plain Ave. to Birds Hill Ave.) Birds Hill Rd, Mount Vernon Rd., FY11 – Woodledge Rd., Glendon Rd., Washburn Ave., Gould St. (Noanett Rd to Highland Ave.) FY12 - - Amount Not Yet Known</p> <p>There are over 160 miles of sidewalk. Over half of the sidewalks require significant work. Most of the existing sidewalks do not comply with ADA or AAB laws and regulations or Town of Needham specifications.</p> <p>Current conservative estimates identify approximately 16 million of sidewalk work required, Town wide.</p>									
Estimated Useful Life		20 to 30 years			Estimated Capital Cost			1,100,000	
Project Manager		Rhain Hoyland							
Project Timeline				Timing Considerations					
Total Project Duration		12 months		Depending on the workload in the Engineering Division, private surveyors may be required to provide layout services.					
Preliminary Work		-							
Engineering and Design Work		2 months							
Preconstruction Work		-							
Construction Work		10 months							
Estimated Project Completion Date		7/08							
Next Phase (if applicable)		-							
Project Budget Request									
Project Element		FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total		
Pre-design									
A, D, & E									
Site Costs									
Construction		200,000	210,000	220,000	230,000	240,000	1,100,000		
Other									
Equipment									
Contingency									
Total		200,000	210,000	220,000	230,000	240,000	1,100,000		
Method to Determine Estimated Capital Cost									
Prior Bids		Industry References		Consultant		UOM (Specify)		Other	
Annual Allocation									
Other Considerations									
Operational and Maintenance Considerations									
Are there any operational costs to be incurred that are no currently provided for within the affected department budgets? (If so explain)						YES		NO	X
Will additional staff be required?						YES		NO	X

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF				
Project Title	Sidewalk Repair and Resurfacing non-school walking routes	Fiscal Year		2008 - 2012
Permanent		YES		NO
Temporary		YES		NO
Can existing staff operate and/or maintain the facility?		YES	X	NO
Will additional services/supplies be required to operate the facility?		YES		NO X
Will additional equipment or other capital investment be required?		YES		NO X
Will this project correct a public health or safety hazard?		YES	X	NO
Is this project required to comply with a Federal or State mandate order?		YES		NO X
Will Town revenues be negatively impacted if the project is not done?		YES		NO X
Will the investment generate additional revenue for the Town?		YES		NO X
Budgetary Considerations				

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF								
Project Title	Traffic Signal & Intersection Improvements					Fiscal Year	2008 - 2012	
Requestor	Department of Public Works - Highway							
Primary User	Town	X	School		Classification	Infrastructure		
Location	Various							
Funding	General Fund					CPA Eligible?		
Type	Acquisition		New Construction/Addition	X	Reconstruction/Renovation	X		
New Technology		Corrects a Public Health or Safety Problem	X	Federal or State Mandated Project				
Project Description and Justification								
<p>The costs are estimated by Highway and require conceptual scope of work for project level costs that have not yet been determined.</p> <p>This program will fund Traffic Signal Improvements for existing traffic signals and provide funding for new Traffic Signal where none currently exist.</p> <p>FY08 – Construction -Webster St @ Dedham Ave, this existing traffic signal requires a new 8-phase controller, electrical cabinet, detection loops and two new pedestal lights. The overhead traffic signal is in good condition. The cost for the traffic signal improvement work is estimated at. 85,000.</p> <p>FY09 – Construction - Central Ave @ Charles River St – intersection Improvement and new traffic signal installation. Engineering & design has been funded in FY07. 375,000.</p> <p>Design - Dedham Ave @ Harris Ave, this intersection has been identified as requiring traffic signals. This request is for intersection design and traffic signal engineering and design. The engineering and design estimate is 75,000.</p> <p>FY10 – Construction - Dedham Ave. @ Harris Ave., intersection improvement and new traffic signal installation. 500,000.</p> <p>Design - High St @ Greendale Ave, This intersection has been identified as requiring traffic signals. This request is for intersection design and traffic signal engineering and design. The engineering and design estimate is 50,000.</p> <p>FY11 – Construction - High St @ Greendale Ave, intersection Improvement and new traffic signal installation. 350,000.</p> <p>Design - Great Plain Ave @ Greendale Ave, this intersection has been identified as requiring intersection improvements and replacement of traffic signals. The engineering and design estimate is 70,000.</p> <p>FY12 – Construction - Great Plain Av @ Greendale Av, this existing traffic signal may require intersection improvements and updating some of the existing traffic signal components. 450,000</p>								
Estimated Useful Life	25 Years			Estimated Capital Cost	1,995,000			
Project Manager	Rhain Hoyland							
Project Timeline				Timing Considerations				
Total Project Duration	1 year							
Preliminary Work								
Engineering and Design Work								
Preconstruction Work								
Construction Work								
Estimated Project Completion Date	6/08							
Next Phase (if applicable)								
Project Budget Request								
Project Element		FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total	
Pre-design								
A, D, & E			75,000	50,000	70,000		195,000	
Site Costs								
Construction		85,000	375,000	500,000	350,000	450,000	1,760,000	
Other								
Equipment								
Contingency								

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF									
Project Title		Traffic Signal & Intersection Improvements					Fiscal Year		2008 - 2012
Total		85,000	450,000	550,000	420,000	450,000		1,995,000	
Method to Determine Estimated Capital Cost									
Prior Bids		Industry References		Consultant			UOM (Specify)		Other
Annual Allocation									
Other Considerations									
Operational and Maintenance Considerations									
Are there any operational costs to be incurred that are no currently provided for within the affected department budgets? (If so explain)						YES		NO	X
Will additional staff be required?						YES		NO	X
Permanent						YES		NO	X
Temporary						YES		NO	X
Can existing staff operate and/or maintain the facility?						YES		NO	X
Will additional services/supplies be required to operate the facility?						YES		NO	X
Will additional equipment or other capital investment is required?						YES		NO	X
Will this project correct a public health or safety hazard?						YES	X	NO	
Is this project required to comply with a Federal or State mandate order?						YES		NO	X
Will Town revenues be negatively impacted if the project is not done?						YES		NO	X
Will the investment generate additional revenue for the Town?						YES		NO	X
Budgetary Considerations									

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF										
Project Title		Street Resurfacing Program					Fiscal Year		2008 - 2012	
Requestor		Department of Public Works - Highway								
Primary User		Town	X	School		Classification		Infrastructure		
Location		Various								
Funding		General Fund					CPA Eligible?			
Type		Acquisition		New Construction/Addition			Reconstruction/Renovation		X	
New Technology			Corrects a Public Health or Safety Problem		X	Federal or State Mandated Project				
Project Description and Justification										
<p>This program is essential to improve 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 could include corner reconstruction, handicap ramps, leveling, structural overlays, utility adjustments, minor drainage improvements, some drain extension work, street sign replacement, asphalt curbing with grass shoulders and pavement markings.</p> <p>Many streets have insufficient pavement thickness, are poorly shaped, lack curbing and require some drain 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.</p> <p>This program would provide funding to pave 6 to 8 centerline miles of roadway and construct 6 to 12 handicap ramps.</p>										
Estimated Useful Life		10 to 15 years			Estimated Capital Cost			6,500,000		
Project Manager		Richard Merson / Rhain Hoyland								
Project Timeline					Timing Considerations					
Total Project Duration		12 months								
Preliminary Work		-								
Engineering and Design Work		-								
Preconstruction Work		-								
Construction Work		12 months								
Estimated Project Completion Date		7/08								
Next Phase (if applicable)		-								
Project Budget Request										
Project Element		FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total			
Pre-design										
A, D, & E										
Site Costs										
Construction		1,050,00	1,150,000	1,250,000	1,350,000	1,450,000	6,250,000			
Other		50,000	50,000	50,000	50,000	50,000	250,000			
Equipment										
Contingency										
Total		1,100,000	1,200,000	1,300,000	1,400,000	1,500,000	6,500,000			
Method to Determine Estimated Capital Cost										
Prior Bids	X	Industry References	X	Consultant		UOM (Specify)		Other		
<p>Other cost would include an estimated 50,000 for DPW/Highway staff to provide labor and/or purchase materials for patching, edging, layout and control, tree removal, utility rehabilitation, construction oversight, driveway paving adjustments, masonry work and loam and seeding.</p>										
Other Considerations										
Operational and Maintenance Considerations										
Are there any operational costs to be incurred that are not currently provided for within the affected department budgets? (If so explain)						YES		NO	X	
Will additional staff be required?						YES		NO	X	

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF				
Project Title	Street Resurfacing Program	Fiscal Year		2008 - 2012
Permanent		YES		NO
Temporary		YES		NO
Can existing staff operate and/or maintain the facility?		YES	X	NO
Will additional services/supplies be required to operate the facility?		YES		NO X
Will additional equipment or other capital investment be required?		YES		NO X
Will this project correct a public health or safety hazard?		YES	X	NO
Is this project required to comply with a Federal or State mandate order?		YES		NO X
Will Town revenues be negatively impacted if the project is not done?		YES		NO X
Will the investment generate additional revenue for the Town?		YES		NO X
Budgetary Considerations				

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF									
Project Title		Roadway Reconstruction				Fiscal Year		2008 - 2012	
Requestor		Department of Public Works - Highway							
Primary User		Town	<input checked="" type="checkbox"/>	School		Classification		Infrastructure	
Location		Various							
Funding		General Fund				CPA Eligible?			
Type		Acquisition		New Construction/Addition			Reconstruction/Renovation		<input checked="" type="checkbox"/>
New Technology		Corrects a Public Health or Safety Problem		<input checked="" type="checkbox"/>	Federal or State Mandated Project				
Project Description and Justification									
<p>The roadway system throughout the community has developed over the last century. A great number of miles of roadway, mainly residential roads were developed after World War II. A combination of the aging of the earliest roads, the tremendous expansion of the road system and a failure to provide adequate, ongoing maintenance and repair over the past 25 years has resulted in a significant decline in the overall condition of Needham's roads. A significant number of roads are in need of reconstruction.</p> <p>This program will provide the necessary funding for the inspection, engineering and design for the rehabilitation or reconstruction of the roadway network including drainage, traffic control and other incidental roadway improvements. Roadway improvements may include full construction or other standard rehabilitation methods. Many of the main roads may require structural and geometric improvements. Improvements in the business district could include new traffic signals, sidewalk improvements, pedestrian lighting, granite curb and other features.</p> <p>Beginning in FY1999, following several years of attempting to secure funding for the reconstruction of local roads, an ongoing program for funding was initiated. Due to a poor economy and tight budget, the funding for this program was discontinued after only 3 years. During that period, this funding provided for the reconstruction of Parish Rd., Bird St., Gary Rd., Lee Rd., Elder Rd., and supplemented the reconstruction of Great Plain Ave., from Harris Ave. to Pickering St.</p>									
Estimated Useful Life		60 to 80 years			Estimated Capital Cost			14,250,000	
Project Manager		Richard Merson / Anthony Del Gaizo							
Project Timeline				Timing Considerations					
Total Project Duration		12 – 24 months							
Preliminary Work									
Engineering and Design Work									
Preconstruction Work									
Construction Work									
Estimated Project Completion Date		12 – 36 months							
Next Phase (if applicable)									
Project Budget Request									
Project Element		FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total		
Pre-design									
A, D, & E		450,000	450,000	450,000	450,000	450,000	2,250,000		
Site Costs									
Construction			3,000,000	3,000,000	3,000,000	3,000,000	12,000,000		
Other									
Equipment									
Contingency									
Total		450,000	3,450,000	3,450,000	3,450,000	3,450,000	14,250,000		
Method to Determine Estimated Capital Cost									
Prior Bids	<input checked="" type="checkbox"/>	Industry References	<input checked="" type="checkbox"/>	Consultant		UOM (Specify)		Other	
Other Considerations									
Operational and Maintenance Considerations									
Are there any operational costs to be incurred that are no currently provided for within the affected department budgets? (If so explain)						YES		NO	<input checked="" type="checkbox"/>
Will additional staff be required?						YES		NO	<input checked="" type="checkbox"/>

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF				
Project Title	Roadway Reconstruction	Fiscal Year		2008 - 2012
Permanent	YES		NO	
Temporary	YES		NO	
Can existing staff operate and/or maintain the facility?	YES	X	NO	
Will additional services/supplies be required to operate the facility?	YES		NO	X
Will additional equipment or other capital investment be required?	YES		NO	X
Will this project correct a public health or safety hazard?	YES	X	NO	
Is this project required to comply with a Federal or State mandate order?	YES		NO	X
Will Town revenues be negatively impacted if the project is not done?	YES		NO	X
Will the investment generate additional revenue for the Town?	YES		NO	X
Budgetary Considerations				

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF							
Project Title	Sidewalk Repair & Resurfacing School Walking Routes					Fiscal Year	2008 - 2012
Requestor	Department of Public Works - Highway						
Primary User	Town	X	School		Classification	Infrastructure	
Location	Various						
Funding	General Fund				CPA Eligible?		
Type	Acquisition		New Construction/Addition		Reconstruction/Renovation	X	
New Technology		Corrects a Public Health or Safety Problem	X	Federal or State Mandated Project			
Project Description and Justification							
<p>FY08 - Greendale Av from Brookline St to Great Plain Av (West Side), Greendale Av from Webster St to Rosalie Rd (West Side). Webster St. from South St to Dedham Av (East Side), Webster St from Rosemary St to Greendale Av handicap ramps.</p> <p>FY09 - Beholden St from opposite May St to Central Av (West Side), High St (Both Sides), Linden St from Great Plain Av to High Rock St, Oak St from Chestnut St to Marked Tree Rd.</p> <p>FY10 - Harris Ave. from GPA to Dedham Ave. (Both Side), Bradford St from Dedham Av to Great Plain Av (East side), Glenwood from Bradford St to the Pollard School Parking Lot.</p> <p>FY11 - Grant St from Dedham Av to Junction St (East side), School St from the Police Station to Dedham Av (North Side), Dedham Av opposite Grant St to Bradford St (North Side), Warren St from School St to Great Plain Av.</p> <p>FY12 – Thornton Rd. from Broad Meadow Rd to Birds Hill Ave (East Side), Mt Vernon Av from Great Plain Av to Birds Hill Av, Hillcrest Rd from Birds Hill Rd to Bond St.</p> <p>This program includes funding to construct 15 to 20 handicap ramps.</p> <p>There are over 160 miles of sidewalk of which 52 miles are designated as school walking routes. The school walking routes are reviewed periodically. Over half of the sidewalks require significant work. Most of the existing sidewalks do not comply with ADA or AAB laws and regulations or Town of Needham specifications.</p> <p>Current conservative estimates identify approximately 16 million of sidewalk work required, Town wide.</p> <p>Highway staff performs detailed functions such as loam and seed operations to minimize contractor costs.</p> <p>Depending on the workload in the Engineering Division, private surveyors may be required to provide layout services.</p>							
Estimated Useful Life	20 to 30 years			Estimated Capital Cost	1,660,00		
Project Manager	Richard Merson / Rhain Hoyland						
Project Timeline				Timing Considerations			
Total Project Duration	12 Months						
Preliminary Work	-						
Engineering and Design Work	2 Months						
Preconstruction Work	-						
Construction Work	12 Months						
Estimated Project Completion Date	07/08						
Next Phase (if applicable)							
Project Budget Request							
Project Element	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total	
Pre-design							
A, D, & E							
Site Costs							
Construction	340,000	280,000	290,000	240,000	260,000	1,410,000	
Other	50,000	50,000	50,000	50,000	50,000	250,000	
Equipment							
Contingency							
Total	390,000	330,000	340,000	290,000	310,000	1,660,000	
Method to Determine Estimated Capital Cost							
Prior Bids		Industry References		Consultant		UOM (Specify)	
						Other	

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF				
Project Title	Sidewalk Repair & Resurfacing School Walking Routes	Fiscal Year	2008 - 2012	
Other cost would include an estimated 50,000 for DPW/Highway staff to provide labor and/or purchase materials for patching, edging, paving portions of sidewalks, layout and control, tree removal, utility rehabilitation, construction oversight, driveway paving adjustments, masonry work and loam and seeding.				
Other Considerations				
Operational and Maintenance Considerations				
Are there any operational costs to be incurred that are not currently provided for within the affected department budgets? (If so explain)	YES	<input type="checkbox"/>	NO	X
Will additional staff be required?	YES	<input type="checkbox"/>	NO	X
Permanent	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
Temporary	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
Can existing staff operate and/or maintain the facility?	YES	X	NO	<input type="checkbox"/>
Will additional services/supplies be required to operate the facility?	YES	<input type="checkbox"/>	NO	X
Will additional equipment or other capital investment be required?	YES	<input type="checkbox"/>	NO	X
Will this project correct a public health or safety hazard?	YES	X	NO	<input type="checkbox"/>
Is this project required to comply with a Federal or State mandate order?	YES	<input type="checkbox"/>	NO	X
Will Town revenues be negatively impacted if the project is not done?	YES	<input type="checkbox"/>	NO	X
Will the investment generate additional revenue for the Town?	YES	<input type="checkbox"/>	NO	X
Budgetary Considerations				

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF						
Project Title	Wastewater Pump Station Improvements – Reservoir B				Fiscal Year	2008
Requestor	Department of Public Works - Sewer					
Primary User	Town	<input checked="" type="checkbox"/>	School		Classification	Infrastructure
Location	Reservoir Street					
Funding	Sewer Enterprise/MWPAT Financing Program				CPA Eligible?	NO
Type	Acquisition		New Construction/Addition		Reconstruction/Renovation	
New Technology		Corrects a Public Health or Safety Problem			Federal or State Mandated Project	
Project Description and Justification						
<p>As part of the Wastewater System Master Plan, several of the wastewater pumping stations were evaluated to determine their current physical condition, capacity vs. current & future flow projections and compliance with current codes or standards of operation. The Master Plan recommends that at least 7 of the 10 stations require work. These include major improvements and replacement of the Reservoir St. "B" Station (this is the 2nd oldest station in the system). Its standby generator has failed and pumps need constant maintenance.</p> <p>FY 2008 Reservoir St. "B" – Engineering, Design & Construction \$2,400,000</p>						
Estimated Useful Life	30 to 40 years		Estimated Capital Cost	\$2,400,000		
Project Manager	Richard Merson, DPW Director					
Project Timeline			Timing Considerations			
Total Project Duration	24 to 36 Months		Funding from MWPAT requires Town Meeting action by June 2007			
Preliminary Work						
Engineering and Design Work						
Preconstruction Work						
Construction Work						
Estimated Project Completion Date	December 2009					
Next Phase (if applicable)						
Project Budget Request						
Project Element	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total
Pre-design						
A, D, & E	270,000					270,000
Site Costs						
Construction	1,890,000					1,890,000
Other						
Equipment						
Contingency	240,000					240,000
Total	2,400,000					2,400,000
Method to Determine Estimated Capital Cost						
Prior Bids/Industry References	<input checked="" type="checkbox"/>	Consultant		UOM (Specify)		Other
Other Considerations						
Operational and Maintenance Considerations						
Are there any operational costs to be incurred that are no currently provided for within the affected department budgets? (If so explain)	YES		NO	X		
Will additional staff be required?	YES		NO	X		
Permanent	YES		NO	X		
Temporary	YES		NO	X		
Can existing staff operate and/or maintain the facility?	YES	X	NO			
Will additional services/supplies be required to operate the facility?	YES		NO	X		
Will additional equipment or other capital investment be required?	YES		NO	X		
Will this project correct a public health or safety hazard?	YES	X	NO			
Is this project required to comply with a Federal or State mandate order?	YES		NO	X		
Will Town revenues be negatively impacted if the project is not done?	YES	X	NO			
Will the investment generate additional revenue for the Town?	YES		NO	X		

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF																																			
Project Title	Sewer System Rehabilitation - Infiltration Removal Program Sewer System Rehabilitation - Inflow Removal Program				Fiscal Year	2008 - 2012																													
Requestor	Department of Public Works - Sewer																																		
Primary User	Town	X	School		Classification	Infrastructure																													
Location	Various																																		
Funding	Sewer Enterprise Fund / WPAT – SRF (2%Loan) / MWRA (Loan/grant)				CPA Eligible?	NO																													
Type	Acquisition		New Construction/Addition		Reconstruction/Renovation	X																													
New Technology		Corrects a Public Health or Safety Problem			Federal or State Mandated Project																														
Project Description and Justification																																			
<p>The Town of Needham, along with numerous other communities, is under Administrative Orders from the DEP to identify and remove Infiltration and Inflow (I/I) in existing sewer systems. Infiltration is defined as groundwater or storm water runoff that enters the system thru deteriorated pipe or manhole structures that by definition need to be repaired. As a result of this order, I/I studies have been undertaken to determine the locations and volumes of I/I entering the sanitary sewer system. The I/I analysis (1985 & 1989) and the Sewer System Evaluation Survey (SSES) (1991) have identified, by flow measurement, the areas of the collection system which are contributing high volumes of I/I to the system. On the basis of volumes of flow and knowledge of local sewer overflows 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. The remediation proceeds in stages starting with the preliminary engineering, followed by the rehabilitation design and concluding with the rehabilitation construction.</p> <p>Much of this work could include extending or expanding the storm drain system to accept groundwater from household sump pumps. Needham's most significant problem is believed to be from these private sources. The program will initiate with an education and information campaign to inform and prepare the homeowners as to the nature of the problem. The cost impacts to the community, the legal implications, the likely solutions and the responsibilities of the homeowner and the potential enforcement actions by the Town, the MWRA, the DEP and the EPA will need to be communicated. The preliminary engineering will likely take the form of smoke testing and flooded dye testing to determine any direct or indirect interconnections between the sewer and the storm drain system. It will also include a door-to-door investigation of households to determine where violations are occurring. Typical violations include, but are not limited to, sump pumps or open clean-outs where non-sanitary flow is discharging directly to the sewer system as well as foundation drains, yard drains, roof leaders and other cross connections.</p> <p>INFILTRATION The work to date has focused on infiltration removal. This program will continue as an infiltration removal effort.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">FY08-Preliminary Engineering - Area 22</td> <td style="width: 50%; text-align: right;">66,500</td> </tr> <tr> <td>FY09-Preliminary Engineering - Area 16</td> <td style="text-align: right;">80,000</td> </tr> <tr> <td style="padding-left: 20px;">Design - Area 22</td> <td style="text-align: right;">75,000</td> </tr> <tr> <td style="padding-left: 20px;">Construction - N/A</td> <td style="text-align: right;">0</td> </tr> <tr> <td>FY10 - Preliminary Engineering – - Amount Not Yet Known</td> <td style="text-align: right;">- Amount Not Yet Known</td> </tr> <tr> <td style="padding-left: 20px;">Design – Area 16</td> <td style="text-align: right;">- Amount Not Yet Known</td> </tr> <tr> <td style="padding-left: 20px;">Construction - Area 22</td> <td style="text-align: right;">- Amount Not Yet Known</td> </tr> <tr> <td>FY11-12 - Preliminary Engineering – - Amount Not Yet Known</td> <td style="text-align: right;">- Amount Not Yet Known</td> </tr> <tr> <td style="padding-left: 20px;">Design – - Amount Not Yet Known</td> <td style="text-align: right;">- Amount Not Yet Known</td> </tr> <tr> <td style="padding-left: 20px;">Construction – - Amount Not Yet Known</td> <td style="text-align: right;">- Amount Not Yet Known</td> </tr> </table> <p>INFLOW Inflow is defined as clean, non-septic water, which is introduced to the system. This water is generally produced by residential sump pumps that drain basements. A separate program is being presented for inflow removal. The engineering and design for the next year's infiltration rehabilitation construction covers Area 2 -Great Plain Ave/Greendale Ave/Peacedale Rd/Sterling Rd; Area 24-Great Plain Ave/Fairfield St/Douglas Rd, and Grosvenor Rd/Dawson Dr/Richard Rd; Area-Lower 21 - Greendale Ave/Valley Rd/Barbara Rd/Kenney Rd/Rybury Hillway; and the remainder of the Bird's Hill interceptor along Route 128</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">FY09 - Area 19-1 - Engineering & Design</td> <td></td> </tr> <tr> <td>FY10- Area 19-1 - Construction</td> <td></td> </tr> <tr> <td style="padding-left: 20px;">Areas 1, 3 & 4 - Engineering & Design</td> <td></td> </tr> <tr> <td>FY11- Areas 1, 3, & 4 - Construction</td> <td></td> </tr> </table>								FY08-Preliminary Engineering - Area 22	66,500	FY09-Preliminary Engineering - Area 16	80,000	Design - Area 22	75,000	Construction - N/A	0	FY10 - Preliminary Engineering – - Amount Not Yet Known	- Amount Not Yet Known	Design – Area 16	- Amount Not Yet Known	Construction - Area 22	- Amount Not Yet Known	FY11-12 - Preliminary Engineering – - Amount Not Yet Known	- Amount Not Yet Known	Design – - Amount Not Yet Known	- Amount Not Yet Known	Construction – - Amount Not Yet Known	- Amount Not Yet Known	FY09 - Area 19-1 - Engineering & Design		FY10- Area 19-1 - Construction		Areas 1, 3 & 4 - Engineering & Design		FY11- Areas 1, 3, & 4 - Construction	
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FY11-12 - Preliminary Engineering – - Amount Not Yet Known	- Amount Not Yet Known																																		
Design – - Amount Not Yet Known	- Amount Not Yet Known																																		
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Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF			
Project Title	Sewer System Rehabilitation - Infiltration Removal Program Sewer System Rehabilitation - Inflow Removal Program	Fiscal Year	2008 - 2012
<p>approximately 3.0 m.g.d. with peak I/I; the volume can exceed a rate of 15.0 m.g.d. These spikes are attributable to the inflow component and can total as much as 300 m.g. annually in a typical rainfall year. The remaining 75% is flow that occurs throughout the year as infiltration and can approach 1 billion gallons per year. This is approximately 25% of the total I/I in the system.</p>			

Town of Needham
Capital Improvement Plan

Town of Needham Future Project Request Summary CIP-F							
Project Title	Sewer Service Connection Installation/Replacement				Fiscal Year	2009 - 2012	
Department	Department of Public Works				Division	Sewer	
Primary User	Town	X	School		Classification	Infrastructure	
Location					Estimated Capital Cost	100,000	
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?	NO
			X				
Project Purpose and Highlights							
<p>With the initiation of the Road Construction Programs, a component of the overall project that had been overlooked for funding was the installation or replacement of the sewer service building connections. There are still homes that have chosen not to connect to the Sewer System. Should their septic system fail, they could be ordered to connect due to health reasons regardless of any moratoriums on excavations in new construction that may be in-place. The cost for these service installations are typically not included in road construction estimates. In the case of Chapter 90 Projects, these are not considered as a reimbursement eligible expense. However, they are reimbursable through a betterment type process typically over a ten (10) year period. These expenses will be included in future local road reconstruction estimates. Homeowners where sewer mains exist will be encouraged to connect prior to the project start. However, for those homeowners who do not connect, a partial connection within the right-of-way will be installed. There is a corresponding request for water service connections.</p>							
Project Manager	Richard Merson / Robert Lewis						

Town of Needham
Capital Improvement Plan

Town of Needham Future Project Request Summary CIP-F																
Project Title	Wastewater Pump Station Improvements				Fiscal Year	2009 - 2012										
Department	Department of Public Works				Division	Sewer										
Primary User	Town	X	School		Classification	Infrastructure										
Location	Various				Estimated Capital Cost	Amount Not Yet Known										
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?										
			X													
Project Purpose and Highlights																
<p>As part of the Wastewater System Master Plan, several of the wastewater pumping stations were evaluated to determine their current physical condition, capacity vs. current & future flow projections and compliance with current codes or standards of operation. The Master Plan recommends that at least 7 of the 10 stations require work.</p> <p>The design of the elimination of the Richardson Drive Station is completed. Other canister pump stations at Lake Drive, Milo Circle, Warren Street and Reservoir "A" are at or beyond their design lives. Constant maintenance and emergency shutoffs occur more frequently and require greater amounts of personnel time and emergency funds to keep running. The remaining canister station at Richardson Drive is scheduled to be eliminated when gravity sewer construction is complete but will need maintenance until then.</p> <p>The great amount of activity in the Needham Business Center will have a tremendous impact on the Kendrick St. & Reservoir St. "B" Stations. The Kendrick St. Station had been renovated to accommodate some of the initial redevelopment currently underway in the area tributary to this station. This renovation was undertaken and funded by the proponents for the redevelopment of 140 Kendrick St. New enhancements must now be contemplated in anticipation of the addition of 350 residential units at 300 Second Avenue (Charles River Landing) proposed for completion in the next few years. This could provide sufficient capacity for the next few years under the current zoning. Future redevelopment or rezoning could require additional renovation or replacement.</p> <p>The Great Plain Ave. Station design is completed for renovations including both building and pump system upgrades. The structure is 50 years old and is in need of repairs. The pumping and control systems do not meet current code requirements. Due to these factors and the now known status of the Olin College impacts, the Great Plain Ave. Station has been funded for renovation. The Reservoir "B" Station is next priority for improvements. (Reservoir B has been requested under a separate CIP request as it may qualify for financial assistance).</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">FY10 Cooks Bridge - Engineering & Design</td> <td style="text-align: right;">Amount Not Yet Known</td> </tr> <tr> <td>FY11 Cooks Bridge - Construction</td> <td style="text-align: right;">Amount Not Yet Known</td> </tr> <tr> <td>Reservoir St. "A" - Engineering & Design</td> <td style="text-align: right;">Amount Not Yet Known</td> </tr> <tr> <td>FY12 Reservoir St. "A" - Construction</td> <td style="text-align: right;">Amount Not Yet Known</td> </tr> <tr> <td>Alden Rd - Engineering & Design</td> <td style="text-align: right;">Amount Not Yet Known</td> </tr> </table>							FY10 Cooks Bridge - Engineering & Design	Amount Not Yet Known	FY11 Cooks Bridge - Construction	Amount Not Yet Known	Reservoir St. "A" - Engineering & Design	Amount Not Yet Known	FY12 Reservoir St. "A" - Construction	Amount Not Yet Known	Alden Rd - Engineering & Design	Amount Not Yet Known
FY10 Cooks Bridge - Engineering & Design	Amount Not Yet Known															
FY11 Cooks Bridge - Construction	Amount Not Yet Known															
Reservoir St. "A" - Engineering & Design	Amount Not Yet Known															
FY12 Reservoir St. "A" - Construction	Amount Not Yet Known															
Alden Rd - Engineering & Design	Amount Not Yet Known															
Project Manager	Richard Merson / Robert Lewis															

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF							
Project Title	Water System Rehabilitation Program				Fiscal Year	2008 - 2012	
Requestor	Department of Public Works - Water						
Primary User	Town	X	School		Classification	Infrastructure	
Location	Various						
Funding	Water Enterprise Fund				CPA Eligible?		
Type	Acquisition		New Construction/Addition		Reconstruction/Renovation	X	
New Technology		Corrects a Public Health or Safety Problem			Federal or State Mandated Project		
Project Description and Justification							
<p style="margin-left: 40px;">- FY08 Garden St. – Construction - \$562,900</p> <p style="margin-left: 80px;">- Chapel St./Great Plain Ave. to Highland – New 8’ (980 lf) – Engineering & Design</p> <p style="margin-left: 80px;">- May St./Highland Ave. to Webster St. – New 8” (1700 lf) - Engineering & Design \$68,000</p> <p style="margin-left: 40px;">- FY09 Chapel St./May St. – Construction - \$627,500</p> <p style="margin-left: 80px;">- Pickering St./Great Plain Ave. to End – New 8” (2000 lf) – Engineering & Design \$49,000</p> <p style="margin-left: 40px;">- FY10 Pickering St. Construction - \$487,000</p> <p style="margin-left: 80px;">- Kimball St./Grant St. to Pleasant St. – New 8” (800 lf) – Engineering & Design</p> <p style="margin-left: 80px;">- Lincoln St./Garfield St. to Dedham Ave – New 8” (1700 lf) – Engineering & Design \$63,000</p> <p style="margin-left: 40px;">- FY11 Kimball St./Lincoln St. – Construction - \$633,200</p> <p style="margin-left: 80px;">- Grant St./Junction St. to Dedham Ave. – New 8’ (2500 lf) – Engineering & Design \$65,900</p> <p style="margin-left: 40px;">- FY12 Grant St. - Construction - \$658,500</p> <p style="margin-left: 80px;">- Pleasant St./Howland St. to Dedham Ave. – New 8” (1160 lf) – Engineering & Design</p> <p style="margin-left: 80px;">- Norfolk St./Warren St. to Webster St. – New 8” (1300 lf) – Engineering & Design \$72,000</p> <p>FY09 – FY12 Water System Improvements - Small Diameter Main Replacement - \$30,000 per year</p> <p>The Water System Master Plan also identified two (2) additional categories of improvements recommended beyond the fire flow capacity and rehabilitation of existing mains. One was the replacement of small diameter mains. These are existing mains that were installed during various stages of the system development where only 1", 2" or 4" diameter pipes were used. Over time, the DPW has discovered that these older and small mains lose capacity due to corrosion and/or ultimately fail as a result of their age or corrosion. It is recommended that these small diameter mains be replaced with the Needham standard minimum 8" diameter pipe. The report recommends approximately 26,500 ft. (5.0 miles). The DPW proposes accomplishing this annually over a 15-25 year period. Costs could be further reduced if these projects were undertaken "in-house" by DPW staff.</p> <p>FY08 – FY11 Water System Improvements – 14” water Main Replacement (Construction) - \$250,000 per year</p> <p>This project replaces and/or rehabilitates the 14" transmission water main from the CRWTP to School Street that was installed in 1936 -1939. Certain sections of the current main is made of steel, these sections are to be replaced. Other sections of pipe are made of cast iron and lined with a type of bitumastic or coal tar coating that appears to be breaking down causing water quality issues at the tap. Failure of the steel pipe will cause interrupting flow and the ability to provide adequate fire protection. Water quality issues are a concern with the break-down of the bitumastic lining. The total length of the 14" main is approximately 19,000 lf (3.6 miles), extending from Charles River Street, to Pine Street, to Central Avenue, to Marked Tree Road, Oak Street, Chestnut Street, to School Street.</p> <p>FY06 –Phase I Design - 50,000 – Previously Funded</p> <p>FY08-Phase I Construction - 250,000</p>							

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF								
Project Title	Water System Rehabilitation Program				Fiscal Year	2008 - 2012		
FY09 -Phase II Construction - 250,000								
FY10 -Phase III Construction - 250,000								
FY11- Phase IV Construction - 250,000								
Estimated Useful Life	50 to 75 Years			Estimated Capital Cost	\$4,407,000			
Project Manager	Robert Lewis							
Project Timeline				Timing Considerations				
Total Project Duration	12 to 24 months			Each Phase will vary depending upon site conditions and weather. Project timeline is an estimate for each phase				
Preliminary Work								
Engineering and Design Work	6 to 12 months							
Preconstruction Work								
Construction Work	6 to 12 months							
Estimated Project Completion Date	Varies							
Next Phase (if applicable)	Ongoing							
Project Budget Request								
Project Element	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total		
Pre-Design								
A, D, & E	68,000	49,000	63,000	65,9000	72,000	317,900		
Site Costs								
Construction	812,900	907,500	767,000	913,200	688,500	4,089,100		
Other								
Equipment								
Contingency								
Total	880,900	956,500	830,000	979,100	760,500	4,407,000		
Method to Determine Estimated Capital Cost								
Prior Bids		Industry References		Consultant	<input checked="" type="checkbox"/> UOM (Specify)		Other	<input checked="" type="checkbox"/>
Other Considerations								
Operational and Maintenance Considerations								
Are there any operational costs to be incurred that are no currently provided for within the affected department budgets? (If so explain)					YES		NO	<input checked="" type="checkbox"/>
Will additional staff be required?					YES		NO	<input checked="" type="checkbox"/>
Permanent					YES		NO	
Temporary					YES		NO	
Can existing staff operate and/or maintain the facility?					YES	<input checked="" type="checkbox"/>	NO	
Will additional services/supplies be required to operate the facility?					YES		NO	<input checked="" type="checkbox"/>
Will additional equipment or other capital investment be required?					YES		NO	<input checked="" type="checkbox"/>
Will this project correct a public health or safety hazard?					YES	<input checked="" type="checkbox"/>	NO	
Is this project required to comply with a Federal or State mandate order?					YES		NO	<input checked="" type="checkbox"/>
Will Town revenues be negatively impacted if the project is not done?					YES		NO	<input checked="" type="checkbox"/>
Will the investment generate additional revenue for the Town?					YES		NO	<input checked="" type="checkbox"/>
Budgetary Considerations								

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF							
Project Title	Water Storage Tank - Clean & Paint					Fiscal Year	2008 - 2009
Requestor	Department of Public Works - Water						
Primary User	Town	X	School		Classification	Infrastructure	
Location	Bird's Hill Tanks or Dunster Rd. Tank						
Funding	Water Enterprise Fund				CPA Eligible?		
Type	Acquisition		New Construction/Addition		Reconstruction/Renovation	X	
New Technology		Corrects a Public Health or Safety Problem	X	Federal or State Mandated Project			
Project Description and Justification							
<p>The DEP Regulations controlling the operation and maintenance of water supply and distribution systems require routine draining and inspection of water storage tanks. Periodically the report of the inspection indicates that the surface coating is worn or damaged and is in need of cleaning and repainting. The Dunster Road Water Tank was completely cleaned and painted inside and out in 1993 and prior to that in 1978. The previous inspection indicated no problems inside or out. Last year's inspection revealed similar results inside, however, the outside has sustained more than normal wear. It has been especially burdened by vandalism beyond normal graffiti. It is recommended that the outside at least be cleaned and painted. The Birds Hill Water Tank is now 30 years old. It still has the original costing inside and out. The last few inspections have found no serious problems but the report has recognized the age of the coating and its impending deterioration. The DPW is recommending cleaning and painting as soon as practical.</p>							
Estimated Useful Life	20 years			Estimated Capital Cost	1,150,000		
Project Manager	Anthony Del Gaizo / Robert Lewis						
Project Timeline				Timing Considerations			
Total Project Duration	12 months						
Preliminary Work							
Engineering and Design Work							
Preconstruction Work							
Construction Work							
Estimated Project Completion Date	June 2008						
Next Phase (if applicable)	July 2008						
Project Budget Request							
Project Element	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total	
Pre-design							
A, D, & E							
Site Costs							
Construction	600,000	550,000				1,150,000	
Other							
Equipment							
Contingency							
Total	600,000	550,000				1,150,000	
Method to Determine Estimated Capital Cost							
Prior Bids/Industry References		Consultant		UOM		Other	
Operational and Maintenance Considerations							
Are there any operational costs to be incurred that are no currently provided for within the affected department budgets? (If so explain)	YES		NO	X			
Will additional staff be required?	YES		NO	X			
Permanent	YES		NO				
Temporary	YES		NO				
Can existing staff operate and/or maintain the facility?	YES	X	NO				
Will additional services/supplies be required to operate the facility?	YES		NO	X			
Will additional equipment or other capital investment be required?	YES		NO	X			
Will this project correct a public health or safety hazard?	YES	X	NO				
Is this project required to comply with a Federal or State mandate order?	YES	X	NO				
Will Town revenues be negatively impacted if the project is not done?	YES	X	NO				
Will the investment generate additional revenue for the Town?	YES		NO	X			

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF								
Project Title	Water Service Connection Installation and Replacement					Fiscal Year	2008 - 2012	
Requestor	Department of Public Works - Water							
Primary User	Town	X	School		Classification	Infrastructure		
Location	Various							
Funding	Water Enterprise Fund				CPA Eligible?			
Type	Acquisition		New Construction/Addition	X	Reconstruction/Renovation	X		
New Technology		Corrects a Public Health or Safety Problem	X	Federal or State Mandated Project				
Project Description and Justification								
<p>The primary purpose of this program is to remove lead from the system. With the initiation of the Road Construction Programs, a component of the project that had been overlooked for funding was the replacement of the water service building connections. This leaves an element of the subsurface infrastructure susceptible to failure before the desired life of the reconstructed roadway has been realized. In the case of Chapter 90 projects, such as Webster St., these are not considered as a reimbursement eligible expenses. Should the DPW be successful in continuing the local road reconstruction program, these expenses could be determined and funded on a project by project basis. Future water main projects will include service replacements as a project expense.</p>								
Estimated Useful Life	60 years			Estimated Capital Cost	1,000,000			
Project Manager	Water & Sewer Division							
Project Timeline				Timing Considerations				
Total Project Duration	12 months							
Preliminary Work	-							
Engineering and Design Work	-							
Preconstruction Work	-							
Construction Work	12 months							
Estimated Project Completion Date	06/08							
Next Phase (if applicable)	-							
Project Budget Request								
Project Element	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total		
Pre-design								
A, D, & E								
Site Costs								
Construction	200,000	200,000	200,000	200,000	200,000	1,000,000		
Other (explain)								
Equipment								
Contingency								
Total	200,000	200,000	200,000	200,000	200,000	1,000,000		
Method to Determine Estimated Capital Cost								
Prior Bids/Industry References		Consultant		UOM		Other	X	
This program is designed to replace 100 water services per year.								
Operational and Maintenance Considerations								
Are there any operational costs to be incurred that are not currently provided for within the affected department budgets? (If so explain)	YES		NO	X				
Will additional staff be required?	YES		NO	X				
Permanent	YES		NO	X				
Temporary	YES		NO	X				
Can existing staff operate and/or maintain the facility?	YES	X	NO					
Will additional services/supplies be required to operate the facility?	YES		NO	X				
Will additional equipment or other capital investment be required?	YES		NO	X				
Will this project correct a public health or safety hazard?	YES	X	NO					
Is this project required to comply with a Federal or State mandate order?	YES	X	NO					
Will Town revenues be negatively impacted if the project is not done?	YES		NO	X				
Will the investment generate additional revenue for the Town?	YES		NO	X				

Town of Needham
Capital Improvement Plan

Town of Needham Capital Project Request CIP-BIF								
Project Title	Fire Hydrant Replacement Program					Fiscal Year	2008 - 2010	
Requestor	Department of Public Works - Water							
Primary User	Town	<input checked="" type="checkbox"/>	School	<input type="checkbox"/>	Classification	Infrastructure		
Location	Various							
Funding	Water Enterprise Fund				CPA Eligible?	<input type="checkbox"/>		
Type	Acquisition	<input type="checkbox"/>	New Construction/Addition	<input type="checkbox"/>	Reconstruction/Renovation	<input checked="" type="checkbox"/>		
New Technology	<input type="checkbox"/>	Corrects a Public Health or Safety Problem		<input checked="" type="checkbox"/>	Federal or State Mandated Project		<input type="checkbox"/>	
Project Description and Justification								
<p>The goal of the program is to remove and replace older and out-dated fire hydrants with new and more reliable fire hydrants within the community by developing an ongoing revolving cycle of replacing approx. 50 fire hydrants per year (by contractor). The community currently supports approximately 300 unreliable fire hydrants that are out-dated and un-gated poured lead-joints. During the annual fall hydrant inspection (dry testing), older fire hydrants have been targeted as potential freezing hazards due to their lack of ability to either properly drain the hydrant or efficiently shut down the hydrant.</p> <p>Prior years funding (100,000) intended to be privately contracted for hydrant replacements. With reprioritization and coordination the first year's project was successfully completed with Town forces. By utilizing Town forces, this provided the ability to install an estimated 60% more hydrants replaced than originally anticipated.</p>								
Estimated Useful Life	60 Years			Estimated Capital Cost	\$300,000			
Project Manager	Richard Merson / Robert Lewis							
Project Timeline				Timing Considerations				
Total Project Duration	12 months							
Preliminary Work								
Engineering and Design Work	N/A							
Preconstruction Work	N/A							
Construction Work								
Estimated Project Completion Date	6/08							
Next Phase (if applicable)								
Project Budget Request								
Project Element	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Total		
Pre-design								
A, D, & E								
Site Costs								
Construction	100,000	100,000	100,000			300,000		
Other								
Equipment								
Contingency								
Total	100,000	100,000	100,000			300,000		
Method to Determine Estimated Capital Cost								
Prior Bids/Industry References	<input type="checkbox"/>	Consultant	<input type="checkbox"/>	UOM	<input type="checkbox"/>	Other	<input checked="" type="checkbox"/>	
Project undertaken by Town Employees.								
Operational and Maintenance Considerations								
Are there any operational costs to be incurred that are no currently provided for within the affected department budgets? (If so explain)	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>			
Will additional staff be required?	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>			
Permanent	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>			
Temporary	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	<input type="checkbox"/>			
Can existing staff operate and/or maintain the facility?	<input type="checkbox"/>	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>			
Will additional services/supplies be required to operate the facility?	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>			
Will additional equipment or other capital investment be required?	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>			
Will this project correct a public health or safety hazard?	<input type="checkbox"/>	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>			
Is this project required to comply with a Federal or State mandate order?	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>			
Will Town revenues be negatively impacted if the project is not done?	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>			
Will the investment generate additional revenue for the Town?	<input type="checkbox"/>	YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>			

Town of Needham
Capital Improvement Plan

Town of Needham Future Project Request Summary CIP-F						
Project Title	Water System - Fire Flow Improvements				Fiscal Year	2009 - 2012
Department	Department of Public Works				Division	Water
Primary User	Town	X	School		Classification	Infrastructure
Location	Various				Estimated Capital Cost	5,250,000
Funding	GF	RTS	SWR	WTR	CPA Eligible?	No
				X		
Project Purpose and Highlights						
<p>The Water System Master Plan has identified a category of improvements for high priority action:</p> <p>FY09 - St. Mary's Street Pump Station improvements/construction - 2,800,000</p> <p>FY10 - Bird's Hill Tank high service area/engineering & design - 250,000</p> <p>FY11- Bird's Hill Tank high service area/construction - 1,200,000 - Dunster Road Tank high service area/engineering & design - 200,000</p> <p>FY12 - Dunster Road Tank high service area/construction - 800,000</p>						
Project Manager	Richard Merson & Robert Lewis					

Town of Needham Future Project Request Summary CIP-F						
Project Title	Water Supply Development Feasibility Study				Fiscal Year	2009 - 2012
Department	Department of Public Works				Division	Water
Primary User	Town	X	School		Classification	Infrastructure
Location	Various				Estimated Capital Cost	Amount Not Yet Known
Project Purpose and Highlights						
<p>The historical demand in water supply is seasonal in nature. The typical usage during non-summer periods is 2-3 million gallons per day (mgd). The summer usage can reach as high as 5-7 mgd. Therefore, the Town must supplement its supply from the MWRA. Ideally the reliance on the MWRA source would be for emergency purposes as a back-up supply. Becoming more self reliant would require the development of additional wells. The process for putting new or additional supply on-line is typically 10 years. Depending upon the conditions in the Watershed, these requests could be limited, conditioned or even denied. This likelihood would have to be determined. Alternately, the development of additional wells within the well field could allow the Town to better manage the water within the well field. It preserves the ability for maximizing of the currently permitted withdrawal volume. Routine servicing and maintenance of the wells can occur on a rotating basis while maintaining our permitted withdrawal volumes. This will assist in reducing the reliance on the expensive MWRA water supply. It would also allow the Town to produce additional water during special emergency conditions with only basic water treatment. This process would be initiated through a feasibility study.</p>						
Project Manager	Richard Merson / Robert Lewis					

Town of Needham
Capital Improvement Plan

Town of Needham Future Project Request Summary CIP-F						
Project Title	Irrigation Supply Facility				Fiscal Year	2009
Department	Department of Public Works				Division	Water
Primary User	Town	X	School		Classification	Infrastructure
Location	Dedham Ave. Reservoir				Estimated Capital Cost	\$50,000
Funding	GF	RTS	SWR	WTR	OTH	CPA Eligible?
				X		
Project Purpose and Highlights						
<p>The Water System Master Plan identified all of the sources of water which supply the Town. In the report it was acknowledged that the use of the original supply serving the Town prior to the development of the Charles River St. Well Field had been discontinued. This supply known as the Needham Reservoir/Dedham Ave. Pump Station had been discontinued as an active supply in the 1950's. It has since been formally decommissioned but it has not been completely deactivated. It consists of 2-8' + diameter shallow wells (30'+) deep, which were originally connected through piping under the reservoir to the pump house. The reservoir was constructed as an earth dam impoundment to serve as a recharge for the wells. Its capacity was 400,000 - 500,000 gallons per day. The report recommended that this supply be explored as an alternate for irrigation purposes for the Defazio Complex, the Pollard School Fields and the Needham Golf Club. Using this source for these seasonal demands could lessen the impact upon the Charles River Well Field or the MWRA water system. The work would involve installing pumping equipment and controls at or near the wells, piping to connect to the irrigation systems and disconnection from the potable water supply.</p>						
Project Manager	Richard Merson / Robert Lewis					