

TOWN OF BARNSTABLE



**FY 2020 CAPITAL BUDGET
AND
FY 2020 – FY 2024
CAPITAL IMPROVEMENTS PLAN**

2020



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

Town of Barnstable

Massachusetts

For the Fiscal Year Beginning

July 1, 2018

Christopher P. Morrill

Executive Director

*The Government Finance Officers Association of the United States and Canada (GFOA) has presented a Distinguished Budget Award to the Town of Barnstable for the fiscal year beginning July 1, 2018. The award is the highest form of recognition in governmental budgeting. In order to receive this award, a government unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communications device. This is the **eighteenth consecutive year** that the Town of Barnstable has been presented with this prestigious award.*

The criterion on which the award for fiscal year 2019 was based is that which has been used as a guide in preparing the budget for fiscal year 2020. Therefore, it is my belief that the Capital and Operating budgets presented for fiscal year 2020 conform to program requirements, and I will submit them to GFOA to determine their eligibility for another award. My Staff, Mark Milne, Finance Director, and Nathan Empey, Finance/Budget Analyst, are to be congratulated for their parts in this and the previous awards.

Mark S. Ells
Town Manager

ELECTED OFFICIALS

BARNSTABLE TOWN COUNCIL

James H. Crocker, Jr., Council President , Precinct 5

John G. Flores, Council Vice President, Precinct 1

Eric R. Steinhilber, Precinct 2

Paul Hebert, Precinct 3

Britt Beedenbender, Precinct 4

Paul C. Neary, Precinct 6

Jessica Rapp Grassetti, Precinct 7

Debra S. Dagwan, Precinct 8

James M. Tinsley, Precinct 9

Mathew P. Levesque, Precinct 10

Philip N. Wallace, Precinct 11

Paula K. Schnepf, Precinct 12

Jennifer L. Cullum, Precinct 13

BARNSTABLE SCHOOL COMMITTEE

Chris Joyce, Chair

Stephanie Ellis, Vice Chair

Barbara Dunn

Mike Judge

R. Patrick Murphy

TOWN CLERK

Ann M. Quirk, CMC

TOWN COLLECTOR

Maureen Niemi

TOWN ADMINISTRATION

Mark S. Ells	Town Manager
Andrew M. Clyburn	Assistant Town Manager
Katie Servis	Barnstable Municipal Airport Manager
Cynthia A. Lovell	Town Council Administrator
Matthew Sonnabend	Chief of Police
Elizabeth Jenkins	Director of Planning & Development
Lynne M. Poyant	Director of Community Services
Daniel Horn	Director of Marine & Environmental Affairs
Daniel W. Santos, P.E.	Director of Public Works
Richard V. Scali	Director of Licensing
Brian Florence	Building Commissioner

SCHOOL ADMINISTRATION

Meg Mayo-Brown	Superintendent of Schools
Kristen Harmon	Assistant Superintendent of Schools

OTHER TOWN OFFICIALS

Ruth J. Weil, Esq.	Town Attorney
Mark A. Milne, C.P.A	Director of Finance
Debra Blanchette	Treasurer
Edward O'Neil, MAA	Director of Assessing
William E. Cole	Director of Human Resources
Daniel J. Wood	Director of Information Technology
Greg Quilty	Veterans Services

AIRPORT COMMISSION

John T. Griffin, Jr., Chairman
Stephen P. Cobb, Vice Chairman
James DellaMorte, Clerk
Elizabeth Young
Zachary Lesinski
Joseph J. Berlandi
Norman Weill

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Front Cover Photo: Lombard Field Construction

Back Cover Photo: Lombard Field Parking Lot

Editors: Mark Milne, Director of Finance

 Nathan Empey, Finance/Budget Analyst

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PART I – CAPITAL IMPROVEMENTS PLAN SUBMISSIONS

Cost and Fiscal Year Summary

The capital projects identified by the Town departments in this year’s CIP process represent a total of \$44,415,101 in requests for FY 2020, and a combined total of \$277,491,714 over a five-year period. Of the \$277 million, approximately \$83 million represents Enterprise Funds, \$159 million are General Fund requests and \$36 million are Comprehensive Water Management & Private Way Fund requests.

	Enterprise Funds	General Fund	Comprehensive Water Management & Private Way Fund	Total
FY 2020	\$ 14,164,000	\$ 27,354,101	\$ 2,897,000	\$ 44,415,101
FY 2021	\$ 16,770,706	\$ 38,150,663	\$ 2,500,000	\$ 57,421,369
FY 2022	\$ 12,642,056	\$ 35,083,946	\$ 1,300,000	\$ 49,026,002
FY 2023	\$ 26,999,927	\$ 35,373,594	\$ 29,227,000	\$ 91,600,521
FY 2024	\$ 12,094,568	\$ 22,934,153	-	\$ 35,028,721
Totals	\$ 82,671,257	\$ 158,896,457	\$ 35,924,000	\$ 277,491,714

Enterprise Fund projects are distributed by fund as follows:

Fund	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Totals
Airport	\$ 3,860,000	\$ 4,350,000	\$ 1,730,000	\$ 18,335,000	\$ 5,775,000	\$ 34,050,000
Marina	-	-	\$ 5,047,250	-	-	\$ 5,047,250
Sandy Neck	\$ 60,000	\$ 800,000	\$ 200,000	-	\$ 2,650,000	\$ 3,710,000
HYCC	\$ 679,000	\$ 756,161	\$ 365,834	-	-	\$ 1,800,995
Golf	\$ 446,000	\$ 1,125,045	\$ 1,202,972	\$ 3,564,927	\$ 1,513,568	\$ 7,852,512
Water Pollution	\$ 7,334,000	\$ 5,479,000	\$ 2,330,000	\$ 1,720,000	\$ 738,000	\$ 17,601,000
Water Supply	\$ 1,545,000	\$ 3,805,500	\$ 1,286,000	\$ 3,250,000	\$ 1,288,000	\$ 11,174,500
Solid Waste	\$ 240,000	\$ 455,000	\$ 480,000	\$ 130,000	\$ 130,000	\$ 1,435,000
Totals	\$ 14,164,000	\$ 16,770,706	\$ 12,642,056	\$ 26,999,927	\$ 12,094,568	\$ 82,671,257

General Fund projects are distributed as follows:

Department	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Totals
Police Department	-	\$ 854,073	\$ 1,175,365	\$ 990,997	-	\$ 3,020,435
Administrative Serv.	\$ 365,375	\$ 248,875	-	-	-	\$ 614,250
Marine & Environ.	\$ 2,639,106	\$ 7,600,000	\$ 4,636,819	\$ 3,062,620	\$ 2,600,000	\$ 20,538,545
Community Services	\$ 4,472,921	\$ 6,829,298	\$ 9,289,791	\$ 1,101,050	\$ 3,325,704	\$ 25,018,764
Public Works	\$ 13,926,699	\$ 15,276,433	\$ 11,931,971	\$ 27,268,927	\$ 14,308,449	\$ 82,712,479
Schools	\$ 5,950,000	\$ 7,341,984	\$ 8,050,000	\$ 2,950,000	\$ 2,700,000	\$ 26,991,984
Totals	\$ 27,354,101	\$ 38,150,663	\$ 35,083,946	\$ 35,373,594	\$ 22,934,153	\$ 158,896,457

Detailed Project Listing

The description and justification for each project listed on the following tables are included in Part V and Part IV of this document. Part V contains projects recommended for funding in the FY 2020 program while Part IV includes those projects that will be addressed in subsequent years.

Project Submissions for Enterprise Funds

LISTING OF CAPITAL IMPROVEMENT PROJECTS ENTERPRISE FUND							FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024				
BMA	1	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment - Airport Vehicle #816	220,000	-	-	-	-	220,000				
BMA	2	Aircraft Rescue Fire Fighting (ARFF) Upgrades - Building Roof Repairs	490,000	-	-	-	-	490,000				
BMA	3	Replace 1997 Snow Removal Equipment (SRE) (Kodiak Snow Blower) - Airport Vehicle #36	800,000	-	-	-	-	800,000				
BMA	4	Replace Snow Removal Equipment (SRE) (Heavy Duty Vehicle with Plow and Sander) - Airport Vehicle #26	230,000	-	-	-	-	230,000				
BMA	5	Main Terminal Ramp Hardstands for Heavy Aircraft Parking	280,000	-	-	-	-	280,000				
BMA	6	Runway 15-33 - Apply P-608 Surface Treatment and Repaint	475,000	-	-	-	-	475,000				
BMA	7	Repair & Extend Mary Dunn Way from Steamship Authority Parking Area to Gate Mike	1,000,000	-	-	-	-	1,000,000				
BMA	8	Mitigation (PFOS Soils)	100,000	-	-	-	-	100,000				
BMA	9	Replace Airfield Mowing Equipment - (New Holland Tractor) - Airport Vehicle #29	165,000	-	-	-	-	165,000				
BMA	10	Replace Steel I-Beams in Airport Owned Hanger	100,000	-	-	-	-	100,000				
BMA	11	Extend Mary Dunn Way from Gate Mike (Phase II)	-	3,000,000	-	-	-	3,000,000				
BMA	12	MEPA, NEPA and Cape Cod Commission for Airport Master Plan Projects (AGIS)	-	925,000	-	-	-	925,000				
BMA	13	Replace Airfield Mowing Equipment - (Kubota Zero Turn Mower) - Airport Vehicle #53	-	25,000	-	-	-	25,000				
BMA	14	Terminal Upgrades - Baggage Belt Extension	-	400,000	-	-	-	400,000				
BMA	15	Permitting for Airport Tree Clearing & Obstruction Removal and Airport Master Plan Update Projects	-	-	225,000	-	-	225,000				
BMA	16	Construction for Airport Tree Clearing & Obstruction Removal (including fence line clearing)	-	-	300,000	-	-	300,000				
BMA	17	Easements for Future Construction/Runway 15 Approach	-	-	300,000	-	-	300,000				
BMA	18	Replace Snow Removal Equipment (SRE) (Chevy 2500 Heavy Duty) - Airport Vehicle #32	-	-	55,000	-	-	55,000				
BMA	19	Replace Snow Removal Equipment (SRE) (ASV Skid Steer Plow for EMAS) - Airport Vehicle #38	-	-	100,000	-	-	100,000				
BMA	20	Design and Construct New T-Hangar	-	-	750,000	-	-	750,000				
BMA	21	Replace Runway 24 Departure End Safety Area Engineered Material Arresting System (EMAS)	-	-	-	5,000,000	-	5,000,000				
BMA	22	Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)	-	-	-	12,000,000	-	12,000,000				
BMA	23	Replace Snow Removal Equipment (SRE) (Chevy 2500 Heavy Duty) - Airport Vehicle #27	-	-	-	55,000	-	55,000				
BMA	24	Design and Replace Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm	-	-	-	300,000	-	300,000				
BMA	25	Design & Construct Snow Removal Equipment (SRE) Vehicle Storage Building	-	-	-	900,000	-	900,000				
BMA	26	Replace SRE Equipment - (Ford F350) - Airport Vehicle #31	-	-	-	80,000	-	80,000				
BMA	27	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment - Airport Vehicle #820	-	-	-	-	975,000	975,000				
BMA	28	Reconstruct and Re-Align Taxiways Delta and Echo at Runway 15 (Includes Run-Up Pit)	-	-	-	-	4,500,000	4,500,000				
BMA	29	Replace Snow Removal Equipment (SRE) (HD Vehicle with Plow and Sander) - Airport Vehicle #47	-	-	-	-	300,000	300,000				
TOTAL AIRPORT			\$ 3,860,000	\$ 4,350,000	\$ 1,730,000	\$18,335,000	\$ 5,775,000	\$ 34,050,000				
MAR	1	Bismore Park Bulkhead Improvements	-	-	5,047,250	-	-	5,047,250				
TOTAL MARINE & ENVIRONMENTAL AFFAIRS MARINAS			\$ -	\$ -	\$ 5,047,250	\$ -	\$ -	\$ 5,047,250				

Project Submissions for the Enterprise Funds – Continued

LISTING OF CAPITAL IMPROVEMENT PROJECTS ENTERPRISE FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
SDY	1	Sandy Neck ORV Trail, and Gatehouse Relocation – Design and Permitting	60,000	800,000	-	-	-	860,000
SDY	2	Sandy Neck Parking Lot Relocation	-	-	200,000	-	2,650,000	2,850,000
TOTAL MARINE & ENVIRONMENTAL AFFAIRS SANDY NECK			\$ 60,000	\$ 800,000	\$ 200,000	\$ -	\$ 2,650,000	\$ 3,710,000
HYCC	1	Hyannis Youth and Community Center Roof Replacement	528,333	756,161	365,834	-	-	1,650,328
HYCC	2	Hyannis Youth and Community Center Security Improvements	150,667	-	-	-	-	150,667
TOTAL COMMUNITY SERVICES HYCC			\$ 679,000	\$ 756,161	\$ 365,834	\$ -	\$ -	\$ 1,800,995
GOLF	1	Hyannis Golf Course Restoration Project: Phase 1 - Cart Path System Replacement	446,000	664,735	452,972	2,364,927	-	3,928,634
GOLF	2	Hyannis Golf Course - Improvements	-	180,310	500,000	400,000	-	1,080,310
GOLF	3	Old Barnstable Fairgrounds Golf Club Facility Improvements.	-	280,000	250,000	800,000	1,513,568	2,843,568
TOTAL COMMUNITY SERVICES GOLF			\$ 446,000	\$ 1,125,045	\$ 1,202,972	\$ 3,564,927	\$ 1,513,568	\$ 7,852,512
WPC	1	Effluent Flow Meter Evaluation, Design, and Construction	600,000	-	-	-	-	600,000
WPC	2	Sewer System Evaluation Surveys (SSES)	380,000	-	250,000	250,000	250,000	1,130,000
WPC	3	Pump Station Rehabilitation Program: Rendezvous Lane Pump Station Replacement	1,160,000	1,000,000	1,000,000	1,000,000	-	4,160,000
WPC	4	Bearse's Way Vacuum Sewer Replacement	1,125,000	-	-	-	-	1,125,000
WPC	5	South Street Sewer Rehabilitation	4,019,000	-	-	-	488,000	4,507,000
WPC	6	Vehicle Replacement: Laboratory Van	50,000	-	-	-	-	50,000
WPC	7	Solids Handling Upgrades Construction	-	3,500,000	-	-	-	3,500,000
WPC	8	Denitrification Sand Filter Replacement	-	75,000	-	-	-	75,000
WPC	9	Truck Replacement	-	55,000	-	-	-	55,000
WPC	10	Sewer CCTV Camera Trailer	-	125,000	-	-	-	125,000
WPC	11	Equipment Storage Garage Construction	-	724,000	-	-	-	724,000
WPC	12	WPC Facility Upgrade Study	-	-	150,000	-	-	150,000
WPC	13	Truck 247 Replacement	-	-	75,000	-	-	75,000
WPC	14	Barnstable Road Sewer Rehabilitation Construction	-	-	855,000	-	-	855,000
WPC	15	MSB Generator Design and Construction	-	-	-	470,000	-	470,000
TOTAL PUBLIC WORKS WATER POLLUTION CONTROL			\$ 7,334,000	\$ 5,479,000	\$ 2,330,000	\$ 1,720,000	\$ 738,000	\$ 17,601,000
WS	1	Pipe Replacement and Upgrade Program	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	5,250,000
WS	2	Wells, Pump Stations, Treatment Plant Repair & Upgrade Program	200,000	200,000	200,000	200,000	200,000	1,000,000
WS	3	Valve Maintenance Trailer System	75,000	-	-	-	-	75,000
WS	4	Airport & Mary Dunn Wells, Treatment Options Evaluation, Recommendations and Preliminary Design Report	120,000	-	-	-	-	120,000
WS	5	Hyannisport Wells (Straightway & Simmons Pond) Treatment Options Evaluation & Design	100,000	-	-	-	-	100,000
WS	6	New Well Exploration Program	-	2,555,500	36,000	2,000,000	38,000	4,629,500
TOTAL PUBLIC WORKS WATER SUPPLY			\$ 1,545,000	\$ 3,805,500	\$ 1,286,000	\$ 3,250,000	\$ 1,288,000	\$ 11,174,500

Project Submissions for the Enterprise Funds – Continued

LISTING OF CAPITAL IMPROVEMENT PROJECTS ENTERPRISE FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
SW	1	Compactor Replacement (2 Units)	-	100,000	100,000	100,000	100,000	400,000
SW	2	Container Replacement	-	30,000	30,000	30,000	30,000	120,000
SW	3	All-Terrain Litter Vacuum Replacement	50,000	-	-	-	-	50,000
SW	4	Roll Off Trailer Replacement	100,000	-	-	-	-	100,000
SW	5	Zero Turn Mower with Bagger	-	25,000	-	-	-	25,000
SW	6	Kubota RTV Replacement	30,000	-	-	-	-	30,000
SW	7	Generator Replacement	-	-	100,000	-	-	100,000
SW	8	Municipal Packer Replacement	-	300,000	-	-	-	300,000
SW	9	Roll Off Truck Replacement	-	-	250,000	-	-	250,000
SW	10	Repair and Upgrade (5) MSW Compactor Units	60,000	-	-	-	-	60,000
TOTAL PUBLIC WORKS SOLID WASTE			\$ 240,000	\$ 455,000	\$ 480,000	\$ 130,000	\$ 130,000	\$ 1,435,000
TOTAL ENTERPRISE FUNDS			\$14,164,000	\$16,770,706	\$12,642,056	\$26,999,927	\$12,094,568	\$ 82,671,257

Project Submissions for the Comprehensive Water Management And Private Way Improvements Fund

LISTING OF CAPITAL IMPROVEMENT PROJECTS WATER MANAGEMENT AND PRIVATE WAY IMPROVEMENTS FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
DPW	1	Attucks Lane Pumps Station Area, Sewer Expansion	-	2,500,000	-	-	-	2,500,000
DPW	2	Marstons Mills School Pump Station and associated RT 28 Collection System Preliminary Design	612,000	-	1,300,000	-	-	1,912,000
DPW	3	Long Pond Area Sewer Expansion	938,000	-	-	16,386,000	-	17,324,000
DPW	4	Marstons Mills River Treatment System	612,000	TBD	TBD	TBD	TBD	612,000
DPW	5	Phinney's Lane Sewer Expansion	735,000	-	-	12,841,000	-	13,576,000
WATER MANAGEMENT AND PRIVATE WAY IMPROVEMENTS FUND			\$ 2,897,000	\$ 2,500,000	\$ 1,300,000	\$29,227,000	\$ -	\$ 35,924,000

Project Submissions for the General Fund

LISTING OF CAPITAL IMPROVEMENT PROJECTS GENERAL FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
BPD	1	Barnstable Police Department Improvements/Replacement	-	854,073	1,175,365	990,997	-	3,020,435
TOTAL POLICE DEPARTMENT			\$ -	\$ 854,073	\$ 1,175,365	\$ 990,997	\$ -	\$ 3,020,435
ADM	1	Unified Communications – VOIP (Voice over Internet Protocol)	215,375	148,875	-	-	-	364,250
ADM	2	Aerial Flyover & Mapping Update (Geographic Information Survey)	100,000	100,000	-	-	-	200,000
ADM	3	Summer Aerial Flyover of Waterways	50,000	-	-	-	-	50,000
TOTAL ADMINISTRATION DEPARTMENT			\$ 365,375	\$ 248,875	\$ -	\$ -	\$ -	\$ 614,250
MEA	1	Channel Dredging Program	1,730,000	2,250,000	1,830,000	1,745,000	2,000,000	9,555,000
MEA	2	Blish Point Construction for Long Term Solution	200,000	-	1,600,000	-	-	1,800,000
MEA	3	MEA Interior Project Phase III	192,106	-	-	-	-	192,106
MEA	4	Mill Pond & Long Pond Fish Ways –Construction	-	-	950,000	-	-	950,000
MEA	5	Hyannis Breakwater Study Preliminary Design (for future repairs)	167,000	TBD	TBD	-	-	167,000
MEA	6	West Bay Breakwaters – Design and Construction	-	5,200,000	-	-	-	5,200,000
MEA	7	Scudder’s Lane Boat Ramp Design & Construction	-	150,000	-	650,000	-	800,000
MEA	8	Bay Shore Road Boat Ramp-Design and Construction	-	-	150,000	-	600,000	750,000
MEA	9	MEA Storage Facility Project	-	-	106,819	667,620	-	774,439
MEA	10	Centerville Herring Run System Hydrologic Study	150,000	-	-	-	-	150,000
MEA	11	Bridge Street Pier	125,000	-	-	-	-	125,000
MEA	12	Cotuit Town Dock Extension	75,000	-	-	-	-	75,000
TOTAL MARINE & ENVIRONMENTAL AFFAIRS DEPARTMENT			\$ 2,639,106	\$ 7,600,000	\$ 4,636,819	\$ 3,062,620	\$ 2,600,000	\$ 20,538,545
CSD	1	Beach House Improvements	255,000	491,690	1,602,730	491,690	-	2,841,110
CSD	2	Field Improvements	165,000	TBD	-	-	-	165,000
CSD	3	Centerville Recreation Building Site Design & Construction	1,232,000	-	-	-	-	1,232,000
CSD	4	Beach Parking Lot Rehabilitation - Covell's Beach	-	-	-	250,000	-	250,000
CSD	5	Beach Parking Lot Rehabilitation - Craigville Beach	160,000	-	-	-	-	160,000
CSD	6	Beach Parking Lot Rehabilitation - Keyes Beach	-	150,000	-	-	-	150,000
CSD	7	Osterville Recreation Building & Fields Construction	797,113	-	7,612,061	-	-	8,409,174
CSD	8	Kennedy Memorial Renovation Construction	71,376	895,608	-	-	-	966,984
CSD	9	Marstons Mills Tennis Court Improvements	620,000	-	-	-	-	620,000
CSD	10	Veterans Park Improvements	-	-	-	334,360	3,325,704	3,660,064
CSD	11	Centerville Recreation Interior Improvements	292,432	150,000	75,000	25,000	-	542,432
CSD	12	Hamblin Pond Bathhouse and Site Improvements	300,000	1,630,000	-	-	-	1,930,000
CSD	13	Hathaway’s Pond Bathhouse and Site Improvements	340,000	1,720,000	-	-	-	2,060,000
CSD	14	Joshua's Pond Handicap Accessibility and Beach Improvements	240,000	1,487,000	-	-	-	1,727,000
CSD	15	Millway Beach ADA Access	-	305,000	-	-	-	305,000
TOTAL COMMUNITY SERVICES DEPARTMENT			\$ 4,472,921	\$ 6,829,298	\$ 9,289,791	\$ 1,101,050	\$ 3,325,704	\$ 25,018,764

Project Submissions for the General Fund – Continued

LISTING OF CAPITAL IMPROVEMENT PROJECTS GENERAL FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
DPW	1	Public Roads Maintenance	3,450,000	3,550,000	3,650,000	3,750,000	3,850,000	18,250,000
DPW	2	Roadway and Sewer Improvements of Yarmouth Road and Route 28	TBD	-	-	-	-	-
DPW	3	Public Bridge Improvements	500,000	-	-	-	-	500,000
DPW	4	Bearse's Way Bike Path Construction	125,000	-	-	-	-	125,000
DPW	5	Bumps River Bridge Repairs	900,000	-	-	-	-	900,000
DPW	6	Crosswalk Improvements	300,000	-	-	-	-	300,000
DPW	7	Sidewalk Overlay and Guardrail	314,000	346,419	363,740	381,927	401,023	1,807,109
DPW	8	Oyster Harbors Bridge Study	200,000	-	-	-	-	200,000
DPW	9	School Administration Building Mechanical Cooling	996,000	1,065,000	730,000	-	-	2,791,000
DPW	10	Town Hall Security Improvements	480,000	250,000	TBD	-	-	730,000
DPW	11	Town Hall Site Improvements - Parking Lot	130,000	850,000	-	-	-	980,000
DPW	12	MS4 Municipal Separate Storm Sewer System Program	150,000	150,000	150,000	150,000	100,000	700,000
DPW	13	Cape Cod Airfield Hangar Repair	332,362	-	-	-	-	332,362
DPW	14	West Barnstable Shooting Range Comprehensive Site Assessment	367,500	-	TBD	-	-	367,500
DPW	15	Huckin's Neck Road Reconstruction	200,000	875,000	-	-	-	1,075,000
DPW	16	Town Hall Interior Renovations	150,500	250,000	250,000	250,000	-	900,500
DPW	17	200 Main Street Mansard Roof Replacement	366,765	-	-	-	-	366,765
DPW	18	Private Road Repair – Old Mill Road, School Street and Asa Meigs Road	1,000,000	-	-	-	-	1,000,000
DPW	19	Hyannis Main Street West End Rotary Study Design and Construction	250,000	-	2,500,000	-	-	2,750,000
DPW	20	Snows Creek Culvert Construction	1,500,000	-	-	-	-	1,500,000
DPW	21	Cape Cod Rail Trail Ext. Shared Use Path from Yarmouth Town Line to Sandwich Town Line – Design	500,000	500,000	500,000	500,000	500,000	2,500,000
DPW	22	Old Town Hall Fan Coil Replacements	85,732	314,406	-	-	-	400,138
DPW	23	Cotuit Memorial Park Restoration	322,340	-	-	-	-	322,340
DPW	24	DPW Offices Phase III Construction	-	986,825	-	-	-	986,825
DPW	25	Armory Building Improvements	-	1,835,000	-	2,925,000	-	4,760,000
DPW	26	West Barnstable Railroad Depot Restoration	-	101,509	326,480	-	-	427,989
DPW	27	Marstons Mills School Demolition	-	995,096	-	-	-	995,096
DPW	28	Sidewalks on Pitchers Way (Bearse's Way to Route 28) Design & Construction	-	650,000	-	-	-	650,000
DPW	29	Sidewalk Installation: Bumps River Rd Centerville, Main St Cotuit, South St Hyannis	-	-	825,000	-	-	825,000
DPW	30	Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach	665,000	-	-	-	-	665,000
DPW	31	Highway Truck Storage Facilities Design & Construction	-	-	514,700	-	4,887,110	5,401,810
DPW	32	DPW Salt Storage Facility	-	-	-	2,000,000	-	2,000,000
DPW	33	Parking Lots Maintenance	500,000	500,000	500,000	500,000	500,000	2,500,000
DPW	34	U.S. Custom House Interior Work	-	393,178	-	-	-	393,178
DPW	35	South Street Improvements Design and Construction	-	400,000	-	6,700,000	-	7,100,000
DPW	36	Barnstable Road Reconstruction Design and Construction	-	400,000	-	6,700,000	-	7,100,000
DPW	37	Commerce Road Improvements	-	300,000	-	3,000,000	-	3,300,000
DPW	38	Signalized Intersection at Osterville West Barnstable Road and Race Lane	-	-	77,000	412,000	-	489,000
DPW	39	Old Jail Repairs	-	-	-	-	320,316	320,316
DPW	40	U.S. Custom House Site Improvements	-	30,000	205,543	-	-	235,543
DPW	41	Main Street Tree Lighting Project	114,000	-	-	-	-	114,000

Project Submissions for the General Fund – Continued

LISTING OF CAPITAL IMPROVEMENT PROJECTS GENERAL FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
DPW	42	Burgess Barn Interior	-	50,000	339,508	-	-	389,508
DPW	43	Craigville Beach Road Pump Station and Force Main	-	-	600,000	-	3,750,000	4,350,000
DPW	44	Osterville West Barnstable Rd and Pioneer Path Intersection Retaining Wall	-	100,000	400,000	-	-	500,000
DPW	45	DPW 382 Falmouth Rd Facility Parking Lot Repairs	-	264,000	-	-	-	264,000
DPW	46	Mosswood Cemetery Building Improvements	27,500	120,000	-	-	-	147,500
TOTAL PUBLIC WORKS DEPARTMENT			\$ 13,926,699	\$ 15,276,433	\$ 11,931,971	\$ 27,268,927	\$ 14,308,449	\$ 82,712,479
SCH	1	Barnstable High School Sports Fields Engineering and Upgrades: Phases 2 and 3	250,000	3,616,984	2,950,000	-	-	6,816,984
SCH	2	Districtwide Communication, Video Surveillance, and Entry Improvements	500,000	500,000	-	-	-	1,000,000
SCH	3	Barnstable High School (BHS) Synthetic Turf Replacement	1,000,000	-	-	-	-	1,000,000
SCH	4	Campus Wide Mechanical Upgrades (Burners, Boilers, HVAC & Pump Systems)	250,000	250,000	250,000	250,000	250,000	1,250,000
SCH	5	Barnstable High School (BHS) & Barnstable Intermediate School (BIS) Roof Top Unit Ventilator Replacement	1,500,000	2,000,000	2,000,000	2,000,000	2,000,000	9,500,000
SCH	6	Centerville Elementary School Unit Ventilator Upgrades: Phase 4	500,000	-	-	-	-	500,000
SCH	7	Comprehensive Facilities Assessment	150,000	-	-	-	-	150,000
SCH	8	Building Interior & Exterior Painting Improvements	100,000	100,000	100,000	100,000	100,000	500,000
SCH	9	Hyannis West Elementary Roof Replacement	450,000	-	-	-	-	450,000
SCH	10	Centerville Elementary Roof Replacement	250,000	-	-	-	-	250,000
SCH	11	Barnstable High School Environmental Lab	1,000,000	-	-	-	-	1,000,000
SCH	12	Flooring Replacement and Upgrades	-	100,000	100,000	100,000	100,000	400,000
SCH	13	Hyannis West Elementary Interior/Exterior Door Replacement	-	100,000	100,000	-	-	200,000
SCH	14	Barnstable High School Gym and Field House Improvements	-	250,000	250,000	250,000	-	750,000
SCH	15	Barnstable United Elementary Courtyard Improvements	-	100,000	-	-	-	100,000
SCH	16	Barnstable Public Schools Campus Wide Paving	-	250,000	250,000	250,000	250,000	1,000,000
SCH	17	Electric Utility Transformer Upgrade	-	-	300,000	-	-	300,000
SCH	18	Barnstable High School Culinary Arts Kitchen	-	-	500,000	-	-	500,000
SCH	19	Centerville School Window Replacement	-	-	1,000,000	-	-	1,000,000
SCH	20	Barnstable Intermediate School Walk-In Freezer	-	75,000	-	-	-	75,000
SCH	21	Centerville Elementary School Elevator Project	-	-	250,000	-	-	250,000
TOTAL SCHOOL DEPARTMENT			\$ 5,950,000	\$ 7,341,984	\$ 8,050,000	\$ 2,950,000	\$ 2,700,000	\$ 26,991,984
TOTAL GENERAL FUND			\$ 27,354,101	\$ 38,150,663	\$ 35,083,946	\$ 35,373,594	\$ 22,934,153	\$ 158,896,457
TOTAL CAPITAL IMPROVEMENTS PROGRAM PROJECT COSTS			\$ 44,415,101	\$ 57,421,369	\$ 49,026,002	\$ 91,600,521	\$ 35,028,721	\$ 277,491,714

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PART II – CAPITAL SUBMISSION REVIEW PROCESS

The Town Administration has implemented a review process for capital submissions that scores projects twice and then averages their rank to determine an overall ranking. This two-step process requires a task force made up of senior level managers across all departments. The senior level managers are responsible for reviewing and scoring the capital submissions based on two different sets of criteria, which is conducted in both a collaborative as well as individual manner. This does not determine which projects will receive funding in the immediate fiscal year, but is used as an objective measurement to assess a project's priority against all other submissions.

Round 1 Evaluation Criteria

The first round of scoring allowed department managers to present their top priority capital submissions in a workshop format with the task force team. Most Enterprise Fund projects were excluded from this workshop, as they are not competing for General Fund financing. This process provided task force members the opportunity to ask questions relative to each project presented to gain a more thorough understanding of the need and scope of the project. After the presentations, each task force member voted anonymously as to which category of priority the project placed based on the set of criteria listed. From this, the average score for each project was calculated with projects ranked from the highest to lowest score. A total of 58 projects out of 102 General Fund submissions were reviewed. One Enterprise Fund project was included in the presentations, as it required non-enterprise funds to finance a portion of the costs.

Priority I: Imperative (Must-Do) (4 points) – Projects that cannot reasonably be postponed in order to avoid harmful or otherwise undesirable consequences.

- A. Corrects a condition dangerous to public health or safety
- B. Satisfies a legal, regulatory or statutory obligation or requirement
- C. Alleviates an emergency service disruption or deficiency
- D. Prevents irreparable damage to a valuable public facility

Priority II: Essential (Should-Do) (3 points) – Projects that address clearly demonstrated needs or objectives.

- A. Rehabilitates or replaces an obsolete public facility or attachment thereto
- B. Stimulates economic growth and private capital investment
- C. Reduces future operating and maintenance costs
- D. Leverages available state or federal funding

Priority III: Important (Could-Do) (2 points) – Projects that benefit the community but may be delayed without detrimental effects to basic services.

- A. Provides a new or expanded level of service
- B. Promotes intergovernmental cooperation
- C. Reduces energy consumption
- D. Enhances educational, cultural or natural resources

Priority IV: Desirable (Nice-To-Do) (1 point) – Desirable projects that is not included within a two-year program because of funding limitations.

Round 2 Evaluation Criteria

Traditionally, the task force members were asked to evaluate all project submissions against a set of 10 evaluation criteria. A total of 168 projects were submitted and it was determined to evaluate only the 58 projects scored in the first round using the traditional 10 criteria. The second round is conducted individually based on the ten evaluation criteria including: **Public Health and Safety, Education, Economic Development, Infrastructure and Protection of Assets, Environmental and Natural Resources, Quality of Life, Financing, Operating Budget Impact, Planning and Relationships to Existing Plans, and Usage and Service Demand.** Each capital submission is then scored based on its level of impact. The scores from the task force members are then averaged and project submissions are ranked from highest to lowest score.

CRITERIA AND STRATEGIC PLAN AREA	HIGHEST IMPACT (Score of 4)	MEDIUM IMPACT (Score of 3)	LOW IMPACT (Score of 2)	NO IMPACT OR NOT APPLICABLE (Score of 0)
<p>PUBLIC HEALTH AND SAFETY -- degree to which project meets public health and safety needs/issues.</p>	<p>Project is necessary to <u>alleviate a significant, existing, documented</u> health or safety hazard. This could include:</p> <ul style="list-style-type: none"> Proposed project meets the minimum requirements/mandates of a local, state or federal law pertaining to health and safety of the community. Project directly pertains to the delivery of public safety through police protection. Project required to achieve adopted LOS for health or safety standards 	<p>Project is necessary to <u>prevent the onset</u> of a likely health and safety hazard or <u>alleviate an existing, minor</u> hazard. If problem does not currently exist, failure to act would result in hazard being present within one-two years. May include:</p> <ul style="list-style-type: none"> Enhancement of current health and safety programs or projects; Related to, but not exclusive impact on traffic control on town's public ways; Addresses local, state or federal laws pertaining to health and safety, but goes beyond minimum requirements to additional enhancements. 	<p>Project is needed to <u>maintain the current level</u> of health and safety services provided to residents. Failure to complete project may result in appearance of hazard within 2-5 years. May include:</p> <ul style="list-style-type: none"> Repair or regular maintenance of facilities in order to maintain a healthy and/or safe condition. Maintains existing traffic LOS and/or prevents formation of a safety problem. 	<p>Project <u>does not relate to, nor have any impact on</u> public health and safety issues within the town.</p>
<p>EDUCATION -- applicability of project to educational priorities of the town.</p>	<p>Project is intended <u>directly</u> for the purpose of educating the town's children and is <u>essential</u> in order to meet state and local educational standards. This includes repair/maintenance of, as well as new buildings and structures used for classrooms, school-sponsored recreational activities, administrative support to schools, and other related projects</p>	<p>Project will be used <u>primarily</u> for education of the town's children, but may include other ancillary uses. Project is important, but not required in meeting minimum educational standards.</p>	<p>Project will be used <u>minimally</u> for direct education of the town's children. Primary use of the project will be other than education purposes. This project is not required toward meeting any educational standards, but may enhance existing programs/facilities.</p>	<p>Project is <u>not intended</u> to be used for educational purposes.</p>

CRITERIA AND STRATEGIC PLAN AREA	HIGHEST IMPACT (Score of 4)	MEDIUM IMPACT (Score of 3)	LOW IMPACT (Score of 2)	NO IMPACT OR NOT APPLICABLE (Score of 0)
<p>ECONOMIC DEVELOPMENT -- degree to which project meets economic development objectives of Town Council and other town plans.</p>	<p>Project would have <u>significant impact</u> on the ability to retain and expand business within the town. May include:</p> <ul style="list-style-type: none"> • Significant impact on increasing year-round job opportunities, particularly high-paying jobs; • Strong contribution to retaining existing and attracting new businesses to the town; • Significant private contributions to project's future development; • Substantially increases attraction for additional tourists to the town. 	<p>Project would make a <u>major contribution</u> to the Town's ability to retain and expand business. May include:</p> <ul style="list-style-type: none"> • Create expanded job opportunities, year-round and seasonal; • Measurable retention of existing business and/or possible attraction of new business to the town. • May involve private contributions to the project directly or indirectly; • Increases attraction of additional tourists to the town. 	<p>Project would have <u>some contribution</u> to the Town's ability to retain and expand businesses. May include:</p> <ul style="list-style-type: none"> • Minimal impact on expanded job opportunities, or preventing loss of jobs; • Some potential for attraction of new business to town. • Little to no private contributions to the project directly or indirectly; • May have some slight impact on attracting additional tourists to town. 	<p>Project <u>does not have any impact</u> on the Town's ability to retain and expand businesses, create jobs, tourism or the tax base.</p>
<p>INFRASTRUCTURE AND PROTECTION OF CAPITAL ASSETS -- degree to which project maintains and protects existing capital assets of the town.</p>	<ul style="list-style-type: none"> • Project is critical to save structural integrity of existing asset or repair significant structural deterioration. • Failure to act would result in complete loss of the asset or would require significantly more funds if repairs are delayed. • Project would meet the needs of the community for a minimum of 20 years. 	<ul style="list-style-type: none"> • Project is necessary to repair or replace assets before a partial loss of structural integrity causes the need for significant repairs. • Project would last a minimum of 10 years. • Project would meet the needs of the community for a minimum of 10 years. 	<ul style="list-style-type: none"> • Project will improve appearance, public accessibility and/or deter future maintenance of this type for a minimum of 5 years. • Project would meet the needs of the community for a minimum of 5 years. 	<p>Project does not improve or protect existing capital assets.</p>
<p>ENVIRONMENT AND NATURAL RESOURCES -- degree to which project conserves and protects natural and historical resources of the town.</p>	<p>Project is critical to preservation of a well-documented natural or historic town resource. Other applicable criteria may include:</p> <ul style="list-style-type: none"> • Failure to approve project would result in damage or deterioration of key natural resource/environment in the near future. • If not approved, project would have long-lasting negative impacts on the town's water supply or coastal resources. • Failure to approve project would result in a loss of critical resources • Project significantly impacts an ACEC, WP or GP designated area. • Project is critical to protect / stabilize a town-owned significant historic resource; 	<p>Project will have substantial impacts on the ability to preserve or maintain a key natural or historic resource for the town. Other applicable criteria may include:</p> <ul style="list-style-type: none"> • Project may repair natural ecological deterioration and may result in improved access by residents to enjoy resource. • Maintains or improves the ecology of freshwater ponds, wetlands, or natural habitats. • Project impacts GP designated district or other significant areas of concern. • Project will improve / restore a historic resource as a physical record. 	<p>Project will improve, but is not necessary for the maintenance of a key natural or historic resource for the town. Other applicable criteria may include:</p> <ul style="list-style-type: none"> • May improve access by the public to enjoy the resource. • May add and/or expand the greenbelt system within the Town; or otherwise expand the amount of natural habitat. • Project is necessary to conserve / retain existing historic materials and/or features. 	<p>Project does not relate to or have any impact on preservation or maintenance of natural or historic resources.</p>

CRITERIA AND STRATEGIC PLAN AREA	HIGHEST IMPACT (Score of 4)	MEDIUM IMPACT (Score of 3)	LOW IMPACT (Score of 2)	NO IMPACT OR NOT APPLICABLE (Score of 0)
<p>QUALITY OF LIFE-- degree to which project addresses town-wide quality of life for its residents.</p>	<ul style="list-style-type: none"> • Project is critical to the continuation or needed expansion of an existing cultural and/or human service. • Project is required to respond to a documented health, cultural and/or human service need. • Project significantly expands the quality of life for the residents of the town. 	<ul style="list-style-type: none"> • Project maintains or enhances the ability to deliver cultural and/or human services. • Project enhances the existing quality of life within the town. 	<ul style="list-style-type: none"> • Project supports the delivery of cultural an/or human services. • Project supports the existing quality of life within the town. 	<ul style="list-style-type: none"> • Project is not related to the delivery of cultural and/or human services. • Project does not impact the quality of life within the town.
<p>FINANCING -- availability of non-general fund financing overall financial feasibility.</p>	<p>Project has a highly positive fiscal impact due to the following:</p> <ul style="list-style-type: none"> • Implementing project would result in significant increased revenues to the town or significantly expands the non-residential tax base; • Non-general fund revenues sufficient to support 75-100% of project expense; and have been identified and applied for. 	<p>Project has a generally positive fiscal impact due to the following:</p> <ul style="list-style-type: none"> • Project would result some increased revenue to the town or increases the non-residential tax base somewhat; • Non-general fund revenues sufficient to support 25-74% of project expense have been identified. 	<p>Project has a neutral to slightly positive fiscal impact due to the following:</p> <ul style="list-style-type: none"> • Additional revenues would not offset additional costs. • Project supported by 1-25% of non-general fund revenues. 	<p>Project has a negative fiscal impact due to the following:</p> <ul style="list-style-type: none"> • None of the cost of the project will be funded by non-general funds. • Project would not bring in additional revenues.
<p>OPERATING BUDGET IMPACT -- degree to which project is required to reduce or eliminate short-term operating costs; and its impact on future operating budget.</p>	<p>Project has a highly positive impact on the operating budget due to:</p> <ul style="list-style-type: none"> • Implementing project would substantially decrease current operating fund expenditures due to current excessive maintenance, patching, etc. costing more than 50% of the cost of the project, prorated over 3 years; • 100% of future operating costs can be absorbed within existing budgets once project is completed. • Not doing project would result in significant increased operating costs to the town in the near future (i.e. major repair versus complete replacement). 	<p>Project has a generally positive impact on the operating budget due to:</p> <ul style="list-style-type: none"> • Implementing project may moderately decrease current operating fund expenditures due to on-going repairs, maintenance, etc. costing between 25-50% of cost of the project prorated over 3 years; • Project would result in minimal increase in future operating costs for the benefits gained; • Not doing project would result in a noticeable, but not significant increase in expenditure of operating funds to repair or make asset usable in the short term. 	<p>Project has a neutral to slightly positive impact on the operating budget due to:</p> <ul style="list-style-type: none"> • Implementing project may decrease or have a neutral affect on current operating fund expenditures due to on-going repair, maintenance, etc. costing up to 25% of the cost of the project prorated over 3 years; • Project would increase future operating costs with only minimal benefits received; • Not doing project would result in the need for minimal additional operating funds for repair / maintenance of current assets. 	<p>Projects has a negative impact on the operating budget due to:</p> <ul style="list-style-type: none"> • Significant increase in current operating fund expenditures required maintaining, repairing, or otherwise operating project. • Project requires significant increase in future operating fund expenditures without documented benefits

CRITERIA AND STRATEGIC PLAN AREA	HIGHEST IMPACT (Score of 4)	MEDIUM IMPACT (Score of 3)	LOW IMPACT (Score of 2)	NO IMPACT OR NOT APPLICABLE (Score of 0)
<p>PLANNING AND RELATIONSHIP TO EXISTING PLANS -- how the project addresses implementation of previously developed plans of the town to protect and enhance human and physical assets.</p>	<p>Project is specifically included in a plan adopted by a State, Regional or Local Legislative body, such as:</p> <ul style="list-style-type: none"> Specifically listed in the annual Town Council Strategic Plan. Included within the prior 5 year Capital Improvement Program Listed as a priority in the 5 Year Capital Improvements Plan of the LCP (once adopted). Project included in a State Bond Bill Project is specifically listed in a plan adopted by the Town Council. 	<p>Project is part of an Executive Order or Plan of Action adopted by the School Board and/or the Town Manager, such as:</p> <ul style="list-style-type: none"> Project generally supports the policies and/or resolves adopted by the Town Council Project is included in the current year Transportation Improvement Program (TIP). Project specifically included in a plan adopted by the School Board and/or the Town Manager 	<p>Project is included as part of a Town Departmental Work Plan, or part of a functional service delivery system such as.</p> <ul style="list-style-type: none"> Project supports the Departmental Mission and prioritizes needed action Project needed to accomplish a major service effort Project supports a plan adopted by the School Board and/or the Town Manager 	<p>Project is not related to the plans, policies or resolves adopted by the Town Council or other agencies of the town.</p>
<p>USAGE AND SERVICE DEMAND -- degree to which project is used by population and manner in which it is used.</p>	<ul style="list-style-type: none"> Project will be in continuous usage or will be used year round. Project will serve 50 to 100% of the population of the town. Project serves three or more functions and/or needs of the town. 	<ul style="list-style-type: none"> Project will be used the majority of the year. Project will serve 25 to 75% of the population of the town or is designed for a village or other sub-area of the town. Project serves at least two functions and/or needs of the town. 	<ul style="list-style-type: none"> Project will be used seasonally. Project will serve less than 25%, but more than 5% of the population of the town or is designed for a limited service area. Project serves a single service and/or need of the town. 	<ul style="list-style-type: none"> Project will be only intermittently used. Project will provide limited services to a very limited service area.

The grades from the first and second evaluation methods were used to rank the projects by priority using their average ranking from each procedure. Many of the highest-ranking projects are recommended for funding in FY 2020. Some of the higher scoring projects that did not receive any funding in FY20 may be a result of the project not being ready for the construction phase, the cost requires further evaluation, funding is not available or the department submitted the project with a request for funding in a subsequent year. The rankings are illustrated on the following page. The projects highlighted are all included in the FY20 proposed program.

Project Ranking Results

FY 2020 TASK FORCE PROJECT SCORES				PRIORITY	PRIORITY	DIFFERENCE	ROUND 1	ROUND 2	AVERAGE	ROUND 1	ROUND 2	AVERAGE
DEPT	DEPT			BY AVG.	BY AVG.	IN	SCORE	SCORE	SCORE	RANK	RANK	RANK
PRIORITY	NAME	PROJECT TITLE		RANK	SCORE	PRIORITY						
1	DPW	Public Roads Maintenance		1	2	-1	3.67	25.54	14.60	4	2	2.75
5	DPW	Bumps River Bridge Repairs		2	6	-4	3.83	21.85	12.84	1	10	5.25
2	DPW	Roadway and Sewer Improvements of Yarmouth Road and Route 28		3	4	-1	3.42	23.15	13.29	9	4	6.25
1	MEA	Channel Dredging Program		4	3	1	3.33	24.92	14.13	12	3	7.25
1	HYCC	Hyannis Youth and Community Center Roof Replacement		5	5	0	3.33	22.38	12.86	12	5	8.25
12	DPW	MS4 Municipal Separate Storm Sewer System Program		5	8	-3	3.58	21.62	12.60	6	11	8.25
2	SCH	Districtwide Communication, Video Surveillance, and Entry Improvements		5	7	-2	3.42	21.92	12.67	9	8	8.25
2	DPW	Marstons Mills School Pump Station and associated RT 28 Collection System Preliminary Design		8	1	7	3.08	26.31	14.70	21	1	11.00
3	SCH	Barnstable High School (BHS) Synthetic Turf Replacement		9	12	-3	3.25	21.23	12.24	15	15	14.75
6	DPW	Crosswalk Improvements		10	18	-8	3.75	20.38	12.07	2	30	16.00
4	SCH	Campus Wide Mechanical Upgrades (Burners, Boilers, HVAC & Pump Systems)		11	13	-2	3.17	21.23	12.20	19	15	16.50
3	DPW	Public Bridge Maintenance and Repairs		12	9	3	3.00	22.08	12.54	27	7	17.00
7	DPW	Sidewalk Overlay and Guardrail		13	16	-3	3.25	20.92	12.09	15	20	17.25
2	MEA	Blish Point Construction for Long Term Solution		14	17	-3	3.08	21.08	12.08	21	16	18.50
2	ADM	Aerial Flyover & Mapping Update (Geographic Information Survey)		15	35	-20	3.58	19.15	11.37	6	38	21.75
3	CSD	Beach Parking Lot Rehabilitation - Craigville Beach		16	19	-3	3.00	21.00	12.00	27	18	22.25
10	CSD	Hamblin Pond Bathhouse and Site Improvements		17	14	3	2.92	21.38	12.15	33	13	22.75
2	CSD	Beach Parking Lot Rehabilitation - Covell's Beach		18	20	-2	3.00	20.92	11.96	27	20	23.25
10	DPW	Town Hall Security Improvements		19	38	-19	3.67	18.62	11.14	4	44	23.75
6	MEA	West Bay Breakwaters – Design and Construction		20	11	9	2.67	21.85	12.26	40	10	24.75
11	CSD	Hathaway's Pond Bathhouse and Site Improvements		20	15	5	2.75	21.46	12.11	38	12	24.75
4	CSD	Beach Parking Lot Rehabilitation - Keyes Beach		22	21	1	3.00	20.83	11.92	27	23	25.00
10	SCH	Centerville Elementary Roof Replacement		23	28	-5	3.25	20.00	11.63	15	36	25.25
1	CSD	Beach House Improvements		24	10	14	2.50	22.15	12.33	46	6	26.00
2	HYCC	Hyannis Youth and Community Center Security Improvements		25	42	-17	3.42	18.46	10.94	9	45	26.75
5	SCH	Barnstable High School (BHS) & Barnstable Intermediate School (BIS) Roof Top Unit Ventilator Replacement		25	22	3	3.00	20.69	11.85	27	27	26.75
6	SCH	Centerville Elementary School Unit Ventilator Upgrades: Phase 4		25	22	3	3.00	20.69	11.85	27	27	26.75
38	DPW	Commerce Road Improvements		28	30	-2	3.08	20.08	11.58	21	34	27.25
3	ADM	Summer Aerial Flyover of Waterways		29	39	-10	3.25	19.00	11.13	15	41	27.75
4	DPW	Bearse's Way Bike Path Construction		30	24	6	2.83	20.85	11.84	35	22	28.25
1	GOLF	Hyannis Golf Course Restoration Project: Phase 1 - Cart Path System Replacement		31	25	6	2.83	20.69	11.76	35	27	30.75
9	SCH	Hyannis West Elementary Roof Replacement		32	31	1	3.00	20.00	11.50	27	36	31.25
3	MEA	MEA Interior Project Phase III		33	54	-21	3.42	16.31	9.86	9	56	32.25
1	BPD	Barnstable Police Department Improvements/Replacement		34	46	-12	3.25	18.00	10.63	15	50	32.50
31	DPW	Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach		35	26	9	2.67	20.69	11.68	40	27	33.25
9	DPW	School Administration Building Mechanical Cooling		36	47	-11	3.17	18.00	10.58	19	50	34.25
7	MEA	Scudder's Lane Boat Ramp Design & Construction		37	34	3	2.75	20.15	11.45	38	32	34.75
8	DPW	Oyster Harbors Bridge Study		38	27	11	2.50	20.77	11.63	46	24	35.00
5	MEA	Hyannis Breakwater Study Preliminary Design (for future repairs)		39	28	11	2.25	21.00	11.63	55	18	36.00
11	DPW	Town Hall Site Improvements - Parking Lot		40	40	0	2.92	19.00	10.96	33	41	36.50
1	SCH	Barnstable High School Sports Fields Engineering and Upgrades: Phases 2 and 3.		41	32	9	2.50	20.46	11.48	46	29	37.50
8	MEA	Bay Shore Road Boat Ramp-Design and Construction		42	36	6	2.58	20.08	11.33	43	34	38.25

The project ranking results (continued)

FY 2020 TASK FORCE PROJECT SCORES			PRIORITY	PRIORITY	DIFFERENCE	ROUND 1	ROUND 2	AVERAGE	ROUND 1	ROUND 2	AVERAGE
DEPT	DEPT		BY AVG.	BY AVG.	IN	SCORE	SCORE	SCORE	RANK	RANK	RANK
PRIORITY	NAME	PROJECT TITLE	RANK	SCORE	PRIORITY	SCORE	SCORE	SCORE	RANK	RANK	RANK
7	CSD	Veterans Park Improvements	43	33	10	2.08	20.85	11.46	56	22	38.75
28	DPW	Marstons Mills School Demolition	44	49	-5	3.00	17.85	10.42	27	52	39.50
7	SCH	Comprehensive Facilities Assessment	45	41	4	2.58	19.31	10.95	43	37	40.00
1	ADM	Unified Communications – VOIP (Voice over Internet Protocol)	46	52	-6	3.00	16.85	9.92	27	54	40.50
13	CSD	Joshua's Pond Handicap Accessibility and Beach Improvements	47	44	3	2.67	18.77	10.72	40	43	41.50
25	DPW	DPW Offices Phase III Construction	48	50	-2	2.83	18.00	10.42	35	50	42.50
6	CSD	Kennedy Memorial Renovation Construction	49	37	12	2.25	20.31	11.28	55	31	42.75
8	CSD	Centerville Recreation Building Site Design & Construction	50	43	7	2.42	19.08	10.75	50	39	44.25
14	CSD	Millway Beach ADA Access	51	48	3	2.58	18.38	10.48	43	46	44.50
4	MEA	Mill Pond & Long Pond Fish Ways –Construction	52	45	7	2.42	18.85	10.63	50	42	45.75
9	CSD	Centerville Recreation Interior Improvements	53	51	2	2.42	18.08	10.25	50	48	48.50
5	CSD	Osterville Recreation Building Design & Construction	54	53	1	1.67	18.08	9.87	58	48	52.75
12	CSD	Marstons Mills Tennis Court Improvements	54	55	-1	2.33	17.23	9.78	53	53	52.75
9	MEA	MEA Storage Facility Project	56	58	-2	2.42	13.62	8.02	50	58	53.75
8	SCH	Building Interior & Exterior Painting Improvements	56	56	0	2.33	16.77	9.55	53	55	53.75
23	DPW	Cotuit Memorial Park Restoration	58	57	1	1.92	15.38	8.65	57	57	57.00

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PART III – STATUS OF EXISTING CAPITAL APPROPRIATIONS

Balances in Completed Projects Used to Fund the FY 2020 Capital Program

Part of the annual Capital Improvements Program process is to review the status of all previously approved projects. If a project has been completed and funds remain in the appropriation, the remaining funds will be used as a funding source for the current year's capital program. A total of \$860,000 has been identified in prior appropriations and will be applied as follows:

Original Appropriation Order	Available Amount	Project Allocation
2016-105 Traffic Signal Upgrades	\$150,000	Separate Storm System Sewer (MS4) Program
2016-081 BCHMCPS Façade & Roof Improvements	\$500,000	Barnstable High School Environmental Lab
2016-082 School Light Pole and Restroom Improvements	\$178,000	Barnstable High School Environmental Lab
2015-106 Hyannis Golf Course Facility Improvements	\$32,000	HGC Cart Path System Replacement
Total	\$860,000	

The list on the following pages comprise the active capital projects. Some of these projects are near completion and some have yet to be implemented.

Review of Active Prior Year Capital Appropriations (Balances as of 2/14/2019)

General Fund Active Prior Year Capital Appropriations

Council Order	FY CIP	Project #	Project Title	Appropriation	Expended	Encumbered	Balance	Appropriation Status
2010-111	2011	10111	FY11 WEST BAY BRIDGE REP	650,000.00	477,791.41	79,790.42	92,418.17	Expires when encumbrance is paid or liquidated.
2010-113	2011	10113	FY11 COMPREHENSIVE WASTE	600,000.00	299,854.65	37,818.00	262,327.35	Expires when encumbrance is paid or liquidated.
2012-098	2013	2097M	FY13 BUMPS RIVER BRIDGE	29,000.00	15,501.60	13,498.40	-	Expires when encumbrance is paid or liquidated.
2013-114	2014	13114	FY14 WATER QUALITY EVALU	300,000.00	183,559.53	105,440.47	11,000.00	Expires when encumbrance is paid or liquidated.
2013-116	2014	3116C	FY14 TOWN HALL INTERIOR	150,000.00	136,653.37	1,036.49	12,310.14	Expires when encumbrance is paid or liquidated.
2014-102	2015	14102	FY15 POLICE FACILITY IMP	288,000.00	283,890.10	4,109.90	0.00	Expires when encumbrance is paid or liquidated.
2014-108	2015	14108	FY15 MARSTONS MILLS FISH	793,500.00	54,536.51	41,441.47	697,522.02	Expires when encumbrance is paid or liquidated.
2014-109	2015	14109	FY15 MILL POND & LONG PO	42,000.00	30,000.00	6,310.83	5,689.17	Expires when encumbrance is paid or liquidated.
2014-111	2015	14111	FY15 VETERANS' PARK PLAN	50,000.00	32,828.28	7,299.72	9,872.00	Expires when encumbrance is paid or liquidated.
2014-116	2015	14116	FY15 COMPREHENSIVE DREDG	350,310.00	227,682.32	122,627.68	-	Expires when encumbrance is paid or liquidated.
2014-118	2015	14118	FY15 CENTERVILLE RECREAT	185,000.00	49,744.95	4,700.42	130,554.63	Expires when encumbrance is paid or liquidated.
2014-119	2015	14119	FY15 TOWN FACILITIES SEC	100,000.00	58,149.78	1,376.75	40,473.47	Expires when encumbrance is paid or liquidated.
2015-096	2016	15096	FY16 PUBLIC ROAD MAINTEN	3,250,000.00	3,213,841.26	36,158.74	0.00	Expires when encumbrance is paid or liquidated.
2015-100	2016	15100	FY16 POLICE FACILITY IMP	355,000.00	265,141.46	51,654.56	38,203.98	Expires when encumbrance is paid or liquidated.
2015-101	2016	15101	FY16 TOWN HALL IMPROVEME	939,000.00	66,647.34	10,287.00	862,065.66	Expires when encumbrance is paid or liquidated.
2015-103	2016	15103	FY16 JFK MEMORIAL RESTOR	87,000.00	36,421.60	48,900.00	1,678.40	Expires when encumbrance is paid or liquidated.
2015-114	2016	15114	FY16 DEMO PORTABLES @ MM	50,000.00	9,981.98	-	40,018.02	Will be used in conjunction with 2018-094.
2016-026	2016	16026	FY16 SHOOTING RNG MONITO	35,000.00	31,170.21	1,346.28	2,483.51	Expires when encumbrance is paid or liquidated.
2016-078	2016	16078	FY16/17 DOG PARK-HATHAW	279,850.00	253,181.84	23,422.60	3,245.56	Expires when encumbrance is paid or liquidated.
2016-102	2017	16102	FY17 PUBLIC ROAD MAINT P	3,250,000.00	3,232,967.90	17,008.52	23.58	Expires when encumbrance is paid or liquidated.
2016-103	2017	16103	FY17 SIDEWALK/GUARDRAIL	730,000.00	727,025.00	-	2,975.00	Expires June 30, 2019.
2016-104	2017	16104	FY17 MS4 STORM MGMT PLAN	87,500.00	5,966.88	70,400.00	11,133.12	Expires June 30, 2019.
2016-105	2017	16105	FY17 TRAFFIC SIGNAL UPGR	150,000.00	-	-	150,000.00	Balance used for FY 2020 Capital Program.
2016-111	2017	16111	FY17 BLISH POINT DREDGIN	1,079,788.00	432,105.55	96,160.59	551,521.86	Expires June 30, 2019.
2016-112	2017	16112	FY17 OSTERVILLE BAY ELM	900,444.00	619,105.86	885.50	280,452.64	Expires June 30, 2019.
2016-113	2017	16113	FY17 LOMBARD FIELD IMPRO	1,754,499.11	1,585,924.47	167,302.77	1,271.87	Expires June 30, 2019.
2017-003	2017	17003	FY17 PRVT RD REP-BLUE HE	180,000.00	126,851.58	-	53,148.42	Expires June 30, 2019.
2017-069	2018	17069	TOWN HALL RESTROOM RENOV	560,000.00	-	-	560,000.00	Expires June 30, 2020.
2017-070	2018	17070	TOWNHALL & SAB MASONRY S	116,000.00	10,000.00	-	106,000.00	Expires June 30, 2020.
2017-071	2018	17071	FY18 PUBLIC ROADS IMPROV	3,250,000.00	3,204,525.11	44,900.31	574.58	Expires June 30, 2020.
2017-072	2018	17072	JFK MUSEUM PLAZA REPLACE	235,000.00	20,000.00	-	215,000.00	Expires June 30, 2020.
2017-073	2018	17073	FY18 SIDEWALK/GUARDRAIL	314,000.00	211,375.23	102,624.77	-	Expires June 30, 2020.

General Fund Active Prior Year Capital Appropriations – Continued

Council Order	FY CIP	Project #	Project Title	Appropriation	Expended	Encumbered	Balance	Appropriation Status
2017-074	2018	17074	SHOOTING RANGE ASSESMEN	350,000.00	19,989.89	12,871.11	317,139.00	Expires June 30, 2020.
2017-086	2018	17086	OSTERVILLE REC BLDG DESI	675,000.00	140,299.12	18,944.80	515,756.08	Expires June 30, 2020.
2017-087	2018	17087	SENIOR CTR STANDBY GENER	209,000.00	18,425.00	4,075.00	186,500.00	Expires June 30, 2020.
2017-088	2018	17088	DISPATCH CTR RENOVATIONS	158,000.00	129,814.38	15,302.02	12,883.60	Expires June 30, 2020.
2017-089	2018	17089	FY18 HYDRILLA CONTROL	82,000.00	78,456.72	-	3,543.28	Expires June 30, 2020.
2017-095	2018	17095	TYLER CONTENT MGR SOFTWA	105,000.00	51,774.11	8,600.00	44,625.89	Expires June 30, 2020.
2018-031	2018	18031	THREE BAY TOWN PIER EVAL	30,000.00	-	-	30,000.00	Expires June 30, 2020.
2018-055	2018	18055	MILL POND DREDGING	250,000.00	29,359.33	21,903.83	198,736.84	Expires June 30, 2020.
2018-063	2019	18063	ARMORY BLDG EVAL/DESIGN	200,175.00	23,100.00	4,405.00	172,670.00	Expires June 30, 2021.
2018-074	2019	18074	COTUIT BAY CHANNEL DREDG	1,000,000.00	303,562.34	647,772.50	48,665.16	Expires June 30, 2021.
2018-075	2019	18075	CRAIGVILLE BATHHOUSE IMP	315,116.00	-	-	315,116.00	Expires June 30, 2021.
2018-076	2019	18076	SENIOR CTR RENOVATIONS	727,247.00	10,000.00	-	717,247.00	Expires June 30, 2021.
2018-077	2019	18077	HYCC ROOF REPLACEMENT	195,668.00	-	-	195,668.00	Expires June 30, 2021.
2018-089	2019	18089	FY19 PUBLIC ROADS IMPROV	3,412,500.00	987,314.14	375,721.38	2,049,464.48	Expires June 30, 2021.
2018-090	2019	18090	DESIGN PHASE III DPW OFF	103,500.00	-	-	103,500.00	Expires June 30, 2021.
2018-092	2019	18092	SAB MACHANICAL UPGRADES	285,000.00	-	-	285,000.00	Expires June 30, 2021.
2018-093	2019	18093	BUMPS RIVER BRIDGE REPAI	100,000.00	-	-	100,000.00	Expires June 30, 2021.
2018-094	2019	18094	DEMO PORTABLES AT MM ELE	253,740.00	10,000.00	-	243,740.00	Expires June 30, 2021.
2018-095	2019	18095	OCEAN ST SIDEWALK DESIGN	45,000.00	-	-	45,000.00	Expires June 30, 2021.
2018-096	2019	18096	ARMORY BLDG-HAZMAT REMOV	667,000.00	88.88	-	666,911.12	Expires June 30, 2021.
2019-027	2019	19027	MARASPIN CREEK STUDY	30,000.00	25,237.50	4,762.50	-	Expires June 30, 2021.
2019-046	2019	19046	BLISH POINT-STORM DAMAGE	120,000.00	96,425.00	5,075.00	18,500.00	Expires June 30, 2021.
			TOTAL MUNICIPAL PROJECTS	30,454,837.11	17,826,272.18	2,215,935.33	10,412,629.60	
Council Order	FY CIP	Project #	Project Title	Appropriation	Expended	Encumbered	Balance	Appropriation Status
2016-081	2017	16081	FACADE & ROOF IMPROVMNTS	3,393,811	1,993,571	22,327	1,377,913	Balance used for FY 2020 Capital Program.
2016-082	2017	16082	LT POLE REPLMT/REST RM F	475,000	296,151	-	178,849	Balance used for FY 2020 Capital Program.
2017-063	2018	17063	BHS 21ST CENTURY LEARNIN	3,500,363	3,241,979	230,607	27,777	Expires June 30 2020.
2017-066	2018	17066	BPS ASBESTOS ABATEMENT	300,000	56,741	57,855	185,404	Expires June 30 2020.
2017-067	2018	17067	BHS STADIUM BLEACHERS	1,055,000	1,054,277	723	(0)	Expires June 30 2020.

General Fund Active Prior Year Capital Appropriations – Continued

Council Order	FY CIP	Project #	Project Title	Appropriation	Expended	Encumbered	Balance	Appropriation Status
2017-068	2018	17068	BHS CAF STOREFRONT/BWB R	425,000	407,140	12,294	5,566	Expires June 30 2020.
2018-064	2019	18064	BHS SPORTS FIELD UPGRADE	4,600,000	110,090	157,405	4,332,505	Expires June 30, 2021.
2018-065	2019	18065	BPS DISTRICT COMM, VIDEO	250,000	136,192	73,436	40,372	Expires June 30, 2021.
2018-066	2019	18066	BHS/BIS UNIT VENTILATOR	100,000	31,250	54,600	14,150	Expires June 30, 2021.
2018-067	2019	18067	BPS ELEM UNIT VENTILATOR	250,000	-	41,000	209,000	Expires June 30, 2021.
2018-068	2019	18068	WEST VILLAGES ELEM-GENER	100,000	-	-	100,000	Expires June 30, 2021.
2018-106	2019	18106	HANDICAP ACCESS-BCHMCP	110,000	87,704	22,296	-	Expires June 30, 2021.
2019-017	2019	19017	HYANNIS WEST-EMERGENCY R	300,000	268,351	7,119	24,530	Expires June 30, 2021.
2019-058	2019	19058	HYANNIS WEST ROOF TRUSS	850,000	-	-	850,000	Expires June 30, 2021.
TOTAL SCHOOL FACILITIES				15,709,174	7,683,446	679,661	7,346,067	

Airport Enterprise Fund Active Prior Year Capital Appropriations

Council Order	FY CIP	Project #	Project Title	Appropriation	Expended	Encumbered	Balance	Appropriation Status
2011-079	2012	11079	GROUNDWATER BIOREMEDIATI	207,000	148,510	58,470	20	Expires when encumbrance is paid or liquidated.
2012-094	2013	12094	TERMINAL ENHANCEMENTS 20	200,000	77,528	41,925	80,547	Expires when encumbrance is paid or liquidated.
2013-098	2014	13098	TERMINAL & AARF IMPVMTS	200,000	96,061	1,840	102,099	Expires when encumbrance is paid or liquidated.
2013-099	2014	13099	ACCESS CONTROL & SECURIT	90,000	88,059	-	1,941	Expires June 30, 2018.
2014-086	2015	14086	RECONSTRUCT RUNWAY 6-24	400,000	84,337	315,663	-	Expires when encumbrance is paid or liquidated.
2014-087	2015	14087	PLACE EAST RAMP T-HANGAR	100,000	-	-	100,000	Expires June 30, 2018.
2014-090	2015	14090	TERMINAL & BLDG IMPROVEM	200,000	8,830	-	191,170	Expires June 30, 2018.
2016-092	2017	16092	RUNWAY/TAXIWAY MARKINGS	150,000	55,616	-	94,384	Expires June 30, 2019.
2017-059	2017	17059	SLURRY SEAL-TERMINAL APR	145,710	145,649	-	61	Expires June 30, 2019.
2017-091	2018	17091	FAA AIRPORT LAYOUT/MASTE	700,000	3,500	-	696,500	Expires June 30, 2020.
2017-093	2018	17093	CLEAR VEGETATION/OBSTRUC	300,000	-	-	300,000	Expires June 30, 2020.
2017-094	2018	17094	RUNWAY/TAXIWAY MARKING P	75,000	-	-	75,000	Expires June 30, 2020.
2018-069	2019	18069	AIRPORT LAYOUT & MASTER	300,000	-	-	300,000	Expires June 30, 2021.
2018-070	2019	18070	SNOW REMOVAL EQUIPMENT	975,000	-	-	975,000	Expires June 30, 2021.
2018-071	2019	18071	AIRCRAFT FIREFIGHTING EQ	145,000	-	-	145,000	Expires June 30, 2021.
2018-104	2019	18104	HANGER II/VARIOUS PROJ	549,900	522,265	-	27,635	Expires June 30, 2021.
TOTAL AIRPORT ENTERPRISE FUND				4,737,610	1,230,356	417,898	3,089,356	

Golf Enterprise Fund Active Prior Year Capital Appropriations

Council Order	FY CIP	Project #	Project Title	Appropriation	Expended	Encumbered	Balance	Appropriation Status
2015-106	2016	15106	HGC FACILITY IMPROVEMENTS	140,000	107,647	-	32,353	Balance used for FY 2020 Capital Program.
2018-072	2019	18072	HY GOLF MAINTENANCE BLDG	58,511	-	2,000	56,511	Expires June 30, 2021.
2018-073	2019	18073	OBF FACILITY IMPROVEMENT	57,774	-	-	57,774	Expires June 30, 2021.
2019-081	2019	19081	HVAC SYSTEM-HYANNIS GOLF	45,000	-	-	45,000	Expires June 30, 2021.
TOTAL GOLF ENTERPRISE FUND				301,285	107,647	2,000	191,638	

Water Pollution Control Enterprise Fund Active Prior Year Capital Appropriations

Council Order	FY CIP	Project #	Project Title	Appropriation	Expended	Encumbered	Balance	Appropriation Status
2013-093	2014	13093	HYDRAULIC LOAD TESTING A	50,000	17,621	14,379	18,000	Expires when encumbrance is paid or liquidated.
2014-076	2015	14076	SEPTAGE BLDG EVALUATION-	450,000	64,422	242,330	143,248	Expires when encumbrance is paid or liquidated.
2015-089	2016	15089	RELINE SEWERS/LATERALS -	84,500	29,561	53,390	1,549	Expires when encumbrance is paid or liquidated.
2015-090	2016	15090	EVALUATE-SEWER COLLECTIO	200,000	153,956	6,124	39,920	Expires when encumbrance is paid or liquidated.
2016-097	2017	16097	CLARIFIERS REHAB	1,289,505	1,206,545	51,598	31,362	Expires when encumbrance is paid or liquidated.
2016-098	2017	16098	BACKUP GENERATOR REPLMT	904,000	583,801	32,078	288,121	Expires when encumbrance is paid or liquidated.
2017-075	2018	17075	WPC PUMP STATION EVALUAT	200,000	60,800	129,200	10,000	Expires June 30, 2020.
2017-076	2018	17076	WPC NEW PICK UP TRUCK	55,000	50,721	2,137	2,142	Expires June 30, 2020.
2017-077	2018	17077	WPC COMPUTERIZED SIMULAT	55,000	19,091	30,835	5,073	Expires June 30, 2020.
2017-078	2018	17078	DESIGN SEWER UPGRADES BA	72,000	-	71,800	200	Expires June 30, 2020.
2018-078	2019	18078	EFFLUENT DISPOSAL CAPACI	195,000	-	55	194,945	Expires June 30, 2021.
2018-079	2019	18079	EFFLUENT DISCHARGE LOCAT	150,000	-	-	150,000	Expires June 30, 2021.
TOTAL SEWER ENTERPRISE FUND				3,705,005	2,186,518	633,925	884,562	

Sandy Neck Enterprise Fund Active Prior Year Capital Appropriations

Council Order	FY CIP	Project #	Project Title	Appropriation	Expended	Encumbered	Balance	Appropriation Status
2014-023	2015	14023	BEACH & PARKING STABILIZ	175,000	157,229	1,525	16,246	Expires when encumbrance is paid or liquidated.
2016-034	2017	16034	FY16 COASTAL COMM RESILI	148,500	134,194	14,306	-	Expires when encumbrance is paid or liquidated.
TOTAL SANDY NECK ENTERPRISE FUND				323,500	291,423	15,831	16,246	

Water Supply Enterprise Fund Active Prior Year Capital Appropriations

Council Order	FY CIP	Project #	Project Title	Appropriation	Expended	Encumbered	Balance	Appropriation Status
2013-087	2014	13087	WELL EXPLORATION PROGRAM	489,500	143,598	345,902	-	Expires when encumbrance is paid or liquidated.
2014-073	2015	14073	NEW WELL EXPLORATION 201	583,000	116,239	346,430	120,332	Expires when encumbrance is paid or liquidated.
2016-093	2017	16093	PIPE REPLMT/UPGRADE	1,050,000	1,024,507	25,493	0	Expires when encumbrance is paid or liquidated.
2016-095	2017	16095	MARY DUNN TANK UPGRADE	52,000	43,525	117	8,358	Expires when encumbrance is paid or liquidated.
2017-080	2018	17080	WELL REACTIVATION PROJEC	295,000	85,785	56,030	153,185	Expires June 30, 2020.
2017-081	2018	17081	FY18 PIPE REPLACEMENT	500,000	439,464	60,536	-	Expires June 30, 2020.
2017-082	2018	17082	FY18 PUMP STATION UPGRAD	200,000	89,281	101,479	9,240	Expires June 30, 2020.
2017-083	2018	17083	ROOF-MARY DUNN 1	638,000	638,000	-	-	Expires June 30, 2020.
2017-084	2018	17084	WATER NEW PICK UP TRUCK	45,000	39,613	-	5,387	Expires June 30, 2020.
2017-099	2018	17099	MAHER CARBON TREATMENT S	10,925,000	720,836	810,910	9,393,254	Expires June 30, 2020.
2018-081	2019	18081	FY19 PIPE REPLACEMENT	1,050,000	647,831	94,537	307,632	Expires June 30, 2021.
2018-082	2019	18082	FY19 PUMP STATION UPGRAD	200,000	-	-	200,000	Expires June 30, 2021.
2018-083	2019	18083	NEW WELL EXPLORATION	555,000	-	-	555,000	Expires June 30, 2021.
2018-084	2019	18084	PERM INTERCONNECT W COMM	165,000	800	-	164,200	Expires June 30, 2021.
2019-059	2019	19059	MARY DUNN WELL #4 REACTI	571,000	-	-	571,000	Expires June 30, 2021.
TOTAL WATER SUPPLY ENTERPRISE FUND				17,318,500	3,989,478	1,841,434	11,487,589	

Marina Enterprise Fund Active Prior Year Capital Appropriations

Council Order	FY CIP	Project #	Project Title	Appropriation	Expended	Encumbered	Balance	Appropriation Status
2015-109	2016	15109	RECONSTRUCT PRINCE COVE	570,000	546,879	4,026	19,095	Expires when encumbrance is paid or liquidated.
2015-110	2016	15110	HYANNIS HARBOR BULKHEAD-	158,000	49,343	60,587	48,070	Expires when encumbrance is paid or liquidated.
2016-109	2017	16109	GATEWAY MARINA DREDGING	500,000	444,000	-	56,000	Will be used for future project.
TOTAL MARINA ENTERPRISE FUND				1,228,000	1,040,222	64,613	123,165	

PART IV – FIVE YEAR FUNDING PLAN

A total of 170 projects amounting to \$277 million were submitting for requests over the next 5 years. This includes General Fund, Special Revenue Fund, and all Enterprise Funds. The town has several funding sources to finance its capital program; the Capital Trust Fund, which is used to finance General Fund capital, each individual Enterprise Fund and the Comprehensive Water Management and Private Way Improvement Fund.

The Capital Trust Fund is a mechanism that allows the town to accumulate funds from various sources to finance its General Fund supported capital program. These resources include property taxes, fees, rental income, revenue from renewable energy projects, investment income, free cash reserves, and excess overlay reserves. A transfer is made annually from the General Fund with a projected transfer for FY20 of \$10.2 million. This transfer will be part of the annual operating budget. This amount represents the minimum annual General Fund resources dedicated to the town's capital program.

A newer funding tool in the form of the Comprehensive Water Management and Private Way Improvement Fund was created in FY11. The state legislature approved a home rule petition that allows the town to credit 100% of the local meals tax and 1/3 of the local room's tax to this fund. The town may appropriate monies in the fund for planning, designing and construction of sewers and other means of comprehensive wastewater management and maintenance and improvement of private ways.

Most of the Enterprise Fund's capital improvements are financed by the respective enterprise fund operation through a combination of user fees and grant funding. The town also seeks out grant funding for the General Fund capital program.

The schedules on the following pages illustrate what a 5 year Capital Improvements Plan might look like. Most of the 58 projects that went through the evaluation processes in the development of this year's Capital Improvements Plan can be funded over the next 5 years. The projects listed under FY 2020 are recommended for funding in this year's plan while the outer years of 2021 to 2024 are shown for illustrative purposes. It is anticipated many of these projects will come forward for funding in the respective year shown, however, some may be bumped due to shifting priorities, anticipated grant funding materializing and several other assumptions holding true. The projects in the outer years will be subjected once again to the evaluation process they went through this year.

Over the next 5 years, the Town can anticipate funding \$197 million in capital projects. Enterprise Funds total \$83 million, the Comprehensive Water Management Fund totals \$36 million, and the General Fund totals \$80 million. This includes 118 projects; 68 for the Enterprise funds, 5 for the Comprehensive Water Management, and 45 General Fund.

Detailed Project Listing

Five-Year Capital Improvements Plan for Enterprise Funds

LISTING OF CAPITAL IMPROVEMENT PROJECTS ENTERPRISE FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
BMA	1	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment - Airport Vehicle #816	220,000	-	-	-	-	220,000
BMA	2	Aircraft Rescue Fire Fighting (ARFF) Upgrades - Building Roof Repairs	490,000	-	-	-	-	490,000
BMA	3	Replace 1997 Snow Removal Equipment (SRE) (Kodiak Snow Blower) - Airport Vehicle #36	800,000	-	-	-	-	800,000
BMA	4	Replace Snow Removal Equipment (SRE) (Heavy Duty Vehicle with Plow and Sander) - Airport Vehicle #26	230,000	-	-	-	-	230,000
BMA	5	Main Terminal Ramp Hardstands for Heavy Aircraft Parking	280,000	-	-	-	-	280,000
BMA	6	Runway 15-33 - Apply P-608 Surface Treatment and Repaint	475,000	-	-	-	-	475,000
BMA	7	Repair & Extend Mary Dunn Way from Steamship Authority Parking Area to Gate Mike	1,000,000	-	-	-	-	1,000,000
BMA	8	Mitigation (PFOS Soils)	100,000	-	-	-	-	100,000
BMA	9	Replace Airfield Mowing Equipment - (New Holland Tractor) - Airport Vehicle #29	165,000	-	-	-	-	165,000
BMA	10	Replace Steel I-Beams in Airport Owned Hanger	100,000	-	-	-	-	100,000
BMA	11	Extend Mary Dunn Way from Gate Mike (Phase II)	-	3,000,000	-	-	-	3,000,000
BMA	12	MEPA, NEPA and Cape Cod Commission for Airport Master Plan Projects (AGIS)	-	925,000	-	-	-	925,000
BMA	13	Replace Airfield Mowing Equipment - (Kubota Zero Turn Mower) - Airport Vehicle #53	-	25,000	-	-	-	25,000
BMA	14	Terminal Upgrades - Baggage Belt Extension	-	400,000	-	-	-	400,000
BMA	15	Permitting for Airport Tree Clearing & Obstruction Removal and Airport Master Plan Update Projects	-	-	225,000	-	-	225,000
BMA	16	Construction for Airport Tree Clearing & Obstruction Removal (including fence line clearing)	-	-	300,000	-	-	300,000
BMA	17	Easements for Future Construction/Runway 15 Approach	-	-	300,000	-	-	300,000
BMA	18	Replace Snow Removal Equipment (SRE) (Chevy 2500 Heavy Duty) - Airport Vehicle #32	-	-	55,000	-	-	55,000
BMA	19	Replace Snow Removal Equipment (SRE) (ASV Skid Steer Plow for EMAS) - Airport Vehicle #38	-	-	100,000	-	-	100,000
BMA	20	Design and Construct New T-Hangar	-	-	750,000	-	-	750,000
BMA	21	Replace Runway 24 Departure End Safety Area Engineered Material Arresting System (EMAS)	-	-	-	5,000,000	-	5,000,000
BMA	22	Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)	-	-	-	12,000,000	-	12,000,000
BMA	23	Replace Snow Removal Equipment (SRE) (Chevy 2500 Heavy Duty) - Airport Vehicle #27	-	-	-	55,000	-	55,000
BMA	24	Design and Replace Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm	-	-	-	300,000	-	300,000
BMA	25	Design & Construct Snow Removal Equipment (SRE) Vehicle Storage Building	-	-	-	900,000	-	900,000
BMA	26	Replace SRE Equipment - (Ford F350) - Airport Vehicle #31	-	-	-	80,000	-	80,000
BMA	27	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment – Airport Vehicle #820	-	-	-	-	975,000	975,000
BMA	28	Reconstruct and Re-Align Taxiways Delta and Echo at Runway 15 (Includes Run-Up Pit)	-	-	-	-	4,500,000	4,500,000
BMA	29	Replace Snow Removal Equipment (SRE) (HD Vehicle with Plow and Sander) – Airport Vehicle #47	-	-	-	-	300,000	300,000
TOTAL AIRPORT			\$ 3,860,000	\$ 4,350,000	\$ 1,730,000	\$ 18,335,000	\$ 5,775,000	\$ 34,050,000
MAR	1	Bismore Park Bulkhead Improvements	-	-	5,047,250	-	-	5,047,250
TOTAL MARINE & ENVIRONMENTAL AFFAIRS MARINAS			\$ -	\$ -	\$ 5,047,250	\$ -	\$ -	\$ 5,047,250

Five-Year Capital Improvements Plan for Enterprise Funds - Continued

LISTING OF CAPITAL IMPROVEMENT PROJECTS ENTERPRISE FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
SDY	1	Sandy Neck ORV Trail, and Gatehouse Relocation – Design and Permitting	60,000	800,000	-	-	-	860,000
SDY	2	Sandy Neck Parking Lot Relocation	-	-	200,000	-	2,650,000	2,850,000
TOTAL MARINE & ENVIRONMENTAL AFFAIRS SANDY NECK			\$ 60,000	\$ 800,000	\$ 200,000	\$ -	\$ 2,650,000	\$ 3,710,000
HYCC	1	Hyannis Youth and Community Center Roof Replacement	528,333	-	756,000	-	366,000	1,650,333
HYCC	2	Hyannis Youth and Community Center Security Improvements	151,000	-	-	-	-	151,000
TOTAL COMMUNITY SERVICES HYCC			\$ 679,333	\$ -	\$ 756,000	\$ -	\$ 366,000	\$ 1,801,333
GOLF	1	Hyannis Golf Course Restoration Project: Phase 1 - Cart Path System Replacement	446,000	664,735	452,972	2,364,927	-	3,928,634
GOLF	2	Hyannis Golf Course - Improvements	-	180,310	500,000	400,000	-	1,080,310
GOLF	3	Old Barnstable Fairgrounds Golf Club Facility Improvements.	-	280,000	250,000	800,000	1,513,568	2,843,568
TOTAL COMMUNITY SERVICES GOLF			\$ 446,000	\$ 1,125,045	\$ 1,202,972	\$ 3,564,927	\$ 1,513,568	\$ 7,852,512
WPC	1	Effluent Flow Meter Evaluation, Design, and Construction	600,000	-	-	-	-	600,000
WPC	2	Sewer System Evaluation Surveys (SSES)	380,000	-	250,000	250,000	250,000	1,130,000
WPC	3	Pump Station Rehabilitation Program: Rendezvous Lane Pump Station Replacement	1,160,000	1,000,000	1,000,000	1,000,000	-	4,160,000
WPC	4	Bearse's Way Vacuum Sewer Replacement	1,125,000	-	-	-	-	1,125,000
WPC	5	South Street Sewer Rehabilitation	4,019,000	-	-	-	488,000	4,507,000
WPC	6	Vehicle Replacement: Laboratory Van	50,000	-	-	-	-	50,000
WPC	7	Solids Handling Upgrades Construction	-	3,500,000	-	-	-	3,500,000
WPC	8	Denitrification Sand Filter Replacement	-	75,000	-	-	-	75,000
WPC	9	Truck Replacement	-	55,000	-	-	-	55,000
WPC	10	Sewer CCTV Camera Trailer	-	125,000	-	-	-	125,000
WPC	11	Equipment Storage Garage Construction	-	724,000	-	-	-	724,000
WPC	12	WPC Facility Upgrade Study	-	-	150,000	-	-	150,000
WPC	13	Truck 247 Replacement	-	-	75,000	-	-	75,000
WPC	14	Barnstable Road Sewer Rehabilitation Construction	-	-	855,000	-	-	855,000
WPC	15	MSB Generator Design and Construction	-	-	-	470,000	-	470,000
TOTAL PUBLIC WORKS WATER POLLUTION CONTROL			\$ 7,334,000	\$ 5,479,000	\$ 2,330,000	\$ 1,720,000	\$ 738,000	\$ 17,601,000
WS	1	Pipe Replacement and Upgrade Program	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000	5,250,000
WS	2	Wells, Pump Stations, Treatment Plant Repair & Upgrade Program	200,000	200,000	200,000	200,000	200,000	1,000,000
WS	3	Valve Maintenance Trailer System	75,000	-	-	-	-	75,000
WS	4	Airport & Mary Dunn Wells, Treatment Options Evaluation, Recommendations and Preliminary Design Report	120,000	-	-	-	-	120,000
WS	5	Hyannisport Wells (Straightway & Simmons Pond) Treatment Options Evaluation & Design	100,000	-	-	-	-	100,000
WS	6	New Well Exploration Program	-	2,555,500	36,000	2,000,000	38,000	4,629,500
TOTAL PUBLIC WORKS WATER SUPPLY			\$ 1,545,000	\$ 3,805,500	\$ 1,286,000	\$ 3,250,000	\$ 1,288,000	\$ 11,174,500

Five-Year Capital Improvements Plan for Enterprise Funds - Continued

LISTING OF CAPITAL IMPROVEMENT PROJECTS ENTERPRISE FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
SW	1	Compactor Replacement (2 Units)	-	100,000	100,000	100,000	100,000	400,000
SW	2	Container Replacement	-	30,000	30,000	30,000	30,000	120,000
SW	3	All-Terrain Litter Vacuum Replacement	50,000	-	-	-	-	50,000
SW	4	Roll Off Trailer Replacement	100,000	-	-	-	-	100,000
SW	5	Zero Turn Mower with Bagger	-	25,000	-	-	-	25,000
SW	6	Kubota RTV Replacement	30,000	-	-	-	-	30,000
SW	7	Generator Replacement	-	-	100,000	-	-	100,000
SW	8	Municipal Packer Replacement	-	300,000	-	-	-	300,000
SW	9	Roll Off Truck Replacement	-	-	250,000	-	-	250,000
SW	10	Repair and Upgrade (5) MSW Compactor Units	60,000	-	-	-	-	60,000
TOTAL PUBLIC WORKS SOLID WASTE			\$ 240,000	\$ 455,000	\$ 480,000	\$ 130,000	\$ 130,000	\$ 1,435,000
TOTAL ENTERPRISE FUNDS			\$14,164,333	\$16,014,545	\$13,032,222	\$26,999,927	\$12,460,568	\$ 82,671,595

Five-Year Capital Improvements Plan for Comprehensive Water Management And Private Way Improvements Fund

LISTING OF CAPITAL IMPROVEMENT PROJECTS WATER MANAGEMENT AND PRIVATE WAY IMPROVEMENTS FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
DPW	1	Attucks Lane Pumps Station Area, Sewer Expansion	-	2,500,000	-	-	-	2,500,000
DPW	2	Marstons Mills School Pump Station and associated RT 28 Collection System Preliminary Design	612,000	-	1,300,000	-	-	1,912,000
DPW	3	Long Pond Area Sewer Expansion	938,000	-	-	16,386,000	-	17,324,000
DPW	4	Marstons Mills River Treatment System	612,000	TBD	TBD	TBD	TBD	612,000
DPW	5	Phinney's Lane Sewer Expansion	735,000	-	-	12,841,000	-	13,576,000
WATER MANAGEMENT AND PRIVATE WAY IMPROVEMENTS FUND			\$ 2,897,000	\$ 2,500,000	\$ 1,300,000	\$29,227,000	\$ -	\$ 35,924,000

Five-Year Capital Improvements Plan for General Fund

LISTING OF CAPITAL IMPROVEMENT PROJECTS GENERAL FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
BPD	1	Barnstable Police Department Improvements/Replacement	-	-	854,000	1,175,000	991,000	3,020,000
		TOTAL POLICE DEPARTMENT	\$ -	\$ -	\$ 854,000	\$ 1,175,000	\$ 991,000	\$ 3,020,000
ADM	1	Unified Communications – VOIP (Voice over Internet Protocol)	-	-	-	215,000	149,000	364,000
ADM	2	Aerial Flyover & Mapping Update (Geographic Information Survey)	100,000	100,000	-	-	-	200,000
ADM	3	Summer Aerial Flyover of Waterways	50,000	-	-	-	-	50,000
		TOTAL ADMINISTRATION DEPARTMENT	\$ 150,000	\$ 100,000	\$ -	\$ 215,000	\$ 149,000	\$ 614,000
MEA	1	Channel Dredging Program	2,012,000	1,500,000	2,000,000	1,500,000	1,500,000	8,512,000
MEA	2	Blish Point Construction for Long Term Solution	-	200,000	-	1,600,000	-	1,800,000
MEA	3	MEA Interior Project Phase III	-	192,000	-	-	-	192,000
MEA	7	Scudder’s Lane Boat Ramp Design & Construction	-	-	150,000	-	650,000	800,000
MEA	8	Bay Shore Road Boat Ramp-Design and Construction	-	-	-	150,000	600,000	750,000
MEA	11	Bridge Street Pier	125,000	-	-	-	-	125,000
MEA	12	Cotuit Town Dock Extension	75,000	-	-	-	-	75,000
		TOTAL MARINE & ENVIRONMENTAL AFFAIRS DEPARTMENT	\$ 2,212,000	\$ 1,892,000	\$ 2,150,000	\$ 3,250,000	\$ 2,750,000	\$ 12,254,000
CSD	1	Beach House Improvements	255,000	-	492,000	-	-	747,000
CSD	4	Beach Parking Lot Rehabilitation - Covell’s Beach	-	-	-	250,000	-	250,000
CSD	5	Beach Parking Lot Rehabilitation - Craigville Beach	160,000	-	-	-	-	160,000
CSD	6	Beach Parking Lot Rehabilitation - Keyes Beach	-	-	-	150,000	-	150,000
CSD	7	Osterville Recreation Building & Fields Construction	797,000	-	-	7,612,061	-	8,409,061
CSD	9	Marstons Mills Tennis Court Improvements	620,000	-	-	-	-	620,000
CSD	12	Hamblin Pond Bathhouse and Site Improvements	-	-	1,000,000	-	-	1,000,000
CSD	13	Hathaway’s Pond Bathhouse and Site Improvements	-	-	-	-	1,000,000	1,000,000
		TOTAL COMMUNITY SERVICES DEPARTMENT	\$ 1,832,000	\$ -	\$ 1,492,000	\$ 8,012,061	\$ 1,000,000	\$ 12,336,061
DPW	1	Public Roads Maintenance	3,450,000	3,550,000	3,650,000	3,750,000	3,850,000	18,250,000
DPW	2	Roadway and Sewer Improvements of Yarmouth Road and Route 28	TBD	-	-	-	-	-
DPW	3	Public Bridge Improvements	500,000	-	-	-	-	500,000
DPW	4	Bearse’s Way Bike Path Construction	125,000	-	-	-	-	125,000
DPW	5	Bumps River Bridge Repairs	900,000	-	-	-	-	900,000
DPW	6	Crosswalk Improvements	300,000	-	-	-	-	300,000
DPW	7	Sidewalk Overlay and Guardrail	314,000	-	364,000	-	401,000	1,079,000
DPW	9	School Administration Building Mechanical Cooling	996,000	1,065,000	730,000	-	-	2,791,000
DPW	10	Town Hall Security Improvements	480,000	250,000	-	-	-	730,000
DPW	11	Town Hall Site Improvements - Parking Lot	-	130,000	850,000	-	-	980,000
DPW	12	MS4 Municipal Separate Storm Sewer System Program	150,000	150,000	150,000	150,000	100,000	700,000
DPW	24	DPW Offices Phase III Construction	-	987,000	-	-	-	987,000
DPW	27	Marstons Mills School Demolition	-	995,000	-	-	-	995,000
DPW	30	Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach	-	665,000	-	-	-	665,000

Five-Year Capital Improvements Plan for General Fund– Continued

LISTING OF CAPITAL IMPROVEMENT PROJECTS GENERAL FUND			FIVE YEAR COSTS					PROJECT TOTALS
DEPT	PRIORITY	PROJECT TITLE	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	2020-2024
DPW	37	Commerce Road Improvements	-	300,000	-	3,000,000	-	3,300,000
DPW	41	Main Street Tree Lighting Project	114,000	-	-	-	-	114,000
TOTAL PUBLIC WORKS DEPARTMENT			\$ 7,329,000	\$ 8,092,000	\$ 5,744,000	\$ 6,900,000	\$ 4,351,000	\$ 32,416,000
SCH	1	Barnstable High School Sports Fields Engineering and Upgrades: Phases 2 and 3	250,000	3,617,000	-	2,950,000	-	6,817,000
SCH	2	Districtwide Communication, Video Surveillance, and Entry Improvements	500,000	500,000	-	-	-	1,000,000
SCH	3	Barnstable High School (BHS) Synthetic Turf Replacement	1,000,000	-	-	-	-	1,000,000
SCH	4	Campus Wide Mechanical Upgrades (Burners, Boilers, HVAC & Pump Systems)	250,000	-	250,000	-	250,000	750,000
SCH	5	Barnstable High School (BHS) & Barnstable Intermediate School (BIS) Roof Top Unit Ventilator Replacement	1,500,000	1,250,000	1,250,000	1,250,000	1,250,000	6,500,000
SCH	6	Centerville Elementary School Unit Ventilator Upgrades: Phase 4	500,000	-	-	-	-	500,000
SCH	7	Comprehensive Facilities Assessment	150,000	-	-	-	-	150,000
SCH	9	Hyannis West Elementary Roof Replacement	450,000	-	-	-	-	450,000
SCH	10	Centerville Elementary Roof Replacement	250,000	-	-	-	-	250,000
SCH	11	Barnstable High School Environmental Lab	1,000,000	-	-	-	-	1,000,000
TOTAL SCHOOL DEPARTMENT			\$ 5,850,000	\$ 5,367,000	\$ 1,500,000	\$ 4,200,000	\$ 1,500,000	\$ 18,417,000
TOTAL GENERAL FUND			\$17,373,000	\$15,451,000	\$11,740,000	\$23,752,061	\$10,741,000	\$ 79,057,061
TOTAL CAPITAL IMPROVEMENTS PROGRAM PROJECT COSTS			\$34,434,333	\$33,965,545	\$26,072,222	\$79,978,988	\$23,201,568	\$197,652,656

Comprehensive Water Management And Private Way Improvements Fund Cash Flow Analysis

Chapter 355 of the Acts of 2014 enacted by the General Court allows the Town of Barnstable to establish a special fund that may be used for planning, designing and construction of sewers and other means of comprehensive wastewater management and maintenance and improvement of private ways.

Dedicated revenue sources for this fund include 100% of the local meals excise tax and one-third of the local rooms excise tax. In addition, any betterment assessed to property abutters on sewer construction and private way improvements will be credited to this fund if the fund is used to finance the improvements.

Major Assumptions Used In Table A:

- Rooms and meals tax revenue will grow 1% per year;
- Investment earnings will average 1.1 % per year;
- Existing sewer betterments collected will average \$47,000 per year;
- Long Pond Area Sewer Expansion assessments will average \$409,650 per year starting in FY24;
- Attucks Lane Sewer Expansion assessments will average \$62,500 per year starting in FY22;
- Phinney's Lane Sewer Expansion assessments will average \$321,025 per year starting in FY24;
 - Loan amortization on bond issues will be 20 years;
- The net interest cost on the bonds are estimated to be 4%;
- The bonds will be issued at a time so that the first loan payments will not be made until the following year, for example, the first payment on a FY22 bond issue will be in FY23;
- The Federal government will not make any changes and the tax advantages of municipal bonds will remain intact;
- No other major changes will take place in the municipal bond market; and
- The cash funded portion will be \$3,647,000 in FY20.

**TABLE A – Estimated Comprehensive Water Management And Private Way Improvements Fund Cash Flow
FY 2020 – FY 2029**

COMPREHENSIVE WATER MANAGEMENT AND PRIVATE WAY IMPROVEMENTS FUND CASH FLOW ANALYSIS 10 YEAR PROJECTION											
		FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
1	Beginning Trust Fund Balance	\$ 15,330,084	\$ 14,002,993	\$ 16,333,884	\$ 18,544,819	\$ 20,683,921	\$ 21,549,296	\$ 22,482,087	\$ 23,482,437	\$ 24,551,743	\$ 25,690,789
	Resources:										
2	Hotel/Motel Rooms Tax 1/3	1,011,306	1,021,419	1,031,633	1,041,950	1,052,369	1,062,893	1,073,522	1,084,257	1,095,099	1,106,050
3	Meals Tax	1,581,444	1,597,259	1,613,231	1,629,364	1,645,657	1,662,114	1,678,735	1,695,522	1,712,478	1,729,602
4	Earning on Investment	168,631	154,033	122,504	139,086	155,129	161,620	168,616	176,118	184,138	192,681
5	Total Assessments	50,106	50,106	110,849	110,849	835,528	835,528	834,903	834,903	834,903	834,903
6	Total Interest Earned on Assessments	10,000	10,000	60,000	57,500	639,540	607,813	576,086	544,359	512,632	480,905
7	Total Current Year Resources	2,821,487	2,832,817	2,938,218	2,978,749	4,328,223	4,329,967	4,331,861	4,335,159	4,339,250	4,344,142
8	Total Available Resources	18,151,571	16,835,810	19,272,102	21,523,568	25,012,145	25,879,263	26,813,948	27,817,597	28,890,994	30,034,930
	Commitments:										
9	Existing Debt Service Payments	(501,578)	(501,926)	(502,283)	(502,647)	(503,019)	(503,400)	(503,788)	(504,185)	(504,591)	(505,006)
10a	Estimated Debt Service on FY20 CIP (\$m)	-	-	-	-	-	-	-	-	-	-
10b	Estimated Debt Service on FY21 CIP (\$2.5m)		-	(225,000)	(220,000)	(215,000)	(210,000)	(205,000)	(200,000)	(195,000)	(190,000)
10c	Estimated Debt Service on FY22 CIP (\$1.3m)			-	(117,000)	(114,400)	(111,800)	(109,200)	(106,600)	(104,000)	(101,400)
10d	Estimated Debt Service on FY23 CIP (\$30m)				-	(2,630,430)	(2,571,976)	(2,513,522)	(2,455,068)	(2,396,614)	(2,338,160)
11	Other Cash Program	(3,647,000)	-	-	-	-	-	-	-	-	-
12	Total Current Year Commitments	(4,148,578)	(501,926)	(727,283)	(839,647)	(3,462,849)	(3,397,176)	(3,331,510)	(3,265,853)	(3,200,205)	(3,134,566)
13	Increase (Decrease) in Trust Fund	(1,327,091)	2,330,891	2,210,936	2,139,102	865,374	932,791	1,000,351	1,069,306	1,139,045	1,209,576
14	Ending Trust Fund Balance	\$ 14,002,993	\$ 16,333,884	\$ 18,544,819	\$ 20,683,921	\$ 21,549,296	\$ 22,482,087	\$ 23,482,437	\$ 24,551,743	\$ 25,690,789	\$ 26,900,365

This table illustrates the Comprehensive Water Management And Private Way Improvements Fund cash flow incorporating all existing loan payments on previously authorized projects as well as future recommended projects. Cash funded projects in FY20 total \$3,647,000 and bond funded projects over the ten-year analysis include all submissions provided in the five-year plan. Line 9 in the table above illustrates all existing loan payments. Lines 10a and 10d illustrate the estimated debt service payments on new projects included in the five-year plan. Line 12 includes all existing as well as estimated commitments to the fund.

Capital Trust Fund (CTF) Cash Flow Analysis

The Capital Trust Fund (CTF) is used as a mechanism to finance the Town's General Fund Capital Improvements Program within the limitations of Proposition 2½. Annually, the Town transfers a sum of money from the General Fund into the CTF. The resources within the CTF are then used to make the annual loan payments on the bonds issued to finance the Town's capital program. The CTF operates essentially as a debt service fund. Some of the Town's capital appropriations are financed using the reserves within the CTF as opposed to bond issues. Annually, the Town reviews the projected cash flow of the CTF for the prospective 20-year period in order to measure the capacity level of the fund.

For the most part, this fund is not the funding source for Enterprise Fund capital improvements. Most Enterprise Funds pay 100% of their capital cost, which is recovered through their respective user fees. Enterprise Fund capital improvements may be funded from the CTF, which is a policy decision. The two current exceptions are the bond issues for the construction of the Hyannis Youth & Community Center (HYCC) and the bond issue for the Barnstable Harbor Marina bulkhead replacement.

The FY20 General Fund Capital Improvements Program includes a combination of "pay-as-you-go" or cash financing and new bond issues. The cash-financing portion of the program is funded from the Capital Trust Fund reserves and balances remaining in appropriations from completed projects. This "pay-as-you-go" financing approach saves the Town thousands of dollars in the form of bond issuance and interest cost. It also provides the opportunity to have some capital program on an annual basis, and provides flexibility within the budget. With just a debt service program, the CTF can become saturated with loan payments and prohibit the approval of any new projects until the debt service from other projects expire. This would also reduce the Town's flexibility in its resource allocation as future cash flows are committed to fixed annual loan payments.

In the event of absolute necessity, the cash portion of the program could be converted to a debt program to allow for a larger capital program up front. For example, the Town could allocate \$1 million in cash per year for capital improvements or allocate \$1 million per year towards new debt service. \$1 million in new debt service could pay for a bond issue of approximately \$8 million in interest with an amortization period of 10-years.

Furthermore, the cash program portion, if reduced or eliminated, could decrease the annual contribution from the General Fund to the CTF, if the need for funding General Fund operations is determined to be greater than the need for the capital expenditure. Countless scenarios can be created to allocate the annual cash flow of the CTF between cash and borrowing programs.

The annual contribution to the CTF has grown to \$10.5 million in FY20. This amount is projected to increase by 2.5 percent per year in order to allocate more funds to the capital program. Even as more funds are allocated to the capital program, the Town's capital needs require a higher contribution level. Opportunities to increase this contribution are examined every year.

Table A below illustrates the CTF cash flow for the next 10-years incorporating all existing loan payments and the FY20 proposed Capital Improvements Program (CIP). Table B illustrates the CIP Five-Year Plan within the CTF over the next 10-years, and Table C provides the detailed amortization of all existing loans to be paid out of the CTF.

Major Assumptions Used In Table A:

- Investment earnings will average 1.1% per year;
- The base transfer from the General Fund will increase 2.5% per year; plus additional \$200,000 for new growth;
- Loan amortization on the FY20 bond issues will include:
 - \$864,000 over 5-years;
 - \$3,927,000 over 10-years;
 - \$900,000 over 15-years; and
 - \$4,729,000 over 20-years.
- The net interest cost on the bonds are estimated to be 4%;
- The FY20 bonds will be issued at a time so that the first loan payments will not be made until FY21;
- There are no estimated savings from bond refinancing included in the projection;
- The Federal government will not make any changes and the tax advantages of municipal bonds will remain intact;
- No other major changes will take place in the municipal bond market; and
- The cash funded portion of the capital program will average total \$3.5 million per year.

Major Assumptions Used In Table B:

In addition to all of the assumptions in Table A, additional bond issues for the next four years are included for the FY21 through FY29 capital programs with the following amortization amounts:

FY21: Total Bond Issue \$13,989,000

- \$1,050,000 annually over 5-years
- \$2,245,000 annually over 10-years
- \$5,577,000 annually over 15-years
- \$5,117,000 annually over 20-years

FY22: Total Bond Issue \$8,881,000

- \$250,000 annually over 5-years
- \$2,862,000 annually over 10-years
- \$3,769,000 annually over 15-years
- \$2,000,000 annually over 20-years

FY23: Total Bond Issue \$19,308,000

- \$215,000 annually over 5-years
- \$3,405,000 annually over 10-years
- \$4,550,000 annually over 15-years
- \$11,138,000 annually over 20-years

FY24: Total Bond Issue \$7,008,000

- \$250,000 annually over 5-years
- \$2,617,000 annually over 10-years
- \$2,641,000 annually over 15-years
- \$1,500,000 annually over 20-years

TABLE A – Estimated Capital Trust Fund Cash Flow FY 2020 – FY 2029

ESTIMATED CAPITAL TRUST FUND CASH FLOW FY 2020 - FY 2029										
	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
1 Beginning Trust Fund Balance	\$ 17,374,744	\$ 16,454,902	\$ 16,574,431	\$ 16,699,563	\$ 18,680,944	\$ 20,702,207	\$ 25,091,085	\$ 29,390,054	\$ 35,712,240	\$ 42,382,410
Resources:										
2 Investment Earnings	191,122	181,004	182,319	183,695	205,490	227,724	276,002	323,291	392,835	466,207
3 Transfer From General Fund	10,191,521	10,646,309	11,112,467	11,590,279	12,080,036	12,582,037	13,096,588	13,624,003	14,164,603	14,718,718
4 Additional Contribution From General Fund	-	1,000,000	-	1,000,000	-	1,000,000	-	1,000,000	-	1,000,000
5 Other Resources	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
6 Total Current Year Resources	10,482,643	11,927,313	11,394,786	12,873,974	12,385,526	13,909,761	13,472,590	15,047,294	14,657,438	16,284,925
7 Total Available Resources	27,857,387	28,382,214	27,969,217	29,573,537	31,066,470	34,611,969	38,563,675	44,437,347	50,369,677	58,667,334
Commitments:										
8 Existing Debt Service Payments	(7,477,486)	(6,828,113)	(6,227,486)	(5,787,927)	(5,197,099)	(4,291,221)	(4,104,261)	(3,586,338)	(2,779,088)	(2,272,050)
9a Estimated Debt Service on FY20 CIP (\$12.3m)	-	(1,429,670)	(1,392,168)	(1,354,666)	(1,317,164)	(1,279,662)	(1,069,360)	(1,038,770)	(1,008,180)	(977,590)
10 Public Roads Program	(3,450,000)	(3,550,000)	(3,650,000)	(3,750,000)	(3,850,000)	(3,950,000)	(4,000,000)	(4,100,000)	(4,200,000)	(4,300,000)
11 Other Cash Program	(475,000)	-	-	-	-	-	-	-	-	-
12 Total Current Year Commitments	(11,402,486)	(11,807,783)	(11,269,654)	(10,892,593)	(10,364,263)	(9,520,883)	(9,173,621)	(8,725,108)	(7,987,268)	(7,549,640)
13 Increase (Decrease) in Trust Fund	(919,843)	119,530	125,132	1,981,381	2,021,263	4,388,878	4,298,969	6,322,186	6,670,170	8,735,284
14 Ending Trust Fund Balance	\$ 16,454,902	\$ 16,574,431	\$ 16,699,563	\$ 18,680,944	\$ 20,702,207	\$ 25,091,085	\$ 29,390,054	\$ 35,712,240	\$ 42,382,410	\$ 51,117,694
15 % of trust fund resources committed in CY (max = 80%)	41%	42%	40%	37%	33%	28%	24%	20%	16%	13%

This table illustrates the Capital Trust Fund’s (CTF) cash flow incorporating all existing loan payments on previously authorized projects and the recommended projects for FY20. Cash funded projects in FY20 total \$3,925,000 and bond funded projects total \$12.3 million. The bonds will be issued in FY20 and the first estimated loan payment of \$1,429,670 is anticipated to be made in FY21 as illustrated above on line 9a. Line 8 in the table above includes all existing loan payments. Lines 10 and 11 include estimates on future cash appropriations for capital to be financed from the trust fund’s reserves. One-time additional resources to be added to the fund are included on line 4 and 5. The percentage of the trust fund’s current year resources that are committed in any year are less than the Administrative Code limit of 80% (line 15) indicating that the fund has the capacity to absorb more debt financed projects in future years.

TABLE B – Capital Trust Fund Estimated Capacity For The Next 10 Years

ESTIMATED CAPITAL TRUST FUND 5 YEAR PLAN CASH FLOW ANALYSIS											
		FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029
1	Beginning Trust Fund Balance	\$ 17,374,744	\$ 16,454,902	\$ 15,802,431	\$ 14,302,428	\$ 13,518,683	\$ 11,005,350	\$ 9,875,906	\$ 7,689,605	\$ 6,786,335	\$ 5,341,723
	Resources:										
2	Investment Earnings	191,122	181,004	173,827	157,327	148,706	121,059	108,635	84,586	74,650	58,759
3	Transfer From General Fund	10,191,521	10,646,309	11,112,467	11,590,279	12,080,036	12,582,037	13,096,588	13,624,003	14,164,603	14,718,718
4	Additional Contribution From General Fund	-	1,000,000	-	1,000,000	-	1,000,000	-	1,000,000	-	1,000,000
5	Other Resources	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
6	Total Current Year Resources	10,482,643	11,927,313	11,386,294	12,847,606	12,328,742	13,803,096	13,305,223	14,808,589	14,339,253	15,877,477
7	Total Available Resources	27,857,387	28,382,214	27,188,725	27,150,034	25,847,424	24,808,446	23,181,129	22,498,193	21,125,588	21,219,200
	Commitments:										
8	Existing Debt Service Payments	(7,477,486)	(6,828,113)	(6,227,486)	(5,787,927)	(5,197,099)	(4,291,221)	(4,104,261)	(3,586,338)	(2,779,088)	(2,272,050)
9a	Estimated Debt Service on FY20 CIP (\$12.3m)		(1,429,670)	(1,392,168)	(1,354,666)	(1,317,164)	(1,279,662)	(1,069,360)	(1,038,770)	(1,008,180)	(977,590)
9b	Estimated Debt Service on FY21 CIP (\$11.1m)			(1,316,643)	(1,281,784)	(1,246,925)	(1,212,065)	(1,177,206)	(932,347)	(905,887)	(879,428)
9c	Estimated Debt Service on FY22 CIP (\$8.5m)				(1,006,973)	(980,368)	(953,763)	(927,157)	(900,552)	(823,947)	(799,341)
9d	Estimated Debt Service on FY23 CIP (\$19.5m)					(2,001,519)	(1,952,741)	(1,903,964)	(1,855,186)	(1,806,409)	(1,714,632)
9e	Estimated Debt Service on FY24 CIP (\$7m)						(843,087)	(820,576)	(798,065)	(775,555)	(753,044)
10	Public Roads Program	(3,450,000)	(3,550,000)	(3,650,000)	(3,750,000)	(3,850,000)	(3,950,000)	(4,000,000)	(4,100,000)	(4,200,000)	(4,300,000)
11	Other Cash Program	(475,000)	(772,000)	(300,000)	(450,000)	(249,000)	(450,000)	(450,000)	(450,000)	(450,000)	(450,000)
12	Total Current Year Commitments	(11,402,486)	(12,579,783)	(12,886,297)	(13,631,351)	(14,842,074)	(14,932,539)	(15,491,525)	(15,711,858)	(15,783,865)	(16,137,685)
13	Increase (Decrease) in Trust Fund	(919,843)	(652,470)	(1,500,004)	(783,745)	(2,513,333)	(1,129,444)	(2,186,302)	(903,269)	(1,444,613)	(260,208)
14	Ending Trust Fund Balance	\$ 16,454,902	\$ 15,802,431	\$ 14,302,428	\$ 13,518,683	\$ 11,005,350	\$ 9,875,906	\$ 7,689,605	\$ 6,786,335	\$ 5,341,723	\$ 5,081,515
15	% of trust fund resources committed in CY (max = 80%)	41%	44%	47%	50%	57%	60%	67%	70%	75%	76%

Including the proposed FY20 capital program, it is estimated the Capital Trust Fund can absorb approximately \$145 million in projects over the next 10-years and stay within the maximum allowable commitment of 80% as shown on line 15. Cash financed capital is estimated at \$43 million and bond financed capital is estimated at \$100 million through FY29. The estimated annual loan payments on the bonds are illustrated on lines 9a through 9e.

TABLE C – Capital Trust Fund Debt Amortization Schedule As Of February 6, 2019

DEBT SERVICE PROGRAM	Issued Date	Maturity Date	Principal Amount	P&I Payments FY 2020	P&I Payments FY 2021	P&I Payments FY 2022	P&I Payments FY 2023	P&I Payments FY 2024	P&I Payments FY 2025	P&I Payments FY 2026	P&I Payments FY 2027	P&I Payments FY 2028	P&I Payments FY 2029
CTF MWPAT CW-04-31 Pool 11	11/09/07	07/15/20	389,216	33,999	33,999	-	-	-	-	-	-	-	-
CTF School Building Improvements	06/16/10	06/15/30	936,000	62,494	61,144	59,794	58,331	56,869	55,294	53,719	52,088	50,288	48,600
CTF Dredging	06/16/10	06/15/24	419,250	34,625	33,725	32,825	31,850	25,875	-	-	-	-	-
CTF Lake Treatment	06/16/10	06/15/25	275,000	23,075	17,475	17,025	16,538	16,050	15,525	-	-	-	-
CTF Municipal Facility Improvements	06/16/10	06/15/29	402,500	6,744	6,594	6,444	6,281	6,119	5,944	5,769	5,588	5,388	5,200
CTF Police Facility	06/16/10	06/15/30	508,000	34,719	33,969	33,219	32,406	31,594	30,719	29,844	28,938	27,938	27,000
CTF Nitrogen Management CW-04-31-A	03/15/11	07/15/20	211,460	23,330	23,330	-	-	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs V (I)	06/14/11	06/15/31	884,000	65,119	63,319	61,519	59,719	57,919	56,400	54,825	53,138	46,450	44,850
CTF Advance Refund 6/15/2002 Land Acquisitions BUTAPS	06/14/11	06/15/20	1,102,000	135,200	-	-	-	-	-	-	-	-	-
CTF Boat Ramp Renovations	06/14/11	06/15/21	250,000	27,000	26,000	-	-	-	-	-	-	-	-
CTF Bridge Repair	06/14/11	06/15/21	250,000	27,000	26,000	-	-	-	-	-	-	-	-
CTF Building - Town Hall Space - 00-110 Refunded	06/14/11	06/15/21	180,000	20,520	19,760	-	-	-	-	-	-	-	-
CTF Dredging East Bay & Blish Point	06/14/11	06/15/21	665,000	70,200	67,600	-	-	-	-	-	-	-	-
CTF Municipal Facility Improvement	06/14/11	06/15/21	300,000	32,400	31,200	-	-	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs IV	06/14/11	06/15/21	332,000	32,400	31,200	-	-	-	-	-	-	-	-
CTF School Parking Lot (I)	06/14/11	06/15/21	250,000	27,000	26,000	-	-	-	-	-	-	-	-
CTF Sidewalk Improvements	06/14/11	06/15/21	350,000	37,800	36,400	-	-	-	-	-	-	-	-
CTF Building - Town Hall Repairs - 01-087 Refunded	06/14/11	06/15/22	100,000	11,160	10,760	9,360	-	-	-	-	-	-	-
CTF School Remolding - Asbestos 00-110 Refunded	06/14/11	06/15/22	50,000	5,600	5,400	5,200	-	-	-	-	-	-	-
CTF Baxter's Neck Road - Private Way	06/14/11	06/15/26	350,000	30,725	29,725	23,725	22,925	22,125	21,450	20,750	-	-	-
CTF Prince Cove/Hayward Rd. Boat Ramp	06/14/11	06/15/26	600,000	50,650	49,050	47,450	45,850	44,250	42,900	41,500	-	-	-
CTF School Facilities Upgrades/Repairs II	06/14/11	06/15/26	179,000	12,663	12,263	11,863	11,463	11,063	10,725	10,375	-	-	-
CTF School Facilities Upgrades/Repairs III	06/14/11	06/15/26	190,000	12,663	12,263	11,863	11,463	11,063	10,725	10,375	-	-	-
CTF School Improvement (I)	06/14/11	06/15/26	487,000	37,988	36,788	35,588	34,388	33,188	32,175	31,125	-	-	-
CTF Advance Refund 6/15/2003 Main St. Hyannis Infr. Improv.	04/18/12	09/15/20	39,100	5,198	4,162	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Building Improvements	04/18/12	09/15/22	96,600	11,114	10,814	10,464	6,732	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 1 (I)	04/18/12	09/15/22	193,200	22,228	21,628	18,968	15,504	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 2 (I)	04/18/12	09/15/22	96,700	11,118	10,818	10,468	6,834	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Police Facility Addition	04/18/12	09/15/22	626,900	67,500	65,700	63,600	61,200	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 School Remodel I	04/18/12	09/15/22	242,700	28,609	22,806	21,192	20,196	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 School Remodel II	04/18/12	09/15/22	193,400	22,180	21,580	17,940	15,300	-	-	-	-	-	-
CTF Bumps River Bridge Repair	11/22/13	11/15/23	120,000	11,250	10,950	10,650	10,375	10,125	-	-	-	-	-
CTF East Bay Dredging	11/22/13	11/15/23	600,000	67,500	65,700	63,900	62,250	60,750	-	-	-	-	-
CTF Guyer Barn Upgrades	11/22/13	11/15/23	148,000	16,750	16,300	15,800	15,438	10,125	-	-	-	-	-
CTF Highway Operations Facility Construction	11/22/13	11/15/23	66,000	5,625	5,475	5,325	5,188	5,063	-	-	-	-	-
CTF HS Library AC Units	11/22/13	11/15/23	450,000	50,625	49,275	47,925	46,688	45,563	-	-	-	-	-
CTF Hyannis Harbor Bulkhead Construction	11/22/13	11/15/23	142,000	16,475	16,025	10,650	10,375	10,125	-	-	-	-	-
CTF MEA Facility Upgrades	11/22/13	11/15/23	131,000	16,325	10,950	10,650	10,375	10,125	-	-	-	-	-
CTF Millway Boat Ramp & Dock Upgrades	11/22/13	11/15/23	133,000	16,325	10,950	10,650	10,375	10,125	-	-	-	-	-
CTF Osterville Community Building Upgrades	11/22/13	11/15/23	200,000	22,500	21,900	21,300	20,750	20,250	-	-	-	-	-
CTF Pearl St Building Upgrades	11/22/13	11/15/23	114,000	11,250	10,950	10,650	10,375	10,125	-	-	-	-	-
CTF Police Station Upgrades	11/22/13	11/15/23	168,000	16,875	16,425	15,975	15,563	15,188	-	-	-	-	-
CTF Private Road Repairs (I) \$633,000	11/22/13	11/15/23	633,000	72,575	65,700	63,900	62,250	60,750	-	-	-	-	-
CTF S&G Facility Roof Repairs	11/22/13	11/15/23	103,000	11,250	10,950	10,650	10,375	10,125	-	-	-	-	-
CTF School Computer Network Infrastructure	11/22/13	11/15/23	189,000	22,100	21,500	15,975	15,563	15,188	-	-	-	-	-
CTF School Fire & Communications System	11/22/13	11/15/23	200,000	22,500	21,900	21,300	20,750	20,250	-	-	-	-	-
CTF School Roof Repairs	11/22/13	11/15/23	600,000	67,500	65,700	63,900	62,250	60,750	-	-	-	-	-
CTF Sidewalk Overlays	11/22/13	11/15/23	190,000	22,250	21,650	21,050	15,563	15,188	-	-	-	-	-
CTF Tennis Courts	11/22/13	11/15/23	500,000	56,250	54,750	53,250	51,875	50,625	-	-	-	-	-
CTF Town Hall Interior Upgrades	11/22/13	11/15/23	150,000	16,875	16,425	15,975	15,563	15,188	-	-	-	-	-
CTF US Custom House upgrades	11/22/13	11/15/23	263,000	28,125	27,375	26,625	25,938	25,313	-	-	-	-	-

DEBT SERVICE PROGRAM	Issued Date	Maturity Date	Principal Amount	P&I Payments FY 2030	P&I Payments FY 2031	P&I Payments FY 2032	P&I Payments FY 2033	P&I Payments FY 2034	P&I Payments FY 2035	P&I Payments FY 2036	P&I Payments FY 2037	P&I Payments FY 2038	P&I Payments FY 2039	Totals
CTF MWPAT CW-04-31 Pool 11	11/09/07	07/15/20	389,216	-	-	-	-	-	-	-	-	-	-	135,997
CTF School Building Improvements	06/16/10	06/15/30	936,000	46,800	-	-	-	-	-	-	-	-	-	736,031
CTF Dredging	06/16/10	06/15/24	419,250	-	-	-	-	-	-	-	-	-	-	231,900
CTF Lake Treatment	06/16/10	06/15/25	275,000	-	-	-	-	-	-	-	-	-	-	154,338
CTF Municipal Facility Improvements	06/16/10	06/15/29	402,500	-	-	-	-	-	-	-	-	-	-	74,181
CTF Police Facility	06/16/10	06/15/30	508,000	26,000	-	-	-	-	-	-	-	-	-	408,906
CTF Nitrogen Management CW-04-31-A	03/15/11	07/15/20	211,460	-	-	-	-	-	-	-	-	-	-	93,321
CTF School Facilities Upgrades/Repairs V (I)	06/14/11	06/15/31	884,000	43,250	41,650	-	-	-	-	-	-	-	-	783,794
CTF Advance Refund 6/15/2002 Land Acquisitions BUTAPS	06/14/11	06/15/20	1,102,000	-	-	-	-	-	-	-	-	-	-	421,200
CTF Boat Ramp Renovations	06/14/11	06/15/21	250,000	-	-	-	-	-	-	-	-	-	-	110,000
CTF Bridge Repair	06/14/11	06/15/21	250,000	-	-	-	-	-	-	-	-	-	-	110,000
CTF Building - Town Hall Space - 00-110 Refunded	06/14/11	06/15/21	180,000	-	-	-	-	-	-	-	-	-	-	84,640
CTF Dredging East Bay & Blish Point	06/14/11	06/15/21	665,000	-	-	-	-	-	-	-	-	-	-	286,000
CTF Municipal Facility Improvement	06/14/11	06/15/21	300,000	-	-	-	-	-	-	-	-	-	-	132,000
CTF School Facilities Upgrades/Repairs IV	06/14/11	06/15/21	332,000	-	-	-	-	-	-	-	-	-	-	132,000
CTF School Parking Lot (I)	06/14/11	06/15/21	250,000	-	-	-	-	-	-	-	-	-	-	110,000
CTF Sidewalk Improvements	06/14/11	06/15/21	350,000	-	-	-	-	-	-	-	-	-	-	154,000
CTF Building - Town Hall Repairs - 01-087 Refunded	06/14/11	06/15/22	100,000	-	-	-	-	-	-	-	-	-	-	54,800
CTF School Remolding - Asbestos 00-110 Refunded	06/14/11	06/15/22	50,000	-	-	-	-	-	-	-	-	-	-	28,000
CTF Baxter's Neck Road - Private Way	06/14/11	06/15/26	350,000	-	-	-	-	-	-	-	-	-	-	235,875
CTF Prince Cove/Hayward Rd. Boat Ramp	06/14/11	06/15/26	600,000	-	-	-	-	-	-	-	-	-	-	427,750
CTF School Facilities Upgrades/Repairs II	06/14/11	06/15/26	179,000	-	-	-	-	-	-	-	-	-	-	106,938
CTF School Facilities Upgrades/Repairs III	06/14/11	06/15/26	190,000	-	-	-	-	-	-	-	-	-	-	117,538
CTF School Improvement (I)	06/14/11	06/15/26	487,000	-	-	-	-	-	-	-	-	-	-	326,013
CTF Advance Refund 6/15/2003 Main St. Hyannis Infr. Improv.	04/18/12	09/15/20	39,100	-	-	-	-	-	-	-	-	-	-	20,231
CTF Advance Refund 6/15/2003 Building Improvements	04/18/12	09/15/22	96,600	-	-	-	-	-	-	-	-	-	-	62,302
CTF Advance Refund 6/15/2003 Drainage 1 (I)	04/18/12	09/15/22	193,200	-	-	-	-	-	-	-	-	-	-	124,684
CTF Advance Refund 6/15/2003 Drainage 2 (I)	04/18/12	09/15/22	96,700	-	-	-	-	-	-	-	-	-	-	62,424
CTF Advance Refund 6/15/2003 Police Facility Addition	04/18/12	09/15/22	626,900	-	-	-	-	-	-	-	-	-	-	405,786
CTF Advance Refund 6/15/2003 School Remodel I	04/18/12	09/15/22	242,700	-	-	-	-	-	-	-	-	-	-	152,491
CTF Advance Refund 6/15/2003 School Remodel II	04/18/12	09/15/22	193,400	-	-	-	-	-	-	-	-	-	-	123,260
CTF Bumps River Bridge Repair	11/22/13	11/15/23	120,000	-	-	-	-	-	-	-	-	-	-	81,600
CTF East Bay Dredging	11/22/13	11/15/23	600,000	-	-	-	-	-	-	-	-	-	-	459,300
CTF Guyer Barn Upgrades	11/22/13	11/15/23	148,000	-	-	-	-	-	-	-	-	-	-	109,013
CTF Highway Operations Facility Construction	11/22/13	11/15/23	66,000	-	-	-	-	-	-	-	-	-	-	38,275
CTF HS Library AC Units	11/22/13	11/15/23	450,000	-	-	-	-	-	-	-	-	-	-	344,475
CTF Hyannis Harbor Bulkhead Construction	11/22/13	11/15/23	142,000	-	-	-	-	-	-	-	-	-	-	97,650
CTF MEA Facility Upgrades	11/22/13	11/15/23	131,000	-	-	-	-	-	-	-	-	-	-	92,125
CTF Millway Boat Ramp & Dock Upgrades	11/22/13	11/15/23	133,000	-	-	-	-	-	-	-	-	-	-	92,125
CTF Osterville Community Building Upgrades	11/22/13	11/15/23	200,000	-	-	-	-	-	-	-	-	-	-	153,100
CTF Pearl St Building Upgrades	11/22/13	11/15/23	114,000	-	-	-	-	-	-	-	-	-	-	76,550
CTF Police Station Upgrades	11/22/13	11/15/23	168,000	-	-	-	-	-	-	-	-	-	-	114,825
CTF Private Road Repairs (I) \$633,000	11/22/13	11/15/23	633,000	-	-	-	-	-	-	-	-	-	-	474,875
CTF S&G Facility Roof Repairs	11/22/13	11/15/23	103,000	-	-	-	-	-	-	-	-	-	-	76,550
CTF School Computer Network Infrastructure	11/22/13	11/15/23	189,000	-	-	-	-	-	-	-	-	-	-	135,925
CTF School Fire & Communications System	11/22/13	11/15/23	200,000	-	-	-	-	-	-	-	-	-	-	153,100
CTF School Roof Repairs	11/22/13	11/15/23	600,000	-	-	-	-	-	-	-	-	-	-	459,300
CTF Sidewalk Overlays	11/22/13	11/15/23	190,000	-	-	-	-	-	-	-	-	-	-	141,600
CTF Tennis Courts	11/22/13	11/15/23	500,000	-	-	-	-	-	-	-	-	-	-	382,750
CTF Town Hall Interior Upgrades	11/22/13	11/15/23	150,000	-	-	-	-	-	-	-	-	-	-	114,825
CTF US Custom House upgrades	11/22/13	11/15/23	263,000	-	-	-	-	-	-	-	-	-	-	191,375

DEBT SERVICE PROGRAM	Issued	Maturity	Principal	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments
Purpose	Date	Date	Amount	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
CTF Water Quality Evaluation	11/22/13	11/15/23	230,000	27,575	21,900	21,300	20,750	20,250	-	-	-	-	-
CTF West Barnstable Community Building Upgrades	11/22/13	11/15/23	72,000	5,625	5,475	5,325	5,188	5,063	-	-	-	-	-
CTF Beach Facilities Improvements (I) \$270,000 Refunded	02/15/15	02/15/22	71,300	15,680	15,120	14,560	-	-	-	-	-	-	-
CTF Marstons Mills Fish Run Reconstruction	02/17/15	02/15/30	326,000	27,625	26,825	26,025	25,225	24,425	23,625	22,825	22,225	21,625	21,125
CTF Senior Center - Parking Lot Expansion	02/17/15	02/15/30	290,000	27,325	26,525	25,725	24,925	24,125	23,325	22,525	21,925	21,325	20,825
CTF Centerville Recreation Building	02/17/15	02/15/35	185,000	14,863	14,463	14,063	13,663	13,263	12,863	12,463	12,163	11,863	11,613
CTF Early Learning Center Modular Facility	02/17/15	02/15/35	2,000,000	153,125	149,125	145,125	141,125	137,125	133,125	129,125	126,125	123,125	120,625
CTF Police Facilities	02/17/15	02/15/35	288,000	22,519	21,919	21,319	20,719	20,119	19,519	18,919	18,469	18,019	17,644
CTF Blish Point Sand Management	02/17/15	02/15/20	215,000	41,600	-	-	-	-	-	-	-	-	-
CTF Dredge Permitting/Planning	02/17/15	02/15/20	341,000	67,600	-	-	-	-	-	-	-	-	-
CTF Sidewalk/Guardrail Improvements 1	02/17/15	02/15/20	200,000	41,600	-	-	-	-	-	-	-	-	-
CTF Sidewalk/Guardrail Improvements 2	02/17/15	02/15/20	85,000	15,600	-	-	-	-	-	-	-	-	-
CTF School Facilities Repair & Improvement (I) \$660,000 Refunded	02/17/15	02/15/22	199,700	42,520	41,000	38,480	-	-	-	-	-	-	-
CTF School Upgrades 1 (I) \$360,000 Refunded	02/17/15	02/15/22	104,700	21,280	20,520	19,760	-	-	-	-	-	-	-
CTF Police Station Construction (I) \$400,000 Adv Refunded 6-15-05	02/17/15	02/15/25	181,650	22,320	21,600	20,880	20,160	19,440	18,720	-	-	-	-
CTF Land Acquisition (I) - Hyannis Golf Course \$748,000 Refunded	02/17/15	02/15/26	325,200	47,600	46,080	44,560	43,040	41,520	40,000	38,480	36,960	-	-
CTF MME Roof Replacement (I) \$750,000 Refunded	02/17/15	02/15/26	329,800	47,800	46,280	44,760	43,240	41,720	40,200	38,680	37,160	-	-
CTF School Health & Safety Improvements \$478,000 Refunded	02/17/15	02/15/26	193,400	29,620	28,660	27,700	21,740	19,980	19,260	18,540	-	-	-
CTF BHMCPs Roof (I) \$910,000 Refunded	02/17/15	02/15/27	426,900	55,770	54,050	52,330	50,610	48,890	47,170	45,450	43,730	42,010	-
CTF School Upgrades 2 (I) \$150,000 Refunded	02/17/15	02/15/27	47,400	6,420	6,220	6,020	5,820	5,620	5,420	5,220	5,020	4,820	-
CTF Senior Center - Garden Level \$457,000 Refunded	02/17/15	02/15/27	195,000	24,700	23,940	23,180	22,420	21,660	20,900	20,140	19,380	18,620	-
CTF Town Building Repairs & Renovations \$685,000 Refunded	02/17/15	02/15/27	317,600	43,410	41,050	39,730	38,410	37,090	35,770	34,450	33,130	31,810	-
CTF Nitrogen Management CW-04-31-B Series 16	05/14/15	07/15/20	157,531	27,922	27,963	-	-	-	-	-	-	-	-
CTF BHMCPs Façade & Roof Improvements (#2015-117)	02/25/16	06/30/26	260,000	32,000	31,000	30,000	29,000	28,000	27,000	26,000	25,000	24,000	-
CTF Channel Dredging- Barnstable Harbor (#2016-035)	02/25/16	06/30/26	490,000	63,600	61,600	59,600	57,600	55,600	53,600	51,600	49,600	47,600	-
CTF High School & Middle School Boiler Upgrades (#2015-119)	02/25/16	06/30/26	350,000	44,800	43,400	42,000	40,600	39,200	37,800	36,400	35,000	33,600	-
CTF Paving: Bay Street Boat Ramp (#2015-099)	02/25/16	06/30/26	142,000	18,800	18,200	17,600	17,000	16,400	15,800	15,200	14,600	14,000	-
CTF W Village Elementary A/C Replacement (#2015-120)	02/25/16	06/30/26	250,000	32,000	31,000	30,000	29,000	28,000	27,000	26,000	25,000	24,000	-
CTF Hamblin Pond Alum Treatment (#2015-112)	02/25/16	06/30/31	300,000	28,125	27,325	26,525	25,725	24,925	24,125	23,325	22,525	21,725	20,925
CTF Joshua's Pond Recreational Facility (#2015-111)	02/25/16	06/30/31	282,000	27,594	26,794	25,994	25,194	24,394	23,594	22,794	21,994	21,194	20,394
CTF Road Repairs - Governor's Way (#2016-037)	02/25/16	06/30/31	304,000	28,125	27,325	26,525	25,725	24,925	24,125	23,325	22,525	21,725	20,925
CTF Road Repairs (#2015-102)	02/25/16	06/30/31	518,000	48,919	47,519	46,119	44,719	43,319	41,919	40,519	39,119	37,719	36,319
CTF BIS Façade & Roof Improvements (#2015-116)	02/25/16	06/30/36	3,353,000	263,181	256,381	249,581	242,781	235,981	229,181	222,381	215,581	208,781	201,981
CTF Craigville Beach Bathhouse (#2016-031)	02/25/16	06/30/36	450,000	37,525	36,525	35,525	34,525	33,525	32,525	31,525	30,525	29,525	28,525
CTF Elementary School Modular Classroom (#2015-115)	02/25/16	06/30/36	3,720,000	293,106	280,506	273,106	265,706	258,306	250,906	243,506	236,106	228,706	221,306
CTF Guardrail Improvements (#2015-098)	02/25/16	06/30/36	170,000	24,400	18,600	18,000	17,400	16,800	16,200	15,600	15,000	14,400	13,800
CTF Police Station Remodeling (#2015-100)	02/25/16	06/30/36	355,000	29,844	29,044	28,244	27,444	26,644	25,844	25,044	24,244	23,444	22,644
CTF Sidewalk Improvements (#2015-098)	02/25/16	06/30/36	230,000	31,200	30,200	29,200	28,200	27,200	26,200	25,200	24,200	23,200	22,200
CTF Town Hall Remodeling (#2015-101)	02/25/16	06/30/36	939,000	75,831	73,831	71,831	69,831	67,831	65,831	63,831	61,831	59,831	57,831
CTF Bismore Park Visitor Center - CAP \$150,000	06/21/16	06/30/23	48,000	11,520	11,120	8,720	10,400	-	-	-	-	-	-
CTF Bismore Park Visitor Center \$465,000 Refunded	06/21/16	06/30/23	147,500	34,200	33,520	32,840	29,120	-	-	-	-	-	-
CTF Boat Ramps - CAP \$927,000 Refunded	06/21/16	06/30/23	290,000	69,400	67,000	64,600	57,200	-	-	-	-	-	-
CTF Land Acquisition - CAP \$365,200 Refunded	06/21/16	06/30/23	115,000	27,640	26,680	23,720	21,840	-	-	-	-	-	-
CTF Pleasant St. Dock - 1 \$350,000 Refunded	06/21/16	06/30/23	109,500	25,960	24,560	22,680	21,840	-	-	-	-	-	-
CTF Pleasant St. Dock - 2 \$350,000 Refunded	06/21/16	06/30/23	110,000	26,480	24,560	22,680	21,840	-	-	-	-	-	-
CTF Private Road Repairs \$1,607,900	06/21/16	06/30/23	509,000	120,160	112,000	108,000	104,000	-	-	-	-	-	-
CTF Municipal Building Improvements \$297,000 Refunded	06/21/16	06/30/28	49,300	5,672	6,200	6,000	5,800	5,600	5,400	5,300	5,200	5,100	5,000
CTF School Facility Improvements 1 (I) \$916,600 Refunded	06/21/16	06/30/28	295,700	36,928	34,080	36,000	34,800	33,600	32,400	31,800	31,200	30,600	29,400
CTF IT Hardware and Software Upgrade (I) (#2016-086)	02/23/17	06/30/22	342,000	78,000	70,200	67,600	-	-	-	-	-	-	-
CTF Marstons Mills Parking Lot (I) (#2016-087)	02/23/17	06/30/22	246,450	55,800	53,800	46,800	-	-	-	-	-	-	-
CTF Beach Facility Improvement (I) (#2016-110)	02/23/17	06/30/27	438,000	58,800	57,000	55,200	53,400	51,600	44,800	43,200	41,600	-	-
CTF School Parking Lot Light Pole Replacement (I) (#2016-082)	02/23/17	06/30/27	435,000	58,800	57,000	55,200	53,400	51,600	44,800	43,200	41,600	-	-
CTF School Unit Ventilator Upgrade (I) (#2016-083)	02/23/17	06/30/27	230,000	32,200	31,200	30,200	29,200	23,200	22,400	21,600	20,800	-	-

DEBT SERVICE PROGRAM	Issued Date	Maturity Date	Principal Amount	P&I Payments FY 2030	P&I Payments FY 2031	P&I Payments FY 2032	P&I Payments FY 2033	P&I Payments FY 2034	P&I Payments FY 2035	P&I Payments FY 2036	P&I Payments FY 2037	P&I Payments FY 2038	P&I Payments FY 2039	Totals
CTF Water Quality Evaluation	11/22/13	11/15/23	230,000	-	-	-	-	-	-	-	-	-	-	168,675
CTF West Barnstable Community Building Upgrades	11/22/13	11/15/23	72,000	-	-	-	-	-	-	-	-	-	-	43,325
CTF Beach Facilities Improvements (I) \$270,000 Refunded	02/15/15	02/15/22	71,300	-	-	-	-	-	-	-	-	-	-	79,655
CTF Marstons Mills Fish Run Reconstruction	02/17/15	02/15/30	326,000	20,600	-	-	-	-	-	-	-	-	-	330,775
CTF Senior Center - Parking Lot Expansion	02/17/15	02/15/30	290,000	10,300	-	-	-	-	-	-	-	-	-	306,200
CTF Centerville Recreation Building	02/17/15	02/15/35	185,000	11,350	11,050	10,750	5,450	5,300	5,150	-	-	-	-	211,400
CTF Early Learning Center Modular Facility	02/17/15	02/15/35	2,000,000	118,000	115,000	112,000	109,000	106,000	103,000	-	-	-	-	2,340,500
CTF Police Facilities	02/17/15	02/15/35	288,000	17,250	16,800	16,350	10,900	10,600	10,300	-	-	-	-	328,425
CTF Blish Point Sand Management	02/17/15	02/15/20	215,000	-	-	-	-	-	-	-	-	-	-	135,425
CTF Dredge Permitting/Planning	02/17/15	02/15/20	341,000	-	-	-	-	-	-	-	-	-	-	216,800
CTF Sidewalk/Guardrail Improvements 1	02/17/15	02/15/20	200,000	-	-	-	-	-	-	-	-	-	-	130,200
CTF Sidewalk/Guardrail Improvements 2	02/17/15	02/15/20	85,000	-	-	-	-	-	-	-	-	-	-	48,825
CTF School Facilities Repair & Improvement (I) \$660,000 Refunded	02/17/15	02/15/22	199,700	-	-	-	-	-	-	-	-	-	-	222,845
CTF School Upgrades 1 (I) \$360,000 Refunded	02/17/15	02/15/22	104,700	-	-	-	-	-	-	-	-	-	-	117,047
CTF Police Station Construction (I) \$400,000 Adv Refunded 6-15-05	02/17/15	02/15/25	181,650	-	-	-	-	-	-	-	-	-	-	170,033
CTF Land Acquisition (I) - Hyannis Golf Course \$748,000 Refunded	02/17/15	02/15/26	325,200	-	-	-	-	-	-	-	-	-	-	385,375
CTF MME Roof Replacement (I) \$750,000 Refunded	02/17/15	02/15/26	329,800	-	-	-	-	-	-	-	-	-	-	391,566
CTF School Health & Safety Improvements \$478,000 Refunded	02/17/15	02/15/26	193,400	-	-	-	-	-	-	-	-	-	-	227,980
CTF BHMCPs Roof (I) \$910,000 Refunded	02/17/15	02/15/27	426,900	-	-	-	-	-	-	-	-	-	-	512,826
CTF School Upgrades 2 (I) \$150,000 Refunded	02/17/15	02/15/27	47,400	-	-	-	-	-	-	-	-	-	-	56,791
CTF Senior Center - Garden Level \$457,000 Refunded	02/17/15	02/15/27	195,000	-	-	-	-	-	-	-	-	-	-	233,700
CTF Town Building Repairs & Renovations \$685,000 Refunded	02/17/15	02/15/27	317,600	-	-	-	-	-	-	-	-	-	-	379,330
CTF Nitrogen Management CW-04-31-B Series 16	05/14/15	07/15/20	157,531	-	-	-	-	-	-	-	-	-	-	111,610
CTF BCHMCPs Façade & Roof Improvements (#2015-117)	02/25/16	06/30/26	260,000	-	-	-	-	-	-	-	-	-	-	275,200
CTF Channel Dredging- Barnstable Harbor (#2016-035)	02/25/16	06/30/26	490,000	-	-	-	-	-	-	-	-	-	-	526,600
CTF High School & Middle School Boiler Upgrades (#2015-119)	02/25/16	06/30/26	350,000	-	-	-	-	-	-	-	-	-	-	378,000
CTF Paving: Bay Street Boat Ramp (#2015-099)	02/25/16	06/30/26	142,000	-	-	-	-	-	-	-	-	-	-	148,600
CTF W Village Elementary A/C Replacement (#2015-120)	02/25/16	06/30/26	250,000	-	-	-	-	-	-	-	-	-	-	270,000
CTF Hamblin Pond Alum Treatment (#2015-112)	02/25/16	06/30/31	300,000	21,200	20,600	-	-	-	-	-	-	-	-	346,800
CTF Joshua's Pond Recreational Facility (#2015-111)	02/25/16	06/30/31	282,000	15,900	15,450	-	-	-	-	-	-	-	-	320,100
CTF Road Repairs - Governor's Way (#2016-037)	02/25/16	06/30/31	304,000	21,200	20,600	-	-	-	-	-	-	-	-	346,800
CTF Road Repairs (#2015-102)	02/25/16	06/30/31	518,000	31,800	30,900	-	-	-	-	-	-	-	-	592,850
CTF BIS Façade & Roof Improvements (#2015-116)	02/25/16	06/30/36	3,353,000	199,650	194,700	189,750	184,800	179,850	174,900	169,950	-	-	-	4,160,850
CTF Craigville Beach Bathhouse (#2016-031)	02/25/16	06/30/36	450,000	24,200	23,600	23,000	22,400	21,800	21,200	20,600	-	-	-	551,800
CTF Elementary School Modular Classroom (#2015-115)	02/25/16	06/30/36	3,720,000	223,850	218,300	212,750	207,200	201,650	196,100	190,550	-	-	-	4,620,850
CTF Guardrail Improvements (#2015-098)	02/25/16	06/30/36	170,000	-	-	-	-	-	-	-	-	-	-	178,200
CTF Police Station Remodeling (#2015-100)	02/25/16	06/30/36	355,000	18,150	17,700	17,250	16,800	16,350	15,900	15,450	-	-	-	433,350
CTF Sidewalk Improvements (#2015-098)	02/25/16	06/30/36	230,000	-	-	-	-	-	-	-	-	-	-	244,000
CTF Town Hall Remodeling (#2015-101)	02/25/16	06/30/36	939,000	54,450	53,100	51,750	50,400	49,050	47,700	46,350	-	-	-	1,154,250
CTF Bismore Park Visitor Center - CAP \$150,000	06/21/16	06/30/23	48,000	-	-	-	-	-	-	-	-	-	-	55,600
CTF Bismore Park Visitor Center \$465,000 Refunded	06/21/16	06/30/23	147,500	-	-	-	-	-	-	-	-	-	-	170,960
CTF Boat Ramps - CAP \$927,000 Refunded	06/21/16	06/30/23	290,000	-	-	-	-	-	-	-	-	-	-	336,400
CTF Land Acquisition - CAP \$365,200 Refunded	06/21/16	06/30/23	115,000	-	-	-	-	-	-	-	-	-	-	133,080
CTF Pleasant St. Dock - 1 \$350,000 Refunded	06/21/16	06/30/23	109,500	-	-	-	-	-	-	-	-	-	-	126,800
CTF Pleasant St. Dock - 2 \$350,000 Refunded	06/21/16	06/30/23	110,000	-	-	-	-	-	-	-	-	-	-	127,360
CTF Private Road Repairs \$1,607,900	06/21/16	06/30/23	509,000	-	-	-	-	-	-	-	-	-	-	589,880
CTF Municipal Building Improvements \$297,000 Refunded	06/21/16	06/30/28	49,300	-	-	-	-	-	-	-	-	-	-	58,416
CTF School Facility Improvements 1 (I) \$916,600 Refunded	06/21/16	06/30/28	295,700	-	-	-	-	-	-	-	-	-	-	350,264
CTF IT Hardware and Software Upgrade (I) (#2016-086)	02/23/17	06/30/22	342,000	-	-	-	-	-	-	-	-	-	-	381,976
CTF Marstons Mills Parking Lot (I) (#2016-087)	02/23/17	06/30/22	246,450	-	-	-	-	-	-	-	-	-	-	278,406
CTF Beach Facility Improvement (I) (#2016-110)	02/23/17	06/30/27	438,000	-	-	-	-	-	-	-	-	-	-	531,331
CTF School Parking Lot Light Pole Replacement (I) (#2016-082)	02/23/17	06/30/27	435,000	-	-	-	-	-	-	-	-	-	-	528,213
CTF School Unit Ventilator Upgrade (I) (#2016-083)	02/23/17	06/30/27	230,000	-	-	-	-	-	-	-	-	-	-	277,996

DEBT SERVICE PROGRAM	Issued	Maturity	Principal	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments	P&I Payments
Purpose	Date	Date	Amount	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
CTF Private Roads Repairs (I) \$167,300	02/23/17	06/30/31	167,300	20,200	19,600	19,000	13,400	13,000	12,600	12,200	11,800	11,400	11,000
CTF Guardrail & Sidewalk Improvement Program (I) (#2016-103)	02/23/17	06/30/32	680,750	67,050	65,250	63,450	61,650	59,850	58,050	56,250	54,450	52,650	50,850
CTF Blish Point Boat Access Channel Dredging (I) (#2016-111)	02/23/17	06/30/37	943,900	80,506	78,506	76,506	74,506	72,506	70,506	63,506	61,706	59,906	58,106
CTF Lombard Field Improvements (I) (#2016-113)	02/23/17	06/30/37	895,000	74,138	72,338	70,538	68,738	66,938	65,138	63,338	61,538	59,738	57,938
CTF Osterville Bay Elem School Improvements (I) (#2016-112)	02/23/17	06/30/37	724,300	63,194	61,594	54,994	53,594	52,194	50,794	49,394	47,994	46,594	45,194
CTF Horace Mann Roof (I) (#2016-081)	02/27/18	06/30/38	2,350,000	207,919	203,119	197,119	191,119	187,519	181,519	175,519	169,519	163,519	152,519
CTF Barnstable Public Schools Unit Ventilator (I) (#2017-062)	02/27/18	06/30/28	225,000	34,250	33,250	32,000	30,750	25,000	24,000	23,000	22,000	21,000	-
CTF Barnstable High School Learning Center (I) (#2017-063)	02/27/18	06/30/38	2,968,500	260,856	254,856	247,356	239,856	235,356	227,856	220,356	212,856	205,356	197,856
CTF Barnstable Public Schools Asbestos Abatement (I) (#2017-066)	02/27/18	06/30/28	270,000	41,200	40,000	38,500	32,000	31,250	30,000	28,750	27,500	26,250	-
CTF Barnstable High School Stadium Bleachers (I) (#2017-067)	02/27/18	06/30/33	966,000	103,050	100,450	97,200	93,950	92,000	88,750	85,500	82,250	79,000	75,750
CTF Barnstable High School Cafeteria Window (I) (#2017-068)	02/27/18	06/30/38	400,000	34,925	34,125	33,125	32,125	31,525	30,525	29,525	28,525	27,525	26,525
CTF Guardrail & Sidewalk (I) (#2017-073)	02/27/18	06/30/33	287,000	31,350	30,550	29,550	28,550	27,950	26,950	25,950	24,950	23,950	22,950
CTF West Barnstable Shooting Range (I) (#2017-074)	02/27/18	06/30/28	314,000	47,800	41,400	39,900	38,400	37,500	36,000	34,500	33,000	31,500	-
CTF CW-04-31-R Mass Clean Water Trust (#2002-081)	04/13/17	07/15/20	255,941	88,898	-	-	-	-	-	-	-	-	-
CTF Hyannis West Elementary School Roof Truss System (2019-058)	08/15/19	06/30/39	850,000	79,464	78,300	76,050	73,800	71,550	69,300	67,050	64,800	62,550	60,300
CTF Barnstable High School Sports Field Upgrade (#2018-064)	08/15/19	06/30/34	4,600,000	509,318	500,100	484,600	469,100	453,600	433,100	417,850	402,600	387,350	372,100
CTF Design and Hazmat Removal Project Armory Building (2018-096)	08/15/19	06/30/24	461,750	119,132	113,250	103,500	99,000	94,500	-	-	-	-	-
CTF Senior Center Renovations (#2018-076)	08/15/19	06/30/39	659,000	65,890	60,788	59,038	57,288	55,538	53,788	52,038	50,288	48,538	46,788
CTF Osterville Recreation Building Design & Construction (#2017-086)	08/15/19	06/30/39	675,000	62,278	61,388	59,638	57,888	56,138	54,388	52,638	50,888	49,138	47,388
CTF Town Hall Restroom Renovations	08/15/19	06/30/39	560,000	52,836	52,056	50,556	49,056	47,556	46,056	44,556	43,056	41,556	40,056
CTF Former Marston Mills Elementary School Demo (2018-094)	08/15/19	06/30/24	176,050	44,584	42,000	40,250	38,500	36,750	-	-	-	-	-
CTF School Administration Building (#2018-092)	08/15/19	06/30/24	285,000	73,815	71,250	63,250	60,500	57,750	-	-	-	-	-
TOTAL GENERAL FUND DEBT SERVICE				6,307,304	5,693,372	5,131,185	4,733,946	4,183,158	3,314,901	3,167,786	2,684,555	2,398,688	2,209,250
CTF Marina Bulkhead Repair I	06/14/11	06/15/30	725,000	55,631	54,031	52,431	50,831	44,231	43,050	41,825	40,513	39,200	37,800
CTF HYCC 1 (I) \$1,000,000 Refunded	02/17/15	02/15/27	474,900	62,230	60,310	58,390	56,470	53,550	51,670	49,790	47,380	-	-
CTF HYCC 2 (I) \$8,000,000 Refunded	02/17/15	02/15/27	3,794,400	495,450	480,170	463,890	447,650	430,450	413,330	396,290	380,070	-	-
CTF HYCC 3 (I) \$1,600,000 Refunded	02/17/15	02/15/27	759,000	98,670	95,630	92,590	89,550	86,510	82,470	79,470	76,220	-	-
CTF HYCC 4 (I) \$6,765,000 Refunded	06/21/16	06/30/28	3,320,000	433,200	419,600	404,000	384,480	374,200	360,800	344,100	332,600	316,200	-
TOTAL ENTERPRISE FUND DEBT SERVICE				1,145,181	1,109,741	1,071,301	1,028,981	988,941	951,320	911,475	876,783	355,400	37,800
Temporary interest on bond anticipation notes				25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
GRAND TOTAL ALL DEBT SERVICE				7,477,486	6,828,113	6,227,486	5,787,927	5,197,099	4,291,221	4,104,261	3,586,338	2,779,088	2,272,050

DEBT SERVICE PROGRAM	Issued Date	Maturity Date	Principal Amount	P&I Payments FY 2030	P&I Payments FY 2031	P&I Payments FY 2032	P&I Payments FY 2033	P&I Payments FY 2034	P&I Payments FY 2035	P&I Payments FY 2036	P&I Payments FY 2037	P&I Payments FY 2038	P&I Payments FY 2039	Totals
CTF Private Roads Repairs (I) \$167,300	02/23/17	06/30/31	167,300	10,600	10,300	-	-	-	-	-	-	-	-	209,548
CTF Guardrail & Sidewalk Improvement Program (I) (#2016-103)	02/23/17	06/30/32	680,750	49,050	47,700	46,350	-	-	-	-	-	-	-	877,505
CTF Blish Point Boat Access Channel Dredging (I) (#2016-111)	02/23/17	06/30/37	943,900	56,306	54,956	53,606	52,256	50,906	49,444	47,981	46,519	-	-	1,278,536
CTF Lombard Field Improvements (I) (#2016-113)	02/23/17	06/30/37	895,000	56,138	54,788	53,438	52,088	50,738	49,275	47,813	41,350	-	-	1,218,948
CTF Osterville Bay Elem School Improvements (I) (#2016-112)	02/23/17	06/30/37	724,300	43,794	42,744	41,694	40,644	39,594	38,456	37,319	36,181	-	-	981,032
CTF Horace Mann Roof (I) (#2016-081)	02/27/18	06/30/38	2,350,000	147,919	143,319	139,869	136,419	132,969	129,519	126,069	122,475	118,738	-	3,235,150
CTF Barnstable Public Schools Unit Ventilator (I) (#2017-062)	02/27/18	06/30/28	225,000	-	-	-	-	-	-	-	-	-	-	279,917
CTF Barnstable High School Learning Center (I) (#2017-063)	02/27/18	06/30/38	2,968,500	191,856	185,856	176,356	172,006	167,656	163,306	158,956	154,425	149,713	-	4,087,806
CTF Barnstable Public Schools Asbestos Abatement (I) (#2017-066)	02/27/18	06/30/28	270,000	-	-	-	-	-	-	-	-	-	-	337,147
CTF Barnstable High School Stadium Bleachers (I) (#2017-067)	02/27/18	06/30/33	966,000	73,150	70,550	63,600	61,800	-	-	-	-	-	-	1,271,696
CTF Barnstable High School Cafeteria Window (I) (#2017-068)	02/27/18	06/30/38	400,000	25,725	24,925	24,325	23,725	23,125	22,525	21,925	21,300	20,650	-	551,683
CTF Guardrail & Sidewalk (I) (#2017-073)	02/27/18	06/30/33	287,000	22,150	16,350	15,900	15,450	-	-	-	-	-	-	376,160
CTF West Barnstable Shooting Range (I) (#2017-074)	02/27/18	06/30/28	314,000	-	-	-	-	-	-	-	-	-	-	392,504
CTF CW-04-31-R Mass Clean Water Trust (#2002-081)	04/13/17	07/15/20	255,941	-	-	-	-	-	-	-	-	-	-	265,001
CTF Hyannis West Elementary School Roof Truss System (2019-058)	08/15/19	06/30/39	850,000	53,050	51,050	49,850	48,650	47,450	46,250	45,050	43,850	42,600	41,300	1,172,264
CTF Barnstable High School Sports Field Upgrade (#2018-064)	08/15/19	06/30/34	4,600,000	356,850	341,600	332,450	323,300	314,150	-	-	-	-	-	6,098,068
CTF Design and Hazmat Removal Project Armory Building (2018-096)	08/15/19	06/30/24	461,750	-	-	-	-	-	-	-	-	-	-	529,382
CTF Senior Center Renovations (#2018-076)	08/15/19	06/30/39	659,000	45,038	38,288	37,388	36,488	35,588	34,688	33,788	32,888	31,950	30,975	907,052
CTF Osterville Recreation Building Design & Construction (#2017-086)	08/15/19	06/30/39	675,000	45,638	43,888	42,838	41,788	40,738	34,688	33,788	32,888	31,950	30,975	930,940
CTF Town Hall Restroom Renovations	08/15/19	06/30/39	560,000	38,556	37,056	31,156	30,406	29,656	28,906	28,156	27,406	26,625	25,813	771,080
CTF Former Marston Mills Elementary School Demo (2018-094)	08/15/19	06/30/24	176,050	-	-	-	-	-	-	-	-	-	-	202,084
CTF School Administration Building (#2018-092)	08/15/19	06/30/24	285,000	-	-	-	-	-	-	-	-	-	-	326,565
TOTAL GENERAL FUND DEBT SERVICE				2,119,769	1,942,819	1,742,419	1,641,969	1,523,169	1,171,306	1,023,744	559,281	422,225	129,063	62,947,572
CTF Marina Bulkhead Repair I	06/14/11	06/15/30	725,000	36,400	-	-	-	-	-	-	-	-	-	612,006
CTF HYCC 1 (I) \$1,000,000 Refunded	02/17/15	02/15/27	474,900	-	-	-	-	-	-	-	-	-	-	570,626
CTF HYCC 2 (I) \$8,000,000 Refunded	02/17/15	02/15/27	3,794,400	-	-	-	-	-	-	-	-	-	-	4,558,265
CTF HYCC 3 (I) \$1,600,000 Refunded	02/17/15	02/15/27	759,000	-	-	-	-	-	-	-	-	-	-	911,890
CTF HYCC 4 (I) \$6,765,000 Refunded	06/21/16	06/30/28	3,320,000	-	-	-	-	-	-	-	-	-	-	3,928,180
TOTAL ENTERPRISE FUND DEBT SERVICE				36,400	-	-	-	-	-	-	-	-	-	10,935,022
Temporary interest on bond anticipation notes				25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,001	25,002	661,640
GRAND TOTAL ALL DEBT SERVICE				2,181,169	1,967,819	1,767,419	1,666,969	1,548,169	1,196,306	1,048,744	584,281	447,226	154,065	74,544,233

DEBT POSITION ANALYSIS

A. Type And Purpose Of Debt

The Town sells bonds to finance major capital improvements that require large cash outlays. General Obligation Bonds (G.O.B) have been sold to fund capital improvements managed by various municipal operations such as schools, public works, recreation, conservation, and the Town's Enterprise Fund operations. General Obligation Debt, (G.O.D), is supported by the full faith and credit of the Town and is repaid from property taxes collected from both current and future property owners throughout the term of the debt, except for the bonds issued to fund most capital improvements for Enterprise Fund operations. Although property taxes are pledged as collateral for Enterprise Fund GOB's, most of the bonds are repaid with revenue generated by the Enterprise Funds and not property taxes. This arrangement provides for a more favorable borrowing rate on Enterprise Fund debt and is required by Massachusetts General Laws. Alternatively, Enterprise Funds would have to issue what are referred to as "Revenue Bonds", which would typically carry much higher interest rates because the collateral is Enterprise Fund revenue as opposed to property taxes.

Properly structured municipal debt is tax exempt. This feature is attractive to many investors who, in turn, require less interest than they would from non-tax-exempt investments. Typical rates for municipal bonds over the past several years have been in the 1.5% to 4% range. Rates have remained low in FY19 as the economy is making municipal bonds more attractive for highly rated communities. When netted out against inflation, municipal borrowing costs, especially for strong credit worthy Towns such as Barnstable is enviable.

The Town operates several Enterprise Funds that includes an airport, two golf courses, a wastewater treatment facility, a solid waste transfer station, water supply operations, four marinas, Sandy Neck Beach Park, and the Hyannis Youth & Community Center. These funds are expected to repay their debt from the revenues they generate unless it is determined that a General Fund contribution is necessary to provide for some fee mitigation. In addition, the Town has borrowed on behalf of the Community Preservation Fund (CPF) that was created by general legislation to enable towns in the Commonwealth to acquire open space and to finance recreation, community housing, and historic preservation projects. The CPF, a special revenue fund, is funded with three percent surtax on each real estate tax bill. The Commonwealth provides a partial matching program for the surtax billed from a state trust account, which is funded by real estate transfer taxes. The matching program is expected to decline as more communities adopt the CPF, real estate transactions declining, as well as a decline in the State's trust fund balance.

B. Current Debt Position

As of June 30, 2018, the Town of Barnstable had \$103 million of outstanding long-term debt. New debt issued in FY18 was \$9.9 million and existing debt retired was \$14.4 million, representing a \$4.5 million net decrease in the outstanding long-term debt level from June 30, 2017. These debt figures include all debt incurred on behalf of the governmental funds and enterprise funds.

Projected Debt Payments by Project and Fund

The following four tables set forth the projected General Obligation Debt (G.O.D.) payments by issue for both the Town's governmental funds and the enterprise funds. It is significant to note the State reimburses for approved Massachusetts School Building Authority (MSBA) school construction projects at the rate of 64%, including interest costs incurred. There are also several low-cost financing loans through the Massachusetts Clean Water Trust (MCWT) for sewer construction, water system improvements, and landfill capping loans.

Bonds Payable Schedule – Governmental Funds (Excludes Enterprise Fund Debt)

Project	Maturities Through	Original Loan Amount	Interest Rate (%)	Outstanding at June 30, 2018
MCWT Title V Bond of 1997.....	2021	\$ 200,000	0.00	\$ 31,000
MCWT Title V Bond of 2002.....	2023	200,000	0.00	50,324
MCWT Title V Bonds of 2006.....	2026	400,000	0.00	160,000
MCWT Title V Bond of 2007.....	2027	200,000	0.00	90,000
Municipal Purpose Bonds of 2007.....	2027	36,808,388	4.00 - 5.00	4,900,000
MCWT Bond of 2008 (CW-04-31).....	2021	389,216	2.00	99,001
MCWT Bond of 2009.....	2021	887,454	2.00	149,239
Municipal Purpose Bonds of 2010.....	2030	3,873,270	2.00 - 5.00	1,965,000
Municipal Purpose Bonds of 2011.....	2031	13,584,000	2.00 - 4.00	4,970,000
Municipal Purpose Refunding of 2012.....	2023	10,037,900	2.00 - 4.00	4,179,500
Municipal Purpose Bonds of 2014.....	2024	6,248,000	2.00 - 3.00	3,270,000
Municipal Purpose Refunding of 2015.....	2027	5,265,500	2.00 - 4.50	4,080,000
Municipal Purpose Bonds of 2015.....	2035	3,930,000	2.00 - 4.50	2,890,000
Municipal Purpose Bonds of 2016.....	2036	12,113,000	2.00 - 4.00	10,595,000
Municipal Purpose Refunding of 2016.....	2028	1,674,000	2.00 - 4.00	1,674,000
Municipal Purpose Bonds of 2017.....	2037	5,105,700	3.00 - 4.00	4,650,000
MCWT Bond of 2017.....	2020	255,941	2.00	172,456
Municipal Purpose Bonds of 2018.....	2038	7,780,500	3.00 - 5.00	<u>7,780,500</u>
Total Bonds Payable.....				51,706,020
Add: Unamortized premium on bonds.....				<u>1,772,942</u>
Total Bonds Payable, net.....				<u>\$ 53,478,962</u>

Debt service requirements for principal and interest for **Governmental Bonds Payable** in future fiscal years are as follows:

Year	Principal	Interest	Total
2019.....	\$ 10,240,231	\$ 1,979,658	\$ 12,219,889
2020.....	6,629,263	1,548,475	8,177,738
2021.....	5,353,618	1,289,106	6,642,724
2022.....	4,873,204	1,071,296	5,944,500
2023.....	4,122,704	866,482	4,989,186
2024.....	3,023,000	717,456	3,740,456
2025.....	2,465,000	605,691	3,070,691
2026.....	2,168,000	503,053	2,671,053
2027.....	1,746,000	415,264	2,161,264
2028.....	1,530,000	353,766	1,883,766
2029.....	1,415,000	297,814	1,712,814
2030.....	1,395,000	253,238	1,648,238
2031.....	1,225,000	205,944	1,430,944
2032.....	1,080,000	168,738	1,248,738
2033.....	1,025,000	136,336	1,161,336
2034.....	950,000	105,590	1,055,590
2035.....	950,000	76,774	1,026,774
2036.....	835,000	47,960	882,960
2037.....	400,000	22,252	422,252
2038.....	280,000	9,102	289,102
Total.....	<u>\$ 51,706,020</u>	<u>\$ 10,673,995</u>	<u>\$ 62,380,015</u>

The Commonwealth of Massachusetts has approved school construction assistance to the Town. The assistance program, which is administered by the Massachusetts School Building Authority, provides resources for construction costs and debt service interest of general obligation bonds outstanding. The Town is currently receiving annual payments for 64% of eligible costs in relation to the construction of the new Barnstable Intermediate School and the renovation and addition to the High School. During 2018, approximately \$3,019,000 of such assistance was received. Approximately \$3,878,000 will be received in future years. Of this amount, \$145,000 represents reimbursement of future long-term interest costs and \$3,733,000 represents reimbursement of approved construction cost and interest costs previously paid.

Bonds Payable Schedule – Enterprise Funds

Project	Maturities Through	Original Loan Amount	Interest Rate (%)	Outstanding at June 30, 2018
Airport.....	2037	\$ 2,433,700	2.00 - 4.125	\$ 2,175,000
Golf Course.....	2037	3,313,200	2.00 - 5.00	2,894,000
Add: unamortized premium.....				164,748
Total Golf Course Bonds Payable, net.....				3,058,748
Solid Waste Transfer Station.....	2027	7,515,600	0.00 - 4.50	826,500
Wastewater.....	2037	27,301,820	0.00 - 4.75	15,256,940
Water Supply.....	2038	19,877,111	2.00 - 5.00	16,826,853
Add: unamortized premium.....				605,745
Total Water Supply Bonds Payable, net.....				17,432,598
Marina Recreation.....	2037	3,598,500	2.00 - 4.00	2,544,000
Add: unamortized premium.....				66,054
Total Marina Recreation Bonds Payable, net.....				2,610,054
Sandy Neck Recreation.....	2031	1,265,000	2.00 - 4.125	900,000
Hyannis Youth and Community Center.....	2028	15,113,300	2.00 - 4.75	7,835,000
Add: unamortized premium.....				755,907
Total Hyannis Youth and Community Center Bonds Payable, net.....				8,590,907
Total Bonds Payable, net.....				\$ 50,850,747

Debt service requirements for principal and interest for **Enterprise Bonds Payable** in future fiscal years are as follows:

Year	Principal	Interest	Total
2019.....	\$ 4,863,643	\$ 1,610,505	\$ 6,474,148
2020.....	4,463,261	1,430,974	5,894,235
2021.....	4,312,773	1,267,690	5,580,463
2022.....	4,058,905	1,107,708	5,166,613
2023.....	4,120,059	956,739	5,076,798
2024.....	3,990,750	810,215	4,800,965
2025.....	3,890,488	671,505	4,561,993
2026.....	3,659,784	539,277	4,199,061
2027.....	3,629,648	427,913	4,057,561
2028.....	2,464,090	321,020	2,785,110
2029.....	1,684,901	249,132	1,934,033
2030.....	1,663,650	204,468	1,868,118
2031.....	1,609,045	161,304	1,770,349
2032.....	1,122,648	124,983	1,247,631
2033.....	1,136,400	97,555	1,233,955
2034.....	709,729	73,330	783,059
2035.....	714,612	53,570	768,182
2036.....	704,602	33,714	738,316
2037.....	399,305	14,124	413,429
2038.....	60,000	1,950	61,950
Total.....	\$ 49,258,293	\$ 10,157,674	\$ 59,415,967

The Town is scheduled to be subsidized by the MCWT on a periodic basis for principal in the amount of \$495,613 and interest costs for \$133,524. The principal subsidies are guaranteed and therefore a \$495,613 intergovernmental receivable has been reported in the business-type financial statements. Since the Town is legally obligated for the total amount of the debt, such amounts have been reported in the accompanying basic financial statements. The 2018 principal and interest subsidies totaled \$201,830 and \$79,519, respectively.

The Town is subject to various debt limits by statute and may issue additional general obligation debt under the normal debt limit. At June 30, 2018, the Town had the following authorized and unissued debt:

<u>Purpose</u>	<u>Amount</u>
Sewer projects.....	\$ 9,088,246
Water projects.....	7,714,483
Airport projects.....	29,306,487
Fish run reconstruction.....	500
School improvements.....	1,736,000
Parking lot improvements.....	25,000
Landfill projects.....	2,000,000
Town hall renovation.....	560,000
Osterville recreation project.....	675,000
Private road repairs.....	2,075,770
Clear vegetation and obstruction project.....	<u>300,000</u>
 Total.....	 \$ <u><u>53,481,486</u></u>

C. General Obligation Debt – Credit Ratings

Several factors determine the amount of debt the Town can afford to maintain. These include the strength of the local economy, the wealth of the community, and the amount of debt sold by overlapping jurisdictions (Barnstable County Government, Cape Cod Regional Transit Authority, and Cape Cod Regional Technical High School), future capital needs, the local economy as well as the Town’s financial position, administrative capabilities, and level of planning. These factors, as well as many others, influence the Town’s bond rating - an evaluation of the Town’s ability to repay debt as determined by the rating agencies. System improvements such as programmatic budgeting, an administrative code, policy planning based on a five-year forecast, and financial fund management have helped the Town’s position.

In February 2018, the Town Treasurer conducted a \$10.6 million bond sale, which required a rating to be assigned to it prior to the sale. In their most recent bond rating analysis dated February 2018 Standard & Poor’s (S&P) affirmed the 'AAA' rating on the Town's outstanding debt with a stable outlook. S&P cited the following reasons for their rating and stable outlook:

- Very strong economy, with access to a broad and diverse metropolitan statistical area (MSA);
- Very strong management, with strong financial policies and practices under our Financial Management Assessment (FMA) methodology;
- Strong budgetary performance, with operating surplus in the general fund and at the total governmental fund level in fiscal 2017;
- Very strong budgetary flexibility, with an available fund balance in fiscal 2017 of 24% of operating expenditures;
- Very strong liquidity, with total government available cash at 23.3% of total governmental fund expenditures and 3.5x governmental debt service, and access to external liquidity we consider strong;
- Strong debt-and-contingent-liability position, with debt service carrying charges at 6.6% of expenditures and net direct debt that is 48.7% of total-governmental-fund revenue, as well as low overall net debt at less than 3% of market value and rapid amortization, with 77.9% of debt scheduled to be retired in 10 years, but a large pension and other-postemployment-benefit (OPEB) obligation and the lack of a plan to sufficiently address the obligation; and
- Strong institutional framework score.

The descriptor used by S&P for this rating is “Prime Investment Grade”. Strong bond ratings generally reduce interest expense to service the debt as well as bond insurance costs. Additionally, strong bond ratings enhance the prestige of the community within the financial markets and are a vote of confidence by the rating agency that the municipality is pursuing a sound financial course. This AAA rating reflects sound credit quality with associated very low risk and should result in future low borrowing costs for the Town.

It is important to understand that no single ratio or factor determines a General Obligation Bond rating or fully encompasses the fiscal health of a municipality. The factors must be taken as a group. Other debt ratios, as well as economic and administrative factors account for the differences in ratings. A growing community can afford more debt than a non-growth community, and a community with more income wealth can afford more debt than a poorer community can.

Generally, bond ratings do not change suddenly but respond more to long-range trends. The stable outlook reflects S&P’s view of the town’s very strong budgetary flexibility and liquidity, further supported by a strong economy. As such, they do not expect to change the rating in the next two years. However, dramatic changes are key indicators of fiscal health and can result in an immediate rating change. In projecting bond ratios, it is important to review the sensitivity of the ratios to changes in the economy.

Extract from Standard & Poor’s Credit Profile of Barnstable Printed February 15, 2018

“The stable outlook reflects S&P Global Ratings’ opinion of the town’s very strong economy and budgetary flexibility, supported by strong budgetary performance. We believe the town’s very strong management and liquidity further support the rating. Although the town has large long-term liabilities and increasing retirement costs, we believe management will likely make the necessary budgetary adjustments to maintain balanced financial operations. Therefore, we do not expect to change the rating within the two-year outlook period.

However, while unlikely, we could lower the rating if a prolonged period of structural imbalance were to result in significant available reserve deterioration.”

D. General Obligation Debt - Limitations

There are legal limitations that govern the issuance of municipal debt. Under Massachusetts statutes, the debt limit of the Town of Barnstable is 5 percent of the valuation of taxable property as last equalized by the State Department of Revenue. The Town can authorize debt up to this amount without State approval. The current debt limitation for the Town of Barnstable is close to \$746 million, which is significantly higher than the Town's outstanding general obligation debt that is subject to this limitation. It should be pointed out that much of the existing Town debt does not factor into this limitation. There are categories of general obligation debt that are exempt from, and do not count against the debt limit such as certain school bonds, water bonds, solid waste disposal facility bonds, and water pollution abatement revenue bonds.

Town's Equalized Valuation (EQV)	<u>\$14,932,044,600</u>
Debt Limit – 5% of EQV	\$746,602,230
Less:	
Outstanding Debt Applicable to Limit	\$70,485,571
Authorized and Unissued Debt	<u>\$53,481,486</u>
Legal Debt Margin	<u>\$622,635,173</u>
Total debt applicable to the limit as a percentage of debt limit	16.60%

E. General Obligation Debt - Affordability

Debt analysis, future debt projections, and general obligation bond ratios help determine the amount of general obligation debt the Town can afford to issue and support. The table on the following page illustrates the various debt ratios compared to national medians reported by Standard and Poor's. As shown, Barnstable's ratios show moderate amounts of debt. However, there are a number of factors not directly under the control of the Town, which can influence key General Obligation (G.O.) bond ratios. Several of the G.O. bond ratios are very sensitive to these uncontrollable factors, and the assumptions used to project their growth can play an important role in future debt policy. Some of these factors are:

Overlapping Debt. Overlapping debt is the G.O. debt that is issued by other government entities whose jurisdictions include the citizens of Barnstable. The Town also has to be aware of the debt management practices of overlapping jurisdictions. The primary entities that have an impact on the Town are Barnstable County, Cape Cod Regional Vocational Technical School District and the regional transportation authority. Overlapping debt combined with the Town's own direct debt is a true measure of the G.O. debt burden placed on the citizens. To determine an issuer's overall G.O. debt burden, overlapping debt is added to the issuer's own outstanding G.O. debt. If other overlapping jurisdictions pursue aggressive capital improvements programs, some of the Town's debt ratios will increase. Therefore, it is important to be aware of not only our G.O. debt issuance plans, but also those of other surrounding jurisdictions.

Direct and Overlapping Governmental Activities Debt
As of June 30, 2018

Town of Barnstable, Massachusetts	Debt Outstanding	Percentage Applicable (1), (2)	Share of Overlapping Debt
Debt repaid with property taxes and user charges:			
Barnstable County	\$25,037,532	16.79%	\$4,203,802
Barnstable Fire District	2,210,000	100.00%	2,210,000
Centerville-Osterville-Marston Mills Fire District	2,337,252	100.00%	2,337,252
Cotuit Fire District	5,827,368	100.00%	5,827,368
Hyannis Fire District	2,576,000	100.00%	2,576,000
Subtotal, overlapping debt			17,154,422
Town direct debt			52,907,462
Total direct and overlapping debt			<u>\$70,061,884</u>

(1) County expenses, including debt service, are assessed upon the towns within the county in proportion to their taxable valuation.

(2) The fire districts are special governmental units. The Town serves as a collecting agent for taxes and transfers funds directly to the fire districts on a weekly basis.

Property Assessments. Several key debt ratios use property valuations in the calculation of debt burden. If the Town's property values were to rise, debt ratios will continue to improve.

Town of Barnstable Debt Ratios

Current Status

Criteria

0.76%

Direct Debt - General Fund Debt Service as a % of the Town's FY18 Equalized Property Valuation as calculated by the state.

Formula – Overall General Fund Debt Service ÷ Equalized Valuation

Standard & Poor's rates this as Low (Less than 3%)

7.14%

Municipal Debt Burden – Current Year

Definition - Town's General Fund Debt Service ÷ Total General Fund Expenditures

Standard & Poor's rates this as Low (Below 8%)

\$5,300

Net Debt Per Capita

Definition – Governmental Fund Debt (Short + Long Term Debt- Cash & Cash Equivalents) ÷ Town population

Standard & Poor's rates this as Moderate (\$2,000-\$5,000)

\$ 334,491

Per Capita Market Value

Definition – Equalized Valuation ÷ Population

Standard & Poor's rates this as very Extremely Strong (Above \$100,000)

F. Administrative Policies In Relation To Debt

This section provides policies governing the management of debt for the Town that are included in the Town's Administrative Code.

Debt Refinancing

An advance refunding of outstanding debt shall only be considered when present value savings of at least 3% of the principal amount of the refunded bonds are produced, unless: (1) a debt restructuring is necessary or (2) bond covenant revisions are necessary in order to facilitate the ability to provide services or to issue additional debt. The Town, in collaboration with its Financial Advisor, continually monitors municipal bond market conditions to identify refinancing opportunities. An analysis shall be conducted when necessary to determine whether debt financing, cash purchase, or leasing is the most cost effective method of financing for the Town.

General Obligation Debt

1. All debt shall be financed within the limitations of Proposition 2½ with the exception of debt related to Enterprise Funds, gifts, and betterments. The requirements for such financing shall be an expenditure of at least \$250,000 and a useful life in excess of five years.
2. The term of long-term debt generally shall not exceed the expected useful life of the capital asset being financed and, in no case, shall it exceed twenty years.
3. The ratio of Net Debt (Total outstanding Town of Barnstable General Obligation debt less reimbursements) to Total Assessed Valuation shall not exceed 1.5%. This excludes debt of overlapping jurisdictions.

The debt-to- assessed value ratio for the Town of Barnstable is 0.76%.

4. The ratio of Debt Service to Total Expenditures (operating expenditures and debt service combined) shall not exceed 15%.

The Town's debt coverage ratio is 7.14%.

5. The Town shall target a Standard and Poor's (S&P) debt to income ratio of 8%. The S&P ratio is calculated by dividing Overall Net Debt per Capita by Income per Capita.

The Town's debt-to-income per capita ratio is 6.20%.

6. Current revenue should be committed annually to provide sufficient "Pay-as-you-go" financing so that at the end of five years, annual contributions from current revenues amount to 10% of new debt to be issued.

The Town currently exceeds this requirement by a significant margin. The Town intends to spend over \$19 million in the next five years as "pay-as-you-go" financing and anticipates financing about \$35 million in capital with new debt issues resulting in a 35/65 ratio.

7. Excess appropriated bond issues shall be placed into a "bond repayment fund account" at the end of a project completion. The only purpose of the "bond repayment fund account" shall be 1) to make bulk principal pay-downs against general bond debt, or 2) to be used to pay down the principal on any bond issue at the time of refinancing as provided for in Section 1.04C herein.

The Town currently has no balance in this fund.

Capital Trust Fund

A Capital Trust Fund has been established for the purpose of financing debt service for recommended Capital Improvements Program projects, as contained within the Town's five-year capital improvements plan.

1. The Capital Trust Fund will be funded through a general operation set aside of at least \$1.9 million annually. The estimated commitment for FY 2020 is approximately \$10 million. This is expected to be repeated for the next 5 years.
2. The Capital Trust Fund shall not be utilized for any purpose other than that stated herein.
3. The criteria for reviewing capital project eligibility for Capital Trust Fund borrowing include the following:
 - a. The capital project shall have a financing term of 20 years or less,
 - b. The capital project shall have a minimum project cost of \$250,000,
 - c. The capital project is approved by the Town Council for funding through an appropriation and loan order submitted by the Town Manager.
4. The Capital Trust Fund will have a debt service restriction on the fund, such that debt service estimates from authorized loan orders shall not exceed, at any one time, more than 80% of the amount in the fund as of the close of the fiscal year prior to the next debt service authorization, unless recommended by the Town Manager.
5. The Capital Trust Fund shall otherwise function in accordance with related financial policies of the Town.

G. Debt Summarized

A responsible debt management program is an integral part of municipal finance. A Town's debt must be structured to reflect the underlying, long-term economic prospects of the community. There are statutory requirements and market forces at work to regulate a community's ability to borrow. Continuing disclosure, as required on an annual basis to the bond markets, provides a powerful incentive for a municipality to keep its financial house in order. This analysis has emphasized the importance of credit ratings because, in effect, these are municipal finance report cards. A good credit rating should be guarded jealously, since it is not easily obtained, but can be lost quickly without vigilance and sound financial management.

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PART V – TOWN MANAGER RECOMMENDATIONS

Project Recommendation Rationale

Several factors were taken into consideration when determining which projects to recommend for funding in Fiscal Year 2020. In addition to the scoring by the senior staff, specific considerations went to projects that had received previous funding, and therefore, are ready for the next stage of development. Other considerations include projects that would contribute to the economic development of the Town; projects that would preserve important infrastructure components of the Town; projects that improve high usage assets; projects that have outside funding available to offset the costs or can be covered by user fees; and projects that have an important public safety component associated with them.

The recommended projects total \$34,402,000. The General Fund totals \$17,320,000, the Comprehensive Water Management and Private Way Fund totals \$3,647,000 and the Enterprise Funds total \$13,435,000. Funding for the General Fund portion of the program consists of \$3,925,000 in Capital Trust Fund (CTF) reserves, \$12,303,000 in new borrowing authorizations, \$264,000 from General Fund savings and \$828,000 in transfers from closed appropriations.

Funding for the Enterprise Fund programs consists of using \$1,794,750 of Enterprise Fund reserves, \$9,148,000 in new borrowing authorizations, \$32,000 in transfers from closed appropriations and \$2,460,250 is anticipated in federal and state grants for the Airport projects. The grant funds received will reduce the amount of any bonds authorized to finance the Airport Enterprise Fund’s capital program. The bonds issued for the Enterprise Fund projects are expected to be paid back with Enterprise Fund revenues.

Enterprise Funds Recommendations

Project Name and Council Order Number	Funding Source				
	Enterprise Fund Reserves	Transfers	Grants	Bond Issue	Total
AIRPORT:					
ARFF Equipment Replacement 2019-103	\$11,000	-	\$209,000	-	\$220,000
ARFF Roof Upgrades 2019-104	\$24,500	-	\$465,500	-	\$490,000
Snow Removal Equipment Replacement 2019-105	\$40,000	-	\$760,000	-	\$800,000
Snow Removal Equipment Replacement 2019-106	\$11,500	-	\$218,500	-	\$230,000
Main Terminal Ramp Hardstands for Heavy Aircraft Parking 2019-107	\$56,000	-	\$224,000	-	\$280,000
Surface Treatment & Repaint Runway 15-33 2019-108	\$23,750	-	\$451,250	-	\$475,000
Repair & Extend Mary Dunn Way 2019-109	-	-	-	\$1,000,000	\$1,000,000
Mitigation (PFOS Soils) 2019-110	\$100,000	-	-	-	\$100,000
Airfield Mowing Equipment Replacement 2019-111	\$33,000	-	\$132,000	-	\$165,000
Replace Steel I-Beams in Airport Owned Hanger 2019-112	\$100,000	-	-	-	\$100,000
Total Airport Enterprise Fund	\$399,750	\$ -	\$2,460,250	\$1,000,000	\$3,860,000

The recommended projects for the Enterprise Funds - Continued

Project Name and Council Order Number	Funding Source				
	Enterprise Fund Reserves	Transfers	Grants	Bond Issue	Total
GOLF:					
HGC Cart Path System Replacement 2019-118	-	\$32,000	-	\$414,000	\$446,000
Total Golf Course Enterprise Fund	\$ -	\$32,000	\$ -	\$414,000	\$446,000
SANDY NECK:					
ORV Trail, and Gatehouse Relocation – Design and Permitting 2019-120	\$60,000	-	-	-	\$60,000
Total Sandy Neck Enterprise Fund	\$60,000	\$ -	\$ -	\$ -	\$60,000
WATER POLLUTION CONTROL:					
Effluent Flow Meter Evaluation, Design, and Construction 2019-130	\$600,000	-	-	-	\$600,000
Sewer System Evaluation Surveys (SSES) 2019-131	-	-	-	\$380,000	\$380,000
Pump Station Rehabilitation Program 2019-132	-	-	-	\$1,160,000	\$1,160,000
Bearse’s Way Vacuum Sewer Replacement 2019-133	-	-	-	\$1,125,000	\$1,125,000
South Street Sewer Rehabilitation 2019-134	-	-	-	\$4,019,000	\$4,019,000
Total Water Pollution Control Enterprise Fund	\$600,000	\$ -	\$ -	\$6,684,000	\$7,284,000
WATER SUPPLY:					
Pipe Replacement and Upgrade Program 2019-135	-	-	-	\$1,050,000	\$1,050,000
Wells, Pump Stations, Treatment Plant Repair & Upgrade Program 2019-136	\$200,000	-	-	-	\$200,000
Valve Maintenance Trailer System 2019-137	\$75,000	-	-	-	\$75,000
Wells Treatment Options Evaluation 2019-138	\$220,000	-	-	-	\$220,000
Total Water Supply Enterprise Fund	\$495,000	\$ -	\$ -	\$1,050,000	\$1,545,000
SOLID WASTE:					
Upgrade 5 Compactor Units 2019-139	\$60,000	-	-	-	\$60,000
Equipment Replacement (All-Terrain Litter Vacuum & Kabota RTV) 2019-140	\$80,000	-	-	-	\$80,000
Roll Off Container Trailer Replacement 2019-141	\$100,000	-	-	-	\$100,000
Total Solid Waste Enterprise Fund	\$240,000	\$ -	\$ -	\$ -	\$240,000
Total All Enterprise Funds	\$1,194,750	\$32,000	\$2,460,250	\$9,748,000	\$13,435,000

General Fund Recommendations

Project Name and Council Order Number	Funding Source				
	Capital Trust Fund Reserves	General Fund Savings	Bond Issue	Transfers	Total
INFRASTRUCTURE:					
Aerial Flyover & Mapping Update 2019-113	\$100,000	-	-	-	\$100,000
Summer Aerial Flyover of Waterways 2019-114	\$50,000	-	-	-	\$50,000
Public Roads Maintenance 2019-121	\$3,450,000	-	-	-	\$3,450,000
Public Bridge Improvements and Repairs 2019-122	-	-	\$500,000	-	\$500,000
Bearse's Way Bike Path Construction 2019-123	\$125,000	-	-	-	\$125,000
Bumps River Bridge Repairs 2019-124	-	-	\$900,000	-	\$900,000
Sidewalk Overlay and Guardrail 2019- 125	-	-	\$314,000	-	\$314,000
Main Street Tree Lighting Project 2019-126	-	\$114,000	-	-	\$114,000
Municipal Separate Storm Sewer System Program 2019-127	-	-	-	\$150,000	\$150,000
Crosswalk Improvements 2019-128	-	-	\$300,000	-	\$300,000
Commerce Rd. Improvements 2019-147	-	-	\$300,000	-	\$300,000
Total Infrastructure	\$3,725,000	\$114,000	\$2,314,000	\$150,000	\$6,303,000
MUNICIPAL FACILITIES:					
Improvements to HYCC Flat Roof, HVAC Controls, Parking & Security 2019-115	-	-	\$679,000	-	\$679,000
Craigville Beach House Improvements & Parking Lot Overlay 2019-116	-	-	\$415,000	-	\$415,000
Town Hall Security Improvements 2019-129	-	-	\$480,000	-	\$480,000
Marstons Mills Tennis Courts 2019-117	-	-	\$620,000	-	\$620,000
Bridge Street Pier 2019-149	\$125,000	-	-	-	\$125,000
Cotuit Town Dock Extension 2019-150	\$75,000	-	-	-	\$75,000
Osterville Field Construction and Site Improvements 2019-146	-	-	\$797,000	-	\$797,000

The recommended projects for the General Fund – Continued

Project Name and Council Order Number	Funding Source				
	Capital Trust Fund Reserves	General Fund Savings	Bond Issue	Transfers	Total
School Administration Building Improvements 2019-148	-	-	\$996,000	-	\$996,000
Total Municipal Facilities	\$ 200,000	\$ -	\$3,987,000	\$ -	\$4,187,000
WATERWAYS:					
Channel Dredging Program 2019-119	-	-	\$980,000	-	\$980,000
Total Waterways	\$ -	\$ -	\$980,000	\$ -	\$980,000
SCHOOL FACILITIES:					
BHS Sports Fields Engineering and Upgrades: Phases 2 and 3 2019-093	-	-	\$250,000	-	\$250,000
Districtwide Communication, Video Surveillance & Entry Improvements 2019-094	-	-	\$500,000	-	\$500,000
BHS Synthetic Turf Replacement 2019-095	-	-	\$1,000,000	-	\$1,000,000
Campus Wide Mechanical Upgrades 2019-096	-	-	\$250,000	-	\$250,000
Barnstable High School Environmental Lab 2019-097	-	-	\$322,000	\$678,000	\$1,000,000
BHS & BIS Roof Top Unit Ventilator Replacement 2019-098	-	-	\$1,500,000	-	\$1,500,000
Centerville Elementary School Unit Ventilator Upgrades: Phase 4 2019-099	-	-	\$500,000	-	\$500,000
Comprehensive Facilities Assessment 2019-100	-	\$150,000	-	-	\$150,000
Hyannis West Elementary Roof Replacement 2019-101	-	-	\$450,000	-	\$450,000
Centerville Elementary Roof Replacement 2019-102	-	-	\$250,000	-	\$250,000
Total School Facilities	\$ -	\$150,000	\$4,950,000	\$750,000	\$5,850,000
Grand Totals	\$3,925,000	\$264,000	\$12,303,000	\$828,000	\$17,320,000

Comprehensive Water Management And Private Way Improvements Fund Recommendations

Project Name and Council Order Number	Funding Source				
	Fund Reserves	Bond Issue	Transfers	Grants	Total
Channel Dredging Program 2019-119	\$750,000	-	-	-	\$750,000
MM School Pump Station & 28 Collection System Preliminary Design 2019-142	\$612,000	-	-	-	\$612,000
Long Pond Area Sewer Expansion 2019-143	\$938,000	-	-	-	\$938,000
Marstons Mills River Treatment System 2019-144	\$612,000	-	-	-	\$612,000
Phinney's Lane Sewer Expansion 2019-145	\$735,000	-	-	-	\$735,000
Grand Totals	\$3,647,000	\$ -	\$ -	\$ -	\$3,647,000

Additional Projects Anticipated to be Brought Forward in FY 2020

Three additional projects are expected to be addressed in fiscal year 2020 as more information on policy direction is known as well as the project scope and funding sources being identified.

1. Barnstable Hollow Field Improvements – This project will involve improvements to the Barnstable Hollow Field including removal of the deteriorated player benches, perimeter fencing, backstop, flagpole, and non-compliant guardrail. The field will then be converted from a baseball field into a multiuse greenspace. A request will be made to the Community Preservation Committee for funding.
2. Roadway and Sewer Improvements of Yarmouth Road and Route 28 – The MassDOT is conducting a project at the intersection of Iyannough Road (Route 28) and Yarmouth Road. It would be cost advantageous for the Town to participate with MassDOT in this project to get improvements in the area. These would include additional roadway modifications and the installation of new sewer within the project limits that will be needed for future sewer expansions in the area. Once the State is ready to proceed the Town will bring forward a request to fund its share of the project.
3. Attucks Lane Pumps Station Area, Sewer Expansion – This project involves installing sewer to feed the soon to be installed Attucks Lane Pump Station to south of Route 132 and Old Strawberry Hill Road. Policy decisions including the town's betterment policy need to be reviewed before a request for funding is brought forward.

School Department General Fund Projects

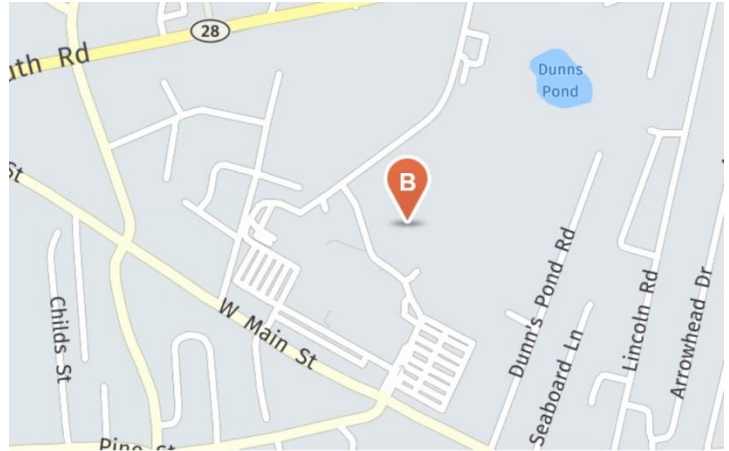
PROJECT: SCH-20-1

DEPARTMENT PRIORITY: 1 of 21

2019-093

Project Working Title: Barnstable High School Sports Fields Engineering and Upgrades, Phases II and III

Project Location: 744 West Main Street, Hyannis, MA 02601



Project Description: This project is a continuation of a 3 phase plan to improve the athletic playing fields at Barnstable High School (BHS). The FY20 appropriation would be used for the engineering and planning segment of Phase 2 Field Improvements. This phase includes improvement to the varsity softball, junior varsity baseball field (s) and practice soccer/field hockey/lacrosse fields. The work would consist of leveling/grading/reorientation of current fields and improvements to natural turf surfaces and irrigation system.

Project Justification: Upgrades to our sports facilities will bring the playing areas to Division I standards proving safer conditions while attracting student athletes and pay for play sports organizations.

Impact of Denial/Postponement: Student athletes will be forced to play on deteriorating field conditions with the increased risk of serious injuries.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$250,000	\$250,000
	Construction or Acquisition	-	\$4,615,492
	Project Management	-	\$243,000
	Project Contingency	-	\$ 972,492
	All Other Cost	-	\$486,000
	Total Project Cost	\$250,000	\$6,566,984

Basis for Cost Estimates: Engineering Cost Estimates

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$250,000	Phase II Field Improvements/Engineering
2021	\$3,616,984	Phase II Field Improvements
2022	\$2,950,000	Phase III Field Improvements

Source of Funding: Bond Issue \$250,000

Operating Budget Impact now or in future: Revenue projections for new field rentals outside of school activities are initially estimated at \$20,000 for the first year and \$50,000 per subsequent year. Field maintenance post-project may require two full time positions and new equipment.



High School Sports Fields

Project Working Title: Districtwide Communication, Video Surveillance, and Entry Improvements

Project Location: Districtwide

Project Description: This is a multi-year project, which includes upgrades and improvements to district telephone, video surveillance, and door entry systems. The upgrades would include centralized VOIP telephone systems and integrated video surveillance/door entry systems. The new systems will be designed to operate on the district's network. Initially our efforts will focus on the district phone system followed by surveillance and entry.

Project Justification: District phone and video surveillance systems are becoming problematic and obsolete. The existing systems are a combination of different manufacturers and unreliable technologies, difficult to maintain and beginning to exhibit a high frequency of failure(s). Due to the age of the systems, components are difficult to obtain and the possibility of permanent failure is likely.

Impact of Denial/Postponement: Denial of this project will jeopardize reliable communication, security, and safety throughout the district.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$425,000	\$425,000
	Project Management	\$50,000	\$50,000
	Project Contingency	\$25,000	\$25,000
	Total Project Cost	\$500,000	\$500,000

Basis for Cost Estimates: Harbor Networks (Barnstable Public School Network Consultant/Contractor)

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 36

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$500,000	VOIP Phone/Video Surveillance Upgrades
2021	\$500,000	VOIP Phone/Video Surveillance Upgrades

Source of Funding: Bond Issue \$500,000

Operating Budget Impact now or in future: N/A



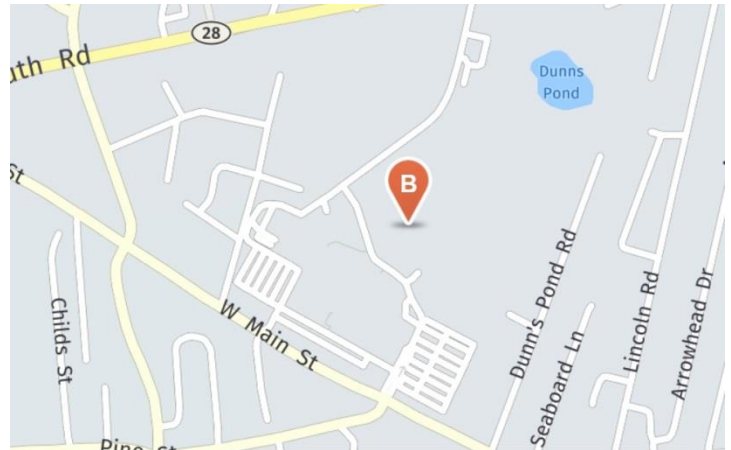
Typical Surveillance System



Centerville Electronic Surveillance Video System

Project Working Title: Barnstable High School (BHS) Synthetic Turf Replacement

Project Location: 744 West Main Street, Hyannis, MA 02601



Project Description: The removal and replacement of existing synthetic sports turf at the BHS stadium. This project includes removal and proper disposal of existing turf, re-grade of existing base, leveling stone, inlaid sports markings, and replacement of infill.

Project Justification: Existing turf is nearing end of life (8 years) and is becoming increasingly difficult to properly groom leaving surface with excess infill build up. The excessive build-up creates slippery conditions for sports play and subsequent safety issues.

Impact of Denial/Postponement: Denial or postponement of this project increases the probability of increased sports injuries and affects the overall quality of play.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$100,000	-
	Construction or Acquisition	\$800,000	-
	Project Contingency	\$100,000	-
	Total Project Cost	\$1,000,000	-

Basis for Cost Estimates: Budgetary Cost Estimate provided by New England Turf (June 2018)

Project Estimated Completion Date: 2019 **Design & Permit (months)** 2 **Construction (months)** 1

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$1,000,000	Replace BHS Stadium Fields Synthetic Turf

Source of Funding: Bond Issue \$1,000,000

Operating Budget Impact now or in future: N/A



Barnstable High School Synthetic Turf Replacement

Project Working Title: Campus Wide Mechanical Upgrades (Burners, Boilers, HVAC & Pump Systems)

Project Location: Barnstable Public Schools Districtwide

Project Description: Districtwide mechanical system upgrades to include boilers, burners, and pumps at all school owned buildings including Osterville and Cotuit.

Project Justification: Much of our existing equipment is over 30 years old and requires replacement and/or upgrade.

Impact of Denial/Postponement: Denial or postponement of this project could result in heating system failures with the possibility of facility damage due to frozen pipes, etc.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$250,000	\$1,000,000
	Total Project Cost	\$250,000	\$1,000,000

Basis for Cost Estimates: Budgetary Cost Estimates

Project Estimated Completion Date: 2023 **Design & Permit (months)** 12 **Construction (months)** 36

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$250,000	Mechanical Upgrades
2021	\$250,000	Mechanical Upgrades
2022	\$250,000	Mechanical Upgrades
2023	\$250,000	Mechanical Upgrades
2024	\$250,000	Mechanical Upgrades

Source of Funding: Bond Issue \$250,000

Operating Budget Impact now or in future: Mechanical upgrades would have a positive impact on operating expenses by upgrading 30-year-old units with high efficiency equipment. All boiler upgrades qualify for Massachusetts School Building Authority (MSBA) assistance and could qualify for up to 35% rebate.



Typical Pumpset

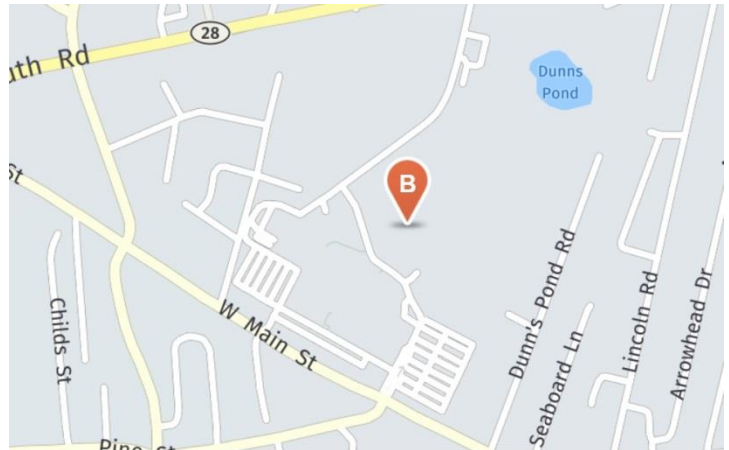


Heating System Victralic Joint

Project Working Title: Barnstable High School (BHS) Environmental Lab

Project Location: 744 West Main Street, Hyannis, MA 02601

Project Description: Design and construction for addition of Marine Environmental Lab at BHS. The lab would be located using two outside classrooms (1505 & 1506). The facility would include the necessary equipment, (water tanks, pumps, filters, tables and HVAC)



Project Justification: On November 1, BHS was granted approval by Commissioner Riley to offer a Chapter 74 program, Environmental Science and Technology. Student outcomes of the program include CPR/First Aid Training and certification, 40-Hours HAZWOPER certification, and preparation to sit for the Massachusetts Water/Wastewater Operator Certification Tests. Specific areas of concentration include Environmental Sampling and Laboratory Services, Energy Technologies and Sustainability, Environmental Site Management, and Applied Water Technologies. In order to prepare students with the industry specific technical knowledge and skills necessary to continue their education and/or enter the workforce, an environmental lab designed to model the design and operation of wastewater and drinking water treatment facilities is necessary. This lab will give students the opportunity to conduct sampling techniques and analysis using industry specific equipment and demonstrate practices related to municipal waste and drinking water treatment.

Impact of Denial/Postponement: Postponement of project would delay implementation of BHS Environmental Program.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		\$1,000,000
Total Project Cost		\$1,000,000	-

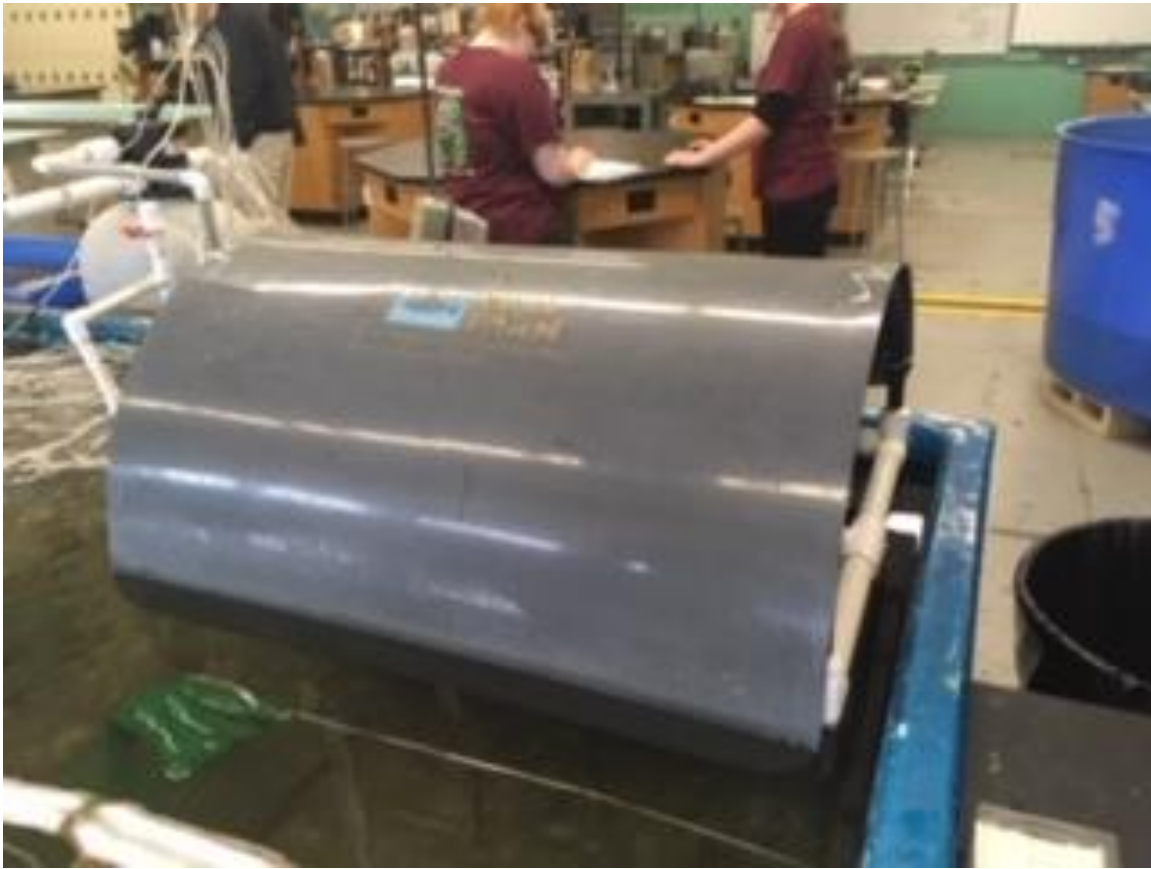
Basis for Cost Estimates: Budgetary Cost Estimate provided by CBI Consulting and GGD Mechanical.

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$1,000,000	Design and Engineering for Environmental Lab

Source of Funding: Bond Issue \$322,000 and unexpended bond proceeds remaining in Town Council Orders 2016-081 \$500,000 and 2016-082 \$178,000

Operating Budget Impact now or in future: N/A



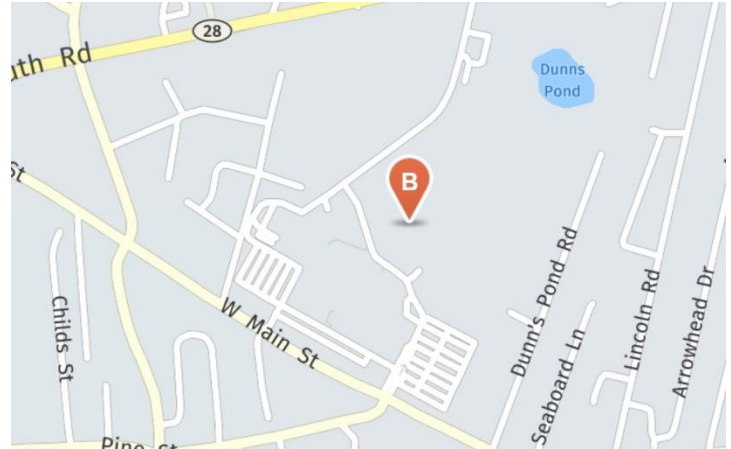
Example of an Environmental Lab Testing Components

Project Working Title: Barnstable High School (BHS) & Barnstable Intermediate School (BIS) Roof Top Unit (RTU) Ventilator Replacement

Project Location: Barnstable High School (BHS) & Barnstable Intermediate School (BIS)

Project Description: Multi-phased plan to replace and upgrade existing RTU units at BHS/BIS.

Project Justification: Existing RTU's at both locations are greater than 20 years old. In many units, the air conditioning compressors have failed and replacement parts are not available, leaving areas of the building without ample cooling. Additionally the chassis, frame, and cabinet components of the units are deteriorating, which is allowing infiltration into the unit causing eventual leaks within the building.



Impact of Denial/Postponement: Denial or postponement of this project will result in continued deterioration of existing equipment and eventual permanent loss of heating and ventilation.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		\$125,000
Construction or Acquisition		\$1,000,000	\$8,000,000
Project Contingency		\$100,000	-
All Other Cost		\$275,000	-
Total Project Cost		\$1,500,000	\$8,000,000

Basis for Cost Estimates: Engineering Evaluation and Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 12 **Construction (months)** 48

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$1,500,000	BHS RTU Upgrades
2021	\$2,000,000	RTU Upgrades (Estimate)
2022	\$2,000,000	RTU Upgrades (Estimate)
2023	\$2,000,000	RTU Upgrades (Estimate)
2024	\$2,000,000	RTU Upgrades (Estimate)

Source of Funding: Bond Issue \$1,500,000

Operating Budget Impact now or in future: Can expect a minimum of 10% energy savings attributable to motor, verified frequency device (VFD) and control upgrades, and minimum annual maintenance savings cost of \$10,000. We will apply for any applicable utility rebates and incentives.



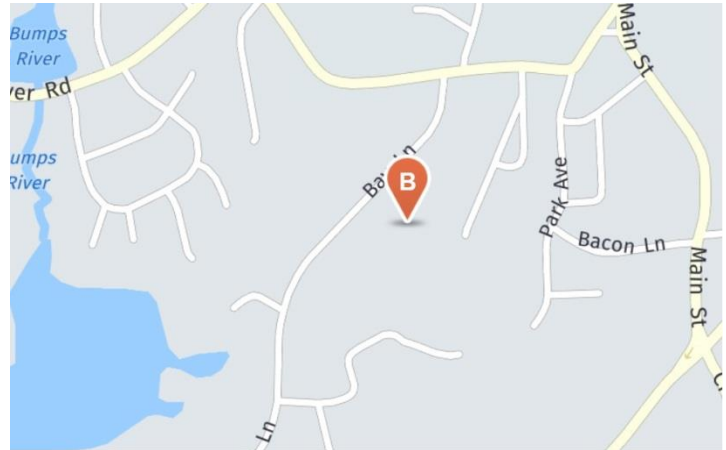
Roof Top ventilators

Project Working Title: Centerville Elementary School Unit Ventilator Upgrades, Phase 4

Project Location: 658 Bay Lane, Centerville, MA 02632

Project Description: Replace outdated unit ventilators at Centerville Elementary School, 34 units

Project Justification: Current units are 50 + years old, failing, and are not operating to American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE), and Department of Elementary and Secondary Education (DES) standards.



Impact of Denial/Postponement: Denial or postponement will continue to impact air quality, occupant health and heating and ventilation efficiency.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		\$30,000
Construction or Acquisition		\$405,000	-
Project Management		\$20,000	-
Project Contingency		\$45,000	-
Total Project Cost		\$500,000	-

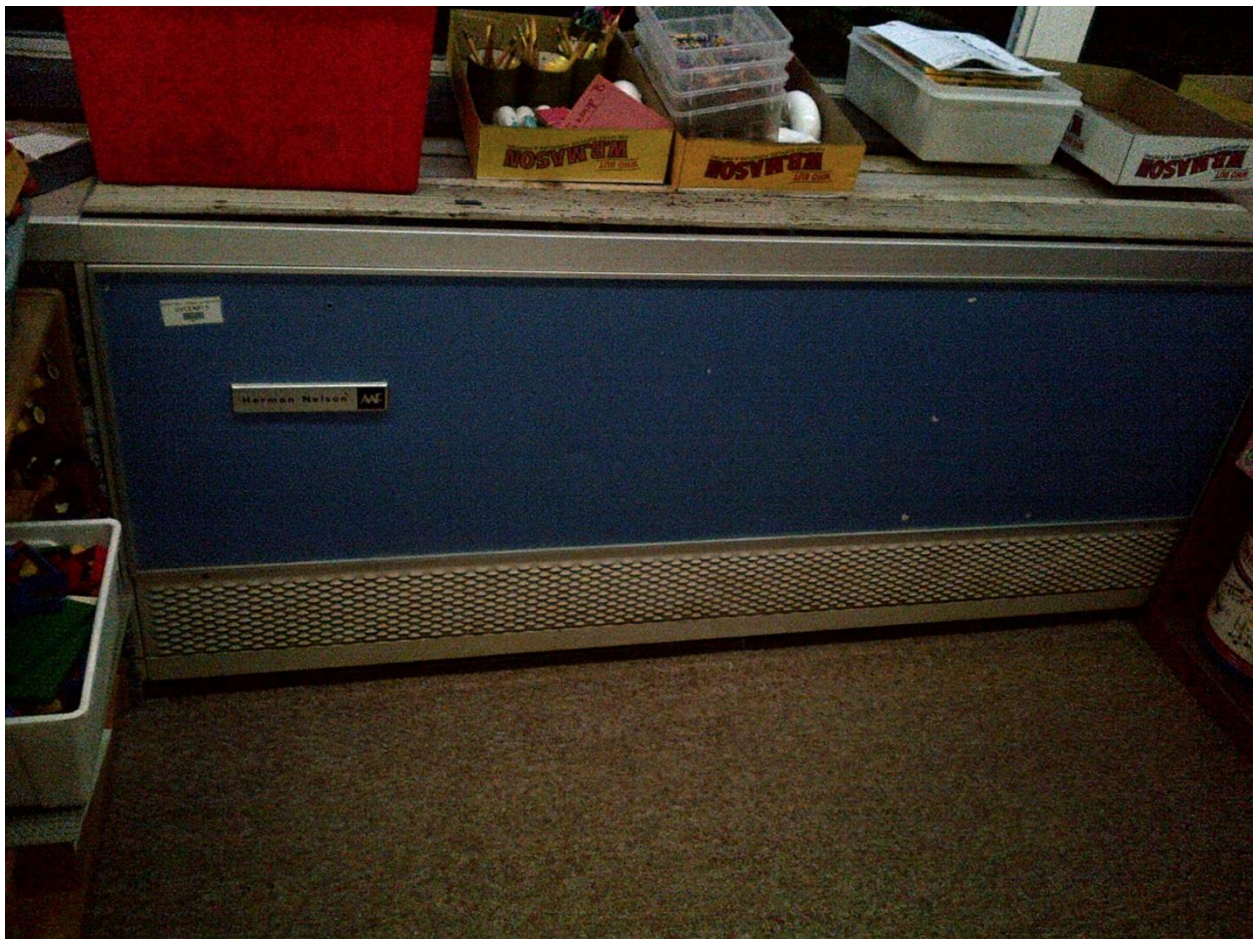
Basis for Cost Estimates: Engineering Cost Estimates and Previous Project Costs

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$500,000	Unit Ventilator Replacement

Source of Funding: Bond Issue \$500,000

Operating Budget Impact now or in future: Can expect 10 - 15% savings on energy costs.



Unit Ventilators

Project Working Title: Comprehensive Facilities Assessment

Project Location: Districtwide

Project Description: To retain professional consulting services to conduct a districtwide study of facilities, future enrollments, trends to aid in the development of a long range (+ 10 yr) strategic planning tool.

Project Justification: The most recent assessment (TAMS Report, July 2003) is no longer applicable and should be updated.

Impact of Denial/Postponement: Denial would leave the district without accurate and updated information for use in long-term decision-making.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$150,000	-
	Total Project Cost	\$150,000	-

Basis for Cost Estimates: N/A

Project Estimated Completion Date: - Design & Permit (months) - Construction (months) -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$150,000	Comprehensive Facilities Assessment

Source of Funding: General Fund Savings \$150,000

Operating Budget Impact now or in future: N/A

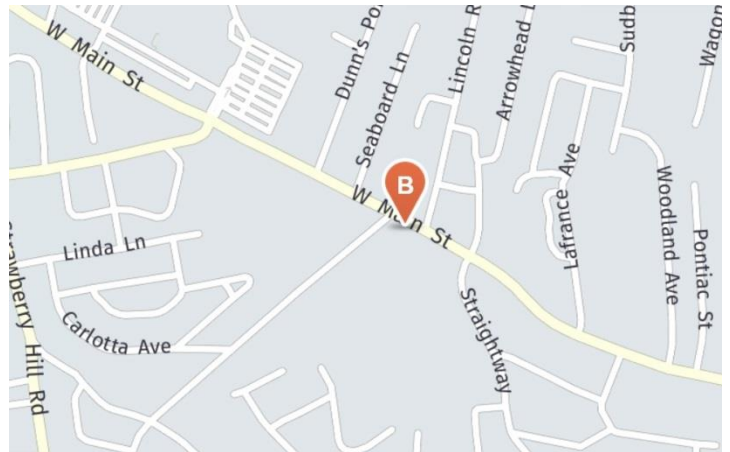
Project Working Title: Hyannis West Elementary Roof Replacement

Project Location: 549 West Main Street, Hyannis, MA 02601

Project Description: Replace existing shingled roof.

Project Justification: Existing roof is > 20 years old and is nearing end of life.

Impact of Denial/Postponement: Denial or postponement of this request may result in interior water damage.



Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$25,000	-
	Construction or Acquisition	\$375,000	-
	Project Contingency	\$50,000	-
	Total Project Cost	\$450,000	-

Basis for Cost Estimates: N/A

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 3

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$450,000	Hyannis West Elementary Roof Replacement

Source of Funding: Bond Issue \$450,000

Operating Budget Impact now or in future: N/A



Hyannis West Roof

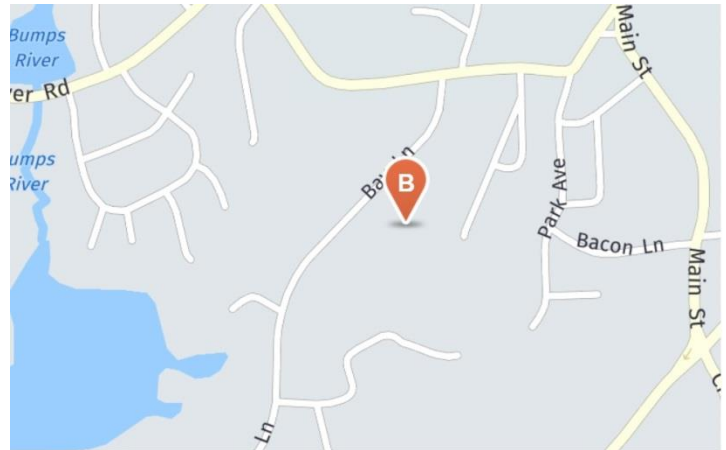
Project Working Title: Centerville Elementary Roof Replacement

Project Location: 658 Bay Ln, Centerville, MA 02632

Project Description: Replace existing shingled roof.

Project Justification: Existing roof is > 20 years old and is nearing end of life.

Impact of Denial/Postponement: Denial or postponement of this request may result in interior water damage.



Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$12,500	-
	Construction or Acquisition	\$225,000	-
	Project Contingency	\$12,500	-
	Total Project Cost	\$250,000	-

Basis for Cost Estimates: Engineering Cost Estimates and Previous Jobs

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 3

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$250,000	Centerville Elementary Roof Replacement

Source of Funding: Bond Issue \$250,000

Operating Budget Impact now or in future: N/A



Centerville Elementary School Needs Roof Replacement

Airport Enterprise Fund Projects

PROJECT: AIR-20-1

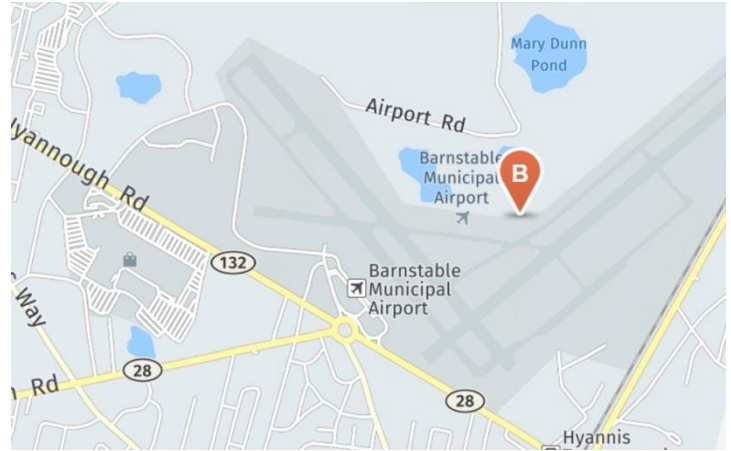
DEPARTMENT PRIORITY: 1 of 29

2019-103

Project Working Title: Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment - Airport Vehicle #816

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Aircraft Rescue and Fire Fighting (ARFF) equipment must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, ARFF vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a 1999 Ford F-450 Heavy Duty Flatbed Truck with fire combat unit containing tools and equipment.



Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained, including snow removal; and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified. Due to this, the airport would not be able to maintain operations or provide a safe operation for the continuation of commerce as part of the national airspace plan. The airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$220,000	-
	Total Project Cost	\$220,000	-

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, manufacturer quotes, etc

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 2

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$220,000	Replacement vehicle for 1999 Ford F-450 Heavy Duty Truck and fire combat unit - Airport Vehicle #816

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%). Tools and equipment may be 100% Airport Enterprise Fund Reserves if deemed not eligible for FAA and MassDOT reimbursement eligibility.

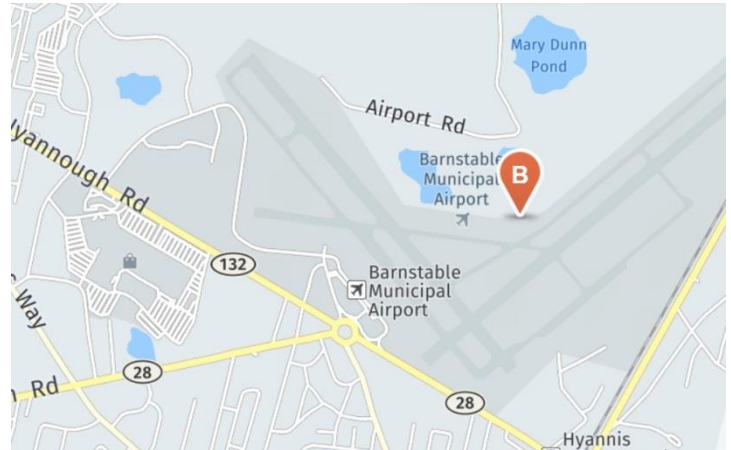
Operating Budget Impact now or in future: Any savings derived by new equipment would be available to maintain remainder of deteriorating ARFF vehicles.



Rapid Response Vehicle - Airport Vehicle #816

Project Working Title: Aircraft Rescue Fire Fighting (ARFF) Upgrades - Building Roof Repairs

Project Location: 480 Barnstable Road, Hyannis, MA 02601



Project Description: The Aircraft Rescue Fire Fighting (ARFF) building was designed and constructed in 1995 and houses both the ARFF and maintenance departments for the airport. The ARFF facility is located at the northern area of the building with the maintenance facility at the opposite end. The portion of the building dedicated to ARFF use contains the following: garage for emergency vehicles, observation tower, command center, locker rooms, bathrooms, and lounge. It also serves as a pilot lounge and customer receiving facility. The maintenance section includes a garage for trucks, salt storage, maintenance shop, and offices.

Project Justification: This 20+ year old building is in relatively good condition but the roof leaks are significant and requires immediate repair. The building envelope has some significant issues and it was noted that the roof membrane has become detached at the perimeter anchorages. Leaking within the interior of the building has been experienced and can no longer safely provide dry storage for vehicles and equipment. This should be rectified as soon as possible, as high winds could add significantly more damage. The detachment has also caused moisture to infiltrate through the air/vapor chamber located between the inner and outer concrete walls. Signs of moisture damage with efflorescence and possible mold are visible. Ceiling panels have become wet and damaged.

This project is to fix the deteriorating roof membrane to extend the life of the building.

Impact of Denial/Postponement: The impact of not implementing the project will lead to further deterioration of the existing roof and possible deterioration of the entire facility by infiltration of rainwater and further growth of mold. Additional interior deterioration will also occur as more and more leaks that are interior are detected.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$490,000	-
	Total Project Cost	\$490,000	-

Basis for Cost Estimates: Cost estimates were received from the Airport’s on-call Architects, Fennick and McCredie.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 1

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$490,000	ARFF Upgrades - Building Roof Repairs to Repair Water Infiltration

Source of Funding: Airport Enterprise Fund Reserves are normally used. However, reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) may be possible.

Operating Budget Impact now or in future: None, once fixed, existing staff will be used to maintain facilities.

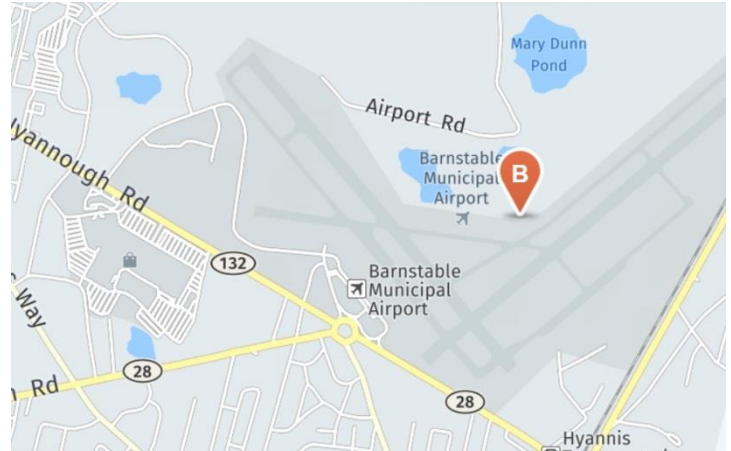


Roof Repair Needed

Project Working Title: Replace Circa 1997 Snow Removal Equipment (SRE) (Kodiak Snow Blower) - Airport Vehicle #36

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a 1997 Kodiak Diesel 4x4 Snow Blower.



Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained and opened as soon as possible during snow events and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified. The airport would not be able to maintain operations, nor remove snow in order to keep the runways open and safe for operation. Furthermore, the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan. The airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		\$800,000
Total Project Cost		\$800,000	-

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, etc.

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$800,000	Replace 1998 Kodiak Diesel 4x4 Snow Blower - Airport Vehicle #36

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs).

Operating Budget Impact now or in future: Any savings derived from new equipment would be available to maintain remainder of deteriorating SRE vehicles.

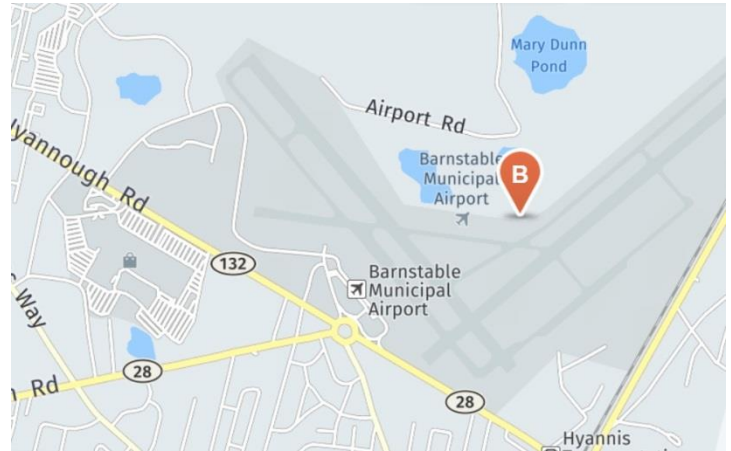


Kodiak Snow Blower - Airport Vehicle #36

Project Working Title: Replace Snow Removal Equipment (SRE) (Heavy Duty Carrier Vehicle with Plow and Sander) - Airport Vehicle #26

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a 1995 Ford L-8000 Heavy Duty Carrier Vehicle with Plow and Sander.



Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained and opened as soon as possible during snow events and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified. The airport would not be able to maintain operations, nor remove snow in order to keep the runways open and safe for operation. Furthermore, the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan. The airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		\$230,000
Total Project Cost		\$230,000	-

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, etc.

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 5

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$230,000	Replace 1995 Ford Heavy Duty Carrier Vehicle with Plow and Sander - Airport Vehicle #26

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs).

Operating Budget Impact now or in future: This request is to replacement a vehicle, mission remains the same.

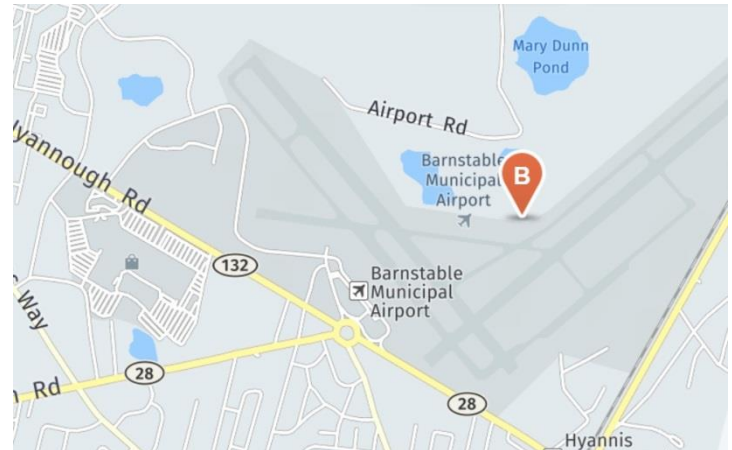


Heavy Duty Carrier Vehicle with Plow and Sander - Airport Vehicle #26

Project Working Title: Main Terminal Ramp Hardstands for Heavy Aircraft Parking

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Heavy aircraft can sometimes be parked on areas of paved ramps/aprons where the weight distribution of the aircraft's main gear is too heavy for the existing pavement causing the landing gear to sink into the pavement and become mired. Although these pavements are normally built to provide a firm, stable and durable surface that can adequately support the heavy loads imposed by the airplanes that use them, the main terminal ramp at Barnstable Airport is failing under the weight of the Embraer 190 aircraft used by JetBlue.



The depressions noticed on the main ramp are localized where pavement surface areas show elevations slightly lower than those of the surrounding pavement do. The depressions are starting to take on water creating "birdbaths" areas and visibly show staining created by the ponding of water when dry. It is unknown whether the depressions are caused by settlement of the foundation soil or poorly built during initial construction.

Project Justification: The purpose of this project is to design and construct at least two (2) hardstands on the main ramp where the depressions have developed for JetBlue aircraft or any other aircraft of like size and weight. The hardstands will be paved with concrete, which is thicker and more durable in order to support the weight of heavy aircraft.

Impact of Denial/Postponement: The impact of not implementing the project will lead to further deterioration of the existing paved surface. The depressions that now exist will become deeper and increase the elevation differences between the depression and the surrounding pavement. If left in the existing state, these depressions will continue to decline and fill with water of sufficient depth causing possible hydroplaning of aircraft, further deterioration of surrounding pavement, possible tripping hazards for staff operating around aircrafts and the eventual failure of the ramp. This could then lead to the loss of air carrier activity and airport revenues.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		\$280,000
Total Project Cost		\$280,000	-

Basis for Cost Estimates: Cost estimates were received from the Airport's on-call engineers.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 1 **Construction (months)** 1

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$280,000	Main Terminal Ramp Hardstands for Heavy Aircraft Parking

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) for the ramp hardstands.

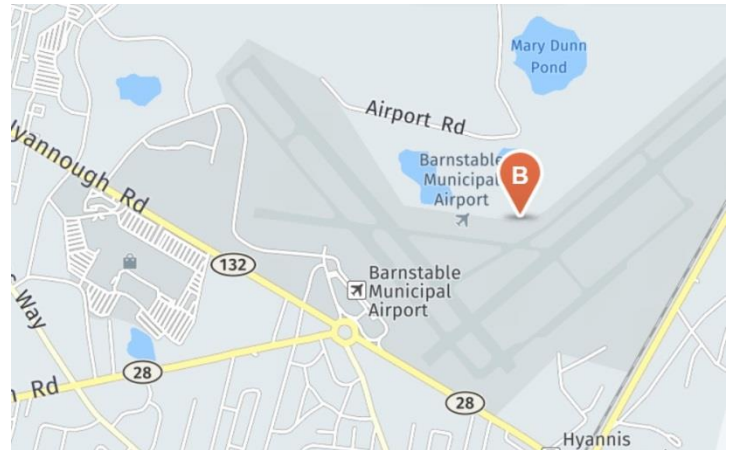
Operating Budget Impact now or in future: None, once fixed, routine maintenance will stay the same.



Pavement Depressions due to Heavy Aircrafts

Project Working Title: Runway 15-33 - Apply P-608 Surface Treatment and Repaint

Project Location: 480 Barnstable Road, Hyannis, MA 02601



Project Description: Due to a number of unforeseen challenges in completing the Runway 15-33 rehabilitation project in 2017 because of additional earthwork required to meet FAA compliance for taxiway and runway elevations. An additional 2” pavement lift is needed because of variations in original runway pavement thickness that were not realized until the project was under construction. A number of tasks needed to be removed from the project to curtail the unforeseen escalation in construction costs. The application of P-608 was one of the items removed in the 2017 project.

Two primary causes of asphalt deterioration are surface oxidation and moisture damage. P-608 is designed to mitigate these impacts by reintroducing essential binders to the pavement matrix, enhancing the structure and adding years of life, while simultaneously sealing the surface to help repel water. P-608, an asphalt emulsion, is used on airfield pavements, such as runways and taxiways to seal, bind, and rejuvenate airport pavements. When applied to pavements, the P-608 rebinds surface aggregates, which seals and protects the binder from surface oxidation. The binders prevent or cure surface raveling, which produces foreign object debris (FOD) that can damage or destroy jet/prop engines. It is customary to add P-608 to new pavements and reapply every 5-7 years to assist in extending the life of the pavement. This product is applied at over 300 airports; P-608 has proven to be a highly effective airfield pavement preservation tool.

Project Justification: Because P-608 is essentially sprayed onto the pavement surface, repainting of the runway is necessary and includes conducting surveys to establish markings on pavement surface to precise FAA dimensions and standards.

Impact of Denial/Postponement: The impact of not implementing the project will lead to quicker deterioration of airfield facilities. With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained, preservation of this resource is vital to the operation and maintenance of the airfield.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$475,000	-
	Total Project Cost	\$475,000	-

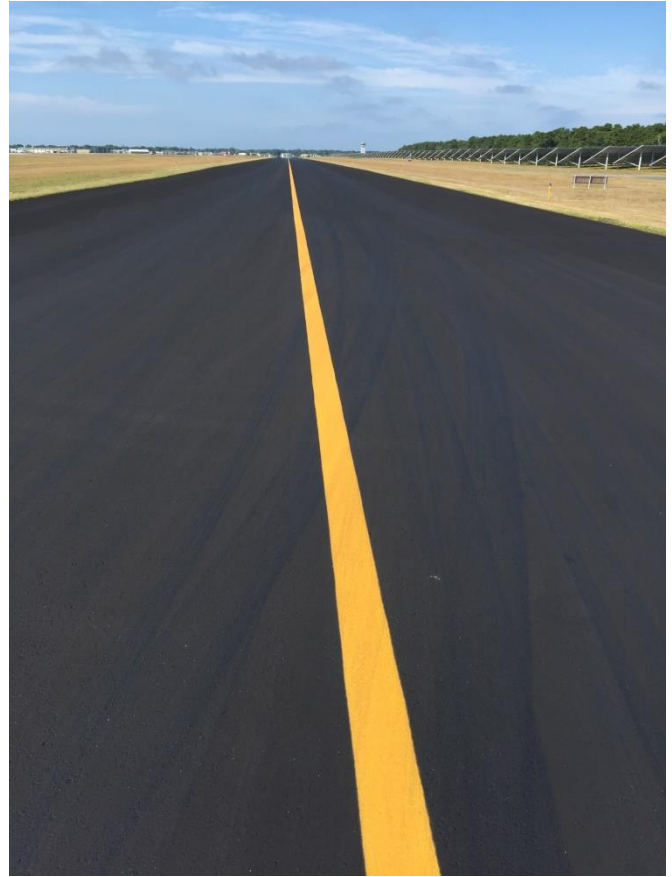
Basis for Cost Estimates: Cost estimates were received from the Airport’s on-call engineers as well as previous applications on Taxiway C in 2016 and Taxiway E in 2017.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 1

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$475,000	Runway 15-33 - Apply P-608 Surface Treatment and Repaint

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

Operating Budget Impact now or in future: Routine maintenance would stay the same.

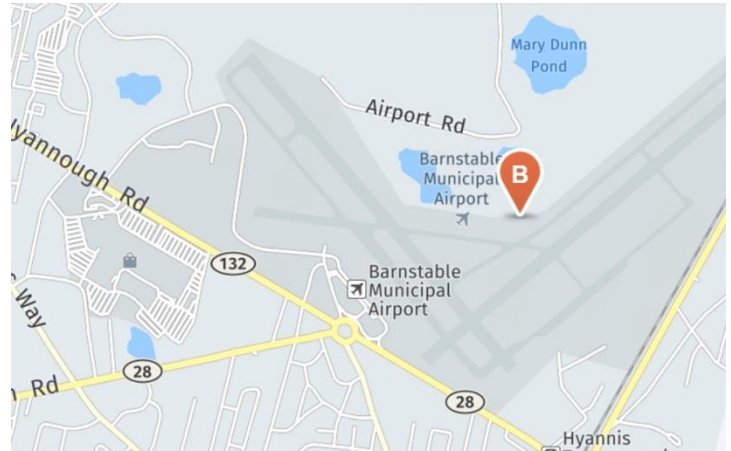


Runway 15-33 - Apply P-608 Surface Treatment and Repaint

Project Working Title: Repair & Extend Mary Dunn Way from Steamship Authority Parking Area to Gate Mike, including drainage repairs and utilities (Phase I)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: This proposed two-phased project will provide an improved Airport Access Road on the East side of the airfield and will respond to a number of actions and objectives to meet target goals. Each phase will be handled as a separate project.



Phase I (the subject of this project) will include the area from Mary Dunn Way at the current parking lot leased to the Steamship Authority to the current Gate Mike (M). This stretch of road has a mix of failing asphalt and drainage (a number of flooding events have made the road impassible) with potholes and narrow lanes. Phase II will provide an Airport Access Road on the East side of the airfield from the current Gate Mike (M). Phase I design and permitting is complete (with the exception of sanitary sewer) as it was subject to a previous capital project that was deferred. The existing surface of the Phase II project is an unimproved dirt road with millings from rubblization of past pavement projects used as a base.

Phase I will include the installation of new pavement, security fence and drainage improvements. It will also incorporate existing utilities as well as an extension of those utilities including sanitary sewer to serve potential future hangar buildings as may be permitted.

Project Justification: Due to existing budgetary constraints, the airport has embarked on the development of a Business Plan to identify priority marketing and business efforts using targets goals that the airport is trying to meet to increase development, passengers, and use demand.

A series of workshops have been conducted to help develop the Business Plan for the Airport and to identify priority goals. Those goals include marketing the Airport to:

- Improve General Aviation Services,
- Diversify Airport Revenue Stream,
- Be a Leader in Air Transportation Options for the Cape, Islands, and Southeastern Massachusetts; and
- Develop Airport Branding.

With these goals in mind, there are a number of projects that can be implemented at the airport to help establish or improve existing facilities to help market the airports facilities such as this project.

Impact of Denial/Postponement: The impact of not implementing the project will lead to further deterioration of the existing paved surface as well as further deterioration of the drainage systems now in place that appear to have failed. Delays in the actual construction will not allow the airport to improve existing facilities or maintain leased facilities; to help market the airports facilities to enhance future development.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$1,000,000	-
	Total Project Cost	\$1,000,000	-

Basis for Cost Estimates: Cost estimates were received from the Airport’s on-call engineers, Jacobs Engineering; however, more investigation may be needed to solidify estimates for sanitary sewer.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$1,000,000	Repair Mary Dunn Way from Steamship Authority Parking Area to Gate Mike, including drainage repairs (Phase I)

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) for the security fence; and possible MassDOT ASMP (80%) and BMA Enterprise Fund Reserves (20%) for the design and road construction cost. The Airport is also seeking a MassWorks Grant and is currently in communications with State Representatives. Whelan to start grant request proceedings. Chapter 90 Highway Funds may also be available.

Operating Budget Impact now or in future: None, once constructed, existing staff will maintain facilities.

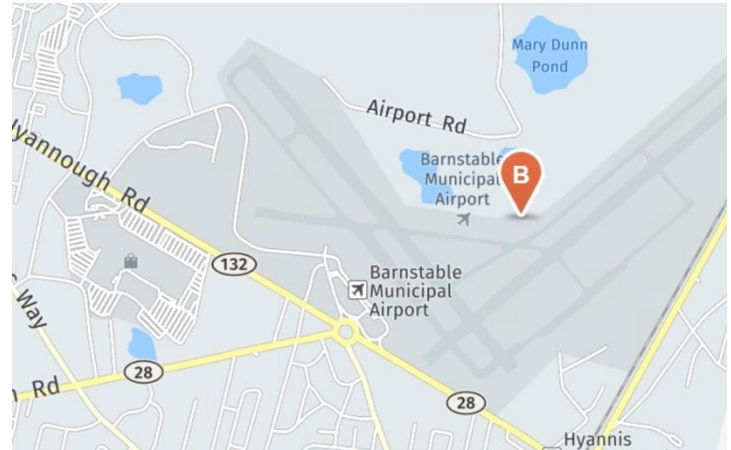


Phase I Project Highlighted in Yellow

Project Working Title: Mitigation (PFOS Soils)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: In 2016, a Request for Information (RFI) was issued by the Massachusetts Department of Environmental Protection (DEP) following the detection of perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), collectively referred to as perfluoroalkyl substances, or PFAS, in samples collected from public water supply wells (PWS). The RFI identifies aqueous film forming foam (AFFF), which is used at airports throughout the Commonwealth, as a potential source of PFAS and the basis of the RFI. Since the RFI in 2016, the airport has collected a number of soil and water samples both on and within the surrounding off-airport vicinity to measure levels of PFAS. Although DEP has not released a threshold standard for PFAS as of December 2018, they do have a proposed threshold. The airport has identified three areas where testing of AFFF or use of AFFF has occurred to either meet Federal Aviation Administration (FAA) standards or to respond to an aircraft accident where PFAS are slightly above the proposed threshold.



The project would be to excavate those soils and replace said soils with new material.

Project Justification: The project will respond to a potential DEP mitigation requirement.

Impact of Denial/Postponement: To deny or postpone funding of this capital project will not allow the Airport to be in full compliance with DEP directives.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$100,000	-
	Total Project Cost	\$100,000	-

Basis for Cost Estimates: Planning and Engineering Consultant Estimates, FAA, and MassDOT Consultations

Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$100,000	Mitigation (PFOS Soils)

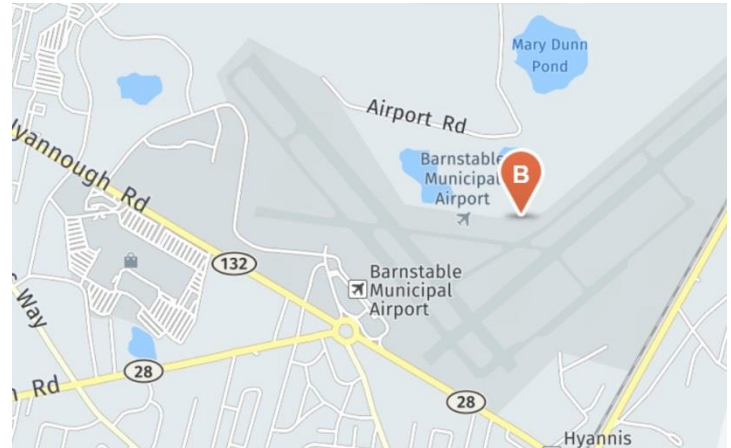
Source of Funding: Reimbursable funding from FAA and MassDOT Aeronautics is not available; (100%) local share

Operating Budget Impact now or in future: None

Project Working Title: Replace Airfield Mowing Equipment - (New Holland Tractor) - Airport Vehicle #29

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: The Airport wishes to replace the existing 18-year tractor and mower deck with a new tractor with rear mower deck to perform such tasks. This item is not eligible for FAA funding; however, the tractor and mower deck are available for funding assistance through MassDOT's Airport Safety and Maintenance Program (ASMP).



Project Justification: Outside of paved surfaces, the airport must maintain over 600 acres of grass, trees, and shrubs on the airfield. This is required to remain compliance with Federal Aviation Administration (FAA) directives in meeting wildlife hazard management.

Impact of Denial/Postponement: The impact of not implementing the project will limit the airports ability to meet FAA directives to manage wildlife, which could lead to unsafe conditions for the flying public.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$165,000	-
	Total Project Cost	\$165,000	-

Basis for Cost Estimates: Cost estimates were received from the Airport's on-call engineers and state bid list.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$165,000	Replace Airfield Mowing Equipment - Airport Vehicle #29

Source of Funding: Reimbursable funding from MassDOT Aeronautics (80%) and local share (20%).

Operating Budget Impact now or in future: None, once purchase, routine maintenance to stay the same.

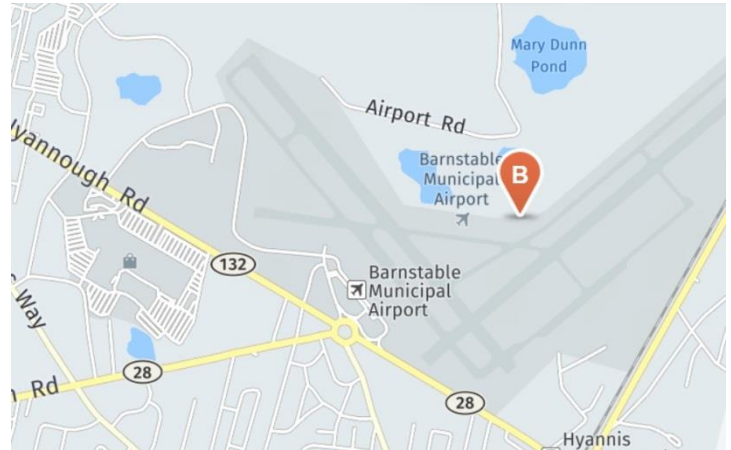


Replace Airfield Mowing Equipment – Tractor - Airport Vehicle #29

Project Working Title: Replace Steel i-Beams in Airport Owned Hangar

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: This is the Airport’s sole t-hangar used to store small general aviation aircraft and is in need of repair. The building is circa 1957 and has had its roof repaired and other skin repairs completed throughout the years. The steel i-beams that support the roof and structure are rusting and in need of replacement.



Project Justification: The rental income on this hangar is \$35,500 annually. To tear down the facility and replace with new is estimated at \$600,000 - \$750,000 therefore, replacement of the i-beams to continue use of the facility is the course of action.

Impact of Denial/Postponement: The impact of not implementing the project will lead to further building deterioration and unsafe conditions for the flying public.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$100,000	-
	Total Project Cost	\$100,000	-

Basis for Cost Estimates: Cost estimates were received from quotes.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 1

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$100,000	Replace Steel i-Beams in Airport Owned Hangar

Source of Funding: Enterprise Fund Reserves \$100,000

Operating Budget Impact now or in future: Once purchase, existing staff will maintain facilities.



T-Hangar

Administration Department General Fund Projects

PROJECT: ADM-20-2

DEPARTMENT PRIORITY: 2 of 3

2019-113

Project Working Title: Aerial Flyover & Mapping Update

Project Location: Town-wide

Project Description: The purpose of this project is to update the maps in the Town's Geographic Information System (GIS). These GIS "base maps" depict features such as roads, buildings, parking lots, water bodies, vegetation, and topography. The maps were originally produced through a process called photogrammetry from aerial photographs taken in 1989. Since then, the Town has invested in maintaining these maps with subsequent updates completed about every 6 years. The goal of this project is to continue maintaining the GIS maps by performing a new aerial flyover and mapping update during FY 2020-21.

The last update was done in 2014 as part of a regional, Cape-wide project in cooperation with the Cape Cod Commission. Due to the shared cost, with a large portion paid by the Cape Cod Commission, the Town saw a significant cost savings by taking part in the regional project in 2014. There is a possibility of another regional project going forward in 2020 or 2021, but it is not certain at this time if that will occur.

If a regional project does go forward within the 2020-21 period, the Town would most likely participate again, depending on the project specifics and cost. If that occurs, the funds from this capital project request would go towards the Town's share of the regional project. Otherwise, the requested capital project funds would be used to proceed with a Town of Barnstable-only project.

Project Justification: The last update to the GIS base maps occurred in 2014. As the Town continues to develop and change due to new construction, the GIS maps become more and more outdated. Most Town departments currently use the GIS maps in their decision making process. As time passes, and the maps become a less accurate representation of reality, the GIS will become a less valuable tool. There will be more risk of making decisions based on outdated information.

At this point, the most practical, cost effective, and accurate method of updating the GIS maps is to conduct an aerial flyover and subsequent photogrammetric mapping.

The GIS maps that would be updated through this project are used by nearly every Town department operational needs, which support the Town's strategic goals. Some specific examples include:

- Nutrient management and water quality planning,
- Public safety – police & fire department planning, operations, & response,
- Roads and transportation management including road repairs, transportation planning, parking, and snow & ice removal,
- Infrastructure maintenance and management (water supply, sewer, & storm water),
- Comprehensive planning, zoning, and economic development,
- Management of Town owned land and facilities; and
- Management of natural resources including drinking water, shellfish, endangered species, and conservation lands.

Outside consultants that work on a myriad of Town projects also use the GIS maps extensively. The Town saves considerable money on these projects because detailed GIS data are already available to the consultants.

The public also makes use of the GIS maps through the interactive maps either on the Town website or through the GIS office in Town Hall. Public uses of the GIS range from site maps for permitting, to abutter notification mailing lists, to detailed topographic maps.

Impact of Denial/Postponement: If this project is not funded, Town departments will have to continually verify items on the GIS maps through time consuming field checks. This will result in more time lost in order to ensure that the information is up to date and correct. If the maps are not updated, the GIS will become a less effective aid to decision making and may lead to decisions being based on incorrect information.

In summary, the usefulness of the Town’s investment in GIS will diminish as time progresses.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$100,000	\$100,000
	Total Project Cost	\$100,000	\$100,000

Basis for Cost Estimates: Obtained project cost estimates from two contractors that have completed previous similar projects for the Town.

Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$100,000	Aerial flyover, ground control survey, production of digital orthophotos
2021	\$100,000	Update of GIS base maps from new aerial photography

Source of Funding: Capital Trust Fund Reserves \$100,000

Operating Budget Impact now or in future: All work will be completed by an outside contractor and funded through the capital request. There will be no impact on the operating budget other than the overhead associated with existing town staff managing the project (project management & QA/QC). No additional salary or other operating costs will be incurred by this project and there will be no additional ongoing maintenance costs.



Examples of Aerial Pictures and Geography Info Systems (GIS) Layout

Project Working Title: Summer Aerial Flyover of Waterways

Project Location: Town-wide

Project Description: The purpose of this project is to conduct a summertime aerial flyover to obtain new aerial photographs of the Town's coastal and inland waterways. This project, to occur during the summer of 2020, would produce digital aerial photographs of the Town's northern and southern coastal areas as well as inland lakes and ponds. The purpose is to accurately map the location of marine and natural resource items such as mooring fields, boating channels, buoys, shellfish grants, docks, piers, and floats. The summer time frame is necessary to capture seasonal items such as seasonal docks and mooring fields that are only in place during the summer months. This project would be of particular use to the Harbormaster, Natural Resources, and Conservation Divisions to assist with their management of coastal waterways, shellfish resources, and enforcement of dock, pier, and wetland regulations.

Project Justification: The purpose of this project is to provide digital aerial photos to enable the effective management of our coastal waterways, lakes, ponds, and natural resources. The results of this project would benefit a variety of programs within the Harbormaster, Natural Resource, Conservation, and Public Works divisions. Such programs include:

- Planning & managing the efficient use of mooring fields,
- Management of shellfish resources & aquaculture grants,
- Regulation & permitting of docks, piers, & floats,
- Enforcement of wetland protection laws,
- Planning & management of channel dredging projects,
- Inventory of nautical infrastructure (i.e. buoys, beacons, boating channels),
- Management of Sandy Neck,
- Monitoring of waterway sedimentation; and
- Monitoring of shoreline change and erosion.

This project is separate from the Aerial Flyover & Mapping Update capital project request. That project must be photographed during a limited timeframe in the early spring – after the snow has melted and before the leaves have appeared on trees. This timeframe is to maximize the visibility of features on the ground such as roads and buildings. A flyover of coastal and inland waterways must occur during the summer months when seasonal docks and floats are in place and mooring fields are utilized. In addition, the waterway flyover must occur in the early morning hours to minimize sun glare on the water surface. This same early morning period is not suitable for the Aerial Flyover & Mapping Update project – it would cause too many shadows obscuring features on the ground. In addition, the Summer Aerial Flyover must have strict limitations on tidal and wind / wave conditions in order to maximize visibility of waterways. Due to the unique constraints of each of the two projects, they cannot be combined into a single flyover.

Impact of Denial/Postponement: If this request is not funded, the Harbormaster, Natural Resources & Conservation Divisions, and Public Works will have to rely on outdated information for managing our waterways and natural resources. Since the last waterways flyover there has been significant change to our coastal resources. Shorelines and channels have shifted, new docks and piers have been constructed, aquaculture grants have been modified, and channels have been dredged. It is important to keep up with such changes and to provide current and accurate information for the management of the Town's coastal and inland waterways.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$50,000	-
	Total Project Cost	\$50,000	-

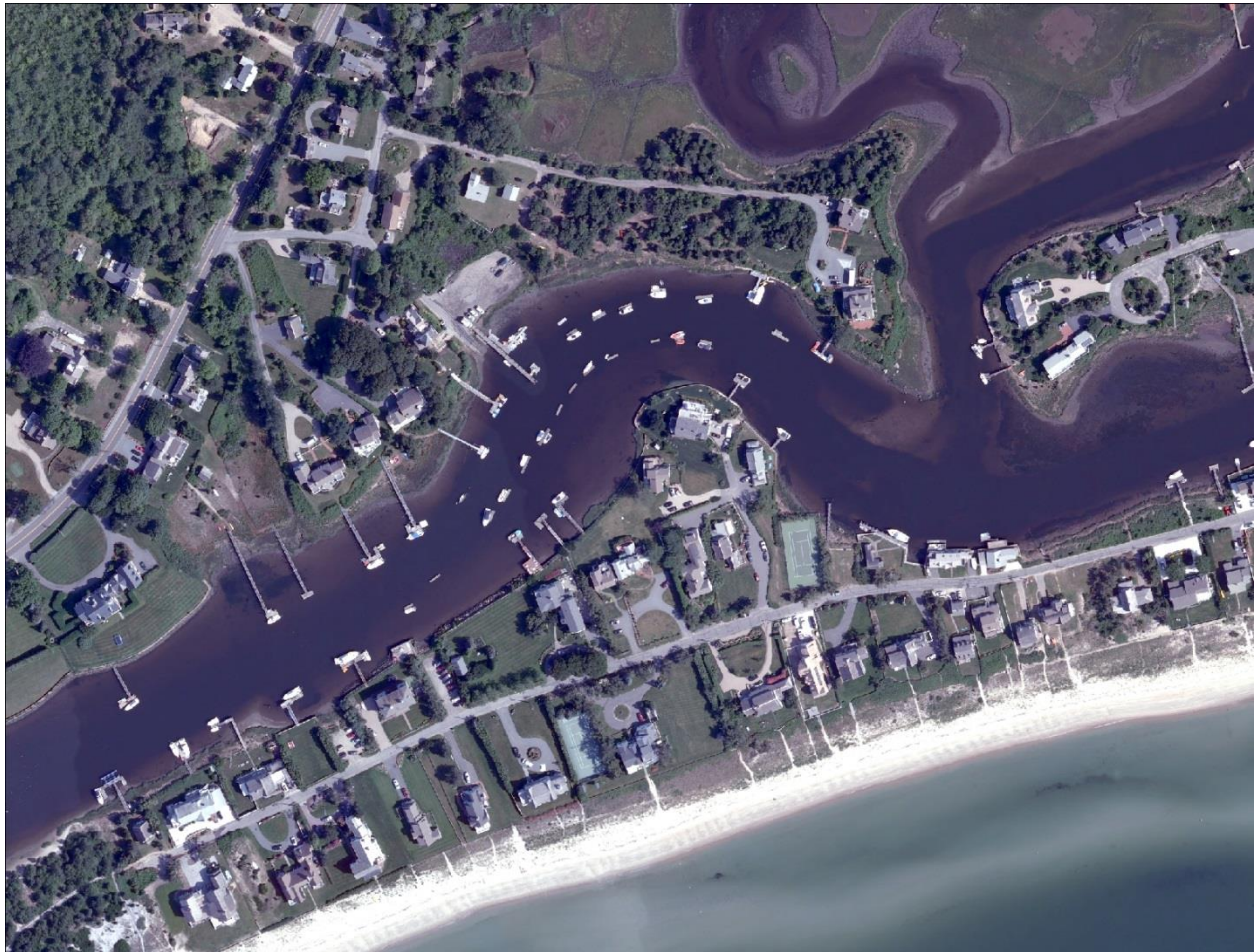
Basis for Cost Estimates: Obtained project cost estimates from two contractors that have completed previous similar projects for the Town.

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$50,000	Aerial flyover, ground control survey, production of digital orthophotos

Source of Funding: Capital Trust Fund Reserves \$50,000

Operating Budget Impact now or in future: All work will be completed by an outside contractor and funded through the capital request. There will be no impact on the operating budget other than the overhead associated with existing town staff managing the project (project management & QA/QC). No additional salary or other operating costs will be incurred by this project and there will be no additional ongoing maintenance costs.



Centerville River Aerial View

Hyannis Youth & Community Center Enterprise Fund Projects

PROJECT: HYCC-20-1

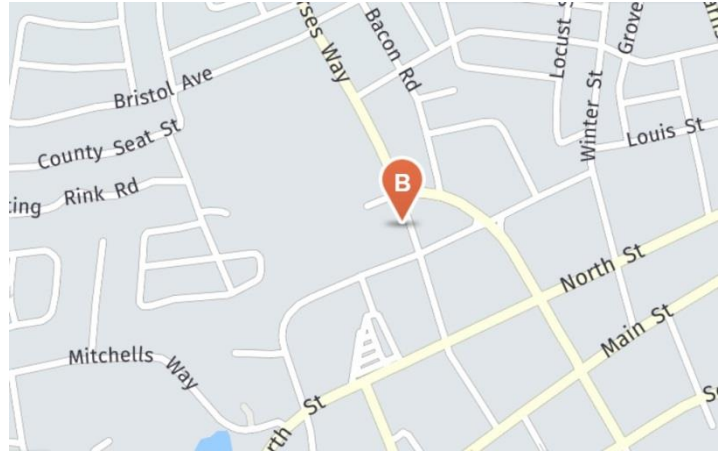
DEPARTMENT PRIORITY: 1 of 2

2019-115

Project Working Title: Improvements to HYCC Flat Roof, HVAC Controls, Parking

Project Location: 141 Bassett Ln, Hyannis, MA 02601

Project Description: The Hyannis Youth and Community Center was Completed in 2008. This project has been divided into multiple years of work, each addressing specific elements of repair as identified by consultants. Some of the repairs may yet to be discovered. Design for all years of work discussed here is currently being completed. Issues that need to be addressed include metal roofing, membrane roofing, flat roofing, rubber floors, HVAC controls, drinking fountains, grease traps, kitchen equipment, floor tile replacements, and other items. FY20 work will address issues brought forward from the facilities management plan and consist of ADA parking improvements including some paver replacements, flat roof repairs, metal roof repair, HVAC control replacements.



Project Justification: The Department of Public Works assumed maintenance responsibilities for the Hyannis Youth and Community Center in October of 2016. The facility was plagued with system failures due to deferred maintenance. DPW immediately commissioned a facility condition assessment to develop a comprehensive action plan that was completed in FY19.

Impact of Denial/Postponement: The facility will continued to deteriorate including building systems.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$416,687	\$899,996
	Project Management	\$45,413	\$71,999
	Project Contingency	\$56,747	\$129,999
	All Other Cost	\$9,486	\$20,000
	Total Project Cost	\$528,333	\$1,121,994

Basis for Cost Estimates: Architect Assisted with In-House Cost Estimates

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$528,333	Phase 2 – Roof, Parking, and HVAC Controls
2021	\$756,161	Phase 3 – Gates, Roof, Plumbing, Flooring, and Kitchen
2022	\$365,834	Phase 4 – Tile and Interior Finishes

Source of Funding: Bond Issue \$528,333

Operating Budget Impact now or in future: Some efficiency savings once HVAC controls are installed. This work will replace systems already in place.

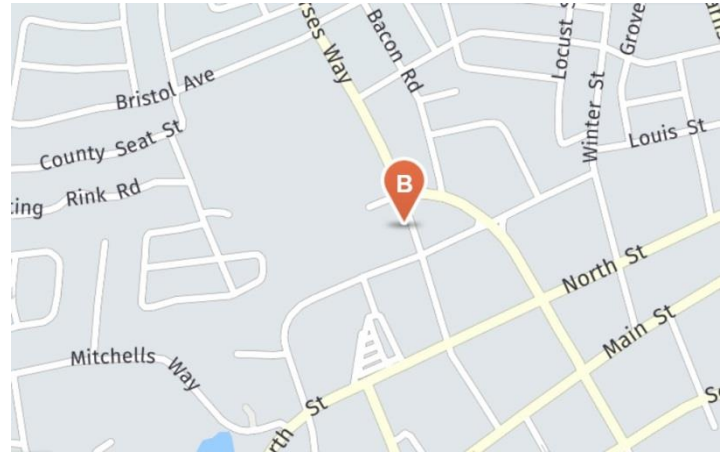


Hyannis Youth & Community Center Needed Roof Repairs

Project Working Title: Improvements to HYCC Security

Project Location: 141 Bassett Ln, Hyannis, MA 02601

Project Description: This project will fund security improvements at the Hyannis Youth and Community Center by providing design and construction funding to install a new, secure office for police presence on site. Currently police are stationed in a room in the center of the facility next to the entrance. This location has no monitoring capabilities and does not have a private entrance.



Project Justification: If a security incident takes place at the facility, responding personnel would not be able to access video and security feeds without entering the main entrance and moving to the center of the building. This project will create a monitoring station that has a secure private entrance that cannot be seen from the front of the building. Monitors for all rooms & outdoor cameras would be setup in the new security office, along with the ability to lock the entire facility down. Additionally there would be equipment that would allow police to communicate with each room.

Impact of Denial/Postponement: The building will continue with compromised security.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$12,000	-
	Construction or Acquisition	\$115,555	-
	Project Management	\$11,556	-
	Project Contingency	\$11,556	-
	Total Project Cost	\$150,667	-

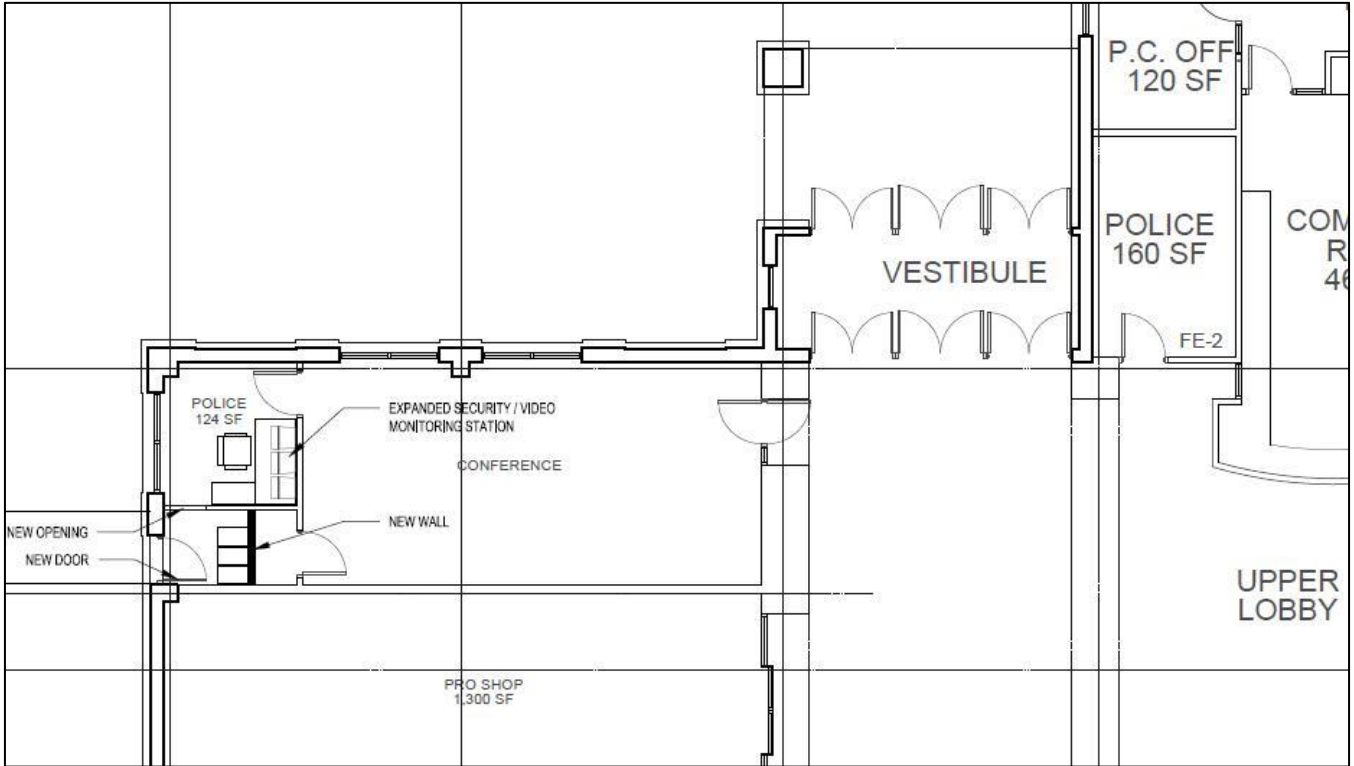
Basis for Cost Estimates: Department of Public Works In-House Cost Estimates

Project Estimated Completion Date: 2020 **Design & Permit (months)** 4 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$150,667	Design and Construction

Source of Funding: Bond Issue \$150,667

Operating Budget Impact now or in future: Staffing will remain the same.



Hyannis Youth & Community Center Security Schematic and Interior Photos

Community Services General Fund Projects

PROJECT: CSD-20-1

DEPARTMENT PRIORITY: 1 of 15

2019-116

Project Working Title: Beach House Improvements

Project Location: Craigville Beach, Cotuit Beach, Centerville Beach, Osterville Beach

Project Description: This project would fund improvements at the Town's Beach Houses. This multi-year project is a continuation of a beach program to keep bathhouses updated on the interior & exterior, and be fully operational.

FY20 work will consist of final phase design and construction upgrades to the Craigville Beach House facility. Improvements will include the expansion of the first aid area, relocation of the office area to the first floor, structural improvements, staff area improvements, and improvements to staff area access to the beach.

Project Justification: These buildings have been patched, repaired, and painted but heavier renovations are now necessary. The beach houses are in need of new fixtures and service systems throughout concerning plumbing, electrical, and air-handling equipment as well as structural: walls, ceilings and floors renovations. It is not solely cosmetic; many of the needs are safety related. In some cases, it is recommended that the structure be demolished and replaced with a new facility.

Priority 1: Completion of renovations to the Craigville Beach House

Priority 2: Loops Beach House Renovations

Priority 3: Covells Beach House Renovations

Priority 4: Dowses Beach House Renovations

Impact of Denial/Postponement: Continued deferred maintenance of these facilities will contribute to their deterioration and demand a total and costly replacement. Replacement of worn facilities with new ones will insure the high standard of recreational facilities in our town.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$19,935	\$199,696
	Construction or Acquisition	\$199,182	\$1,996,960
	Project Management	\$15,948	\$159,757
	Project Contingency	\$19,935	\$199,696
	All Other Cost	-	\$30,000
	Total Project Cost	\$255,000	\$2,586,109

Basis for Cost Estimates: In-House Cost Estimate

Project Estimated Completion Date: - **Design & Permit (months)** 12 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$255,000	Design & Construction
2021	\$491,690	Loop Beach House Renovation
2022	\$1,602,730	Design & Construction of Covell's Beach House
2023	\$491,690	Dowses Beach House Renovation

Source of Funding: Bond Issue \$255,000

Operating Budget Impact now or in future: With new construction technology, we will realize continued savings in energy and maintenance costs.



Beach Bathhouses

Project Working Title: Beach Parking Lot Rehabilitation - Craigville Beach

Project Location: 997 Craigville Beach Road, Centerville, MA 02632

Project Description: Project would include providing a level and overlay of pavement to Craigville Beach and new line striping.

Project Justification: The existing pavement has deteriorated such that rehabilitation is necessary. In some places, the pavement condition may be difficult or unsafe for some pedestrians.



Impact of Denial/Postponement: The parking lot will deteriorate further resulting in the need for more complete reconstruction. The facility will not properly serve the thousands of annual visitors to the beach.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		\$12,000
Construction or Acquisition		\$120,000	-
Project Management		\$6,000	-
Project Contingency		\$20,000	-
All Other Cost		\$2,000	-
Total Project Cost		\$160,000	-

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$160,000	Design, Permitting & Construction

Source of Funding: Bond Issue \$160,000

Operating Budget Impact now or in future: New infrastructure is expected to reduce maintenance costs.

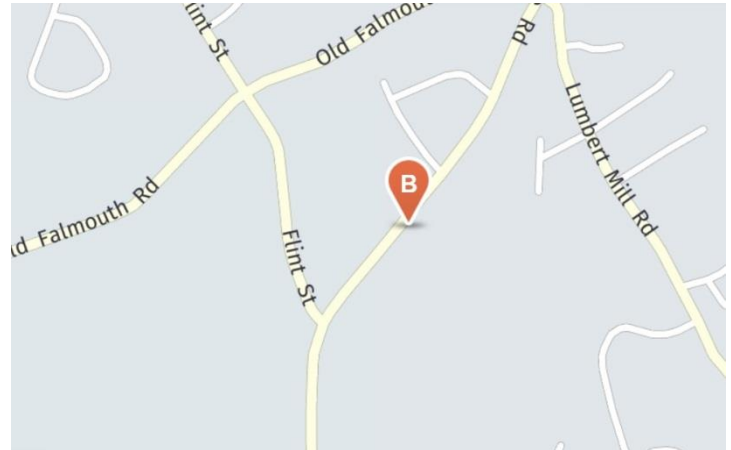


Craigville Beach Parking Lot

Project Working Title: Marstons Mills Tennis Court Improvements

Project Location: 760 Osterville West Barnstable Rd, Marstons Mills, MA 02648

Project Description: Replace six failed tennis courts with four new tennis courts and dedicated six pickle ball courts. Improvements will include replacement of new nets and posts, surfacing, coatings, and repair of fencing. Courts will be replaced with post-tensioned concrete courts, which have a much longer life expectancy than asphalt.



Project Justification: The Marstons Mills Courts have failed, with large cracks and failed net supports. A test patch was made in 2017 to see if the courts could be repaired. That patch failed within 6 months. The public uses the Marstons Mills Tennis Courts often. The field study is recommending the creation of four tennis courts and six pickle ball courts in this location.

Impact of Denial/Postponement: The tennis courts are not usable and the gate has been permanently locked for safety reasons. The village of Marstons Mills will continue without a tennis facility.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$55,053	-
	Construction or Acquisition	\$459,128	-
	Project Management	\$36,702	-
	Project Contingency	\$45,878	-
	All Other Cost	\$23,239	-
	Total Project Cost	\$620,000	-

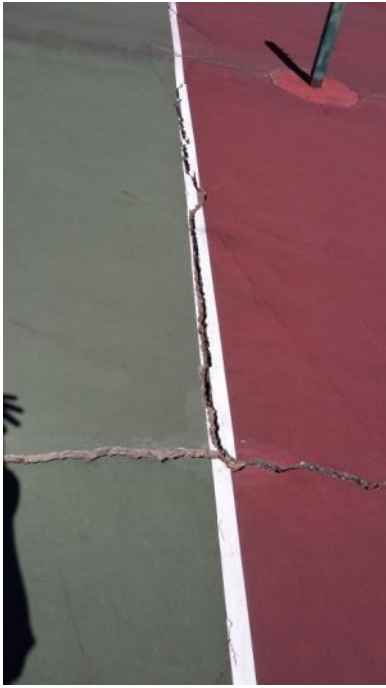
Basis for Cost Estimates: In-House Architect

Project Estimated Completion Date: 2021 **Design & Permit (months)** 4 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$620,000	Design and construction

Source of Funding: Bond Issue \$620,000

Operating Budget Impact now or in future: These tennis courts will incur \$3,000 in yearly maintenance of cost.



Needed Repairs at the Marstons Mills Tennis Courts

Golf Enterprise Fund Projects

PROJECT: GOLF-20-1

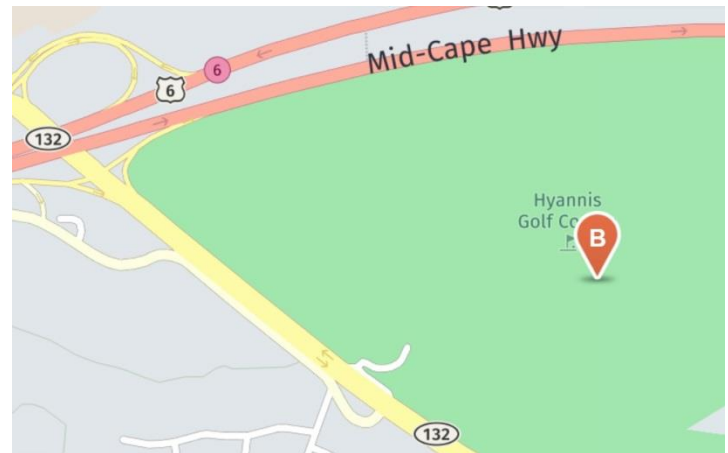
DEPARTMENT PRIORITY: 1 of 3

2019-118

Project Working Title: Hyannis Golf Course Restoration Project (Phase 1 - Cart Path System Replacement)

Project Location: 1800 Iyannough Rd, Route 132, Hyannis MA 02601

Project Description: This project will restore and modernize the Hyannis Golf course. The project calls for the replacement of the irrigation system, sand bunker renovation, construction of forward tees, refurbishment of existing cart paths and construction of paths where none currently exist, select tree removal, and widening of fairways. This “phased” version represents the 6th year a CIP has been submitted for this project. Phase 1 replaces the cart path system as it represents an ongoing safety hazard.



Project Justification: Hyannis Golf Course is 43 years old. All major features/components are well beyond their natural life cycle. Infrastructure continues to deteriorate after 40+ years of neglect. The cart paths are a safety hazard for residents and guests alike. Potholes, crumbling asphalt, and washouts on a hilly course such as Hyannis are an accident waiting to happen. The sand bunkers are in extremely poor condition and way beyond an “in-house” fix. Rocks and gravel are splashed out of the sand at golfers and clubs are frequently damaged. The irrigation system is archaic, obsolete, and inefficient. Forward tees will accommodate women, seniors, juniors, and beginners.

Impact of Denial/Postponement: We are located in the second most golf-saturated area in the country. Our customers have numerous, attractive options available locally. Business has plateaued. Not addressing our failing infrastructure will lead to a decline in usage. We will not see the facility reach its potential. Our reputation will continue to suffer. Revenue shortfalls will affect our ability to cover debt service and operating expenses. Subsequent budget cuts will further restrict our ability to maintain or improve the facility. Irrigation system failure will result in widespread loss of turf throughout the golf course.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$64,890	\$167,019
	Construction or Acquisition	\$368,132	\$3,221,558
	All Other Cost	\$12,978	\$94,057
	Total Project Cost	\$446,000	\$3,482,634

Basis for Cost Estimates: Cost estimates are based on the Rehabilitation Business Plan produced by Richard Mandell Golf Architecture using the “recommended rehabilitation option”. Cost includes contingencies, mobilization, and design/soft costs. A 3% cost adjustment was added to the FY19 project submission per Richard Mandell. Cost estimate also takes into consideration Massachusetts prevailing wage rates.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 2

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	\$446,000	Upgrade and Replace Cart Path System throughout the facility
2021	\$664,735	Design and Construction of Bunker Renovations to include Sand Replenishment, Sod, and Liners,
2022	\$452,972	Forward Tee Construction, Tree Work, Sink Hole repair, and select clearing
2023	\$2,364,927	Replace Entire Irrigation System, Construction of lined storage pond and new pump station installation.

Source of Funding: Enterprise Fund Bond Issue \$414,000 and unexpended funds in Town Council order 2015-106 of \$32,000.

Operating Budget Impact now or in future: As the facility is renovated over time, potential customers will find it much more appealing and conducive for their banquet functions, and thus enticing large golf outings. The lessee will be able to reach revenue thresholds triggering additional monies to the golf division. The golf course will attract more large golf tournaments and outings, which will also increase revenues.



Hyannis Golf Course Cart Paths

Marine & Environmental Affairs General Fund Projects

PROJECT: MEA-20-1

DEPARTMENT PRIORITY: 1 of 12

2019-119

Project Working Title: Channel Dredging Program

Project Location: Various Town-owned navigational channels

Project Description: This project involves the ongoing design, permitting, and maintenance dredging of Town-owned navigational channels.

Project Justification: The Town completed a Comprehensive Dredge Plan in 2017 based on surveyed conditions and historic dredging frequencies. The plan identifies dredge needs in the following channels during this five-year capital project plan:

- Barnstable Inner Harbor Channel
- Barnstable Outer Harbor Channel
- Bismore Park Pier Basin
- Blish Point Boat Ramp Channel
- Cotuit Bay Embayment Channel
- Cotuit Bay Entrance Channel
- Dead Neck Sampsons Island
- East Bay Inner Embayment Channel
- East Bay Entrance Channel
- East Bay Outer Embayment Channel
- Gateway Marina Channel
- Lewis Bay Boat Ramp
- West Bay Inner Entrance Channel
- West Bay Outer Entrance Channel
- West Bay Spur Channel

These channels provide important navigational access for significant numbers of recreational and commercial boats, as well as regulatory and emergency response vessels. The failure to maintain these channels can result in very dangerous conditions, which can threaten the safety of our residents and risk serious damage to boats, in addition to impairing commercial and recreational activities.

Impact of Denial/Postponement: The channels will continue to shoal and eventually completely close off access for recreational and commercial boating.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$130,000	\$125,000
	Construction or Acquisition	\$1,400,000	\$6,500,000
	Program Management	\$50,000	\$350,000
	Project Contingency	\$150,000	\$850,000
	Total Project Cost	\$1,730,000	\$7,825,000

Basis for Cost Estimates: Town of Barnstable Comprehensive Dredge Plan (Sept 2018 Update)

Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$1,730,000	Blish Point Boat Ramp Channel Design/Permitting (\$54,000), Barnstable Harbor Mid-Entrance Channel Design/Permitting (\$76,000), Phase II of Deck Neck Sampsons Island (\$1,500,000), Contingency/Additional Permitting (\$100,000)
2021	\$2,250,000	Blish Point Boat Ramp Channel Construction (\$450,000), Phase III of Deck Neck Sampsons Island (\$1,750,000), Contingency/Additional Permitting (\$50,000)

2022	\$1,830,000	Barnstable Outer Harbor Channel (\$658,000), East Bay Outer Embayment Channel Design/Permitting (\$65,000), Bay St. Channel (\$406,000), Phase I of West Bay Inner Entrance Channel (\$651,000), Contingency/Additional Permitting (\$50,000)
2023	\$1,745,000	Barnstable Mid-Entrance Channel Construction (\$786,000), East Bay Inner Embayment Channel Design/Permitting (\$60,000), West Bay Outer Entrance Channel (\$135,000), Phase II of West Bay Inner Entrance Channel (\$651,000), West Bay Spur Channel (\$63,000), Contingency/Additional Permitting (\$50,000)
2024	\$2,000,000	East Bay Outer Embayment Channel Construction (\$1,300,000), Phase III of West Bay Inner Entrance Channel (\$650,000), Contingency/Additional Permitting (\$50,000)

Note: The dredge schedule may be amended to improve efficiency (for example, to group projects by geographic location); due to regulatory restrictions (for example, dredging prohibited during certain marine life mating and migration seasons); to shift priorities (for example, if a channel fills-in faster than expected due to storms or other reasons); or due to logistical factors (for example, based on availability of the county dredge).

Source of Funding: Bond Issue of \$980,000 and \$750,000 from the Comprehensive Water Management & Private Way Fund for one-half of the cost of Phase II of the Deck Neck Sampsons Island dredging.

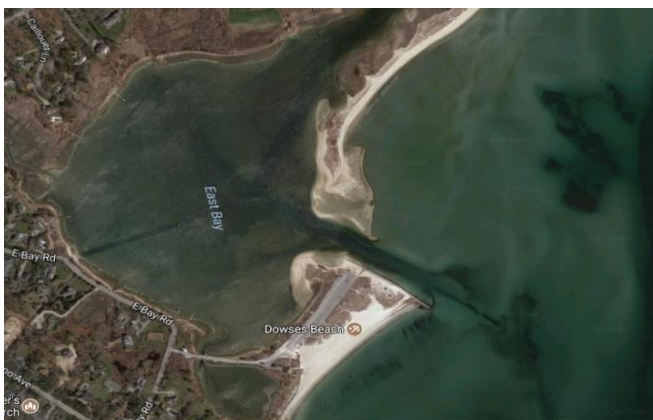
Operating Budget Impact now or in future: Not applicable – this is ongoing maintenance dredging of existing facilities. Performing the maintenance dredging in a systematic, planned manner is expected to reduce expenses by avoiding expediting costs and reducing mobilization costs where possible.



West Bay Channel



Barnstable Harbor Channel



East Bay Channel



Hyannis Harbor Channel

Sandy Neck Enterprise Fund Projects

PROJECT: SDY-20-1

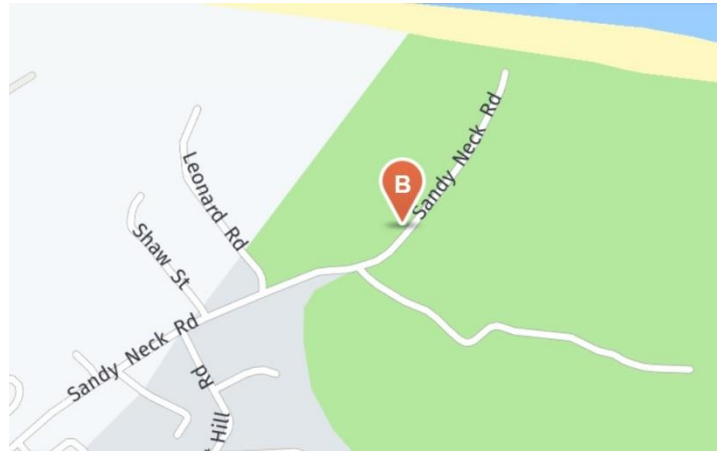
DEPARTMENT PRIORITY: 1 of 2

2019-120

Project Working Title: Sandy Neck Gatehouse and ORV Trail Relocation

Project Location: 425 Sandy Neck Road, West Barnstable, MA 02668

Project Description: This project will provide design, permitting, and construction for the following: (a) to relocate the existing gatehouse; (b) to relocate the off-road vehicle trail. The project includes relocating or demolishing and reconstructing the gatehouse in order to remove it from imminent flood risk at its present location.



Project Justification: A detailed analysis of the long-term viability of the Sandy Neck beach parking and supporting facilities was completed as part of a grant from Coastal Zone Management (CZM) in the fall of 2016. In addition, the gatehouse was damaged by flooding during extreme high tide and storm surge events in 2018, increasing the urgency to relocate it to higher ground.

Impact of Denial/Postponement: Failure to implement this project will continue the susceptibility of this gatehouse to flood waters and costs to fix damages. Relocation of the ORV trail also reduces vulnerability to the endangered species habitat area of the Eastern Spade Foot Toad.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$60,000	-
	Construction or Acquisition	-	\$600,000
	Project Management	-	\$75,000
	Project Contingency	-	\$120,000
	All Other Cost	-	\$5,000
	Total Project Cost	\$60,000	\$800,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate and 2016 Report

Project Estimated Completion Date: 2021 **Design & Permit (months)** 12 **Construction (months)** 9

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$60,000	Design & Permitting
2021	\$800,000	Construction and Construction Management

Source of Funding: Enterprise Fund Reserves \$60,000

Operating Budget Impact now or in future: New infrastructure in locations that are more protected from tidal and flood damage is expected to reduce maintenance costs.



Sandy Neck Park Gatehouse Flood - 2018

Public Works General Fund Projects

PROJECT: DPW-20-1

DEPARTMENT PRIORITY: 1 of 46

2019-121

Project Working Title: Public Roads Maintenance

Project Location: Road rehabilitation work includes: milling and/or repaving of Lewis Pond Road, Cotuit; Moon Penney Lane, Centerville; Poponessett Road, and Edwards Road, Hyannis; Parkway Place, Hyannis; Lothrups Lane, and Bursley Path, West Barnstable. Other roads may be substituted if necessary due to accelerate deterioration rates, unexpected damages, opportunities to address certain roads with other funding, or other factors. Smaller drainage projects, chipsealing and preventive maintenance are also planned for various roads town-wide (approx. 24 miles) to extend their service life. Associated costs are included in this project.

Project Description: Repairs may include one of several different approaches including full depth reconstruction, reclamation, asphalt overlay, milling, and paving, applying a chipseal surface layer or cracksealing. In addition to surface repairs, projects typically include installation or upgrading of drainage systems, curbing, and sidewalks wherever practicable. Traffic calming and ADA accessibility will also be incorporated where possible and as appropriate.

Project Justification: In 2007, the Public Works submitted their first Public Roads Maintenance Capital Improvements Plan to maintain public roads in the amount of \$3.25 million. In FY 2019, this amount was increased to accommodate the change in construction prices over the past 10 years. The Pavement Management Program's current backlog is approximately \$10.5 million for public road repairs. In addition, the Town has a backlog of approximately 220 locations where drainage improvements are required. Finally, Public Works receives numerous requests for speed evaluations on public roads, and traffic calming investigations.

Impact of Denial/Postponement: The impact of denial or postponement will be accelerated deterioration of our public roadway network resulting in public safety hazards and liability, potential damage to private property, and increased repair costs. One example is the chip seal projects that are proposed; allowing these roads to deteriorate would require more expensive maintenance operations such as milling and placing an asphalt overlay that would cost significantly more than the proposed preventative maintenance.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$300,000	\$1,200,000
	Construction or Acquisition	\$2,450,000	\$10,600,000
	Project Management	\$400,000	\$1,800,000
	Project Contingency	\$300,000	\$1,200,000
	Total Project Cost	\$3,450,000	\$14,800,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2020 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$3,450,000	Planning, analysis, design, construction & construction management
2021	\$3,550,000	Planning, analysis, design, construction & construction management
2022	\$3,650,000	Planning, analysis, design, construction & construction management
2023	\$3,750,000	Planning, analysis, design, construction & construction management
2024	\$3,850,000	Planning, analysis, design, construction & construction management

Source of Funding: Capital Trust Fund Reserves \$3,450,000

Operating Budget Impact now or in future: The purpose of this project is primarily to maintain the existing roadway network and reduce the impacts of deferred maintenance on operating and capital budgets.



Examples of Required Road Maintenance

Project Working Title: Public Bridge Improvements and Repairs

Project Location: Centerville River Bridge (Craigville Beach Road, Centerville); Maraspin Creek Bridge (Millway, Barnstable Village); Mill Creek Bridge (Keveney Lane Barnstable Village/Mill Lane Yarmouth); Oyster Harbors Bridge (Bridge Street, Osterville); Santuit River Bridge (School Street Cotuit/Quinaquisset Avenue Mashpee). This project omits the Bumps River Bridge (Main Street Osterville/South Main Street Centerville) as it is addressed in a separate capital project request.

Project Description: Maintenance and repairs for the bridges listed above, which are owned by the Town of Barnstable (or co-owned with neighboring towns) and are inspected by MassDOT. This predominantly involves specialized maintenance and repairs that Public Works Highway Division cannot readily perform, including but not limited to repairing or replacing structural elements, railings, concrete decking, and sidewalks, correcting scour at bridge abutments, replacing expansion joints, repairing or replacing railings, etc.

Project Justification: The Town has inspection reports from the past few years identifying repairs needed to these bridges. MassDOT expects the Town to repair deficiencies in a timely manner, and it is the Town's responsibility to do so. It is also in the Town's best interests to address deficiencies when they are relatively minor, before they become safety concerns and potentially much more costly.

Impact of Denial/Postponement: The condition of the bridges will continue to deteriorate, resulting in escalating maintenance costs, and eventually unsafe conditions.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$420,000	-
	Project Management	\$20,000	-
	Project Contingency	\$45,000	-
	All Other Cost	\$15,000	-
	Total Project Cost	\$500,000	-

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$500,000	Design & Permitting, Construction & Construction Management

Source of Funding: Bond Issue \$500,000

Operating Budget Impact now or in future: None anticipated. Repairs will extend the useful life of the bridges and will not increase their operating budgets.

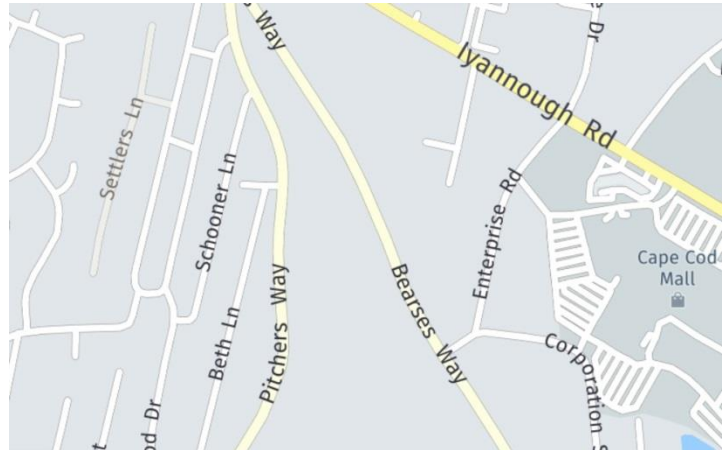


Examples of Needed Bridge Repairs

Project Working Title: Bearse's Way Bike Path Construction

Project Location: Bearse's Way from Pitcher's Way to Route 28

Project Description: Project funds the Town's portion the design and permitting of a multi-use path with asphalt surface twelve (12) feet wide located between the road edge and adjacent property boundaries. The majority of the route will maintain a wide green space between the road and the path. The path will join the soon to be constructed path approach to Route 28 that forms part of the MassDOT Bearse's Way/ Route 28 intersection improvement project presently under construction. This path will allow cyclists to avoid riding on the busy, high-speed section of Bearse's Way roadway.



Project Justification: This path will complete a bike access route to Hyannis joining the existing path running along Route 132 from Shootflying Hill Road to the multi-use path along Bearse's Way south of Route 28, the recent construction of the Route 28 /Bearse's Way intersection project allowing safe crossing of Route 28. Construction funds will be appropriated as part of the Commonwealth's Transportation Improvement Program (TIP), which is estimated at \$1,000,000.

Impact of Denial/Postponement: Failure to complete this project will result in an unsafe section of roadway for bicycle riders expecting to travel toward Hyannis on the existing bike route links.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		\$125,000
Total Project Cost		\$125,000	-

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$125,000	Completion of project design

Source of Funding: Capital Trust Fund Reserves \$125,000 and/or MassTrails Grant- Applications will be submitted and could fund up to 75% of the \$125,000

Operating Budget Impact now or in future: This project will increase the Town's sidewalk maintenance costs by an estimated \$3,300 per year for snow clearing, sweeping, brush clearing, and pavement maintenance and repairs.



Location of Bike Path at Bearse's Way from Pitcher's Way to Route 28

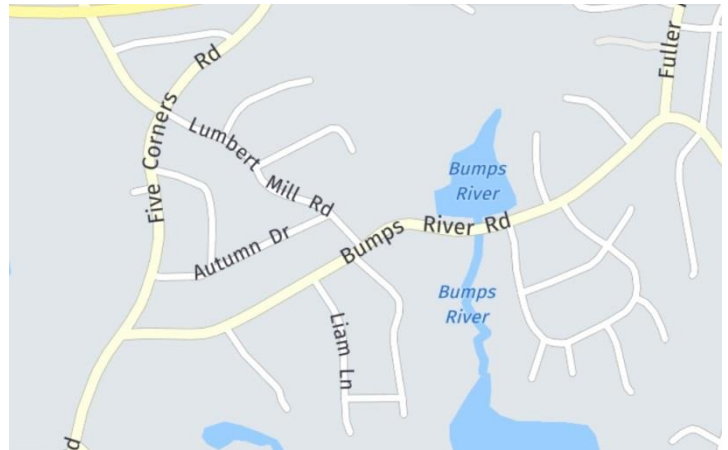
Project Working Title: Bumps River Bridge Repairs

Project Location: South Main Street, Centerville / Main Street, Osterville

Project Description: Repairs to the bridge pilings, deck, rails, and other elements.

Project Justification: Inspections by MassDOT and analyses performed by our consultant have identified necessary maintenance and safety repairs.

Impact of Denial/Postponement: Failure to implement the recommended maintenance will result in future deterioration necessitating repairs that are more expensive. Failure to complete the necessary repairs will jeopardize the safety of the traveling public and the bridge will no longer be safe for emergency vehicles.



Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$750,000	-
	Project Management	\$20,000	-
	Project Contingency	\$100,000	-
	All Other Cost	\$30,000	-
	Total Project Cost	\$900,000	-

Basis for Cost Estimates: Consultant Reports

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$900,000	Construction & Construction Management

Source of Funding: Bond Issue \$900,000

Operating Budget Impact now or in future: None, repairs is anticipated to extend the useful life of the bridge by 10 to 25 years.



Bumps River Bridge

Project Working Title: Sidewalk Overlay and Guardrail

Project Location: Town wide

Project Description: The project funds the removal and replacement of 6,000 linear feet of old deteriorated concrete post and steel cable guardrails; and the repair of existing sidewalks.

Project Justification: The Town of Barnstable has approximately 9.2 miles of guardrail, much of which does not meet the Manual on Uniform Traffic Control Devices (MUTCD) standards that needs replacing. It consists of concrete posts, steel cables, which are highly deteriorated. Additionally, the sidewalks throughout the Town are overgrown with vegetation, narrowing, heaving with roots, and are deteriorating. This is causing numerous trip hazards. The sidewalks are difficult to maintain during snow and ice.

Impact of Denial/Postponement: Accidents resulting in personal injury may occur as a direct result of vehicles leaving the road through an aging guardrail system, or people tripping on a broken sidewalk.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$299,038	\$1,418,456
	Project Contingency	\$14,962	\$74,653
	Total Project Cost	\$314,000	\$1,493,109

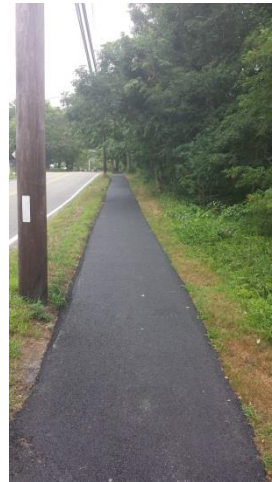
Basis for Cost Estimates: Barnstable County Bid - Construction Costs are based on an average of \$23.80 per lineal foot as determined by the Barnstable County Contract for weathered steel beam cor-10 Guardrail with wooden posts with a 3% increase annually. Sidewalk costs are based on a linear footage price from an invitation for bid including prep work.

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$314,000	Design and Construction
2021	\$346,419	Design and Construction
2022	\$363,740	Design and Construction
2023	\$381,927	Design and Construction
2024	\$401,023	Design and Construction

Source of Funding: Bond Issue \$314,000

Operating Budget Impact now or in future: This is existing infrastructure, which is already being maintained. This work should decrease the need for expenditure in the short term.

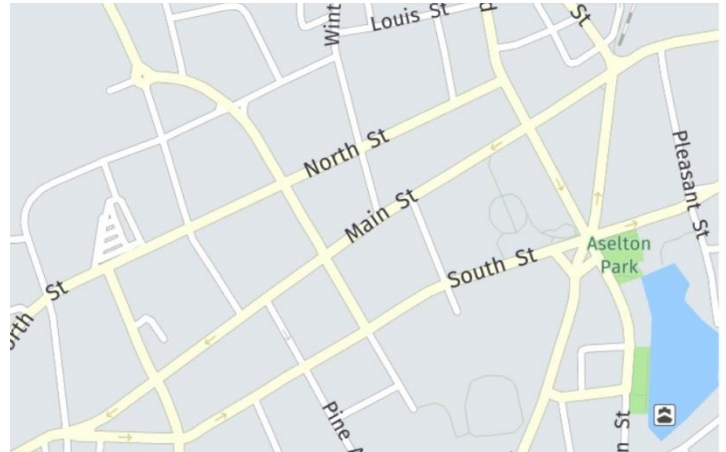


Before and After Photos of Sidewalks and Guardrails

Project Working Title: Main Street Tree Lighting Project

Project Location: Main Street, Hyannis, MA 02601

Project Description: This project will fund the design, and installation of tree lighting on Main Street in the village of Hyannis. The project will include removal of failed lights, repair, and installation of electric connections, and installation of new commercial lighting on 25 existing trees.



Project Justification: Many of the tree lights on Main Street have failed due to the light style, weather infiltration, and pedestrian damage. Some of the light connections were made to private businesses allowing some light groups to be off while others remain on. Some of the lighting strings are no longer working. This project will correct these conditions with the installation of commercial lights connected to municipally controlled electrical connections. The lighting will be designed in such a way as to eliminate damage by pedestrians.

Impact of Denial/Postponement: The condition of inconsistent tree lighting will continue. The appearance of the lighting will continue to degrade.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$5,308	-
	Construction or Acquisition	\$90,160	-
	Project Management	\$7,213	-
	Project Contingency	\$10,819	-
	All Other Cost	\$500	-
	Total Project Cost	\$114,000	-

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 2

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$114,000	Design & Construction

Source of Funding: General Fund Savings \$114,000

Operating Budget Impact now or in future: Any savings will be offset by new costs.

Project Working Title: MS4 Municipal Separate Storm Sewer System Program

Project Location: Various

Project Description: This project is intended to continue to help bring the Town of Barnstable into compliance with the recent EPA National Pollution Discharge Elimination System Phase II Municipal Separate Storm Sewer Systems (MS4) Permit. The original CIP (2016-104) is being used for the following:

- Preparing and submitting a Notice of Intent (NOI), including endangered species and historic preservation documentation. Status: Completed
- Updating the Town's Storm water Management Program (SWMP) Plan to incorporate the requirements of, and the Town's approach to, meeting the final permit. Status: In Progress
- Preparing and submitting an Illicit Discharge Detection and Elimination (IDDE) Plan. Status: In Progress
- Investigations and surveys to collect additional information on storm water infrastructure as required. Status: In Progress
- Delineating and prioritizing outfall catchments. Status: In Progress

The FY 2020-2024 capital plan will include the following:

- Updating the storm system mapping
- Preparing and/or updating Storm water Pollution Prevention Plans (SWPPPs) for select Town facilities including but not limited to:
 - Maintenance Garages
 - Public Works Yards
 - Transfer Stations
 - Other waste handling facilities where pollutants are exposed to storm water
- Preparing Spill Prevention Control and Countermeasure (SPCC) Plans as required
- Assisting in the development of ordinances and regulations to address storm water on new or redeveloped sites
- Develop O&Ms for storm water installations, and facilities as needed.
- Assist in Outfall Sampling/Screening/Inspections as required
- Public Education & Outreach (on-going)
- Other items identified during the original CIP effort.

Additional budget requirements (capital or Operating) will focus on:

- Projects, identified during the first two CIP efforts, required to bring the Town into compliance with the permit
- Development and funding of Operational Requirements to bring the Town into compliance, such as:
 - Street sweeping (annual)
 - CB Cleaning (>50% full)
 - Inspect and maintain storm water facilities
 - Submit annual reports
 - Etc.
- Outfall Sampling/Screening/Inspections (on-going)
- Public Education & Outreach (on-going)

Project Justification: The EPA mandates this program. The Town must comply.

Impact of Denial/Postponement: The Town could face fines from the Environmental Protection Agency (EPA).

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$150,000	\$550,000
	Total Project Cost	\$150,000	\$550,000

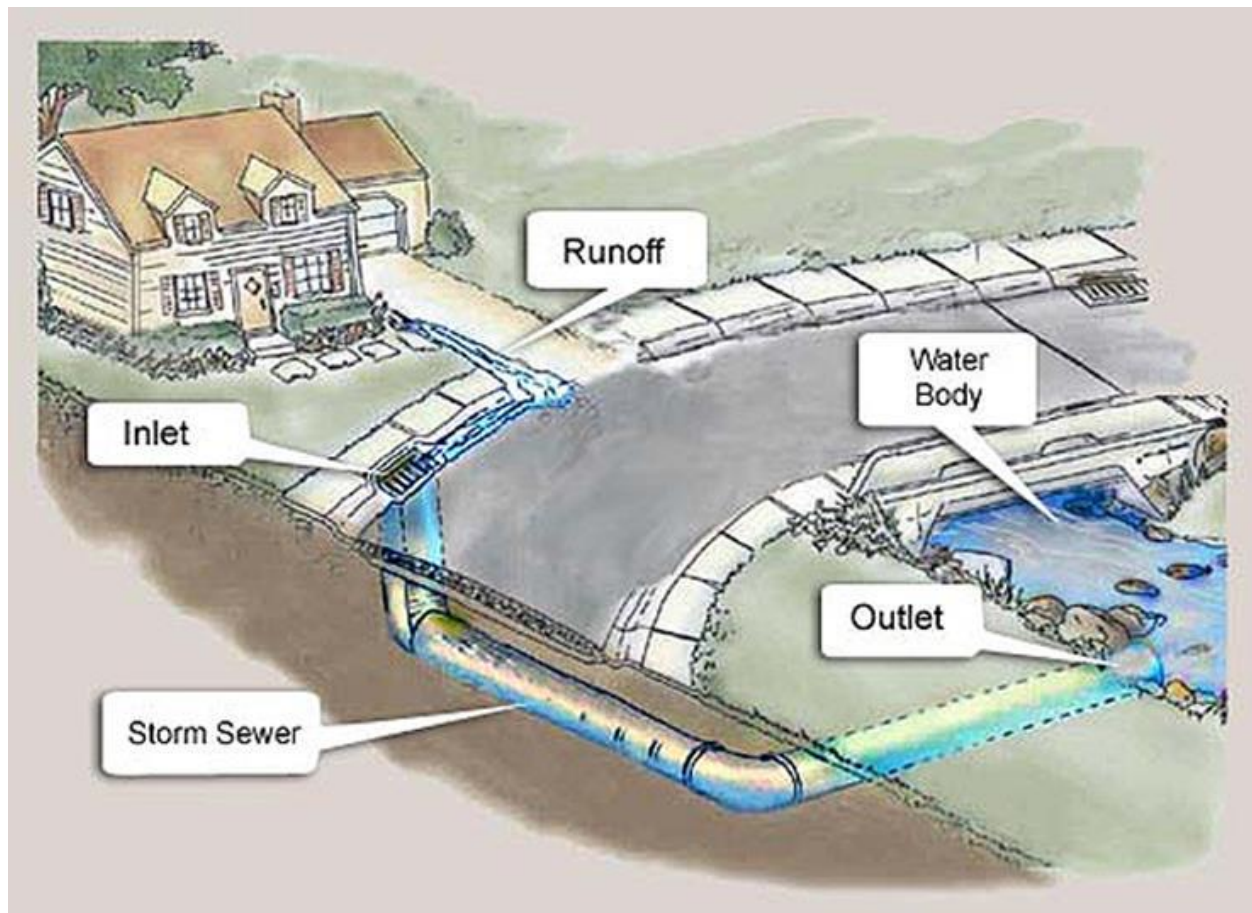
Basis for Cost Estimates: Cape Cod Commission

Project Estimated Completion Date: - **Design & Permit (months)** 12 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$150,000	Continued Plan Implementation
2021	\$150,000	Continued Plan Implementation
2022	\$150,000	Continued Plan Implementation
2023	\$150,000	Continued Plan Implementation
2024	\$100,000	Continued Plan Implementation

Source of Funding: Unexpended funds in Town Council Order 2016-105 \$150,000

Operating Budget Impact now or in future: Additional locations for catch basin cleanings and street sweepers would be identified as part of this permit. The current O&M budget would be increased by \$40,000 per year.





Municipal Separate Storm Sewer System (MS4)

Reference: Phase II MS4 Permit Improving Central Massachusetts Stormwater Management

Project Working Title: Crosswalk Improvements

Project Location: South Street, Hyannis; West Main Street, Hyannis/Centerville; Main Street Osterville; School Zones; Other Priority Areas

Project Description: Town-wide efforts to improve pedestrian safety at crosswalks with features such as, but not limited to, traffic signals where warranted, rapid flashing beacon signs, curb extensions, medians, and other measures as appropriate. Also, bring crosswalks up to Town and State standards, including accessibility requirements.

Project Justification: There have been serious pedestrian injuries or even fatalities at some locations in Town. A number of other capital projects and Chapter 90 projects include pedestrian safety and access improvements; the capital project request is to address locations where pedestrian improvements are not underway or planned in the near future.

Impact of Denial/Postponement: Pedestrians will not benefit from enhanced features designed to increase driver awareness or in some cases to legally compel drivers to stop. Worst-case scenario, there may be additional injuries or fatalities.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$300,000	-
	Total Project Cost	\$300,000	-

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

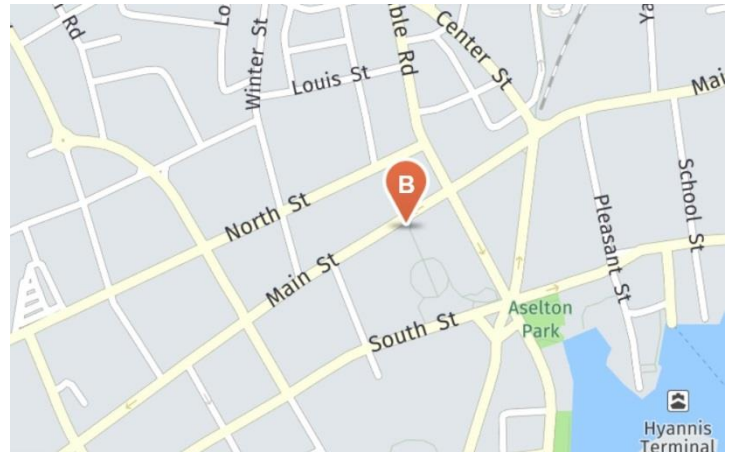
Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$300,000	Design & Permitting, Construction & Project Management

Source of Funding: Bond Issue \$300,000

Operating Budget Impact now or in future: N/A

Project Working Title: Town Hall Security Improvements

Project Location: 367 Main Street, Hyannis, MA 02601



Project Description: Phased implementation of the recommendations contained within the Internal Security Evaluation. The FY20 work includes:

- Issue all Town Employees a picture ID card that also acts as a door lock access card, with associated pass-code,
- Install door lock readers on external and internal control doors for use with the ID cards,
- Create a location for the greeter position in Town Hall. This will require converting the small information room that is located on the left as one enters the building from the main entrance,
- Rework access to the Town Clerk’s office window to allow citizens to interact with the clerk’s office employees without physically entering the space,
- Refit the Tax Collector’s window with ballistic resistant glass,
- Rework/replace the exit doors so all entrances to the building, with the exception of the main entrance, are locked, monitored by a video camera (see FY19 recommendations), and only accessible from the outside by employees with an ID card and pass code,
- Install internal security doors on the main floor as appropriate,
- Modify the elevator so the general public cannot proceed beyond the second floor without an ID card,
- Install security doors to prevent the general public from proceeding beyond the second floor without an ID card; and
- Other related security measures.

Project Justification: FY15 Town Council approved a capital project to evaluate the security risks in Town Hall. During initial project meetings between Town leaders, the Barnstable Police Department (BPD), and the Department of Public Works (DPW) it was decided that the actual evaluation could be handled internally, and the monies in that capital project request should be used for implementation of identified security measures. The evaluation has been completed, and the FY15 money is being used for the FY17 portion implementation plan. This capital project request is to fund the FY20 implementation plan.

Impact of Denial/Postponement: The Town will still face the same risks, but without thoughtful proactive measures in place to mitigate those risks, it is vulnerable to a potentially horrible, preventable, outcome.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		\$480,000
Total Project Cost		\$480,000	\$250,000

Basis for Cost Estimates: In-House Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	\$480,000	FY20 Town Hall Security Implementation
2021	\$250,000	FY21 Town Hall Security Implementation
2022	TBD	Future Town Hall Security Implementation Requirements

Source of Funding: Bond Issue \$480,000

Operating Budget Impact now or in future: This will not be clear until the study is complete, and the Town implementation has selected recommendations.



Town Hall Photos

Water Pollution Control Enterprise Fund Projects

PROJECT: WPC-20-1

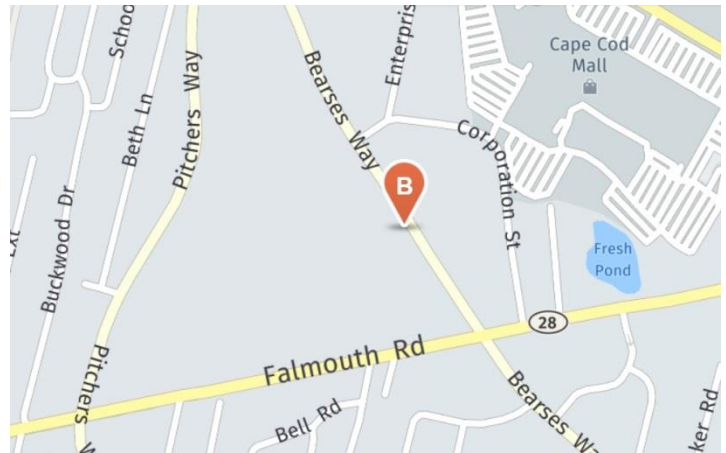
DEPARTMENT PRIORITY: 1 of 15

2019-130

Project Working Title: Effluent Flow Meter Evaluation, Design, and Construction

Project Location: 617 Bearse’s Way, Hyannis, MA 02601

Project Description: Required by the Massachusetts Department of Environmental Protection (DEP) as part of the Hyannis Water Pollution Control Facility’s (WPCF) recently issued groundwater discharge permit, this project involves the evaluation, design, and construction of an effluent flow meter at WPCF.



Project Justification: The Massachusetts Department of Environmental Protection recently issued the Hyannis WPCF a new discharge permit. One of the supplemental conditions of the permit is the submission of an engineering report. This engineering report plans for the design of the installation of an effluent flow meter by December 31, 2019 and the installation of the flow meter by December 31, 2020. Currently, the WPCF monitors influent flow at the headworks of the plant. However, additional flow is also introduced by way of septic hauler discharge, and these flows do not pass through the influent flow meter. The effluent flow meter will provide a more accurate representation of what is being discharged by the plant, and the influent flow meter will remain in place to provide redundancy as well as verification of the effluent flow meter.

Impact of Denial/Postponement: If the project is denied or postponed, the WPCF would operate in violation of the facility’s groundwater discharge permit. This could result in a notice of non-compliance and/or costly fines.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	\$85,000	-
Construction or Acquisition	\$425,000	-
Project Management	\$40,000	-
Project Contingency	\$50,000	-
Total Project Cost	\$600,000	-

Basis for Cost Estimates: Engineer has cost estimate based on the worst-case scenario by having to install a vault around the effluent force main and run an electrical duct bank back to the control building. The evaluation phase may determine that a less expensive option is available.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$600,000	Evaluation, design, and construction

Source of Funding: Enterprise Fund Reserves \$600,000

Operating Budget Impact now or in future: The installed meter will not require an increase-operating budget.

Project Working Title: Sewer System Evaluation Surveys (SSES)

Project Location: Wastewater Collection System, Town-wide

Project Description: As a follow up to the town's 2017 Infiltration and Inflow Analysis, this project involves targeted evaluations in order to locate and identify specific sources of infiltration and inflow (I/I) entering the town's sewer system. This project includes flow isolation and TV inspection of up to 14,415 linear feet of sewer, 475 manhole inspections, smoke testing of up to 142,600 linear feet of sewer, dyed water testing of up to 50 locations within the collection system and dyed flooding to be carried out in conjunction with Closed Circuit Television (CCTV) inspections.

Project Justification: 314 CMR 12.04 (2) requires sewer authorities to develop and implement an ongoing plan to control infiltration and inflow into sewer systems. In 2017, the Town of Barnstable submitted its Infiltration and Inflow Analysis to the Massachusetts Department of Environmental Protection (DEP), which included follow up SSES work as the planned next steps. Removal of I/I sources has numerous benefits, including a decrease in the likelihood of a sanitary sewer overflow during storm events, a reduction in electrical usage at pump stations and at the WPCF, as well as freeing up capacity within the town's collection system, wastewater treatment plant, and effluent disposal beds.

Impact of Denial/Postponement: If this project is denied or postponed, the Water Pollution Control Department (WPCD) would be unable to follow through with the I/I control program that was submitted to the DEP. Groundwater and storm water will continue to enter the town's wastewater collection system, taking up valuable pipe capacity and treatment capacity at the WPCF. The risk of wet weather sanitary sewer overflows will remain.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$315,000	\$750,000
	Project Management	\$30,000	-
	Project Contingency	\$35,000	-
	Total Project Cost	\$380,000	\$750,000

Basis for Cost Estimates: Engineers Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 18

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$380,000	Sewer System Evaluation Surveys
2021	-	-
2022	\$250,000	Rehabilitation (Estimate)
2023	\$250,000	Rehabilitation (Estimate)
2024	\$250,000	Rehabilitation (Estimate)

Source of Funding: Bond Issue \$380,000

Operating Budget Impact now or in future: This project will identify future needs and will have no immediate impact on the operating budget.



Sewer Smoke Testing

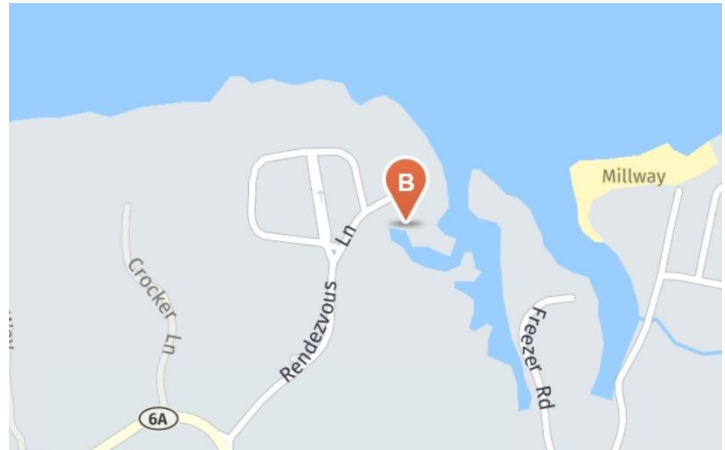


Sewer Dye Testing

Project Working Title: Pump Station Rehabilitation Program: Rendezvous Lane Pump Station Replacement

Project Location: 196 Rendezvous Lane, Barnstable Village, MA 02630

Project Description: Design and construction of a replacement pump station for the Rendezvous Lane Pump Station. This includes installation of an emergency backup generator, reconfiguration of sewer pipes, as necessary, and relocation of vital station components outside of the 100-year flood zone.



Project Justification: The Rendezvous Lane Pump Station was constructed in 1975, and is past the end of its design life. The station operates using outdated technology, which uses compressed air to eject sewage from the pump station through a force main and into the receiving sewers on Route 6A. The pump station and its electrical components are located well below the 100-year flood zone elevation, and in recent years, the area surrounding the Rendezvous Lane Pump Station has become completely inundated with floodwater on several occasions. In January of 2017, seawater infiltrated the pump station creating major electrical and mechanical issues. WPCD staff worked through freezing temperatures for several weeks to restore the station to proper working order. It is only a matter of time before another similar flooding event occurs, as these flooding events have been occurring more frequently in recent years. In addition to these issues, the Rendezvous Lane Pump Station has no on-site backup generator and requires a portable generator to restore the station during power outages. Unfortunately, the station is impossible to access when the area is inundated with floodwaters. As part of the WPCD Pump Station rehabilitation program, this project has been fast tracked as a top priority due to the likelihood of failure (extremely high), and the consequence of failure (sewage backing up into homes or into Barnstable Harbor). The new station will be designed for maximum coastal resiliency, moving all vital components outside of the 100-year flood zone.

Impact of Denial/Postponement: If this project is denied or postponed, the Rendezvous Lane Pump Station will remain at risk of complete failure during coastal flooding events. WPCD staff would need to hire a septic hauler or set up a temporary pumping system to transport sewage to sewers on Route 6A around the clock until emergency appropriation, design, and construction efforts are completed. Denial or postponement would increase the risk of a sewer backup or overflow, putting public health at risk.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		\$85,000
Construction or Acquisition		\$850,000	\$3,000,000
Project Management		\$90,000	-
Project Contingency		\$135,000	-
Total Project Cost		\$1,160,000	\$3,000,000

Basis for Cost Estimates: Engineers Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	\$1,160,000	Rendezvous Lane Pump Station Replacement
2021	\$1,000,000	Pump Station Replacement
2022	\$1,000,000	Pump Station Replacement
2023	\$1,000,000	Pump Station Replacement

Source of Funding: Bond Issue \$1,160,000

Operating Budget Impact now or in future: Normal levels of preventative maintenance would continue with the newly constructed pump station. A reduction in reactive maintenance is expected, however additional preventative maintenance for the on-site generator would be required. No impact on the WPCD operating budget is anticipated.

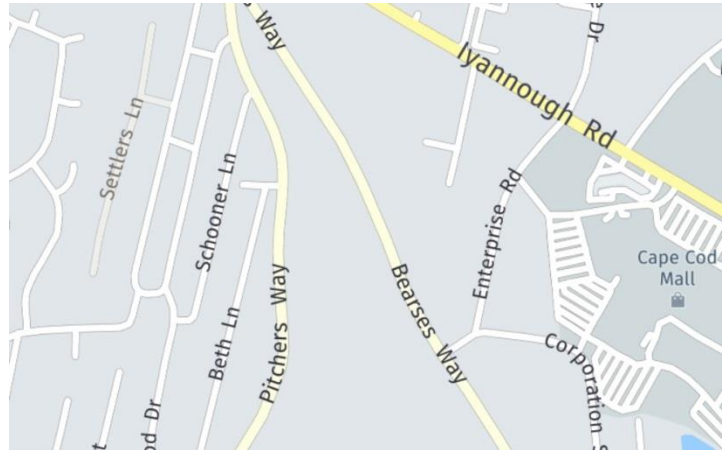


Rendezvous Lane Pump Station

Project Working Title: Bearse’s Way Vacuum Sewer Replacement

Project Location: Bearse’s Way, Between Pitchers Way and Enterprise Road

Project Description: This project includes the replacement of 2,380 feet of vacuum sewer on Bearse’s Way with traditional gravity sewer. This project also includes extending the future effluent disposal force main from the corner of Pitchers Way and Bearse’s Way to the WPCF property line. This project also carries funds to construct a new water connection to the WPCF. This project is to be carried out along with the upcoming Mass DOT Bearse’s Way Shared Use Path construction, allowing for savings on project costs.



Project Justification: This project provides the town with an opportunity to work in conjunction with the State’s Shared Use Path construction work and replace an extremely vulnerable component of the town’s sewer collection system at a reduced cost. Currently the town utilizes a vacuum sewer system to convey wastewater flows from Bearse’s Way and Route 28 to the Water Pollution Control Facility (WPCF). The vacuum sewer system has proven to be extremely vulnerable and expensive to maintain. Nearly 40% of WPCD emergency response calls are vacuum sewer related, despite the system conveying only 5% of the town’s wastewater flows. While proper applications exist for vacuum sewer, this system should not be utilized in an area where traditional gravity sewer pipes could be installed. There are two other vacuum sewer installations in Massachusetts and both have had catastrophic failures since installation. Provincetown has experienced two failures, which took place during the busy tourist season, with a 2009 failure leaving puddles of sewage scattered across town and sewage backups into the basements of businesses and residences over the Fourth of July weekend, and a 2017 failure requiring the town to line Commercial Street with portable toilets and restrict sewer usage. In February of 2015, the Plum Island area of Newburyport experienced a catastrophic failure of their vacuum sewer system in which 170 residences needed to be evacuated and placed in hotels at the town’s expense, and 70 residences reported sewage backups into their houses and properties. Barnstable has experienced several near misses in recent years that could have easily developed into full-scale system failures. While this project only replaces half of the town’s vacuum sewer network, this project is a step in the right direction to ensure that a similar catastrophic failure does not happen in Barnstable.

Impact of Denial/Postponement: If this project is left unfunded, the town will be taking an extraordinary risk by continuing to rely on a system that is likely to fail. The town would lose an opportunity to save on project costs by working in conjunction with the State Bearse’s Way Shared Use Path construction. The WPCD will continue to respond to excessive amounts of emergency calls and spend an unnecessary amount of time and money operating the vacuum sewer system. Hotels such as the Cape Coddier and Holiday Inn will remain at risk of losing service during a vacuum sewer failure.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		\$950,000
Project Contingency		\$150,000	-
All Other Cost		\$25,000	-
Total Project Cost		\$1,125,000	-

Basis for Cost Estimates: Department of Public Works In-House Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	\$1,125,000	Replace Bears’s Way vacuum sewer with gravity sewer, extend future effluent disposal force main to WPCF property line, construct a new town water connection to the WPCF

Source of Funding: Bond Issue \$1,125,000

Operating Budget Impact now or in future: It is estimated that this project would result in savings in staff overtime (\$5,000/year) and in sewer maintenance (\$5,000/year). This project will also free up person-hours that can be reallocated to other maintenance activities.



Vacuum Sewer Collection Tank



Vacuum Sewer Valve Pit



January 4, 2018 Flooding

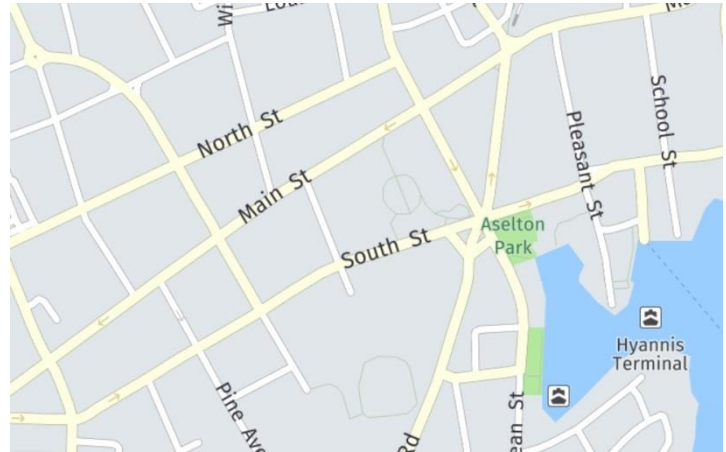


January 4 Station Flooding

Project Working Title: South Street Sewer Rehabilitation

Project Location: South Street, Hyannis, MA 02601

Project Description: This project funds the first two phases of construction for the South Street sewer rehabilitation project, which seeks to improve the condition and capacity of South Street sewers. Phase 1 involves the replacement of the existing clay gravity sewer main between High School Road and Old Colony Road with a new larger PVC sewer main and replacement of all sewer laterals in this area to the lot line. Phase 1 also includes the relocation of the Kalmus Beach Pump Station force main discharge in order to free up additional capacity on South Street.



Phase 2 of this project includes the replacement of the existing clay gravity sewer main between Old Colony Road and School Street with a new larger PVC sewer main and replacement of all laterals in this area to the lot line. Both phases carry funds for survey work, the replacement of disturbed water and drainage infrastructure, and a full width mill and overlay of the road surface. Phase 3 is anticipated to involve the relining of sewers between High School Road and Sea Street and will be carried out later.

Project Justification: The South Street sewer main is the most important sewer main in the Town of Barnstable as it conveys flows from the majority of downtown Hyannis to the Old Colony Pump Station, the largest sewer pump station in town. The sewers on South Street were installed in 1935 in three-foot sections of clay pipe. In recent years, these sewers have shown signs of deterioration and root intrusion, which could lead to pipe failure. Recent modeling efforts have indicated that South Street sewers between High School Road and Old Colony Road are at full capacity under peak flow conditions, and will be over capacity under future conditions. The sewers between Old Colony Road and School Street are approaching capacity and will be over capacity under future conditions. By carrying out this work, the Town will increase sewer capacity on South Street putting the Town in position to accommodate future growth and development for parcels feeding into South Street sewers, including areas identified for future sewer expansion.

Impact of Denial/Postponement: Denial of this project would delay any improvements to the South Street sewers, leaving the system at risk of pipe failure. Future development of downtown parcels may need to be put on hold until capacity issues are addressed.

Project Cost Estimates:	FY 2020	Future FY
Construction or Acquisition	\$3,125,000	\$325,000
Project Management	\$468,000	\$49,000
Project Contingency	\$156,000	\$16,000
All Other Cost	\$270,000	\$98,000
Total Project Cost	\$4,019,000	\$488,000

Basis for Cost Estimates: Department of Public Works Engineer's Cost Estimate

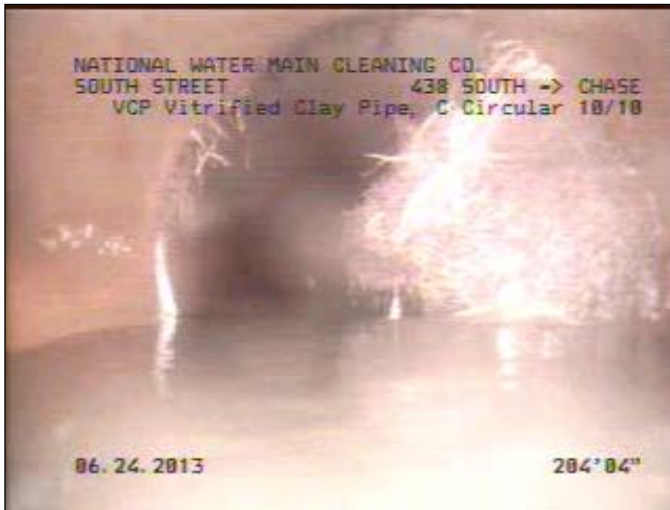
Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** 18

Cost/Description FY 2020 and Follow-On Years:

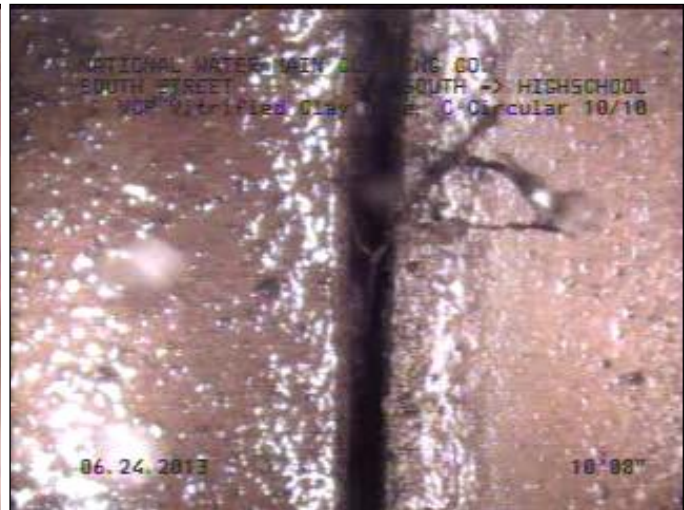
Fiscal Year	Cost	Project Description/Components
2020	\$4,019,000	Construction of improvements to South Street sewers
2021	-	-
2022	-	-
2023	-	-
2024	\$488,000	Relining of South Street sewers from Sea Street to High School Road

Source of Funding: Bond Issue \$4,019,000

Operating Budget Impact now or in future: Normal levels of preventative maintenance would continue with no impact on operating budget or staffing.



Root intrusion, South Street



Root intrusion, South Street



SewerCAD report showing South Street nearing capacity under current conditions (Orange = 15% capacity remaining)



SewerCAD report showing South Street exceeding capacity under future conditions. (Red= flows exceed pipe capacity)

Water Supply Enterprise Fund Projects

PROJECT: WS-20-1

DEPARTMENT PRIORITY: 1 of 6

2019-135

Project Working Title: Pipe Replacement and Upgrade Program

Project Location: The drinking water distribution system for Hyannis, Hyannis Port, and West Hyannis Port

Project Description: This is a continuation of a 30 year, phased, pipe replacement and upgrade program for the Hyannis Water System; as recommended by Weston & Sampson Engineering, Inc. in their April 2007 Master Plan.

Project Justification: It is important to implement a structured program to replace and upgrade the water pipes in the distribution system, some of which are over 100 years old. This program is in addition to the routine maintenance and repair program to be performed by the contracted water system operator. The proposed capital budget for this pipe replacement and upgrade program is \$1,050,000 per year, and includes a capially funded water works project manager to oversee and implement this program. This continuing project will ensure the long-term ability of the Hyannis Water System to provide sufficient drinking water and fire readiness protection for all its customers.

Impact of Denial/Postponement: Water distribution capacity will continue to be less reliable over time, which would limit water supply availability during emergencies, for existing customers, and preclude the ability to accommodate new economic growth.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$75,000	\$300,000
	Construction or Acquisition	\$975,000	\$3,900,000
	Total Project Cost	\$1,050,000	\$4,200,000

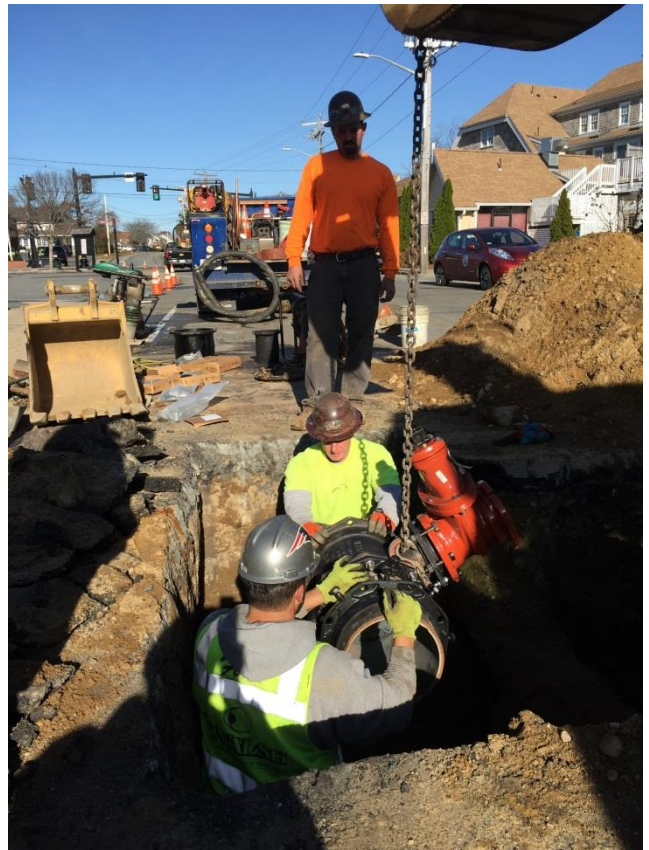
Basis for Cost Estimates: Previous Project Cost

Project Estimated Completion Date: 2020 **Design & Permit (months)** 4 **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$1,050,000	Design & Construction
2021	\$1,050,000	Design & Construction
2022	\$1,050,000	Design & Construction
2023	\$1,050,000	Design & Construction
2024	\$1,050,000	Design & Construction

Source of Funding: Bond Issue \$1,050,000

Operating Budget Impact now or in future: The upgrades will be to the existing distribution piping which are already maintained by the Public Works. Replacing these pipes will likely result in less maintenance cost and should not result in the need for additional personnel (The project manager, which is funded by this project, is an existing capially funded position).



Examples of Pipe Replacement

Project Working Title: Wells, Pump Stations, Treatment Plant Repair & Upgrade Program

Project Location: Existing wells, pumping stations, and treatment facilities Hyannis Water System

Project Description: This capital project is a continuation of the repairs and upgrades program started in FY 2007. With the exception of the Straightway Well #2, all of the wells were constructed in the early to mid-1970. The prior year's monies were used to install emergency generators, lighting, and fencing and implement pavement improvements. Starting in FY 2014 the Hyannis Water Board approved the recommendation to implement a structured rehabilitation program dealing with major facility components needing upgrades or replacements. These facility components and cost allocations are \$45,000 for buildings, \$40,000 for process control equipment, \$40,000 for safety and security components, and \$45,000 for electrical equipment. Project management and oversight will be provided by a project engineer, partially funded out of this program in the amount of \$30,000.

Project Justification: It is appropriate to implement a structured program to repair and upgrade the wells, pump stations and treatment facilities as many of these components are approximately 40 years old. This program is in addition to, and may supplement, the routine maintenance program to be performed by the contracted water system operator.

Impact of Denial/Postponement: Water supply and pumping capacity will become less reliable over time, thus limiting water supply availability for all customers and during emergencies.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		\$20,000
Construction or Acquisition		\$141,500	\$566,000
Project Management		\$30,000	\$120,000
Project Contingency		\$8,500	\$34,000
Total Project Cost		\$200,000	\$800,000

Basis for Cost Estimates: Previous years' experience

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 10

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$200,000	Design & Construction
2021	\$200,000	Design & Construction
2022	\$200,000	Design & Construction
2023	\$200,000	Design & Construction
2024	\$200,000	Design & Construction

Source of Funding: Enterprise Fund Reserves \$200,000

Operating Budget Impact now or in future: The upgrades will be to the existing well buildings, treatment, and other facilities, which are currently maintained by the Public Works. Some operating budget savings may be realized by replacing existing equipment with more energy efficient equipment, and a reduction in maintenance cost.



Examples of Pumps and Valves

Project Working Title: Valve Maintenance Trailer System

Project Location: The drinking water distribution system for Hyannis, Hyannis Port, and West Hyannis Port

Project Description: To purchase a valve maintenance trailer system.

Project Justification: The valve maintenance program currently utilizes a tow-behind construction compressor to blow debris out of the valve boxes and often takes two people to exercise the valves. A valve maintenance trailer system is designed to efficiently and effectively conduct the valve-exercising program while protecting Hyannis Water System personnel by using vacuum suction and hydraulic power to turn valves. Additional useful features are the high volume-dewatering pump for large water main breaks and the pressure washer.

Impact of Denial/Postponement: The denial or postponement of this project means the valve maintenance program will not be conducted as safe, efficient, and effective as possible.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$75,000	-
	Total Project Cost	\$75,000	-

Basis for Cost Estimates: Previous year's preliminary design report experience

Project Estimated Completion Date: 2020 **Design & Permit (months)** 12 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$75,000	Quotation and Purchase

Source of Funding: Enterprise Fund Reserves \$75,000

Operating Budget Impact now or in future: The project is a planning project. It has nothing to do with the operating budget.

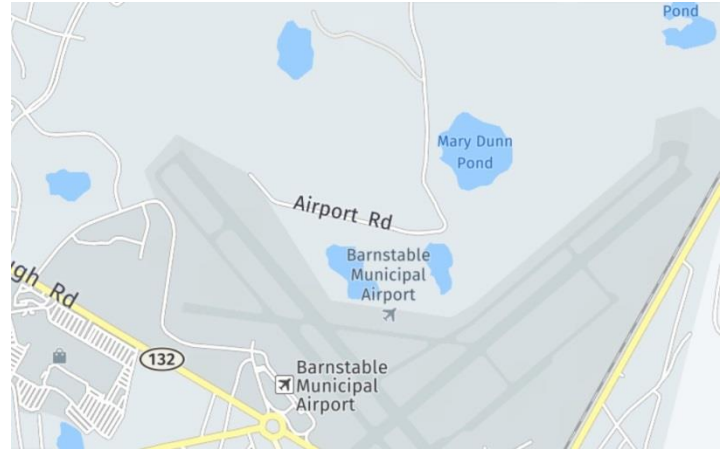


Example of a Valve Maintenance Trailer System

Project Working Title: Airport & Mary Dunn Wells, Treatment options evaluation, recommendations and preliminary design report.

Project Location: Airport & Mary Dunn wells, Mary Dunn Road, Hyannis

Project Description: This project will evaluate all options to maximize water production of existing wells in the Mary Dunn area, recommend needed water treatment to deliver high quality drinking water and treatment plant configurations to minimize the need for new wells.



Project Justification: This capital project is a result of the issues and recommendations discussed in the new source alternatives evaluation report produced by Weston & Sampson in 2018. Currently the Airport well's use is minimized due to high iron in the source water, which is also an issue with other wells in that area. The Mary Dunn Treatment Plant is treating all water from the five (5) wells in the area and by doing so is the largest treatment plant of the Hyannis Water System. DEP regulations require the water system to be able to supply maximum water demand with the Mary Dunn Treatment Plant off line, which has consequences because of the amount of new wells needed. This project will evaluate all options; provide recommendations, budgets, and time lines in a preliminary design report.

Impact of Denial/Postponement: The denial or postponement of this project will impair the long-term planning effort of the Hyannis Water System and obscure a clear decision-making process path relative to the acquisition of needed new wells, capital planning, and rate setting efforts.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$120,000	-
	Total Project Cost	\$120,000	-

Basis for Cost Estimates: Previous year's preliminary design report experience

Project Estimated Completion Date: 2020 **Design & Permit (months)** 12 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$120,000	Design

Source of Funding: Enterprise Fund Reserves \$120,000

Operating Budget Impact now or in future: The project is a planning project. It has nothing to do with the operating budget.

Project Working Title: Hyannis Port Wells (Straightway & Simmons Pond) Treatment Options Evaluation & Design

Project Location: Hyannis Port, Simmons Pond, and Straightway wells, Smith Street and Straightway, West Hyannis Port



Project Description: This project will evaluate all options to maximize water production of existing wells in the Hyannis Port area, recommend needed water treatment to deliver high quality drinking water and treatment plant configurations to minimize the need for new wells.

Project Justification: This capital project is a result of the issues and recommendations discussed in the new source alternatives evaluation report produced by Weston & Sampson in 2018. Currently the Straightway 2 well’s use is minimized due to high manganese, (1, 4) PFAS, and Dioxane in the source water, which is also an issue to a lesser extent with other wells in that area. The Hyannis Port and Straightway Treatment Plants are treating all water from the four (4) wells in the area. This project will evaluate all options; provide recommendations, budgets, and time lines in a preliminary design report.

Impact of Denial/Postponement: The denial or postponement of this project will impair the long-term planning effort of the Hyannis Water System and obscure a clear decision-making process path relative to the acquisition of needed new wells, capital planning, and rate setting efforts.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$100,000	-
	Total Project Cost	\$100,000	-

Basis for Cost Estimates: Previous year’s preliminary design report experience

Project Estimated Completion Date: 2020 **Design & Permit (months)** 12 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$100,000	Design

Source of Funding: Enterprise Fund Reserves \$100,000

Operating Budget Impact now or in future: The project is a planning project. It has nothing to do with the operating budget.

Solid Waste Enterprise Fund Projects

PROJECT: SW-20-10

DEPARTMENT PRIORITY: 10 of 10

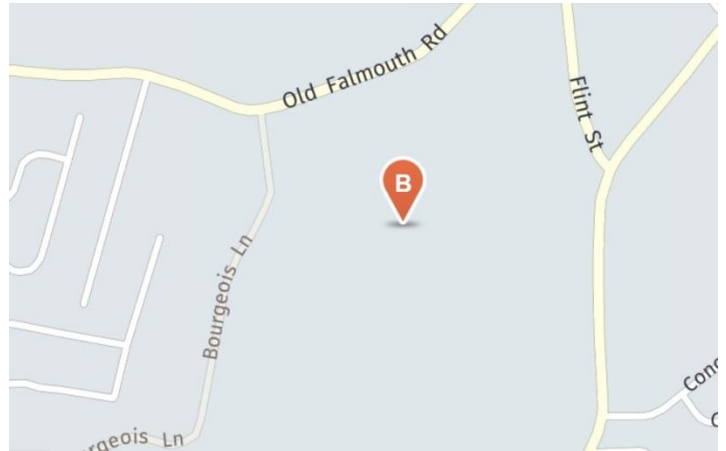
2019-139

Project Working Title: Repair and upgrade of five (5) MSW compactor units

Project Location: 45 Flint Street, Marstons Mills, MA 02648

Project Description: Repair, maintenance and upgrading of existing five (5) Municipal Solid Waste (MSW) compactor units at the Transfer Station.

Project Justification: The MSW compactor units are in need of serious work. The rams are running on top of the cylinders and have worn rounded grooves in the support channels on the rams, the wear pads have worn, and some are missing, and need replacement. The doghouses have rusted and rotted and will require new plates and welding.



Impact of Denial/Postponement: Denial of the request could result in costly repairs and replacement of existing equipment. If the compactors continue to operate with repairs, it will result in a major failure of function. This failure will result in an increase in the cost of repair or possibly having to replace the entire unit for a far greater cost.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$60,000	-
	Total Project Cost	\$60,000	-

Basis for Cost Estimates: Quote received from vendor

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 2

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$60,000	Repair and upgrade of five (5) MSW compactor units

Source of Funding: Enterprise Fund Reserves \$60,000

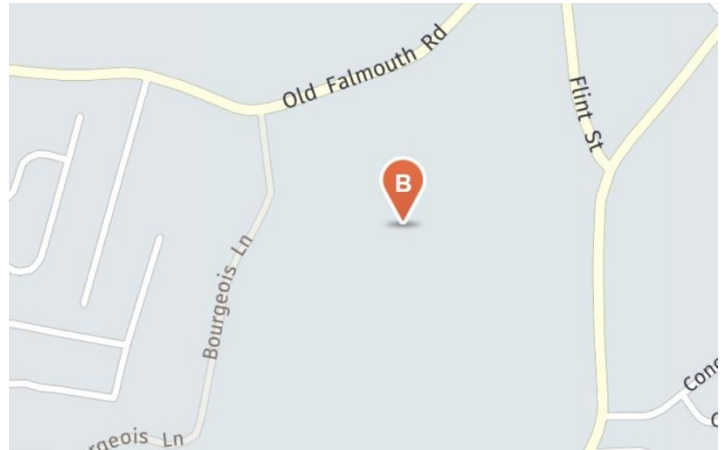
Operating Budget Impact now or in future: Repair and upgrade of five (5) Municipal Solid Waste compactor units

Project Working Title: All-Terrain Litter Vacuum Replacement

Project Location: 45 Flint Street, Marstons Mills, MA 02648

Project Description: This project request is for replacement of All Terrain Litter Vacuum (ATLV) unit, which is in need of major repairs and is not currently working.

Project Justification: The current ATLV has experienced a serious breakdown and has not been operational due to the cost of the repairs. The ATLV is the main piece of equipment used to pick up the large amounts of litter at the Transfer Station. This machine is currently not operational due to a failure of the engine. The repairs may not be worth the effort due to the age and wear and tear on the machine.



Impact of Denial/Postponement: Denial of this request will result in the litter having to be picked up by hand by the employees, which takes employees away from other higher priority functions. Additionally, it takes significantly longer and leads to excessive labor expenses. The result will be inefficiency and ineffectiveness of operations at the Transfer Station. The Transfer Station will not be as visually appealing to the customer due to the litter that occurs at the facility.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		\$50,000
Total Project Cost		\$50,000	-

Basis for Cost Estimates: Costs based on previous similar equipment purchases and quotes from Department of Public Works Fleet Maintenance.

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$50,000	Purchase of new All-Terrain Litter Vacuum

Source of Funding: Enterprise Fund Reserves \$50,000

Operating Budget Impact now or in future: Either additional funding to the operating budget or use of Solid Waste cash reserves will be required. The purchase of any new equipment for Solid Waste will have an impact on user fees.



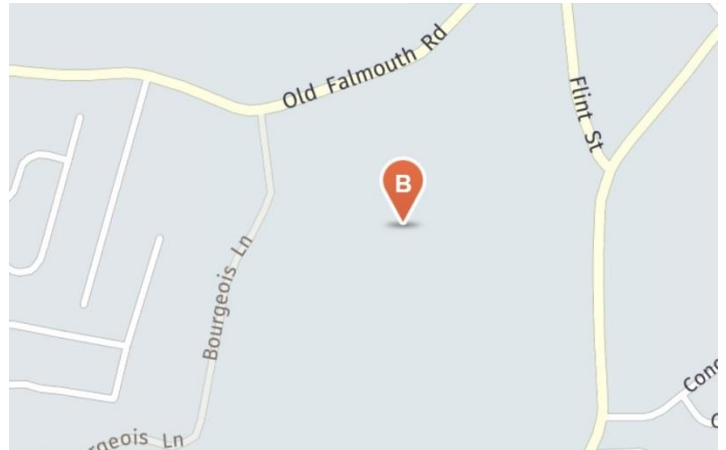
Existing All-Terrain Litter Vacuum Needing Replacement

Project Working Title: Kubota Rough Terrain Vehicle (RTVs) Replacement

Project Location: 45 Flint Street, Marstons Mills, MA 02648

Project Description: This project request is for replacement of one of two 2014 model Kubota Rough Terrain Vehicle (RTVs).

Project Justification: The RTVs are used to transport people and small equipment around to different locations on the 75+ acres of the Transfer Station. The current machine is beginning to reach the end of its useful life.



Impact of Denial/Postponement: Denial of the request will affect the effectiveness of our operations. Being able to move quickly from one side of the facility to the other is vital to our operational effectiveness. The RTV is an important piece of equipment during winter months to keep the facility open and safe for the sticker holders.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$30,000	-
	Total Project Cost	\$30,000	-

Basis for Cost Estimates: Prior costs for similar equipment and quotes received

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 2

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$30,000	Purchase of new Kubota Rough Terrain Vehicle (RTVs)

Source of Funding: Enterprise Fund Reserves \$30,000

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget.



2014 Model Kubota Rough Terrain Vehicle Needing Replacement

Project Working Title: Roll Off Trailer Replacement

Project Location: 45 Flint Street, Marstons Mills, MA 02648

Project Description: This project request is for replacement of 1991 roll off container trailer with a new trailer.

Project Justification: The roll off container trailer is used primarily for hauling metal over the road to a vendor. It hauls material at least 2 days per week, year round, to vendors in Southeast Massachusetts.

Impact of Denial/Postponement: Denial of this request will result in operational delays and increased repair costs to the current trailer. The 1991 trailer has more than exceeded its useful life and it has reached the point where mechanical failure repairs are costly and parts are difficult to find.



Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$100,000	-
	Total Project Cost	\$100,000	-

Basis for Cost Estimates: Costs based on previous similar equipment purchases and quotes from Department of Public Works Fleet Maintenance.

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$100,000	Purchase of a new Roll Off Trailer

Source of Funding: Enterprise Fund Reserves \$100,000

Operating Budget Impact now or in future: Either additional funding to the operating budget or use of Solid Waste cash reserves will be required. The purchase of any new equipment for Solid Waste will have an impact of user fees.



Existing Roll Off Trailer Needing Replacement

Comprehensive Water Management & Private Way Improvement Fund Projects

PROJECT: DPW-20-2

DEPARTMENT PRIORITY: 2 of 5

2019-142

Project Working Title: Marstons Mills School Pump Station and associated RT 28 Collection System Preliminary Design

Project Location: West Villages and United Elementary schools; 730/760 Osterville West Barnstable Road, Marstons Mills

Project Description: The proposed project would utilize an existing footprint of the Marstons Mills Wastewater Treatment Plant (MMWWTP) to convert it to a municipal wastewater pump station. This station would be designed to sewer the nearby properties and accommodate future sewerage needs in the area. An intermediate pump station would also be included along Route 28 to convey the wastewater along Route 28 from this converted pump station to the Water Pollution Control Facility (WPCF) located at 617 Bearse’s Way for treatment and disposal.

Project Justification: The MMWWTP is fully allocated at 42,900 gallons per day (gpd), and beyond its 20-year design life. Additionally, the ability to expand the facility is limited by physical spatial constraints to approximately 113,000 gallons per day; and that expansion would require disposal into the nitrogen sensitive Three Bays watershed and drinking well protection zones. Despite this, there is increasing pressure from developers and others in the area in search of wastewater solutions to be able to connect into the facility. Public Works conducted an evaluation of the facility and estimated the costs to replace the facility at \$16,000,000. Alternatively, the cost to replace the facility with a pump station, install the needed infrastructure to convey that pump stations flows along Route 28 back to the WPCF, and to sewer RT 28 in the process was estimated at \$19,000,000; and if the sewerage along RT 28 was paid for by others, \$15,500,000. Converting this facility to a pump provides significant benefits including:

- a) The pump provides a wastewater solution to this nitrogen sensitive region of Town, and RT 28 to Osterville. In doing so, desired development near the new pump stations, or along RT 28, would have wastewater impediments removed.
- b) Provides a major portion of the ultimately required infrastructure needed to address the nutrient, and other, wastewater issues in the Three Bays Watershed.
- c) Removing the MMWWTP’s discharge from the Centerville River Watershed helps the Town reach its nitrogen goals in that watershed, and saves money as doing so avoids required offset sewerage of approximately 33 homes (estimated cost assuming dense development on ¼ acres lots ~ \$2,500,000).
- d) Any flows captured by the system from existing properties would be nitrogen reductions in the watershed, again helping the town toward its nutrient removal goals.
- e) Those flows from new properties will be properly addressed (all new flows must be removed to 100% in both watersheds) and no longer be a problem from a nutrient perspective.

Impact of Denial/Postponement: The town would continue to invest money into a treatment system that has reached its expected life cycle. Denial also does not provide the benefits to the watershed noted above in project justification.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$612,000	\$1,300,000
	Total Project Cost	\$612,000	\$1,300,000

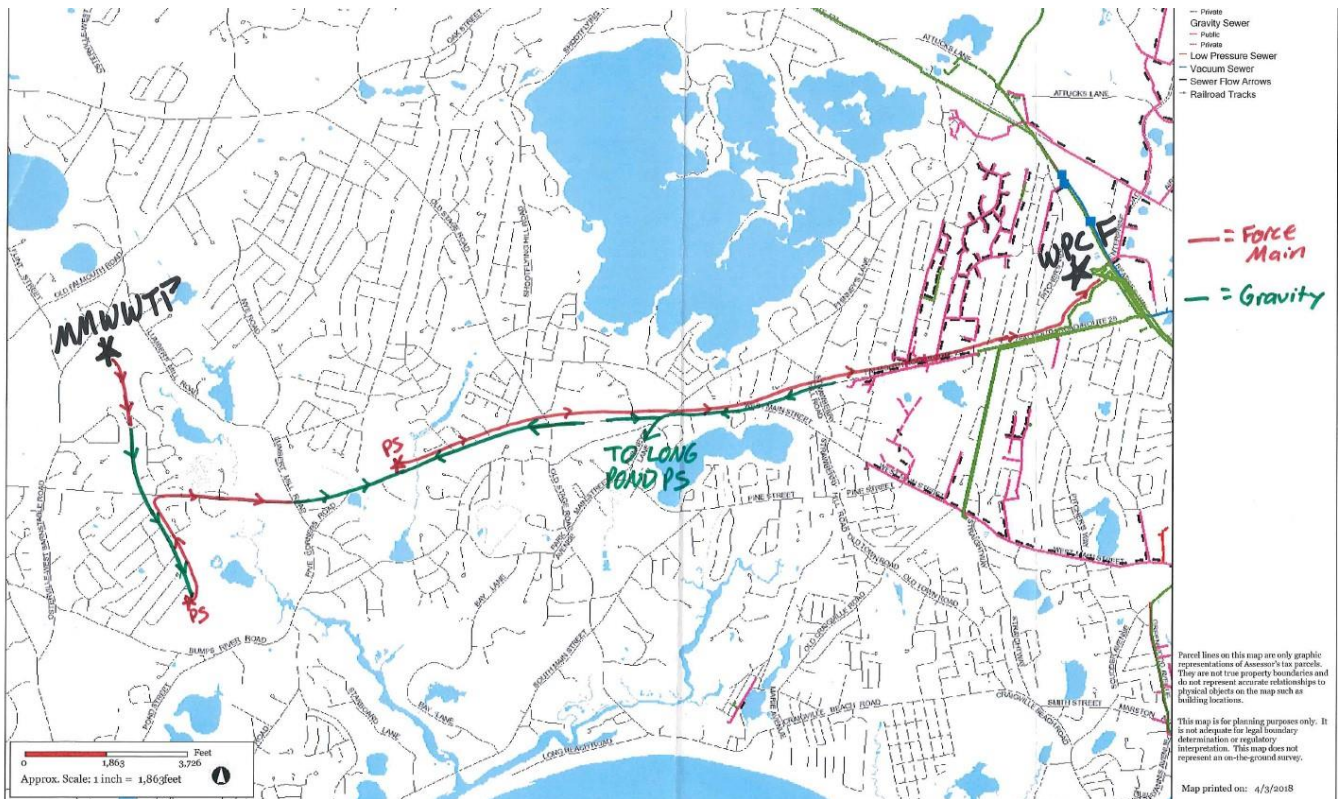
Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	\$612,000	Preliminary Design
2021	-	-
2022	\$1,300,000	Design & Permitting

Source of Funding: Fund Reserves \$612,000

Operating Budget Impact now or in future: In eliminating the MMWWTP and replacing it with two pump stations delivering sewage to the Hyannis WPCF, there would be a \$35,700 reduction in operating costs. However, there would also be a corresponding reduction in revenue of \$37,800 due to those ratepayers currently connected to the MMWWTP paying the WPCF rates vs. the MMWWTP rates (this does not account for additional revenue of new ratepayers in that area or along RT 28). The overall change would have a negligible impact on the WPCD's bottom line.



Masteron Mills Waste Water Plant Location and Collection System Preliminary Designs

Project Working Title: Long Pond Area Sewer Expansion

Project Location: Long Pond Area, Centerville

Project Description: This request is for final design and permitting to expand sewer to south of Route 28 around Long Pond in Centerville. It will include gravity sewer, low-pressure sewer, and a submersible pump station.

Project Justification: Businesses and residences in this area are completely dependent on on-site solutions to address their wastewater, which has had a deleterious effect on Long Pond and the Centerville River. As a result, the Water Resource Advisory Committee (WRAC) has recommended this area to be included in Phase I of its Wastewater Management Plan.

Impact of Denial/Postponement: Homes and businesses will continue to have to rely on on-site wastewater solutions. Long Pond and Centerville River will continue to receive unhealthy levels of nutrients. The town ultimately may find that it is forced into this work by regulators due to the Centerville River Total Maximum Daily Loads (TMDL).

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$938,000	-
	Construction or Acquisition	-	\$13,704,000
	Project Management	-	\$1,340,000
	Project Contingency	-	\$672,000
	All Other Cost	-	\$670,000
	Total Project Cost	\$938,000	\$16,386,000

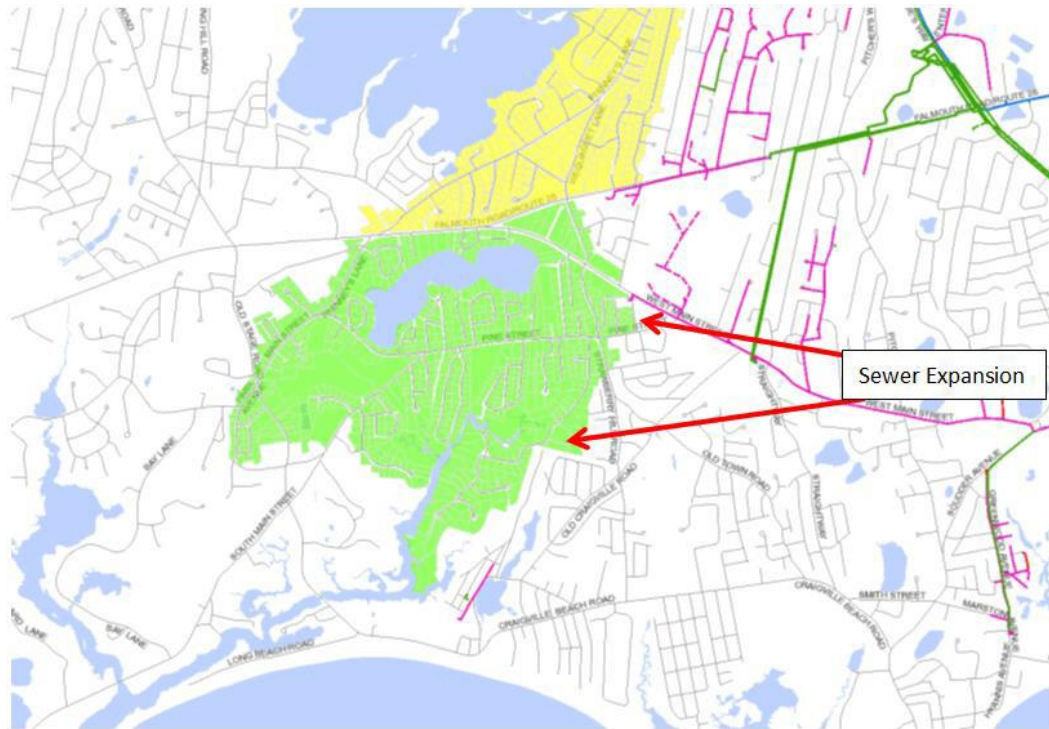
Basis for Cost Estimates: Department of Public Works Engineer Cost Estimates

Project Estimated Completion Date: 2025 **Design & Permit (months)** 18 **Construction (months)** 24+

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$938,000	Design & Permitting
2021	-	-
2022	-	-
2023	\$16,386,000	Construction & Construction Management

Source of Funding: Fund Reserves \$938,000

Operating Budget Impact now or in future: 1.3 FTE, Grade 8 Operator.



Sewer Expansion Project Location

Project Working Title: Marstons Mills River Treatment System

Project Location: Marstons Mills River

Project Description: This project will continue the town’s efforts to enhance the natural nitrogen treatment abilities of the Marstons Mills River from its cranberry bogs in its upper reaches to where it discharges into North Bay by using a series of nontraditional projects in a way that acts as a comprehensive treatment system.



The first project is to dredge Mill Pond back to its original depths (sand layer) and perimeter. It has been estimated this would require the removal of up to 60,000 cubic yards of material; and pond depths would be restored to approximately 8 feet in the deepest areas.

Project Justification: Mill Pond has progressively been filling with silt and debris since its creation, to the point that it is in danger of becoming a bog with a stream meandering through it. Its nitrogen removal capacity has been on the decline from a measured 20% removal to 10% removal during the past 20 years. By comparison, healthy ponds have exhibited 30% to 50% nitrogen removal. Assuming that the nitrogen attenuation capacity of Mill Pond could be restored to 50% removal, it has been estimated it could remove in excess of 2,200 kg/year of additional nitrogen from the downstream system. This would equal to approximately half of the nitrogen that is required to be removed from Prince Cove, as an example.

Impact of Denial/Postponement: The town would have to rely on purely traditional means to address its nitrogen removal requirements.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$612,000	TBD
	Total Project Cost	\$612,000	TBD

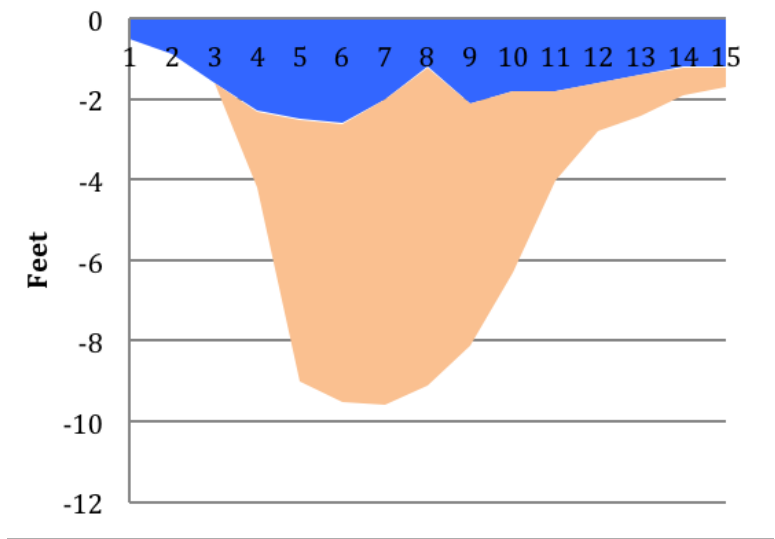
Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2022 **Design & Permit (months)** 24 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$612,000	Design and Permitting Mill Pond
2021	TBD	Master Plan Development
2022	TBD	Dredging Construction Mill Pond
2023	TBD	Design Next Project(s)
2024	TBD	Construction Next Project(s)

Source of Funding: Fund Reserves \$612,000

Operating Budget Impact now or in future: Once dredged, it is not expected that the Town would incur any additional regular maintenance items.



Mill Pond Map, Photo's, and Deposit Depth Chart

Project Working Title: Phinney's Lane Sewer Expansion

Project Location: Phinney's Lane, Hyannis - Centerville

Project Description: This project request is for final design and permitting to expand sewer to north of Route 28 along Phinney's Lane and the Wequaquet Lane area in Centerville to approximately Old Strawberry Hill Road. It will include gravity sewer, and a relatively small amount of low-pressure sewer. As envisioned, the project requires a submersible pump station be located in the Long Pond Sewer expansion area. To avoid redundancy, the cost for this pump station is included in the Long Pond Area Sewer Expansion project cost estimate, and not this project.

Project Justification: Residences in this area are completely dependent on on-site solutions to address their wastewater, which has had a negative effect on Lake Wequaquet, and to a lesser extent the Centerville River. As a result, the Water Resource Advisory Committee (WRAC) included this work in Phase II of their recommended Wastewater Management Plan.

Impact of Denial/Postponement: If this project is not approved, homes in this area will have to continue to rely on on-site wastewater systems. As a result, Lake Wequaquet will continue to receive nutrients at higher than recommended levels.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		\$735,000
Construction or Acquisition		-	\$10,735,000
Project Management		-	\$1,050,000
Project Contingency		-	\$526,000
All Other Cost		-	\$530,000
Total Project Cost		\$735,000	\$12,841,000

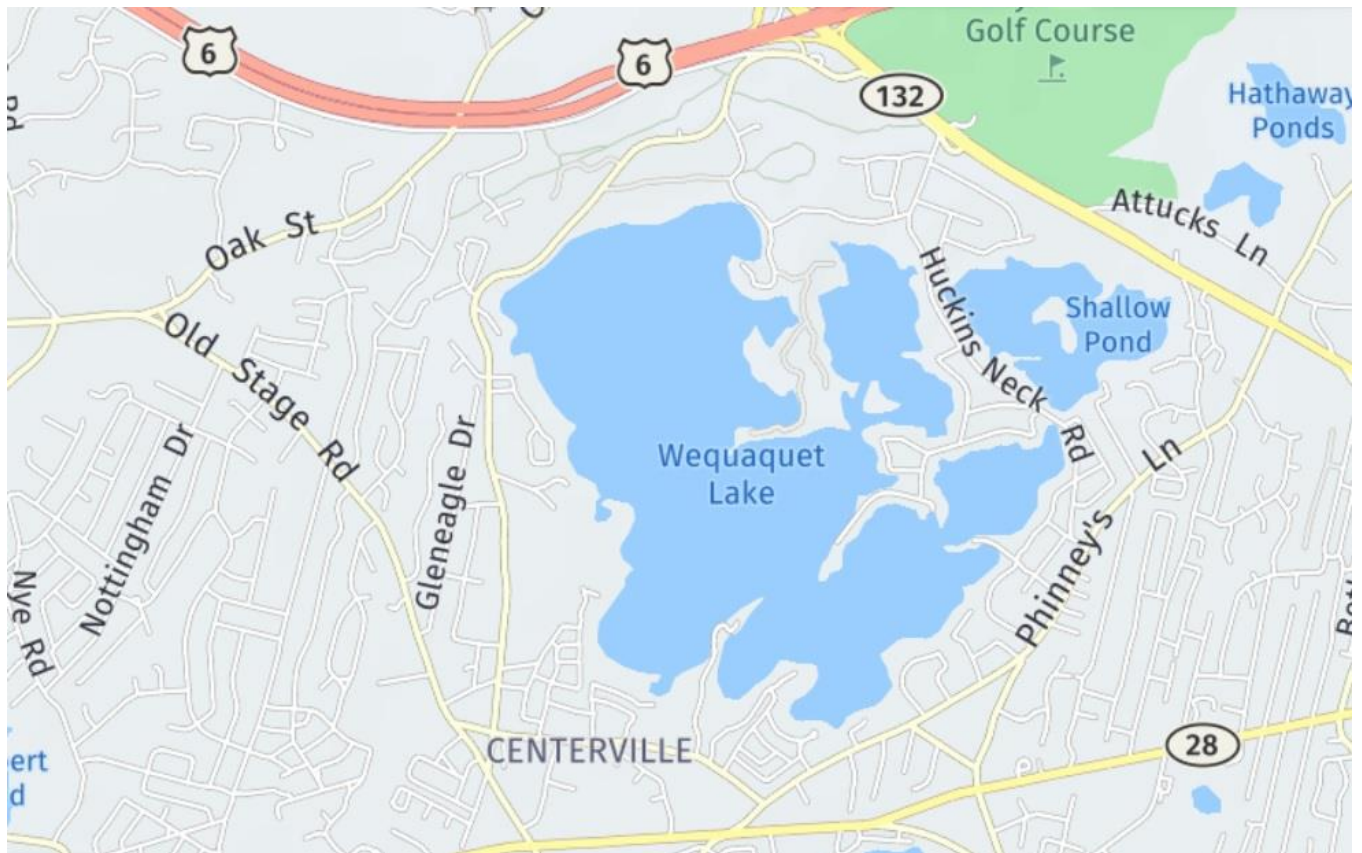
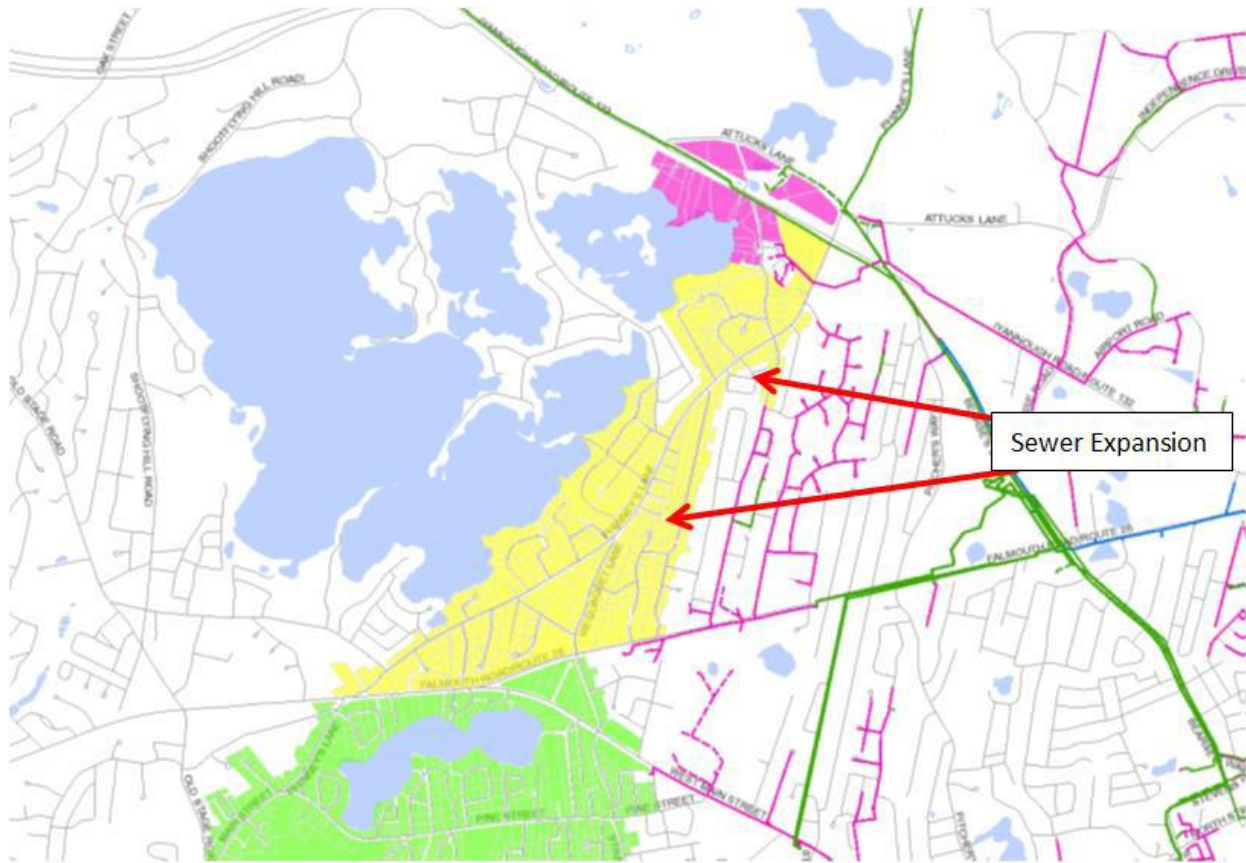
Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2025 **Design & Permit (months)** 18 **Construction (months)** 24+

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$735,000	Design & Permitting
2021	-	-
2022	-	-
2023	\$12,841,000	Construction & Construction Management

Source of Funding: Fund Reserves \$735,000

Operating Budget Impact now or in future: 0.71 FTE, Grade 8 Operator.



Phinney's Lane Sewer Expansion and Map

Community Services General Fund Projects

PROJECT: CSD-20-7

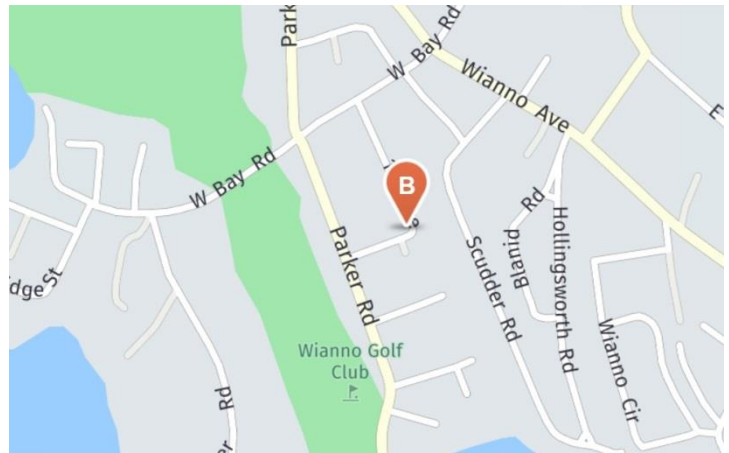
DEPARTMENT PRIORITY: 7 of 15

2019-146

Project Working Title: Osterville Recreation Building Design & Construction

Project Location: 93 First Avenue, Osterville, MA 02655

Project Description: Construction / restoration of new softball field and outdoor street hockey/basketball court. Future funding will construct the new recreation building, stage, public restrooms, additional parking, playground, and multipurpose fields.



Project Justification: The existing recreation building and site elements have reached the end of their useful life and are beyond repair. Site and new building plans have been developed through schematic design and approved by the Osterville Civic Association. Funds were appropriated in FY17 for demolition of the Bay School and recreation building. The Bay School building has been demolished and two new tennis courts constructed in its location. This request continues the process of restoring the site and constructing a new facility.

Impact of Denial/Postponement: Expired recreational elements will continue to be unusable. Deterioration of the existing recreation building will continue.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$675,750	\$7,044,490
	Project Management	\$33,788	-
	Project Contingency	\$67,575	\$567,571
	All Other Costs	\$20,000	-
	Total Project Cost	\$797,113	\$7,612,061

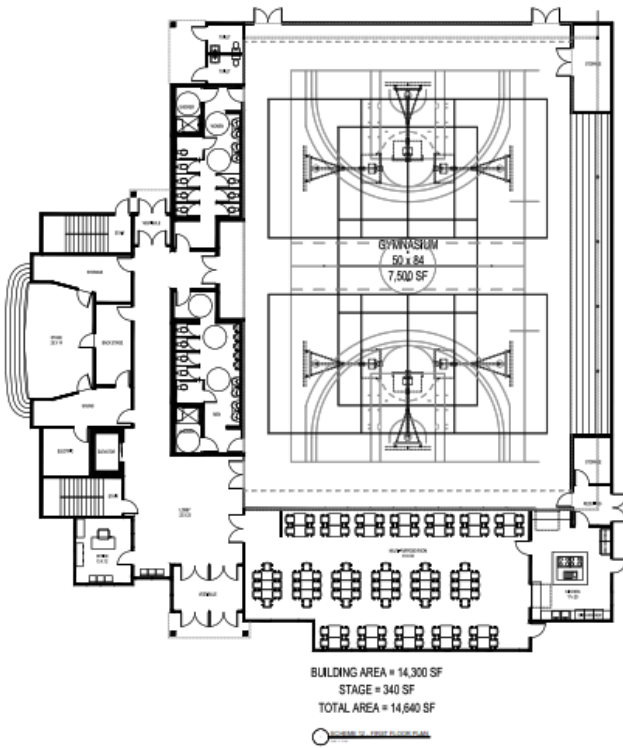
Basis for Cost Estimates: In-House and Professional Estimates

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 10

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$797,113	Construction – Softball Field, Associated Site Improvements
2021	-	-
2022	\$7,612,061	Construction – Recreation Building, Fields, Playground, Parking

Source of Funding: Bond Issue \$797,000

Operating Budget Impact now or in future: N/A



Osterville Recreation Building & Design, and Current Condition

Public Works General Fund Projects

PROJECT: DPW-20-37

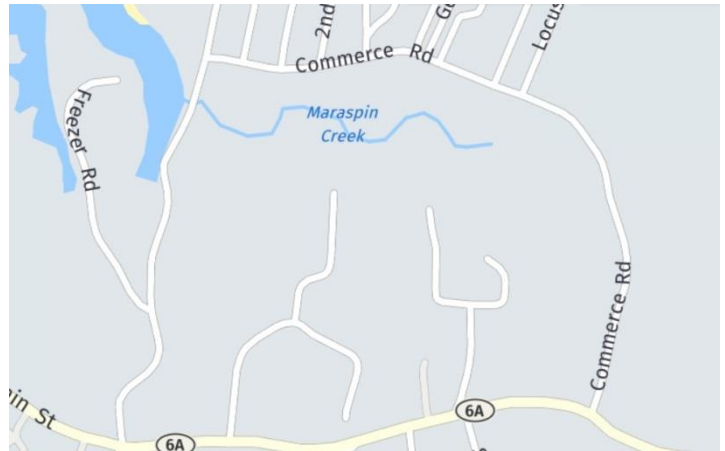
DEPARTMENT PRIORITY: 37 of 46

2019-147

Project Working Title: Commerce Road Improvements

Project Location: Commerce Road, Barnstable Village, MA 02630

Project Description: This project is for design and permitting of solutions recommended by a study conducted by the Woods Hole Group, looking at ways to mitigate coastal flooding associated with severe tidal events and storms. Additionally, it is for the design and permitting of solutions looking at neighborhood egress, and ways to increase the ability of residents to evacuate the neighborhood when flooding does occur. The report's findings are still being completed as of this writing. It is expected that measures such as, but not limited to, replacing the Maraspin Creek culvert and raising the road at that location, installing berms and/or raising the road along other sections of Commerce Road, installing a tide gate at the Maraspin Creek Bridge, and/or other measures will be included in it..



Project Justification: Commerce Road, like many coastal roads/neighborhoods, has experienced an increase in significant flooding over the past three years. This has led to residents being trapped in their homes due to substantial road flooding, and emergency services workers having to make rescues during the heights of the storms. Based on predictions concerning sea level rise, it is expected that these types of incidents will only increase with time. The recommendations of the Woods Hole Group, and the DPW Engineering section, included in this capital plan will provide some relief concerning egress and the safety issues associated with flooding, but will not prevent flooding from happening or the associated property damage.

Impact of Denial/Postponement: Dangerous, potentially life-threatening conditions will occur with increasing frequency.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$300,000	-
	Construction or Acquisition	-	\$3,000,000
	Total Project Cost	\$300,000	\$3,000,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2024 **Design & Permit (months)** 24 **Construction (months)** 24

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$300,000	Design & Permitting
2021	-	
2022	-	-
2023	\$3,000,000	Construction & Construction Management

Source of Funding: Bond Issue \$300,000

Operating Budget Impact now or in future: TBD

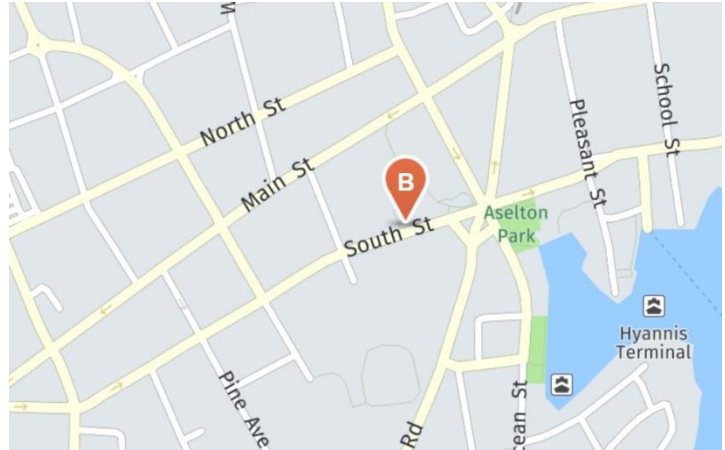


Commercial Road

Project Working Title: School Administration Building Mechanical Cooling

Project Location: 230 South Street, Hyannis, MA 02601

Project Description: Phase II construction funding for School Administration Building system upgrades, including:



- Mechanical/Headend upgrades at Lower Level,
- Emergency generator, cooling plant, sprinkler and hot water system equipment replacement,
- Renovation and expansion of the existing basement mechanical room and egress paths to accommodate a replacement emergency generator and replacement of the 30 ton cooling plant including the head-end upgrade of the sprinkler service,
- Removal of the old concrete mounting pad,
- Replacement of the existing electric hot water heater with a new gas fired hot water heater and thermostatic mixing valve,
- Relocation of the gas service from the electric room into the mechanical room to resolve a major code violation,
- Installation of new fire rated walls and ceilings throughout the basement level, including rated door improvements along the access ways. This is a public safety issue needing attention,
- Limited first floor interior reorganization of space (HR), new finishes, ADA access rest room improvements and new lighting; and
- Mechanical/electrical service distribution, replacement, and energy conservation improvements throughout including new electrical service, HVAC controls, ventilation, communications, plumbing and related HVAC improvements, and new elevator.

Project Justification: The Historic Building Study reported significant deficiencies in this building. The exterior restoration work was previously completed utilizing part capital project and Community Preservation Funds. Outdated mechanical work remains to be completed for efficiency of operation. With this work, the building will be fully renovated with some limited work remaining for the second floor school department office upgrades.

Impact of Denial/Postponement: The building condition study indicates the need for significant head-end mechanical and accessibility improvements. If left as is, further deterioration will occur with increased scope of mechanical repairs resulting in additional inflation and restoration cost.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		\$88,022
Construction or Acquisition		\$800,206	\$1,442,139
Project Management		\$27,749	\$50,010
Project Contingency		\$80,020	\$144,214
Total Project Cost		\$996,000	\$1,795,000

Basis for Cost Estimates: Department of Public Works Cost Estimate

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	\$996,000	Safety Items
2021	\$1,065,000	HVAC
2022	\$730,000	Generator

Source of Funding: Bond Issue \$996,000

Operating Budget Impact now or in future: This project will Improve energy efficiency for lighting and HVAC.

Marine & Environmental Affairs General Fund Projects

PROJECT: MEA-20-11

DEPARTMENT PRIORITY: 11 of 12

2019-149

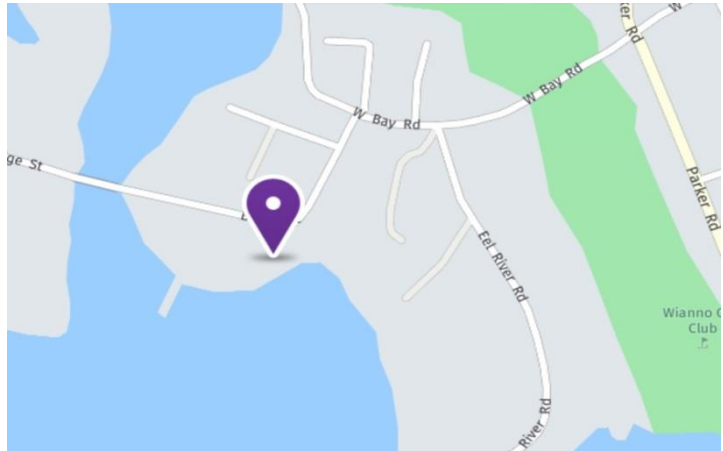
Project Working Title: Bridge Street Pier

Project Location: 71 Bridge Street, Osterville, MA, 02655

Project Description: This project would fund the design and permitting required for installation of a new municipal pier to be used by public safety entities and other municipal departments to provide convenient and rapid access to West Bay.

Project Justification: This need has been identified as a deficiency for this area for emergency response.

Impact of Denial/Postponement: Public safety vessels would not be able to dock at this location.



Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$125,000	-
	Total Project Cost	\$125,000	TBD

Basis for Cost Estimates: Public Works Engineering Dept.

Project Estimated Completion Date: 2021 **Design & Permit (months)** 18 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$125,000	Design & Permitting

Source of Funding: Capital Trust Fund Reserves \$125,000

Operating Budget Impact now or in future: N/A



Arial View of Pier Placement

Project Working Title: Cotuit Town Dock Extension

Project Location: 37 Oyster Place Road, Cotuit, MA

Project Description: This project would fund the design and permitting required to extend the existing dock at the Cotuit Town Dock. This extension would allow public safety vessel to utilize the dock for emergency response.

Project Justification: This need has been identified as a deficiency for this area for emergency response.

Impact of Denial/Postponement: Public safety vessels would not be able to dock at this location.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$75,000	-
	Total Project Cost	\$75,000	-

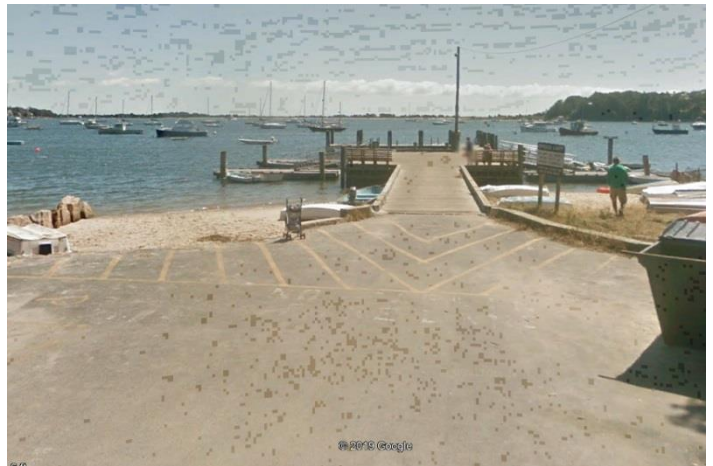
Basis for Cost Estimates: Public Works Engineering Dept.

Project Estimated Completion Date: 2021 **Design & Permit (months)** 18 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$75,000	Design & Permitting

Source of Funding: Capital Trust Fund Reserves \$75,000

Operating Budget Impact now or in future:



Cotuit Dock

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PART VI –DETAILED DESCRIPTIONS OF DEFERRED PROJECTS

Enterprise Fund Projects

Airport Enterprise Fund

PROJECT: AIR-20-11

DEPARTMENT PRIORITY: 11 of 29

Project Working Title: Repair Mary Dunn Way from Gate Mike to the limit of future growth in this area on the East Ramp, including drainage repairs and utilities (Phase II)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: This proposed two-phased project will provide an improved Airport Access Road on the East side of the airfield and will respond to a number of actions and objectives to meet the target goals.

Phase II (the subject of this project) will include the area from Gate Mike (M) to the limit of future growth on the East Ramp. This stretch of road is truly an airport access road that is an unimproved unpaved internal (inside the secure fence) access road with potholes and narrow lanes. The unimproved dirt road is currently covered with millings from rubblization due to past pavement projects used as a base.

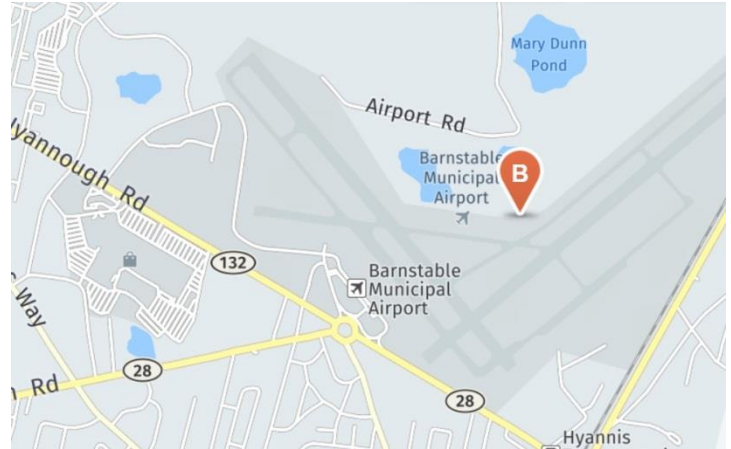
This proposed project (Phase II) will include the final extension of Mary Dunn Road and include a new paved surface, security fence, drainage improvements, and the addition of utilities including sanitary sewer. Phase I is to improve the existing paved road as well as incorporate the extension of existing utilities including the addition of sanitary sewer to serve potential future hangar buildings as may be permitted.

Project Justification: Due to existing budgetary constraints, the airport has embarked on the development of a Business Plan to identify priority marketing and business efforts using targets goals that the airport is trying to meet to increase development, passengers, and use demand.

A series of workshops have been conducted to help develop the Business Plan for the Airport and to identify priority goals. Those goals include marketing the Airport to:

- Improve General Aviation Services,
- Diversify Airport Revenue Stream,
- Be a Leader in Air Transportation Options for the Cape, Islands and Southeastern Massachusetts; and
- Develop Airport Branding.

With these goals in mind, there are a number of projects that can be implemented at the airport to help establish or improve existing facilities to help market the airports facilities such as this project.



Impact of Denial/Postponement: The impact of not implementing the project will lead to possible loss revenues due to inability to improve access conditions. Delays in the actual construction will not allow the airport to improve existing facilities or maintain leased facilities; to help market the airports facilities to enhance future development.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$3,000,000
	Total Project Cost	-	\$3,000,000

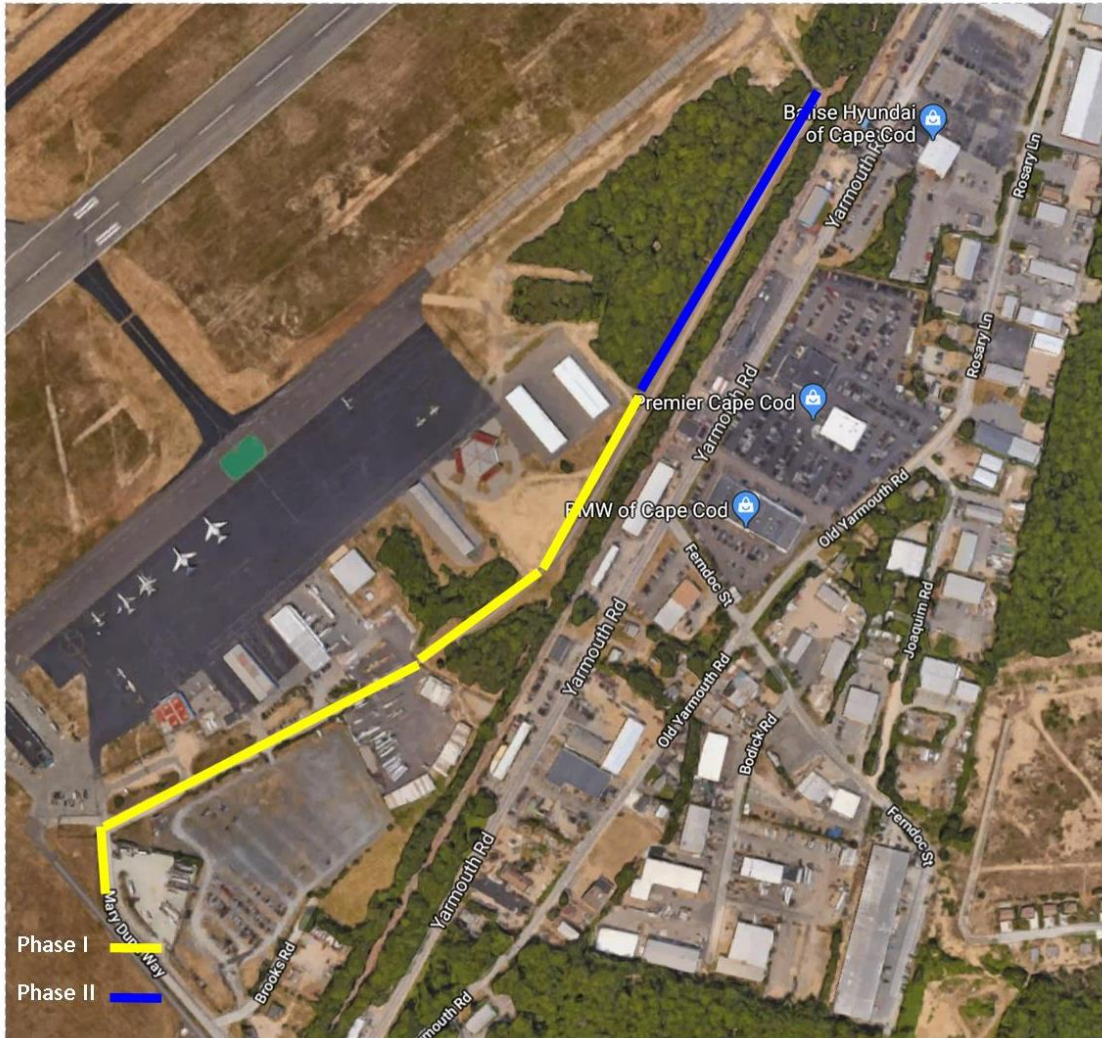
Basis for Cost Estimates: Cost estimates were received from the Airport’s on-call engineers; however, more investigation may be needed to solidify estimates for sanitary sewer.

Project Estimated Completion Date: 2021 **Design & Permit (months)** 3 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$3,000,000	Repair Mary Dunn Way from Steamship Authority Parking Area to Gate Mike, including drainage repairs (Phase I)

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) for the security fence; and possible MassDOT ASMP (80%) and BMA Enterprise Funds (20%) for the design and road construction cost. The Airport is also seeking a MassWorks Grant and is currently in communications with State Rep. Whelan to start grant request proceedings. Chapter 90 Highway Funds may also be available.

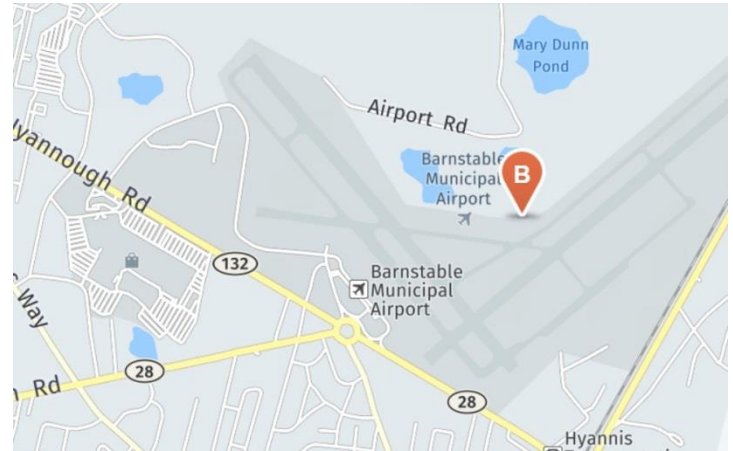
Operating Budget Impact now or in future: None, existing staff and facilities will be used.



Phase II Project Highlighted in Blue

Project Working Title: Environmental Review for Airport Master Plan Projects (to include: Massachusetts Environmental Policy Act (MEPA), National Environmental Policy Act (NEPA), and Cape Cod Commission)

Project Location: 480 Barnstable Road, Hyannis, MA 02601



Project Description: Environmental Review for Airport Master Plan Projects will review and assess the potential environmental impacts associated with various airfield safety improvements proposed at the Barnstable Municipal Airport. The scope of the project will include analysis that will examine a range of alternatives that have the potential to meet safety requirements and outline the potential environmental impacts of each. Any identified permitting requirements will be included within the scope of the project. The assessment allows for a systematic elimination of a number of different alternatives assessed, reasons why alternatives may be eliminated and reasons for alternatives that may be carried forward for detailed evaluation.

Project Justification: The Environmental Review will examine the Airport’s proposed improvements as detailed in the required Federal Aviation Administration (FAA) Airport Layout Plan (ALP) and Master Plan (per FAA Advisory Circular AC150/5070-6).

The review is a necessary process per FAA regulations to assess development alternatives that improve the airport and future operations, whether it is safety or capacity related. It may consider the following possible future airport projects:

- Viability and options for extending Runway 15,
- Review the geometry and develop options for compliance with design standards for Taxiway B,D,& E,
- Review Runways 15/33 & 6/24 Enhancements & Improvements,
- Analysis Engineered Material Arresting System (EMAS) Replacement,
- Develop alternatives to meet aircraft parking demand for apron space; and
- Review obstruction analysis of FAR Part 77 surfaces and obstruction removal options.

Impact of Denial/Postponement: To deny or postpone funding of this capital project will not allow the Airport to be in full compliance with FAA directives that may have long-term financial consequences with regard to receipt of FAA and MassDOT grants. In addition, the airport would not be in compliance with FAA safety directives or environmental regulations that necessitate the review of projects that could have the potential to trip various environmental thresholds that require review such as, the addition of new impervious surfaces, tree clearing or other such projects.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$925,000
Total Project Cost	-	\$925,000	

Basis for Cost Estimates: Planning and Engineering Consultant Estimates, FAA, and MassDOT Consultations.

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:

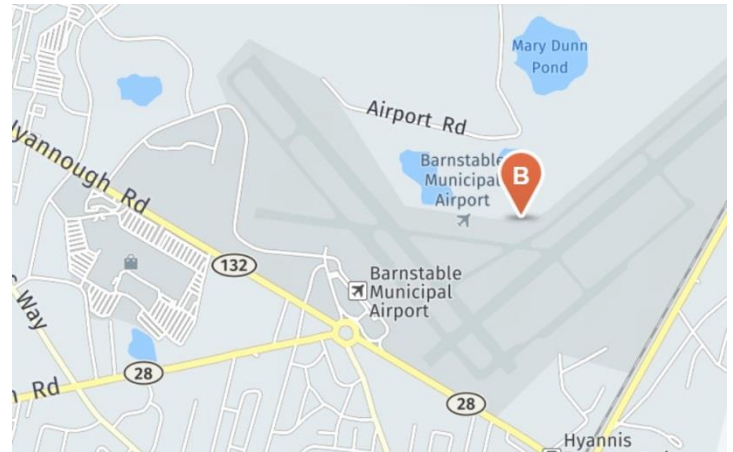
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$925,000	Environmental Assessment for Airport Master Plan Projects & Phase I Permitting & Design (for short term projects) (AGIS)

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

Operating Budget Impact now or in future: None, planning process will include in-house staff review and processing.

Project Working Title: Replace Airfield Mowing Equipment - (Kubota Zero Turn Mower) - Airport Vehicle #53

Project Location: 480 Barnstable Road, Hyannis, MA 02601



Project Description: The Airport wishes to replace the existing 18-year mower to perform such tasks. This item is not eligible for FAA funding; however, the mower is available for funding assistance through MassDOT's Airport Safety and Maintenance Program (ASMP).

Project Justification: Outside of paved surfaces, the airport must maintain over 600 acres of grass, trees, and shrubs on the airfield to remain in compliance with Federal Aviation Administration (FAA) directives in meeting wildlife hazard management.

Impact of Denial/Postponement: The impact of not implementing the project will lead to further the airports inability to meet FAA directives to manage wildlife and could lead to unsafe conditions for the flying public.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$25,000
	Total Project Cost	-	\$25,000

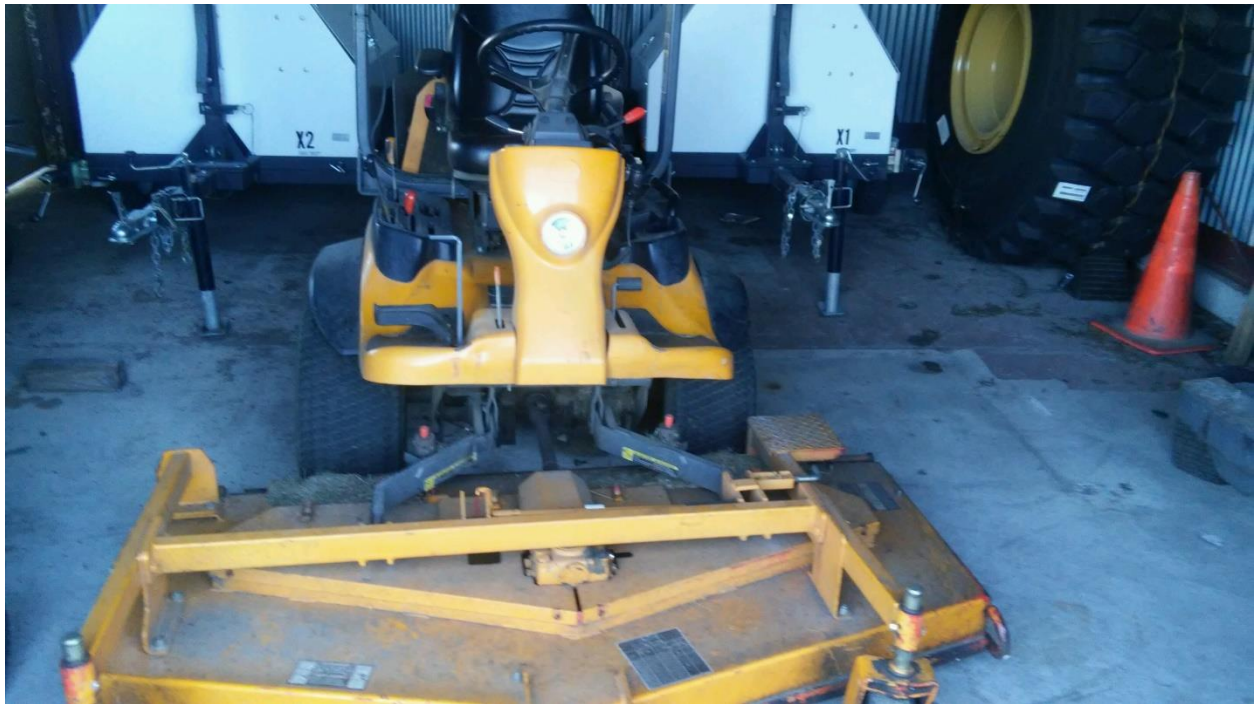
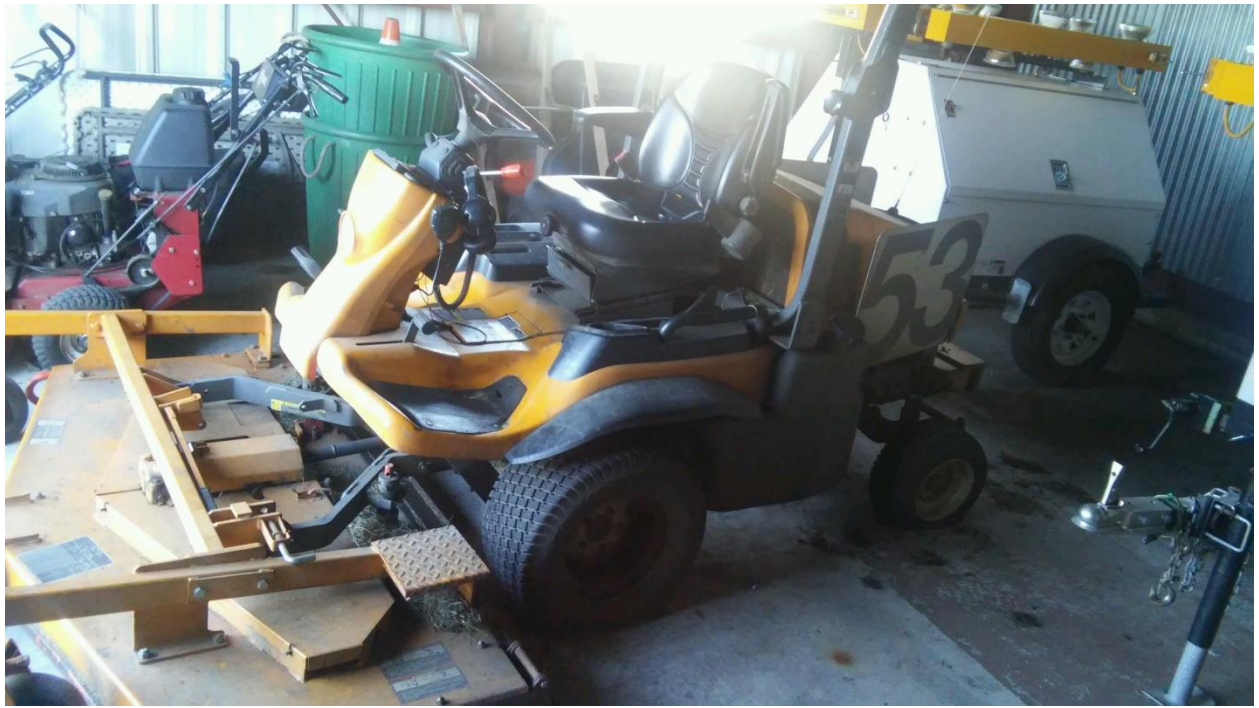
Basis for Cost Estimates: Cost estimates were received from the Airport's on-call engineers and state bid list.

Project Estimated Completion Date: 2021 **Design & Permit (months)** 2 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$25,000	Replace Airfield Mowing Equipment - Airport Vehicle #53

Source of Funding: Reimbursable funding from MassDOT Aeronautics (80%) and local share (20%).

Operating Budget Impact now or in future: None, once purchased, existing staff will use mower and maintain

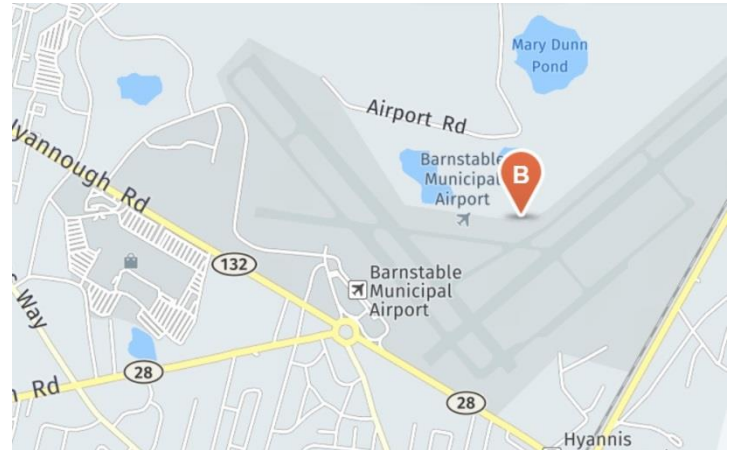


Kubota Zero Turn Mower - Airport Vehicle #53

Project Working Title: Terminal Upgrades - Baggage Belt Extension

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: The new airport terminal building commenced operations in 2011. Due to budgetary constraints, the original design was considerably reduced and certain aspects were eliminated that would have better accommodated larger and more air carrier aircrafts operating at the airport. With the addition of a third airline at the airport in 2016, Rectrix Shuttle, and conversations with other potential new airline entrants, it became evident that the existing baggage belt located behind the airline ticket counters will need to be extended to accommodate Rectrix Shuttle and other future carriers.



Project Justification: The existing belt only accommodates two ticket counters, currently being used by JetBlue and Cape Air to carry baggage to the TSA secure baggage x-ray/investigation facility. However, the last two counters do not have access to the belt. Rectrix Shuttle has indicated a desire to access the belt for future secure flights to New York. Additionally, the airport has been in conversations with a number of airlines to entice them to provide service from Barnstable Airport. However, facility improvements such as the extension of the baggage belt behind the counters is necessary to provide such airlines with the facilities needed to conduct their business.

Impact of Denial/Postponement: The impact of not implementing the project will lead to facilities not equipped to accommodate future growth and development of the airport and possible continued budgetary constraints.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		-
Total Project Cost		-	\$400,000

Basis for Cost Estimates: Cost estimates were received from the Airport's on-call Architect, Fennick & McCredie.

Project Estimated Completion Date: 2021 **Design & Permit (months)** 2 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$400,000	Terminal Upgrades (baggage belt extension)

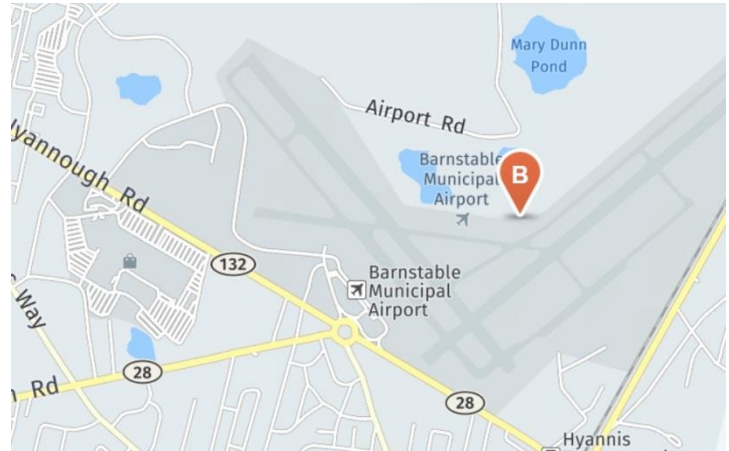
Source of Funding: Airport Enterprise Fund Reserves are normally used. However, the Airport will seek MassDOT/FAA funds if available.

Operating Budget Impact now or in future: None, future expenses for improvement to existing facilities.

Project Working Title: Design & Permitting for Airport Tree Clearing & Obstruction Removal (including fence line clearing) and Short-Term Airport Master Plan Update Projects.

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: This project is to clear vegetation along the airport's fence line that has regrown along most of the Airport perimeter fence buffer zone creating potential Transportation Security Administration (TSA) security violations. Other places will also be cleared where the vegetation has regrown in certain areas of the airfield, possibly creating an airspace flight obstruction – sometimes called a Federal Aviation Administration (FAA) FAR Part 77 airspace obstruction.



As part of a previous project (See AIR 20-11 Environmental Review for Airport Master Plan Projects (to include Massachusetts Environmental Policy Act (MEPA), National Environmental Policy Act (NEPA), and Cape Cod Commission), review and assess the potential environmental impacts associated with various airfield safety improvements proposed at the Barnstable Municipal Airport. The scope of the project will include analysis that will examine a range of alternatives that have the potential to meet safety requirements and outlining the potential environmental impacts of each. Any identified permitting requirements will be included within the scope of the previous project. This project is to develop final design and permitting for the Short-Term Airport Master Plan Update Projects (i.e. projects that fall within the initial 5-10 years of development).

Project Justification: The existing perimeter fence line was installed in phases over many years to first meet FAA airfield and flight safety requirements, and then subsequent to the September 11, 2001 terrorist incident, the TSA has required all FAA FAR Part 139 airports to have a security fence along the entire perimeter. This requirement includes an 8 feet tall with 3 strands of barbed wire along the top, with a 10-foot clear buffer zone on each side of the fence line if possible. Over the past several years, the vegetation has continued to grow back along the entire fence creating a safety and security concern. The airport continues manually to keep the growth off and away from the fence, without the use of herbicides, with existing personnel, and with the use of AmeriCorps volunteers, JTEC volunteers, temporary employees or occasionally in conjunction with other projects in close proximity to the fence line.

The Airport encompasses 683 acres of land, more or less and as such, the maintenance of the fence is time consuming and in some areas inaccessible. Some areas do not allow for access via airport vehicles and can only be reached on foot. The FAA requires at a minimum 10-foot paths on either side of the fence to maintain vegetative growth and to allow vehicular oversight to monitor security. We cannot keep up with the vegetation without this project.

Additionally, there are several places where the vegetation has regrown in certain areas of the airfield where it is creating an airspace flight obstruction – sometimes called a Federal Aviation Administration (FAA) FAR Part 77 airspace obstruction that require removal to protect federal airspace, runway approaches, and meet FAA design and safety criteria.

The next step after Environmental Review is to examine the Airport’s proposed improvements as detailed in the required Federal Aviation Administration (FAA) Airport Layout Plan (ALP) and Master Plan (per FAA Advisory Circular AC150/5070-6).

Design & Permitting is a necessary process per FAA, state and local regulations to implement planned improvements at the airport.

Impact of Denial/Postponement: Denial will continue to affect airport personnel’s ability to keep the fence line clear of vegetation. It will increase the maintenance workload on a limited staff; it will increase the probability of incurring a security violation from the TSA; and it will increase the probability of an adverse effect on flight minimum altitudes and negatively affect flight safety and commerce. Additionally, denial will not meet federal, state, and local permitting requirements for future development and improvements.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$225,000
	Total Project Cost	-	\$225,000

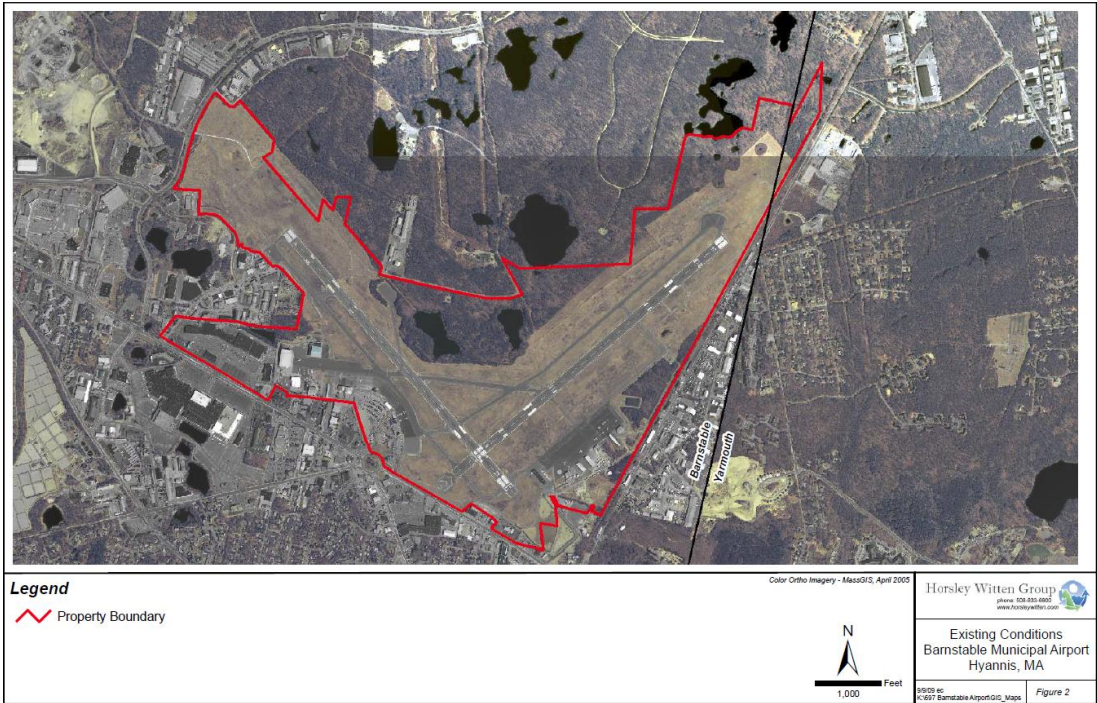
Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, industry cost estimates, and FAA and MassDOT consultations, etc.

Project Estimated Completion Date: 2023 **Design & Permit (months)** 6 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$225,000	Permitting & Design for Airport Tree Clearing & Obstruction Removal (including fence line clearing) and Short-Term Airport Master Plan Update Projects.

Source of Funding: FAA AIP reimbursable Grant funds at 90%; MassDOT at 5%; BMA at 5%;

Operating Budget Impact now or in future: Routine maintenance will continue unabated to maintain the clear zones by existing staff.

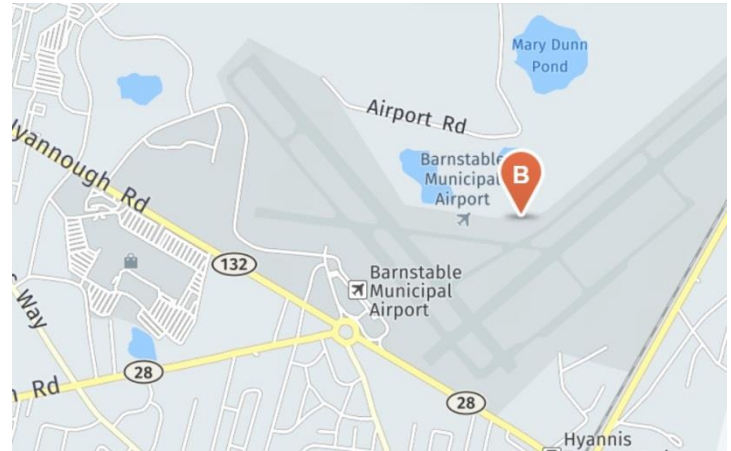


Fence line and fence vegetation photos and latest 2016 aerial airport layout photo with property line depicted.

Project Working Title: Design & Construct for Airport Tree Clearing & Obstruction Removal (including fence line clearing).

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: This project will permit to clear vegetation along the airport's fence line that has regrown along most of the Airport perimeter fence buffer zone creating potential Transportation Security Administration (TSA) security violations. Other places will be cleared where the vegetation has regrown in certain areas of the airfield that is creating an airspace flight obstruction – sometimes called a Federal Aviation Administration (FAA) FAR Part 77 airspace obstruction was completed with a previous project. The scope of this project is to design and implement actual construction to remove vegetation.



Project Justification: The existing perimeter fence line was installed in phases over many years to first meet FAA airfield and flight safety requirements, and then subsequent to the September 11, 2001 terrorist incident, the TSA has required all FAA FAR Part 139 airports to have a security fence along the entire perimeter. This requirement includes an 8 feet tall with 3 strands of barbed wire along the top, with a 10-foot clear buffer zone on each side of the fence line if possible. Over the past several years, the vegetation has continued to grow back along the entire fence creating a safety and security concern. The airport continues to manually attempt to keep the growth off and away from the fence, without the use of herbicides, with existing personnel, and with the use of AmeriCorps volunteers, JTEC volunteers, temporary employees or occasional in conjunction with other projects in close proximity to the fence line.

The Airport encompasses 683 acres of land, more or less, and as such, the maintenance of the fence is time consuming and in some areas inaccessible. Some areas do not allow for access via airport vehicles and can only be reached on foot. The FAA requires at a minimum 10-foot paths on either side of the fence to maintain vegetative growth and to allow vehicular oversight to monitor security. We cannot keep up with the vegetation without this project.

Additionally, there are several places where the vegetation has regrown in certain areas of the airfield where it is creating an airspace flight obstruction – sometimes called an Federal Aviation Administration (FAA) FAR Part 77 airspace obstruction that require removal to protect federal airspace and runway approaches and meet FAA design and safety criteria.

Impact of Denial/Postponement: Denial will continue to affect airport personnel's ability to keep the fence line clear of vegetation. It will increase the maintenance workload on a limited staff; it will increase the probability of incurring a security violation from the TSA; and it will increase the probability of an adverse effect on flight minimum altitudes and negatively affect flight safety and commerce.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$300,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, industry cost estimates, FAA, and MassDOT consultations, etc.

Project Estimated Completion Date: 2022 **Design & Permit (months)** 4 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$300,000	Design & Construct for Airport Tree Clearing & Obstruction Removal (including fence line clearing)

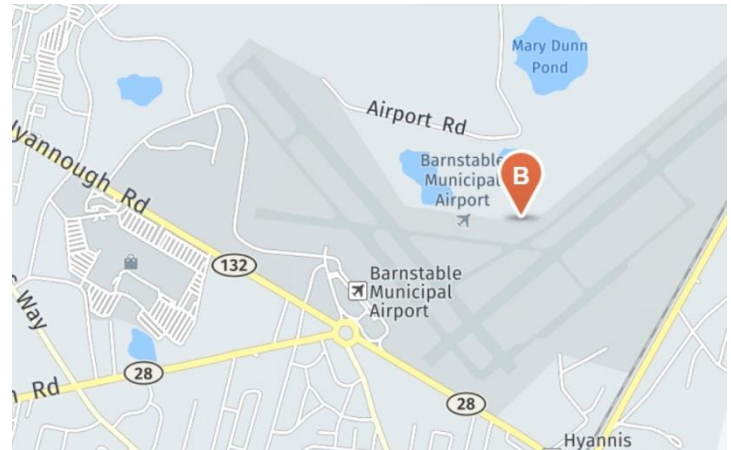
Source of Funding: FAA AIP reimbursable Grant funds at 90%; MassDOT at 5%; BMA at 5%;

Operating Budget Impact now or in future: Routine maintenance will continue unabated to maintain the clear zones by existing staff after construction.

Project Working Title: Easements for Future Construction/Runway 15 Approach

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: The Airport’s required FAA Airport Layout Plan (ALP) and Master Plan (per FAA Advisory Circular AC150/5070-6) is a comprehensive long-term plan for airport development. As part of the Comprehensive Airport Layout Plan/FAA Master Plan Update project, proposed in FY 2019, a number of key issues will be evaluated as the airport seeks to meet existing and growing demand as well as to diversify its revenue streams in a sustainable manner. The Comprehensive Airport Layout Plan/FAA Master Plan Update will analyze the viability and options for extending Runway 15.



The extension of Runway 15 is deemed a development item that will improve airport facilities for the future with the primary purpose of accommodating aircraft operations on a longer runway with the intent to provide the length necessary to accommodate non-stop flights to southern destinations such as Florida. The proposed extension of Runway 15/33 is approximately 926 feet to provide a better margin of safety for regional and longer range private and commercial jet aircraft.

Project Justification: Although the extension of the runway can occur within existing airport property boundaries, there is the potential need for easement acquisitions to maintain navigational aid equipment located off airport. This project will identify and obtain any necessary easements to implement/support the runway extension.

Impact of Denial/Postponement: The impact of not implementing the project will lead to delays in the actual runway extension construction. FAA requires that all easements necessary for airport improvements be achieved prior to the actual improvement.

Project Cost Estimates:	FY 2020	Future FY
Construction or Acquisition	-	\$300,000
Total Project Cost	-	\$300,000

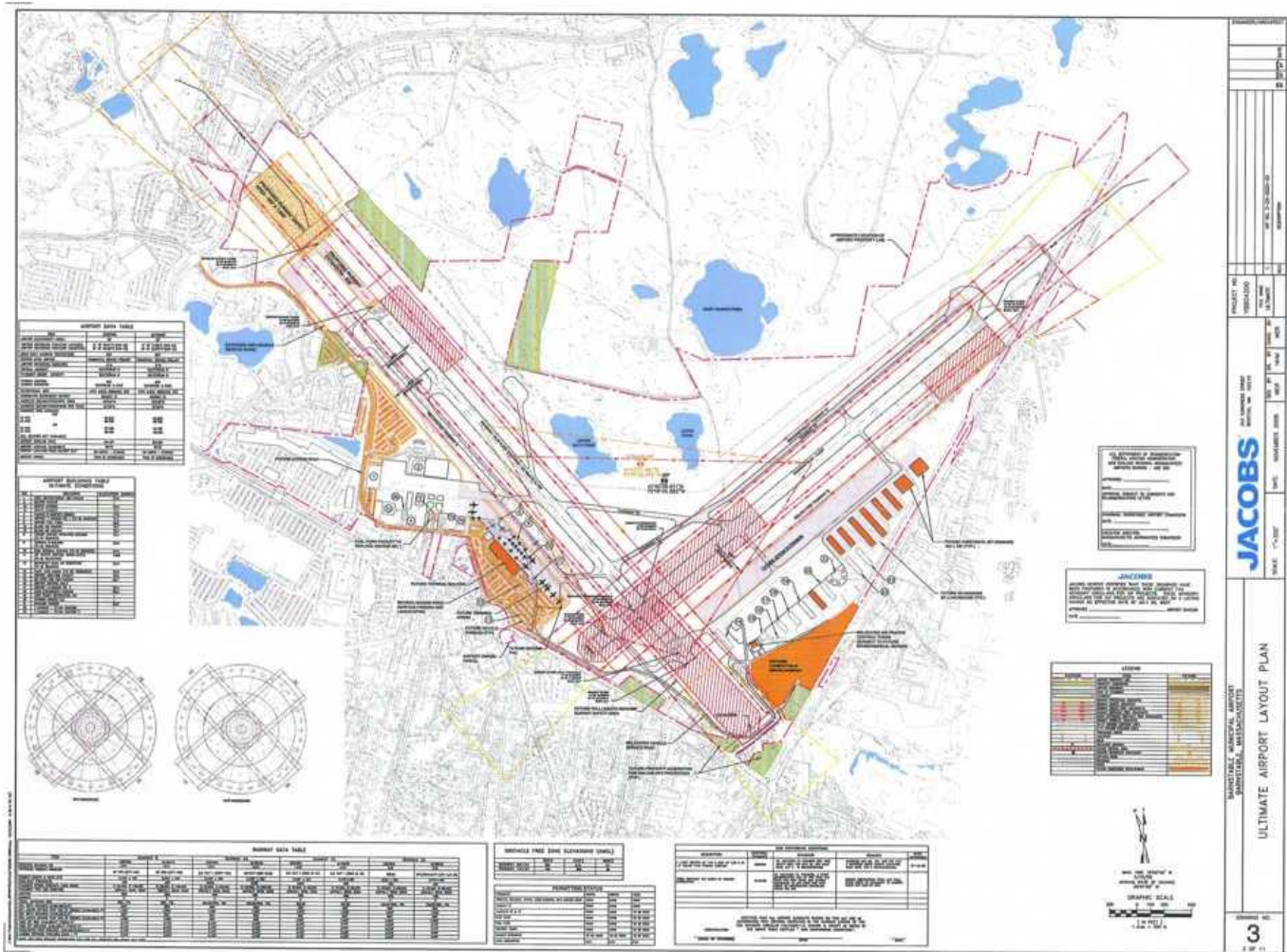
Basis for Cost Estimates: Cost estimates were received from the Airport’s on-call engineers.

Project Estimated Completion Date: 2023 **Design & Permit (months)** 6 **Construction (months)** 18

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$300,000	Easements for Runway 15 Approach

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

Operating Budget Impact now or in future: None, once easements are secure and payments made, no additional funds will be necessary.

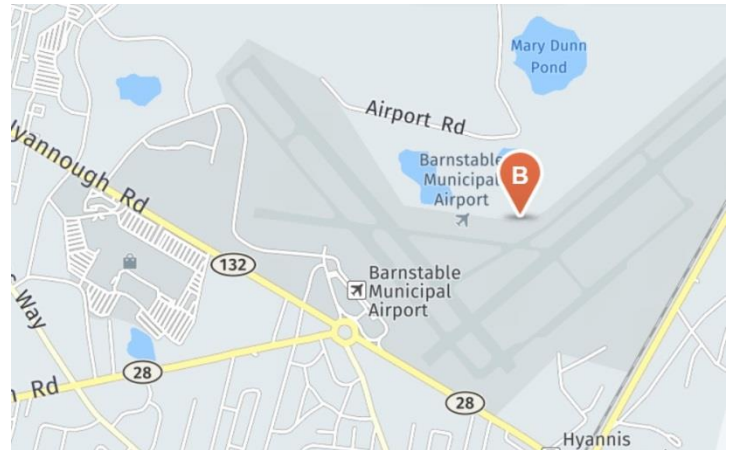


Airport Layout Plan (ALP) and Master Plan (per FAA Advisory Circular AC150/5070-6)

Project Working Title: Replace Snow Removal Equipment (SRE) (Chevy 2500 Heavy Duty) - Airport Vehicle #32

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a 2001 Chevy Heavy Duty Carrier Vehicle with Plow.



Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained and opened as soon as possible during snow events and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified. The airport would not be able to maintain operations, nor remove snow in order to keep the runways open and safe for operation. Furthermore, the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$55,000
	Total Project Cost	-	\$55,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, etc.

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$55,000	Replace Snow Removal Equipment (SRE) (Chevy 2500HD – Heavy Duty Vehicle with Plow) - Airport Vehicle #32

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs)

Operating Budget Impact now or in future: This project will replace a vehicle, so any savings derived by new equipment would be available to maintain remainder of deteriorating SRE vehicles.

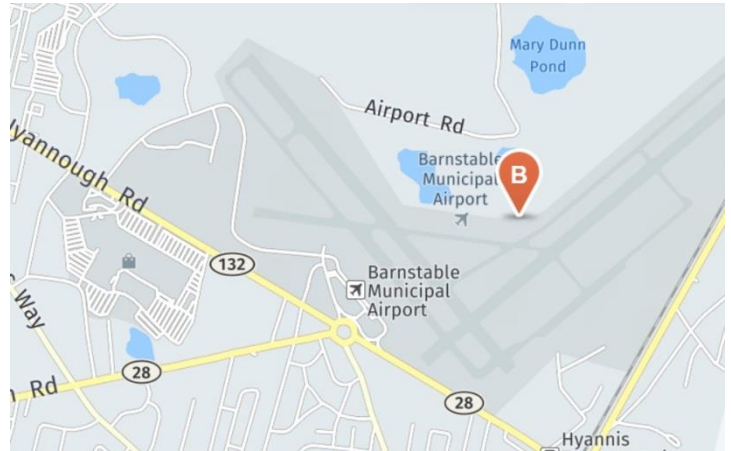


Chevy 2500HD – Heavy Duty Vehicle with Plow - Airport Vehicle #32

Project Working Title: Replace Snow Removal Equipment (SRE) (ASV Skid Steer Plow for EMAS) - Airport Vehicle #38

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly to better serve their function and quickly and efficiently respond to airfield snow removal tasks and emergencies; and if certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace the 2004 ASV Diesel Skid Steer Plow for use on the EMAS system in FY 2021 and is pending MassDOT ASMP funding.



Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained, including snow removal; and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified. The airport would not be able to maintain operations, nor remove snow on the EMAS system in order to keep the runways open and safe for operation. Furthermore, the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$100,000
	Total Project Cost	-	\$100,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, manufacturer quotes, etc

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$100,000	Replace SRE/ARFF Equipment (ASV Skid Steer Plow for EMAS) - Airport Vehicle #38

Source of Funding: MassDOT ASMP reimbursable Grant funds at 80% and BMA funds at 20% for the Skid Steer Plow

Operating Budget Impact now or in future: Any savings derived by new equipment would be available to maintain remainder of deteriorating SRE vehicles.

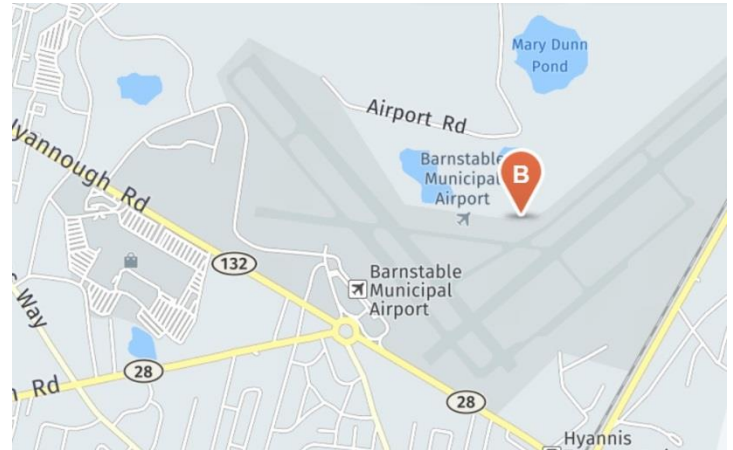


The ASV Skid Steer with plow is a specialized low PSI vehicle for plowing the Engineered Material Arresting System (EMAS) - Airport Vehicle #38

Project Working Title: Design and Construct New T-Hangar

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Design and construct a new 6-bay nested T-hangar to provide additional hangar space to accommodate the needs of general aviation at the Barnstable Municipal Airport (BMA). The T-hangar would be constructed of metal with a concrete foundation and with bi-fold doors for aircraft access to the east ramp.



Project Justification: The 2011 completion of the Airport Access Road and the construction of the new fuel farm mandated the demolition of one of the two airport-owned existing T-hangars, located adjacent to Gate Foxtrot (F). Since this T-hangar serviced Airport users that had to be displaced, the Airport desires to construct a new T-hangar on the East ramp to accommodate this loss of space. In addition, the BMA holds a waiting list for T-hangar space that fluctuates between 25 and 27 aircraft owners waiting for space, and projections for the future of General Aviation at the BMA forecasts an additional demand for hangar space. Revenues generated by the rental of the bays will help offset costs of construction and maintenance.

Impact of Denial/Postponement: Denial will further decrease potential BMA revenues, and will prevent the BMA from meeting the demands of airport users for hangar space.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$750,000
	Total Project Cost	-	\$750,000

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, DPW estimates, FAA, and MassDOT consultations, etc

Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$750,000	Design and Construct New T-Hangar

Source of Funding: Airport Enterprise Funds (20%) and reimbursable funding by MassDOT AD (80%) if available. If MassDOT funds are not available, project may be funded by airport reserves or deferred indefinitely

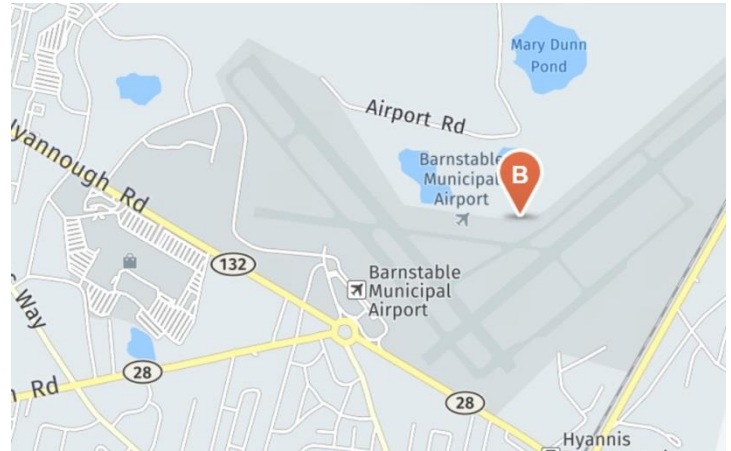
Operating Budget Impact now or in future: Routine maintenance costs to be determined after several years use.



T-Hangar

Project Working Title: Runway 24 Departure End Safety Area (Engineered Material Arresting System (EMAS) or Runway SAFE System) Reconstruction or Replacement

Project Location: 480 Barnstable Road, Hyannis, MA 02601



Project Description: The original Runway 6/24 Engineered Material Arresting System (EMAS) bed was installed in 2003 to prevent concerns related to aircraft overshoots on runways that do not meet FAA Runway Safety Area (RSA) requirements, to prevent loss of life or injury, and minimize aircraft and property damage. The installation on Runway 6/24 primarily consists of lightweight cellular concrete blocks with a composite material lid that was installed in 2013. A field strength test and feasibility study will be completed in 2019 as part of the comprehensive Airport Layout Plan/FAA Master Plan Update to determine whether it should be replaced or repaired due to continued deterioration.

Project Justification: The Barnstable Municipal Airport (BMA) EMAS is a “first generation” system with a projected 10-year lifespan originally constructed in 2003. The BMA was able to extend the life of the existing bed by installing 68 new concrete blocks and a new top board in 2013. Unfortunately, the weather and seagull damage to the system’s seams has apparently caused the system to deteriorate at a faster than normal rate. In 2017, in an effort to lengthen the life of the system, our Airport Maintenance Department installed a new wider seam tape to replace tape eaten by seagulls and thus far, the seagulls have remained uninterested to the new tape. However, damage has already occurred.

The 2019 project to conduct an Airport Master Plan update and Airport Layout Plan will inspect and examine the status of the existing system to determine whether it should be further repaired or replaced. The original system was essentially sole source procurement and construction project as there was only one FAA authorized system approved for airports at that time. The 2019 Master Plan Update should determine its future viability and identify the type of replacement system to be installed, as there are now more approved systems available if they meet FAA requirements and “Buy American” requirements.

Impact of Denial/Postponement: This is a Federal Aviation Administration (FAA) safety requirement. The EMAS bed is deteriorating and doing nothing may increase the risk of failure if used to prevent an overshoot. The Airport will continue to provide frequent maintenance of the EMAS bed costing more money and lack of replacement will increase the risk of loss of life and property.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$5,000,000
	Total Project Cost	-	\$5,000,000

Basis for Cost Estimates: N/A

Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	\$5,000,000	Runway 24 Departure End Safety Area (Engineered Material Arresting System (EMAS) or Runway SAFE System) Reconstruction or Replacement

Source of Funding: Funding by FAA (90%) (AIP and /or FAA Discretionary Funds), MassDOT AD (5%), and local share (5%) from Airport Enterprise Funds

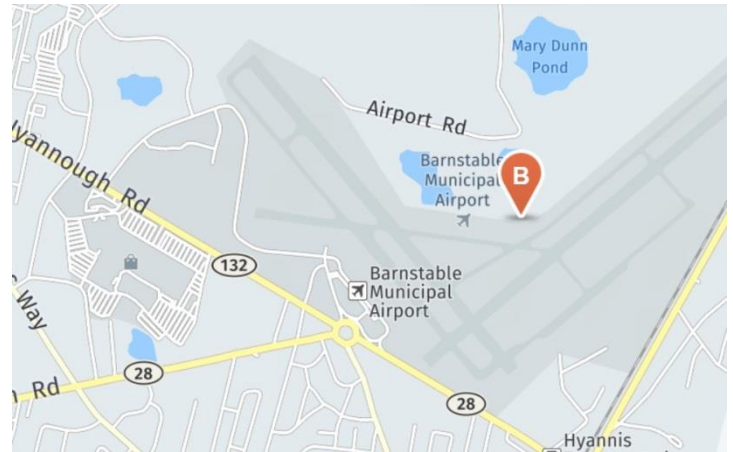
Operating Budget Impact now or in future: None – Replacement of existing fixed system



(Engineered Material Arresting System (EMAS) or Runway SAFE System)

Project Working Title: Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)

Project Location: 480 Barnstable Road, Hyannis, MA 02601



Project Description: Runway 6/24 (circa 1991) has exceeded its pavement’s 20-year design life, and therefore, be programmed by the FAA and State for a full reconstruction. This project will include the design and reconstruction of 4,700 feet of runway. The full length of the runway is 5,425 feet; however, approximately 725 feet of Runway 6/24 were reconstructed as part of the 2017 Runway 15/33 reconstruction project (i.e. completing the intersection of the two runways). The project will

consist of the runway reconstruction of existing pavement including in-pavement lighting and edge lights, and regrading of the side turf safety areas. The project will also include other miscellaneous related airfield improvements to navigational aids and power sources. This project will extend the design life of the pavement for another two decades.

Project Justification: Runway pavements are given a 20-year useful life by the FAA, after which time a major reconstruction is justified. Runway 6/24 will have exceeded its useful life by 2022, at which time it is scheduled for a rebuild. This will avoid hazards to flight safety from failing pavement, and potential aircraft damage. Crack sealing and crack repairs have extended its useful life until now but further deterioration poses serious safety risks that must be addressed. The intersection of Runways 6/24 and 15/33 will be reconstructed during the 2017 project to rehabilitate Runway 15/33; and the remaining overall length of approximately 4,700ft will be accomplished with this project.

In June of 2013, the MassDOT Aeronautics Division completed a statewide pavement management report that shows the majority of Runway 6/24 as having a pavement condition index (PCI) of 54 to 73 depending upon location, with 0 being the worst condition, to 100 being the best condition. A PCI of 55 to 70 requires major rehabilitation. A new MassDOT pavement condition index report is being conducted in 2017/2018 to update and confirm the earlier study.

Impact of Denial/Postponement: To deny or postpone funding of this capital project will have flight safety consequences with regard to airport operations; and will increasingly affect the ability of pilots to operate on the runway, due to the potential for aircraft damage and lessened flight safety. Eventually the runway would be unusable, and the Airport would be in violation of their Grant Assurances. Not complying with Airport Certification requirements would result in loss of operational capability.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$12,000,000
	Total Project Cost	-	\$12,000,000

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, FAA, MassDOT consultations, etc

Project Estimated Completion Date: 2023 Design & Permit (months) - Construction (months) -

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	\$12,000,000	Reconstruct RWY 6-24 (Approx. 4,700ft x 150ft.)

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%)

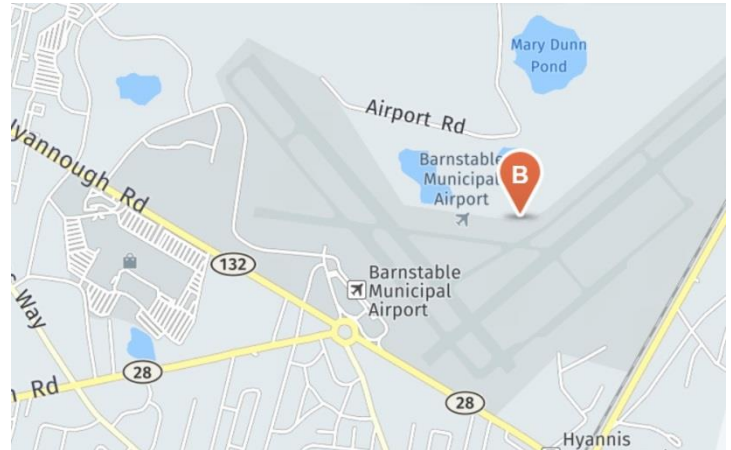
Operating Budget Impact now or in future: Routine maintenance would stay the same.



Barnstable Municipal Airport : Runway 6/24

Project Working Title: Replace Snow Removal Equipment (SRE) (Chevy 2500 Heavy Duty) - Airport Vehicle #27

Project Location: 480 Barnstable Road, Hyannis, MA 02601



Project Description: Snow Removal Equipment (SRE) must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a 2001 Chevy Heavy Duty Carrier Vehicle with Plow.

Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained and opened as soon as possible during snow events and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified. The airport would not be able to maintain operations, nor remove snow in order to keep the runways open and safe for operation. Furthermore, the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$55,000
	Total Project Cost	-	\$55,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, etc.

Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	\$55,000	Replace Snow Removal Equipment (SRE) (Chevy 2500HD – Heavy Duty Vehicle with Plow) - Airport Vehicle #27

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs)

Operating Budget Impact now or in future: This project request is to replace a vehicles mission remains the same.

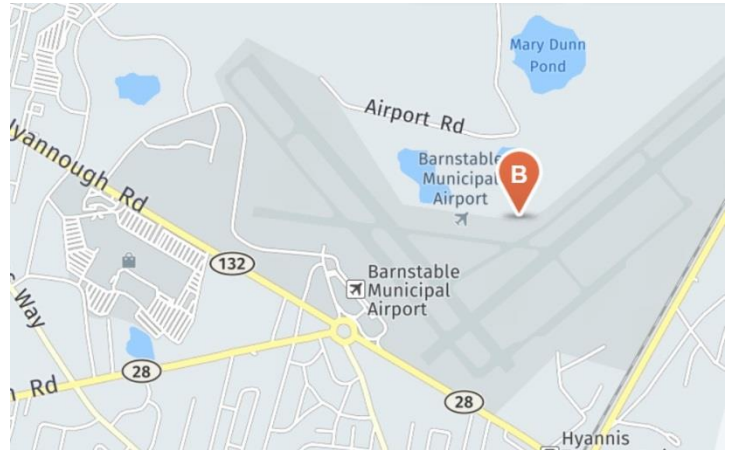


Chevy 2500HD – Heavy Duty Vehicle with Plow - Airport Vehicle #27

Project Working Title: Design and Replace Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Design and replace the circa 1997 era Mo-Gas (low lead gasoline) and Diesel fuel Con-Vault (concrete encased fuel tanks), Gas Boy (computerized dispensing system) and the associated alarms that have reached the end of their useful lives. The existing concrete structure and equipment is deteriorating and should be replaced with a new structure to provide proper protection and that meets current safety and security standards.



Project Justification: The Con-Vault encases two (2) 4,000 gallon above ground fuel tanks (Mo-Gas and Diesel) that is used by all Airport vehicles and by all Airport tenant vehicles on a reimbursable basis. This service is provided to tenants as a convenience since their vehicles are not licensed to operate outside the airport environment. Tenants are charged for the cost of the fuel plus a small additional fee to cover airport overhead costs. The Gas Boy is a computerized “gas station-type pump” that monitors usage by each vehicle authorized to use the pump, with all data transmitted to the Airport finance department for recording and billing purposes.

Impact of Denial/Postponement: Impact of denial will allow the Con-Vault to deteriorate to the point where it would have to be decommissioned before encountering any external fuel leakage or spills and the subsequent HAZMAT clean-up costs. Shutting the system down would be a major inconvenience and will have a significant impact on lost time as employees would have to depart the airport to obtain fuel, and would cost a significant amount of money to bring vehicles up to code to operate on the highways. If low lead and diesel fuel has to be trucked in to a temporary fueling facility, it would significantly increase the risk of a fuel spill.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$300,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, FAA and MassDOT consultations, etc

Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	\$300,000	Design and Replace Mo-Gas and Diesel Fuel Con-Vault, Gas Boy & Alarm

Source of Funding: Airport Enterprise Funds (20%) and reimbursable funding by MassDOT AD (80%) if available. If MassDOT funds are not available, project may be funded by airport reserves or deferred indefinitely.

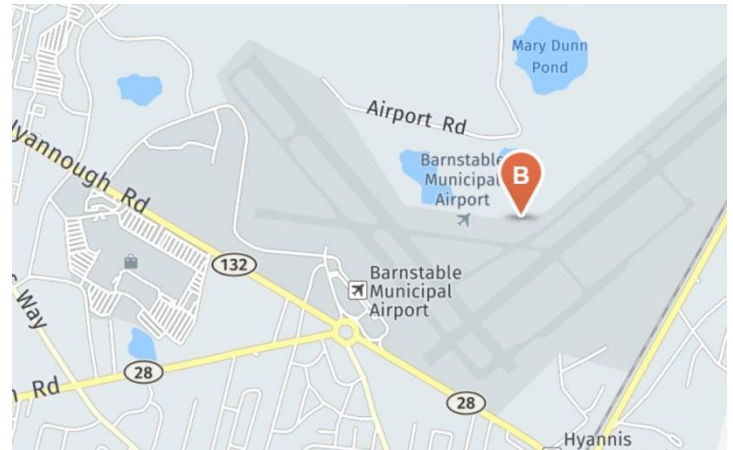
Operating Budget Impact now or in future: Replacement of existing system.



Mo-Gas and Diesel Fuel Con-Vault

Project Working Title: Design & Construct Snow Removal Equipment (SRE) Vehicle Storage Building

Project Location: 480 Barnstable Road, Hyannis, MA 02601



Project Description: This project request is for design and construction a new Snow Removal Equipment (SRE) and vehicle storage building of approximately 10,000 square feet to provide additional covered parking space to accommodate the needs of the Barnstable Municipal Airport (BMA). The new storage building would be constructed of metal with a concrete slab foundation and with a 24 foot wide by 22-foot high door for vehicle and plow ingress and egress, or similar pre-fab type construction depending upon structure life span and cost. The new building would be located on the east side of the airport.

Project Justification: The existing Aircraft Rescue and Firefighting (ARFF) storage and maintenance building provides insufficient vehicle storage capability to meet the storage and parking requirements for all airport (SRE) and other operational vehicles. Currently we must store many of our vehicles, plows and sanders, and specialty equipment outside in the elements, which contributes to an already corrosive operating environment and shortens their useful life. We currently have limited covered space in the (ARFF) building, and in a portion of the Hangar II bay – the majority of which is leased to Cape Air, who have expressed a desire to lease the entire hangar. The new building would be of metal construction, built on a slab, with no heat and no water, or similar pre-fab type construction. It would have electrical power, vehicle exhaust vents if necessary, and lights only - to be built at minimal cost for “cold” storage. This new facility would help preserve our very costly vehicles for a longer period and reduce our long-term maintenance and replacement costs.

Impact of Denial/Postponement: Impact of denial will shorten the useful life of the very costly airport vehicles needed to maintain operations and certification requirements; it will increase the airport’s annual maintenance costs, and it will increase the airport’s vehicle replacement costs. Only certain (SRE) vehicles are eligible for FAA and MassDOT grant funding assistance. All other vehicle replacement costs will adversely affect the Airport Enterprise Fund Reserves.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		-
Total Project Cost		-	\$900,000

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, DPW estimates, industry cost estimates, FAA, and MassDOT consultations, etc.

Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	\$900,000	Design & Construct (SRE) Vehicle Storage Building

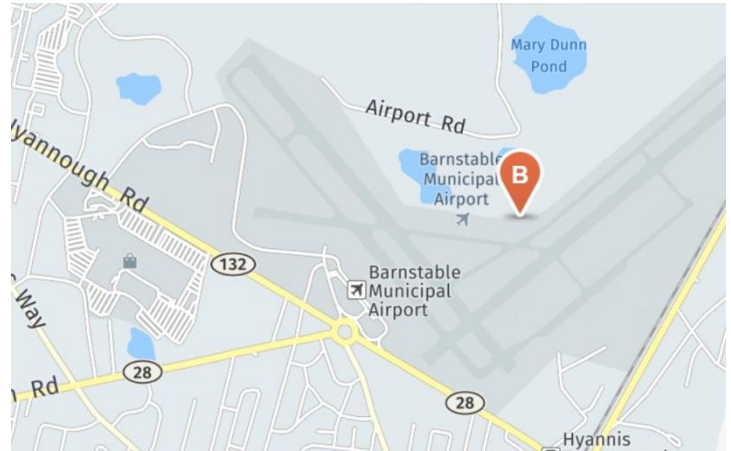
Source of Funding: Airport Enterprise Funds (20%) and reimbursable funding by MassDOT AD (80%) if available. If MassDOT funds are not available, project may be funded by airport reserves or deferred indefinitely.

Operating Budget Impact now or in future: Specific savings by extending vehicle service lives is yet to be determined.

Project Working Title: Replace Snow Removal Equipment (SRE) (Ford F350 – Heavy Duty Vehicle with Plow and lift gate) - Airport Vehicle #31

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a Ford F350 – Heavy Duty Vehicle with Plow and lift gate).



Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained and opened as soon as possible during snow events and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified. The airport would not be able to maintain operations, nor remove snow in order to keep the runways open and safe for operation. Furthermore, the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$80,000
	Total Project Cost	-	\$80,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, etc.

Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	\$80,000	Replace Snow Removal Equipment (SRE) (Ford F350 – Heavy Duty Vehicle with Plow and lift gate) – Airport Vehicle #31

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs)

Operating Budget Impact now or in future: Replacement vehicle, mission remains the same. Any savings derived by new equipment would be available to maintain remainder of deteriorating SRE vehicles.

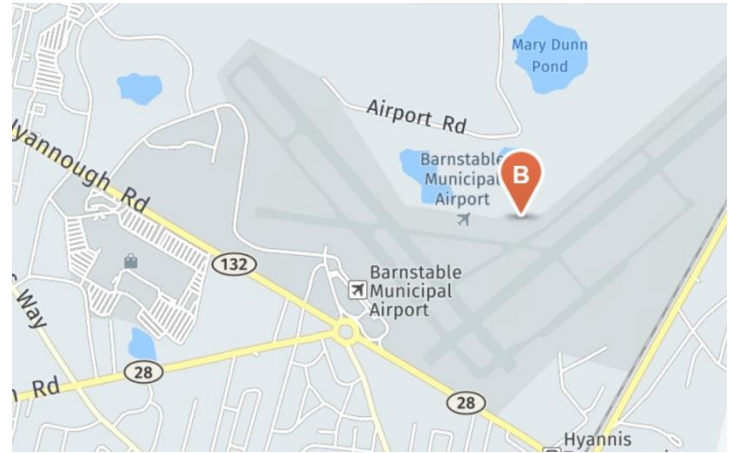


Ford F350 – Heavy Duty Vehicle with Plow and lift gate – Airport Vehicle #31

Project Working Title: Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment – Airport Vehicle #820 (Response Rescue and Firefighting Truck)

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Aircraft Rescue and Fire Fighting (ARFF) equipment must be maintained regularly to better serve their function and quickly and efficiently respond to airfield emergencies; and if certain FAA approved equipment is eligible for replacement with FAA grant assistance, ARFF vehicles and equipment must be evaluated and replaced as necessary. This project is to replace the 1992 E-One Titan Aircraft Rescue and Firefighting vehicle with tools and equipment in FY 2023 and is an approved FAA capital-planning project.



Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained; and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified. The airport would not be able to maintain operations, nor keep the runways open and safe for operation. Furthermore, the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$975,000
	Total Project Cost	-	\$975,000

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, manufacturer quotes, etc

Project Estimated Completion Date: 2024 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	-	-
2024	\$975,000	Replace Aircraft Rescue and Fire Fighting (ARFF) Equipment (First Response Rescue and Firefighting Truck) – Airport Vehicle #820

Source of Funding: FAA AIP reimbursable Grant funds at 90%; MassDOT at 5%; BMA at 5%

Operating Budget Impact now or in future: Replacement vehicle, mission remains the same. Any savings derived by new equipment would be available to maintain remainder of deteriorating ARFF vehicles.

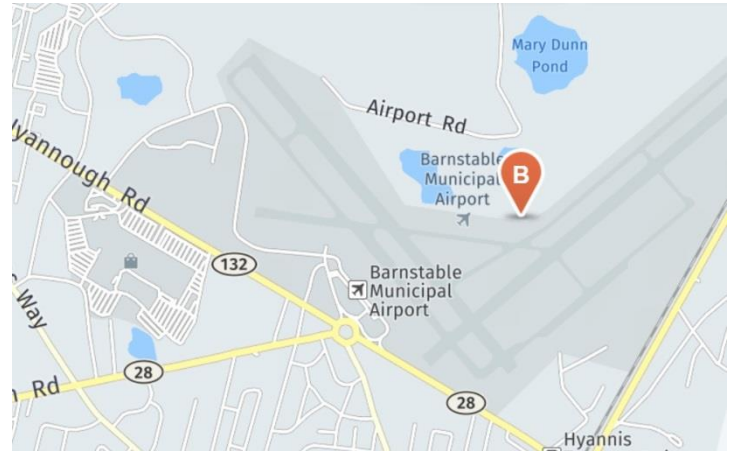


Aircraft Rescue and Fire Fighting (ARFF) Equipment

Project Working Title: Design, Realign and Reconstruct a Portion of Taxiway Delta and Taxiway Echo at Runway 15-33 Intersection

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: As part of the Federal Aviation Administration’s (FAA) goals to improve and correct airport layout deficiencies, enhance aircraft safety, and insure compliance with regulatory guidance, this project serves to correct major operational aircraft ground and runway safety area (RSA) deficiencies associated with a portion of taxiway Delta (circa 1998) and taxiway Echo (circa 1980) where they intersect with Runway 15-33.



Project Justification: This reconstruction project for approximately a 1,300 foot by 50 foot portion of Taxiway D (between Taxiway Charlie and Runway 15-33) and the entire 800 foot x 50 foot Taxiway Echo. The aircraft engine run-up pit of approximately 54,000 square feet in size are among the final steps in a multi-year process to modify and bring the airport runways and associated taxiways into compliance with FAA airport design criteria; and to meet the requirements of the FAA Airport Layout Plan and the Airport Master Plan to be completed in FY 2019. In June of 2013, the MassDOT Aeronautics Division completed a statewide pavement management report that shows Taxiway Delta as having a pavement condition index (PCI) of 86, with 0 being the worst condition, to 100 being the best condition. A PCI of 85 to 100 normally requires only preventative maintenance. Taxiway Echo was identified in the same report as having a PCI of 59. A PCI of 55 to 70 requires major rehabilitation. A new MassDOT pavement condition index report is being conducted in 2017/2018 to update and confirm the earlier study. The project is also subject to the Airport Master Plan Update review and permitting requested under capital project AIR-20-01.

Impact of Denial/Postponement: Denial or postponement of funding for this project will negatively affect aircraft and airport operations for the airport, and the airport will not be in compliance with FAA airport design criteria.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		-
Total Project Cost		-	\$4,500,000

Basis for Cost Estimates: Prior construction projects, engineering consultant estimates, FAA, and MassDOT consultations, etc.

Project Estimated Completion Date: 2024 **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	-	-
2024	\$4,500,000	Design, Realign and Reconstruct a Portion of Taxiway Delta and Taxiway Echo

Source of Funding: FAA share: 90%, MassDOT AD share: 5% and Airport share: 5%.

Operating Budget Impact now or in future: This project is for reconstruction, routine maintenance would stay the same.

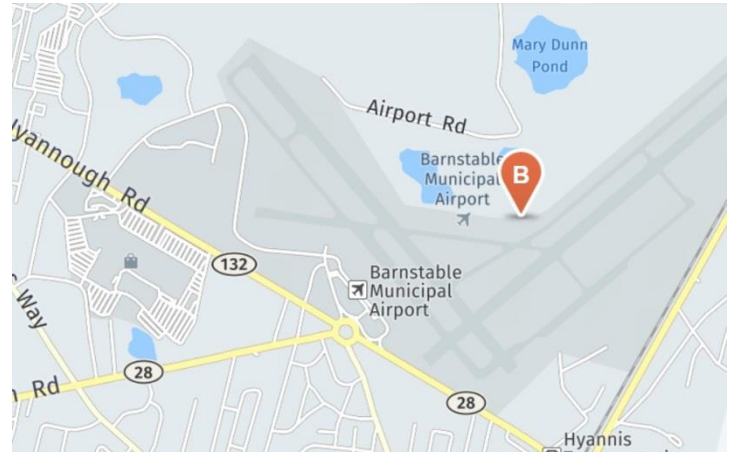


Taxiway Echo

Project Working Title: Replace Snow Removal Equipment (SRE) (Heavy Duty Carrier Vehicle with Plow and Sander) – Airport Vehicle #47

Project Location: 480 Barnstable Road, Hyannis, MA 02601

Project Description: Snow Removal Equipment (SRE) must be maintained regularly and when certain FAA approved equipment is eligible for replacement with FAA grant assistance, SRE vehicles and equipment must be evaluated and replaced as necessary. This project is to replace a 2006 Sterling A Line Heavy Duty Carrier Vehicle with Plow and Sander.



Project Justification: With approximately 1.5 million square feet of pavement, that includes two active runways, several aircraft taxiways and aircraft parking ramps that must be maintained, including snow removal; and to maintain our FAA FAR Part 139 airport certification, certain equipment must be available and in good condition to perform as required.

Impact of Denial/Postponement: The airport may not be able to meet mandated FAA FAR Part 139 certification requirements and would be decertified. The airport would not be able to maintain operations, nor remove snow in order to keep the runways open and safe for operation. Furthermore, the airport would be unable to provide a safe operation for the continuation of commerce as part of the national airspace plan; the airport would be unable to respond to airfield emergencies, with the potential for decreased flight safety, increased property damage, and would unnecessarily endanger lives and property.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$300,000
Total Project Cost	-	\$300,000	

Basis for Cost Estimates: Recent similar purchases, State Bid List, FAA acquisitions, etc.

Project Estimated Completion Date: 2024 **Design & Permit (months)** - **Construction (months)** 5

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	-	-
2024	\$300,000	Replace 2006 Sterling A Line Heavy Duty Carrier Vehicle with Plow and Sander - Airport #47

Source of Funding: Reimbursable funding from FAA (90%), MassDOT Aeronautics (5%) and local share (5%) and/or use of FAA Passenger Facility Charges (PFCs).

Operating Budget Impact now or in future: This request is for vehicle replacement, mission remains the same.



2006 Sterling A Line Diesel Heavy Duty Carrier Vehicle with Plow and Sander

Marina Enterprise Fund

PROJECT: MAR-20-1

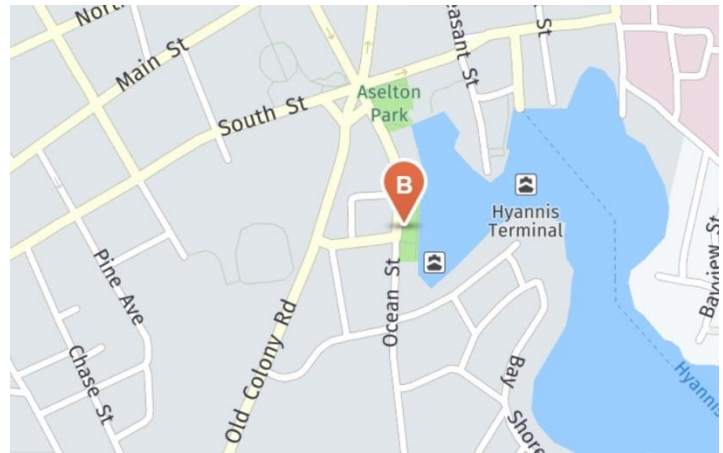
DEPARTMENT PRIORITY: 1 of 1

Project Working Title: Bismore Park Bulkhead Improvements

Project Location: 174 Ocean St., Hyannis, MA 02601

Project Description: This project request is for final design and construction to repair and replace the existing steel bulkhead and associated capping, adjacent walkways, parking, marine structures, and all affected utilities.

Project Justification: This harbor area is the “hub” of marine activity in the Town of Barnstable. Considerable year round commercial anglers use the bulkhead, recreational boaters use the many docking opportunities, and many thousands of tourists use the “promenade” to enjoy restaurants and the artist community. The bulkhead experienced a partial collapse in the 1990’s and those repairs are now at the end of their useful life.



Impact of Denial/Postponement: Lack of repair and replacement of the bulkhead could result in a catastrophic failure that would disrupt business interests and tourist access. Obviously, this is not an acceptable situation.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$175,000
	Construction or Acquisition	-	\$3,850,000
	Project Management	-	\$423,500
	Project Contingency	-	\$596,750
	All Other Cost	-	\$2,000
	Total Project Cost	-	\$5,047,250

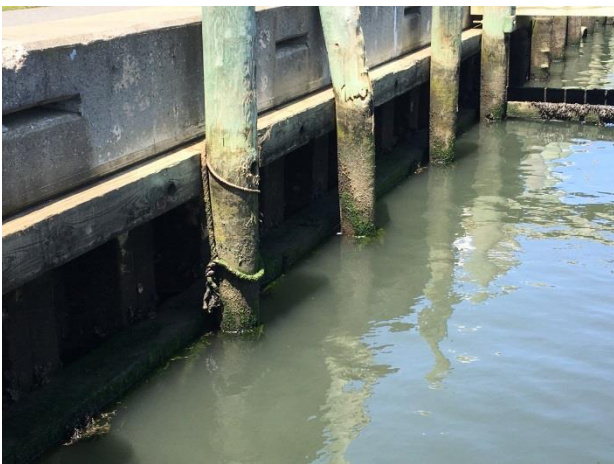
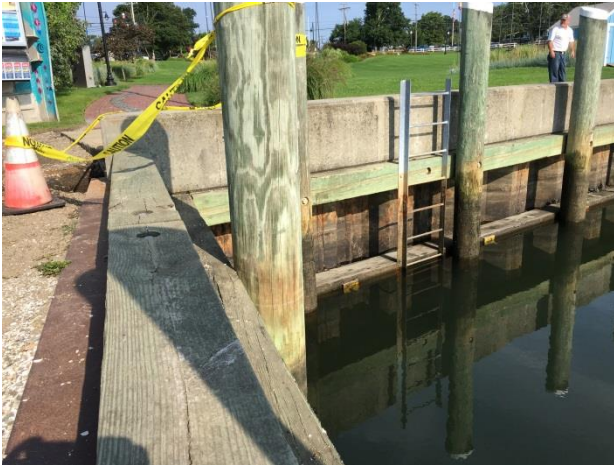
Basis for Cost Estimates: Department of Public Works Engineering Analysis

Project Estimated Completion Date: 2024 **Design & Permit (months)** 12 **Construction (months)** 18

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$5,047,250	Design, Construction, and Project Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Regular continued maintenance of enhanced facilities will be required from Marine & Environmental Affairs and Department of Public Works.



Bismore Park Bulkhead

Sandy Neck Enterprise Fund

PROJECT: SDY-20-2

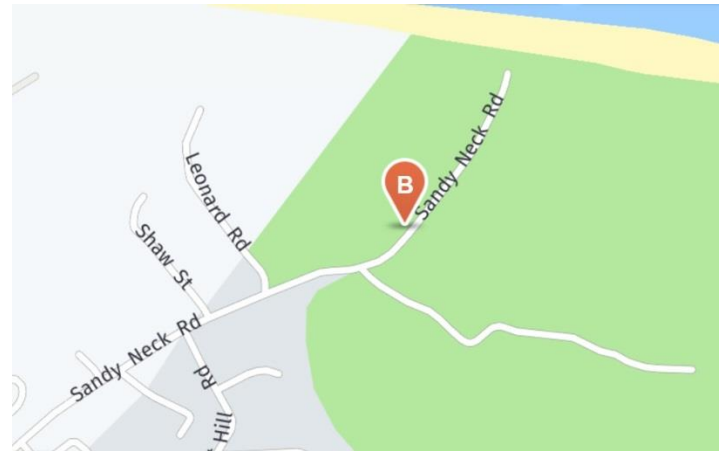
DEPARTMENT PRIORITY: 2 of 2

Project Working Title: Sandy Neck Parking Lot Relocation

Project Location: 425 Sandy Neck Road, West Barnstable, MA 02668

Project Description: This project will provide design, permitting, and construction to relocate the parking area and beach access, as well as analysis and selection of an appropriate offsite parking area with potential for shuttle service to the beach.

Project Justification: A detailed analysis of the long-term viability of the Sandy Neck beach parking and supporting facilities was completed as part of a grant from Coastal Zone Management (CZM) in the fall of 2016. The analysis demonstrated that in order to provide protection to the built infrastructure and maintain the viability of the parking, a relocation of the parking area was the most viable alternative. In order to supplement the information contained in the report this project will include design, permitting, and construction of relocated facilities as well as feasibility of environmentally suitable sites for parking.



Impact of Denial/Postponement: Without a long-term solution, the beach will continue to erode and continue to reduce the parking area and cause concern about the surviving septic system and the use of the beach itself for the public. Further, through multiple and lengthy talks with the regulatory agencies (DEP and NHESP), it has become apparent the Town should not assume a recovery of lost parking spaces, due to storm damage, is guaranteed under the current regulatory framework. Annual parking lot revenue equates to approximately \$250,000. This revenue source is potentially in jeopardy due to erosion from future storms.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$200,000
	Construction or Acquisition	-	\$2,000,000
	Project Management	-	\$240,000
	Project Contingency	-	\$400,000
	All Other Cost	-	\$10,000
	Total Project Cost	-	\$2,850,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate and 2016 Report

Project Estimated Completion Date: 2024 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$200,000	Design & Permitting
2023	-	-
2024	\$2,650,000	Construction & Construction Management

Source of Funding: Enterprise Fund Reserves and/or possible grant funding from CZM for a part of the cost.

Operating Budget Impact now or in future: New infrastructure in locations that are more protected from tidal and flood damage is expected to reduce maintenance costs.



Sandy Neck Park Parking Lot

Golf Enterprise Fund

PROJECT: GOLF-20-2

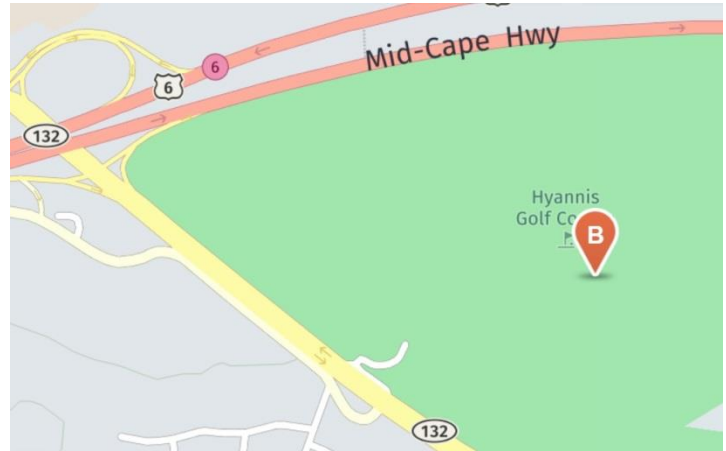
DEPARTMENT PRIORITY: 2 of 3

Project Working Title: Hyannis Golf Course - Improvements

Project Location: 1800 Iyannough Rd, Route 132, Hyannis MA 02601

Project Description: This Phase includes interior paint, carpeting, furniture, and fixtures. Other improvements will be incorporated as discovered during the design process.

Project Justification: Design improvements to the maintenance building built in the mid 1970's has begun. Renovations to the clubhouse bathrooms, interior stairs, exterior deck, deck stairs, new roof, and front entrance were completed in 2016. The clubhouse building is essential to the entire town golf operation, which provides facilities to over 1,100 members and the public. With renovations complete, it is now time to upgrade interior finishes and furnishings.



Impact of Denial/Postponement: Deferment of improvements will result in the inability to maintain and protect the town's asset, may result in loss of members and fee-paying guests, and loss of market share to area competition.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$106,260
Construction or Acquisition	-	\$885,500	
Project Management	-	\$44,275	
Project Contingency	-	\$44,275	
Total Project Cost	-	\$1,080,310	

Basis for Cost Estimates: In-House Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 4

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$180,310	Interior paint, carpeting, furniture, and fixtures replacements
2022	\$500,000	Parking lot expansion, resurfacing ,and landscape improvements
2023	\$400,000	New cart barn, lower restaurant reopened, and new lower deck.

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: As the facility is renovated over time, potential customers will find it much more appealing and conducive for their banquet functions, and thus enticing large golf outings. The lessee will be able to reach revenue thresholds triggering additional monies to the golf division. The golf course will attract more large golf tournaments and outings, which will also increase revenues.

Project Working Title: Old Barnstable Fairgrounds Golf Club Facility Improvements

Project Location: 1460 Route 149, Marstons Mills, MA 02648

Project Description: This project includes the replacement of the cart barn roof, and overhead doors. Additionally, the wall is failing around windows, and will be rebuilt.

Project Justification: The cart barn is in desperate need of improvements. This site provides services to 1,100 members and the public. The cart barn is used to store 80 gasoline powered golf carts. Due to the lack of funding, many of these improvements for both buildings have been deferred and have become urgently needed.



Impact of Denial/Postponement: The cart barn will fall further into disrepair; leakage will compromise the structure of the building. Deferment of maintenance will escalate future maintenance costs and create an inability to maintain and protect the town's asset. Hence, potential loss of members, fee-paying guests, and loss of market share to area competition may ensue.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$275,184
	Construction or Acquisition	-	\$2,293,200
	Project Management	-	\$91,728
	Project Contingency	-	\$183,456
	Total Project Cost	-	\$2,843,568

Basis for Cost Estimates: Architect Assisted In-House Estimate

Project Estimated Completion Date: 2026 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$280,000	Cart barn roof replacement, and cart barn overhead door fixtures replaced
2022	\$250,000	Replacement of two 1,000-gallon underground fuel tanks and dispensary systems, and cold storage building construction
2023	\$800,000	Complete sand bunker renovation & restoration
2024	\$1,513,568	Replacement of irrigation system

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: There should be no impact on the operating budget as far as expenses are concerned. It will be some time before we could see any increases in revenues associated with the facility renovation. This project is meant to stabilize an existing town building, and would require a marginal increase in utility costs.

Water Pollution Control Enterprise Fund

PROJECT: WPC-20-6

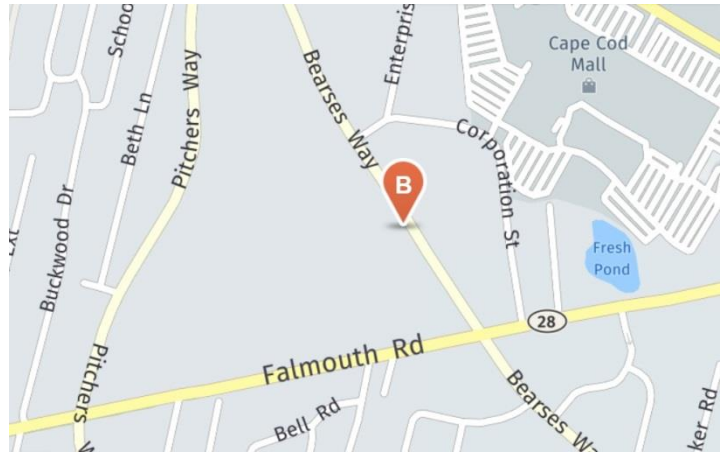
DEPARTMENT PRIORITY: 6 of 15

Project Working Title: Vehicle Replacement, Laboratory Van

Project Location: 617 Bearses Way, Hyannis, MA 02601

Project Description: Replacement of vehicle, WPCD Laboratory Van

Project Justification: Vehicle, the WPCD laboratory van, was purchased in 2007 and is showing signs of deterioration. This vehicle is used for routine sample collection at the Hyannis and Marstons Mills wastewater treatment plants. It is also used for groundwater sampling and transportation to conferences and seminars across the state. This vehicle is occasionally required to travel on off-road paths and in inclement weather conditions, but currently does not have 4 wheel drive or all-wheel drive.



Impact of Denial/Postponement: If left unfunded, this vehicle's condition will continue to deteriorate. Excessive downtime would leave WPCD staff without an adequate amount of vehicles to carry our routine work.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$50,000
	Total Project Cost	-	\$50,000

Basis for Cost Estimates: In-House Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 1

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$50,000	Vehicle replacement

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Normal levels of preventative maintenance will continue. While emergency repairs will become less likely, the impact of this vehicle replacement on the WPCD operating budget will be negligible.



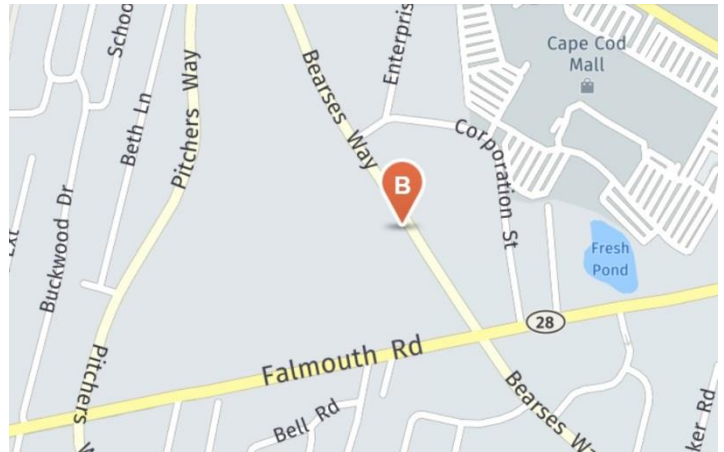
Existing Vehicle to be Replaced

Project Working Title: Solids Handling Upgrades Construction

Project Location: 617 Bearses Way, Hyannis, MA 02601

Project Description: This project includes construction of recommended improvements to the WPCF septage building and solids handling process. This request serves as a placeholder until the evaluation and design is complete.

Project Justification: The WPCF's solids handling process and sludge processing building (septage building) are currently being evaluated as part of a 2014 CIP request. The septage building was built in 1990 and is at the end of its design life. The building processes up to 12,000,000 gallons of septic waste, 1,000,000 gallons of grease, and 11,000,000 gallons of wastewater sludge per year. The septage building is a critical component of the wastewater treatment process. Improvements will be made to the mechanical equipment, piping, electrical components and building structure. These improvements will increase the efficiency of the sludge thickening process, potentially resulting in savings with sludge disposal costs. These improvements will extend the life of the building by approximately 20 years.



Impact of Denial/Postponement: If denied, the septage building will continue to operate beyond its expected design life, using inefficient technologies and expensive sludge disposal methods. Working conditions will continue to deteriorate resulting in an unsafe work environment.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$2,930,000
	Project Management	-	\$285,000
	Project Contingency	-	\$285,000
	Total Project Cost	-	\$3,500,000

Basis for Cost Estimates: In-House Cost Estimate to be used as a placeholder. A more accurate cost estimate for this project will be developed when the evaluation and design phase is complete.

Project Estimated Completion Date: 2023 **Design & Permit (months)** 1 **Construction (months)** 24

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$3,500,000	Construction

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Budget impact is unknown until the completion of the evaluation and design work. There is potential for savings in sludge hauling costs if a new thickening technology is determined to be cost effective.



Septage Building



Sludge pump room



Septage Blower Room

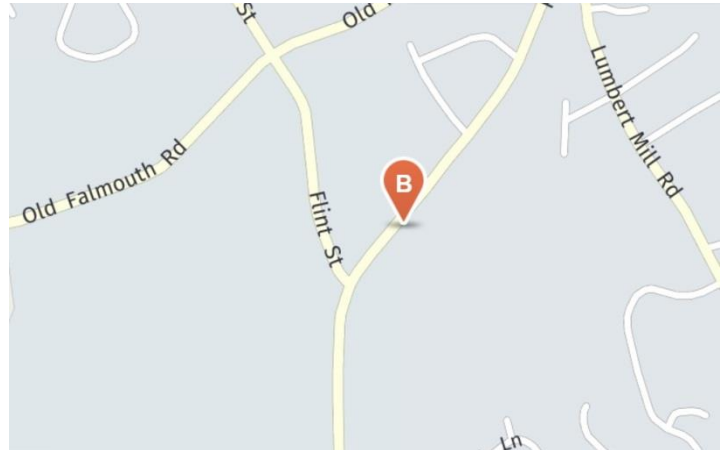


Sludge thickening belt

Project Working Title: Marstons Mills Wastewater Treatment Plant, Denitrification Sand Filter Replacement

Project Location: 730 Osterville-West Barnstable Road, Barnstable, MA 02648

Project Description: Replacement of the denitrification sand filter media at the Marstons Mills Wastewater Treatment Plant. This project also includes the replacement of all backwash nozzles and the rehabilitation of tank walls and pipework.



Project Justification: The denitrification sand filter beds and nozzles were last replaced in 2005 and have exceeded their design life of 10 years. While the sand filters are still functional at this time, the units are beginning to show signs of age, including slow percolation and the deterioration of tank walls and pipe work. The denitrification sand filters are a vital component of the treatment process, as they provide the proper environment for removing nitrogen from wastewater.

Impact of Denial/Postponement: If left unfunded, the condition of this vital piece of equipment will continue to deteriorate. The treatment plant will operate at less than its design capacity due to the restriction of flow through the filter beds. It can be expected that plant performance will suffer, leading to reduced effluent quality and an increased likelihood of a permit violation.

Project Cost Estimates:	FY 2020	Future FY
Construction or Acquisition	-	\$65,000
Project Contingency	-	\$10,000
Total Project Cost	-	\$75,000

Basis for Cost Estimates: In-House Cost Estimate (based on previous cost of sand filter replacement and tank rehabilitation)

Project Estimated Completion Date: 2021 **Design & Permit (months)** 1 **Construction (months)** 2

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$75,000	Sand filter replacement and tank rehabilitation

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: This project will have no impact on the operating budget, as the plant will continue to operate as designed with no change to the process.



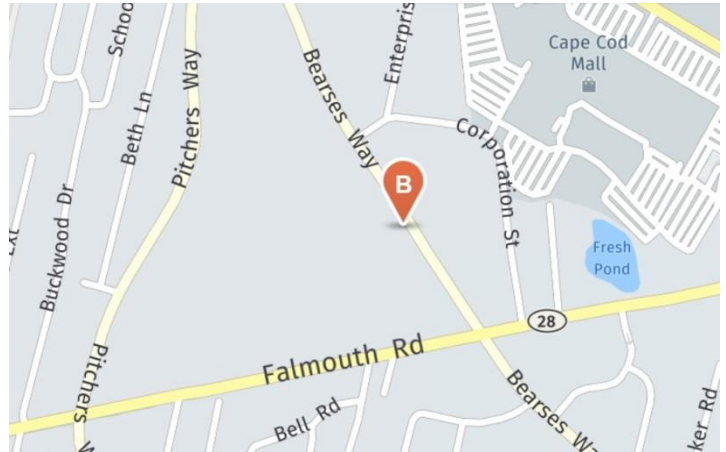
Denitrification Sand Filter Tank

Project Working Title: Truck Replacement

Project Location: 617 Bearses Way, Hyannis, MA 02601

Project Description: Replacement of Truck with a new ¾ ton pickup truck.

Project Justification: Truck was purchased in 2004 and is in need of replacement. This vehicle is well used and has served the town well, however it is showing signs of wear and tear. This truck is to be replaced with a larger truck with more tow capacity, plowing capabilities, and more storage for tools and equipment.



Impact of Denial/Postponement: Truck will be 16 years old at the time of replacement. It is likely this truck will fail completely in the near future if not replaced. This would leave WPCD staff without adequate transportation for routine maintenance.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$55,000
	Total Project Cost	-	\$55,000

Basis for Cost Estimates: In-House Cost Estimate (based on recent truck purchases)

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 1

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$55,000	Truck replacement

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Normal levels of preventative maintenance will continue. While emergency repairs will become less likely, the impact of this truck replacement on the WPCD operating budget will be negligible.

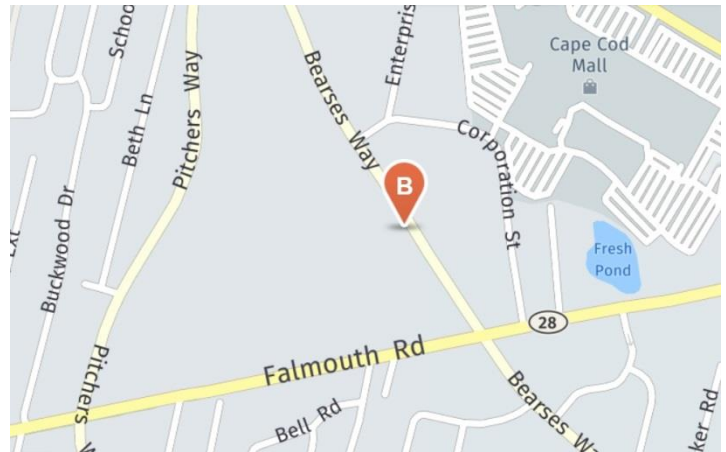


Existing Truck to be Replaced

Project Working Title: Sewer Closed Circuit TV (CCTV) Camera Trailer

Project Location: 617 Bearses Way, Hyannis, MA 02601

Project Description: This project involves the purchase of a sewer CCTV camera trailer capable of inspecting 6" to 21" sewer lines. This request also includes the purchase of a new computer and pipe inspection software.



Project Justification: Maintaining sewer infrastructure is easier when you can see it. With the purchase of a sewer camera trailer, the WPCD staff will be equipped to perform camera inspection work in-house rather than relying on a contractor to carry out the work. This will allow for WPCD staff to carry out emergency inspections in the event of pipe failure, as well as preventative pipe scans to identify potential problem areas and monitor the effectiveness of routine sewer cleaning.

Impact of Denial/Postponement: If denied, the WPCD will continue to rely on contractors to carry out sewer TV work. This would slow the progress of the WPCD's pipe inspection plan. WPCD staff would not be able to follow up routine pipe cleaning efforts with an inspection.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$125,000
	Total Project Cost	-	\$125,000

Basis for Cost Estimates: In-House Cost Estimate (based on vendor quotes)

Project Estimated Completion Date: 2020 **Design & Permit (months)** - **Construction (months)** 3

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$125,000	Purchase of sewer inspection camera trailer

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Cost reduction of \$5,000/year in budget line Repair & Maintenance Sewer Lines.



Typical Camera Trailer Setup



Sewer TV Camera



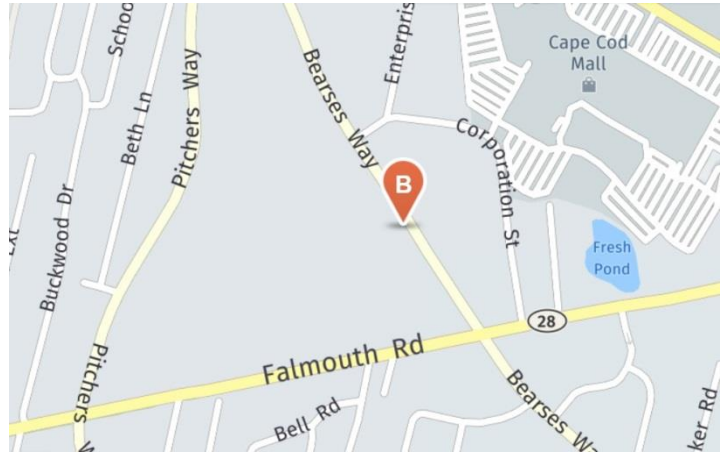
Defects in Pipe (Not a Barnstable photo)

Project Working Title: Equipment Storage Garage Construction at Waste Water Treatment Plan Facility (WPCF)

Project Location: 617 Bearses Way, Hyannis, MA 02601

Project Description: This project is for construction of a four bay garage at the Hyannis WPCF.

Project Justification: The Water Pollution Control Division needs more storage space in order to protect its rolling stock. The WPCD maintains six work trucks, a vacuum truck, tractor, sewer rodder, hose trailer, four portable generators, and a trash pump. The WPCD also plans to buy a sewer Closed Circuit TV (CCTV) trailer in FY 2020. Currently these assets cannot all be stored inside of the WPCD's five garage bays, and at times equipment must be stored outdoors. By constructing a new equipment storage garage, the WPCD will be able to store these valuable pieces of equipment indoors, protecting the longevity of these investments.



Impact of Denial/Postponement: Denial or postponement of this project will cause the WPCD to continue storing equipment outdoors in the elements, which could decrease the longevity of the equipment and lead to premature equipment failure.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$30,000
	Construction or Acquisition	-	\$532,900
	Project Management	-	\$37,310
	Project Contingency	-	\$89,790
	All Other Cost	-	\$34,000
	Total Project Cost	-	\$724,000

Basis for Cost Estimates: In-House Cost Estimate (based on \$315/square foot for base building cost)

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$724,000	Construction of equipment storage building

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: With increased equipment longevity, equipment replacement will likely become less frequent. However, normal amounts of preventative maintenance will continue with negligible impact on the operating budget. Utility usage is likely to increase with the addition of a new building, but will not require an immediate budgetary increase.



Tractor, stored outdoors



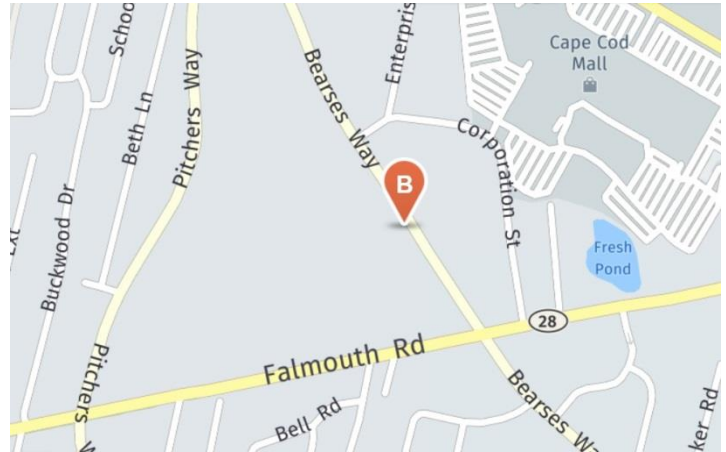
Vacuum Truck, stored outdoors



Misc. equipment, stored outdoors

Project Working Title: Water Pollution Control Facility Upgrade Study

Project Location: 617 Bearses Way, Hyannis, MA 02601



Project Description: The purpose of this project is to hire a consultant to carry out an evaluation of the Water Pollution Control Facility in order to ensure that it can remain compliant with its groundwater discharge permit and all other applicable requirements through the next five-year groundwater discharge permit cycle (2023-2028).

Project Justification: As part of the supplemental conditions of the Hyannis Water Pollution Control Facility’s (WPCF) latest groundwater discharge permit, the Massachusetts Department of Environmental Protection (DEP) requires a facility study to ensure continued compliance with the conditions of the permit. This facility study will recommend what modifications (if any) will be required for the WPCF to continue meeting permit conditions. The report is due with the groundwater discharge permit renewal application in the fall of 2022.

Impact of Denial/Postponement: Denial or postponement of this study would cause the WPCF to fall out of compliance with the conditions of its groundwater discharge permit. This could result in a notice of non-compliance and/or costly fines to the Town.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$150,000
	Total Project Cost	-	\$150,000

Basis for Cost Estimates: In-House Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 2 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$150,000	Evaluation of WPCF

Source of Funding: Enterprise Fund Reserves

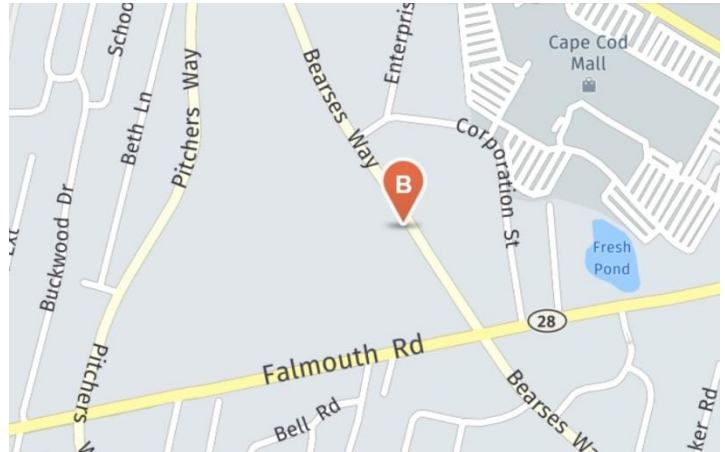
Operating Budget Impact now or in future: There would be no operating budget impact in carrying out this evaluation. Any future upgrades required by the report may have an impact on the WPCD operating budget.

Project Working Title: Truck Replacement

Project Location: 617 Bearses Way, Hyannis, MA 02601

Project Description: Replacement of Crane Truck

Project Justification: Crane Truck was purchased in 2007 and will be 14 years old at the time of replacement. This truck is equipped with a crane used for hoisting pumps and equipment. Because of the workload placed on this truck, it has experienced a large amount of wear and tear. This truck must be replaced in order to continue carrying out routine maintenance of the town’s wastewater collection system and Water Pollution Control Facility.



Impact of Denial/Postponement: If left unfunded, the condition of this important truck will continue to deteriorate, leading to significant downtime while the truck is being repaired. This could hinder the WPCD’s ability to respond to emergencies at the town’s 27 pump stations and wastewater treatment plant.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$75,000
	Total Project Cost	-	\$75,000

Basis for Cost Estimates: In-House Cost Estimate (based on previous truck purchases)

Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** 1

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$75,000	Purchase of new crane truck

Source of Funding: Enterprise Fund Reserves

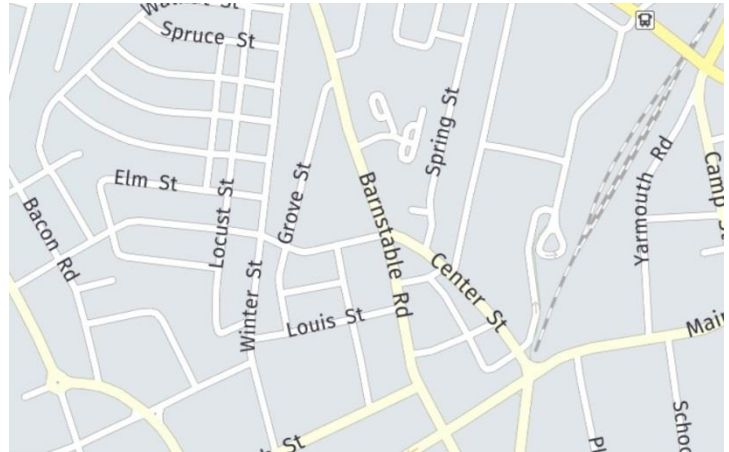
Operating Budget Impact now or in future: Normal levels of preventative maintenance will continue with little impact on the WPCD operating budget.



Existing Truck to be Replaced

Project Working Title: Barnstable Road Sewer Rehabilitation Construction

Project Location: Barnstable Road, Hyannis, MA 02601



Project Description: This project serves as a placeholder for the construction phase of the Barnstable Road sewer rehabilitation project. Construction of the recommended improvements will occur in conjunction with Hyannis Water Department’s water main improvements in a future fiscal year.

Project Justification: The Water Department’s 2007 Master Plan calls for the replacement of 3,200 feet of water main, valves, hydrants, and service connections on Barnstable Road. The purpose of this project is to work in conjunction with Hyannis Water Department work in order to minimize construction disturbance and save money on project costs. This particular project will construct improvements that are recommended during the evaluation and design phase of this project. Certain stretches of sewer on Barnstable Road are 80 years old and the need to repair these lines is becoming imminent. This project will coordinate these repairs with other utilities in order to save on overall project costs and minimize any inconvenience to the public that would be caused by frequent road openings.

Impact of Denial/Postponement: If denied, the water main replacement would continue as planned, and any sewer repairs would be carried out later, independent of this project. An opportunity to coordinate repairs with other utilities would be lost, meaning more road openings going forward and more disruption to local traffic and businesses in this area.

Project Cost Estimates:	FY 2020	Future FY
Construction or Acquisition	-	\$715,000
Project Management	-	\$70,000
Project Contingency	-	\$70,000
Total Project Cost	-	\$855,000

Basis for Cost Estimates: In-House Cost Estimate

Project Estimated Completion Date: 2023 **Design & Permit (months)** - **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$855,000	Construction

Source of Funding: Enterprise Fund Reserves

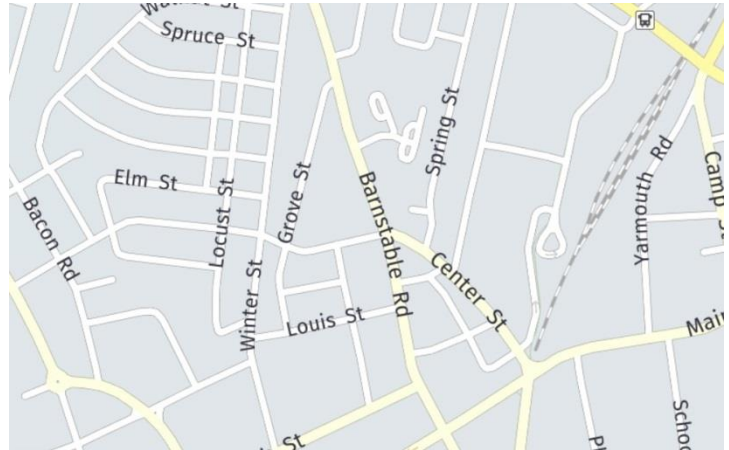
Operating Budget Impact now or in future: Normal levels of preventative maintenance would continue with no impact on operating budget or staffing.



Barnstable Road Sewer Main

Project Working Title: MSB Generator Design and Construction

Project Location: Barnstable Road, Hyannis, MA 02601



Project Description: This project involves the design and construction of a second emergency backup generator at the Water Pollution Control Division’s (WPCD) “MSB” switchgear.

Project Justification: A 2014 backup power evaluation recommended replacing the generator at switchgear “MSA” with a 750kw diesel powered generator, and constructing a 450kw diesel powered generator at “MSB” when future loads dictate. The MSA generator construction was completed in 2017. It is anticipated that the WPCD will be taking on additional flows as the town continues to expand its sewer network. It is also likely that the plant will undergo another major upgrade in the future. In order to provide enough backup power to energize the treatment plant in the event of a power outage, an additional generator will be necessary. This generator will also provide redundancy in the event that the MSA generator fails.

Impact of Denial/Postponement: Denial of this project could result in a lack of backup power for the wastewater treatment plant under future conditions, and would not be viewed favorably by the Massachusetts Department of Environmental Protection (DEP). In the event of a failure of the MSA generator, portable backup generators can be used to power up small pieces of equipment such as the effluent pumps. This would allow the WPCD to continue to move water through the plant, however it would remain mostly untreated, and this would result in effluent violations and possibly a notice of non-compliance from the DEP.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$35,000
Construction or Acquisition	-	\$365,000
Project Management	-	\$35,000
Project Contingency	-	\$35,000
Total Project Cost	-	\$470,000

Basis for Cost Estimates: Department of Public Works Engineer’s Cost Estimate

Project Estimated Completion Date: 2024 **Design & Permit (months)** 6 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	\$470,000	Design & Construction

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Normal levels of preventative maintenance would continue.

Water Supply Enterprise Fund

PROJECT: WS-20-6

DEPARTMENT PRIORITY: 6 of 6

Project Working Title: New Well Exploration Program

Project Location: Town of Barnstable

Project Description: To continue the on-going new well exploration program with the permitting, designing, and construction of new wells for the Hyannis Water System. This capital request is for the fourth and final phase of the new well exploration program. The first phase consisted of exploratory test wells, environmental notifications, evaluations, and recommendations. The second phase dealt with DEP new source approvals, 8" test well construction, and 5 day pumping tests. The third phase did consist of the design and permitting of the new well buildings and appurtenances with all environmental impact reporting requirements. This fourth phase will be the construction phase. A project engineer, partially funded out of this program, will provide project management and oversight.

Project Justification: Water quality study results and recent UCMR3 sampling and testing indicated that seven of the Public Works twelve wells have water quality issues (1,4 Dioxane, PFAS and iron and manganese) that cannot be addressed with our current treatment systems. As a result, these seven wells need to be replaced, or have additional treatment added to them.

Impact of Denial/Postponement: The ability to provide the ratepayers of the Hyannis Water System with the highest possible water quality will continue to deteriorate and the redundancy of water pumping capacity will diminish.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$475,000	\$371,747
	Construction or Acquisition	\$1,766,000	\$1,382,117
	Project Management	\$64,000	\$124,088
	Project Contingency	\$250,500	\$196,048
	Total Project Cost	\$2,555,500	\$2,074,000

Basis for Cost Estimates: Consultant Cost Estimates.

Project Estimated Completion Date: 2027 **Design & Permit (months)** 6 **Construction (months)** 18

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$2,555,500	Construction Well A
2022	\$36,000	Project Management
2023	\$2,000,000	Construction Well B
2024	\$38,000	Project Management

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: It is expected that some moderate financial impact on the operating contract will occur after FY 2027 due to slight increases in utility and maintenance costs. The dollar amount will be determined in FY 2027

Solid Waste Enterprise Fund

PROJECT: SW-20-1	DEPARTMENT PRIORITY: 1 of 10
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Project Working Title: Compactor Replacement (5 Units)

Project Location: 45 Flint Street, Marstons Mills, MA 02648

Project Description: Replacement of two compactor units

Project Justification: The existing compactor units are almost 25 years old and are beyond their useful life. They have already been repaired numerous times and have deteriorated to the point that it is no longer cost effective to do so.



Impact of Denial/Postponement: Denial or postponement of this request could severely affect efficient operations of the Transfer Station & Recycling Center. The compactor’s manufacturer is out of business making obtaining replacement parts extremely difficult. Failure of this equipment severely affects the ability to accept and transfer sticker holders’ household trash and the efficiency of our operations.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$400,000
	Total Project Cost	-	\$400,000

Basis for Cost Estimates: Quotes obtained through vendors and expected increases in costs

Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** 4

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$100,000	Replacement of two compactor units
2022	\$100,000	Replacement of two compactor units
2023	\$100,000	Replacement of two compactor units
2024	\$100,000	Replacement of two compactor units

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget.



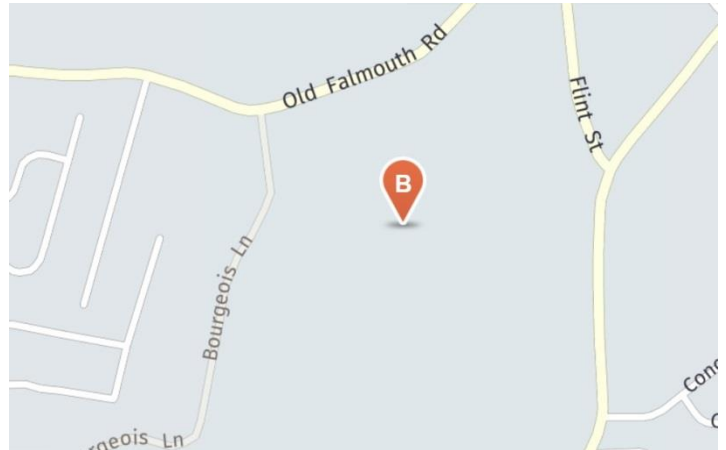
Compactor Units

Project Working Title: Container Replacement

Project Location: 45 Flint Street, Marstons Mills, MA 02648

Project Description: Replacement of two containers

Project Justification: The containers are what household trash and recyclables are compacted into for hauling and disposal. The current containers are nearing the end of their useful life, and beginning to show wear & tear and deterioration. They have large areas of rust and corrosion, and their support structure and frame are beginning to be compromised. When the structure of the container reaches this point, they are no longer safe to use or to travel down the roadway.



Impact of Denial/Postponement: Denial or postponement of this request could severely affect efficient operations of the Transfer Station & Recycling Center. These containers are where household trash and recyclables are compacted in order to be transported to other facilities. Without containers, we do not have a way to transfer material from the Transfer Station to any other facility. The number of containers we have to use is enough to keep material moving but does not leave much room for error. If containers are useless due to age and deterioration, we will not be able to keep up with the amount of material that residents dispose of.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$120,000
	Total Project Cost	-	\$120,000

Basis for Cost Estimates: Quotes obtained through vendors and expected increases in costs

Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** 4

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$30,000	Replacement of two containers
2022	\$30,000	Replacement of two containers
2023	\$30,000	Replacement of two containers
2024	\$30,000	Replacement of two containers

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget.



Containers with Corrosion

Project Working Title: Zero Turn Mower with Bagger

Project Location: 45 Flint Street, Marstons Mills, MA 02648

Project Description: This project request is for replacement of existing turf mower with zero turn mowers with bagger.

Project Justification: The current mower is nearing the end of its useful life. It is showing heavy wear and tear and deterioration due to its age. Breakdowns and the associated repairs are becoming more costly.

Impact of Denial/Postponement: Denial of this request will affect the efficiency of Solid Waste operations. The turf mower is one of the main pieces of equipment for the maintenance of the grounds at the Transfer Station & Recycling Center. The Solid Waste Division does the majority of the grounds maintenance for the facility. A new mower will allow the maintenance to be accomplished with efficiency and allow employees to move onto other tasks quickly.



Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$25,000
	Total Project Cost	-	\$25,000

Basis for Cost Estimates: Quotes obtained through vendors and expected increases in costs

Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** 2

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$25,000	Replacement of Zero Turn Mower

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget.



Existing Zero Turn Mower with Bagger Needing Replacement

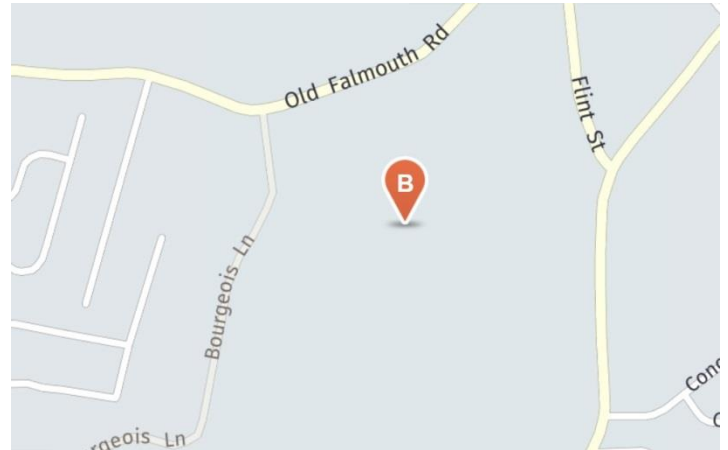
Project Working Title: Generator Replacement

Project Location: 45 Flint Street, Marstons Mills, MA 02648

Project Description: This project request is for replacement of one of two generators.

Project Justification: The generator has reached its useful life, which the device is over 15 years old. This generator supports the household trash disposal area.

Impact of Denial/Postponement: Denial of this request will result in the loss of ability to operate the facility if there is a loss of power. Additionally, when there is a loss of power to the facility, the existing generator can only operate some of the systems at once, but not all of them at the same time, which is inconvenient and causes delays.



Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		-
Total Project Cost		-	\$100,000

Basis for Cost Estimates: Quotes obtained through vendors and expected increases in costs

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$100,000	Replacement of Generator

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget.



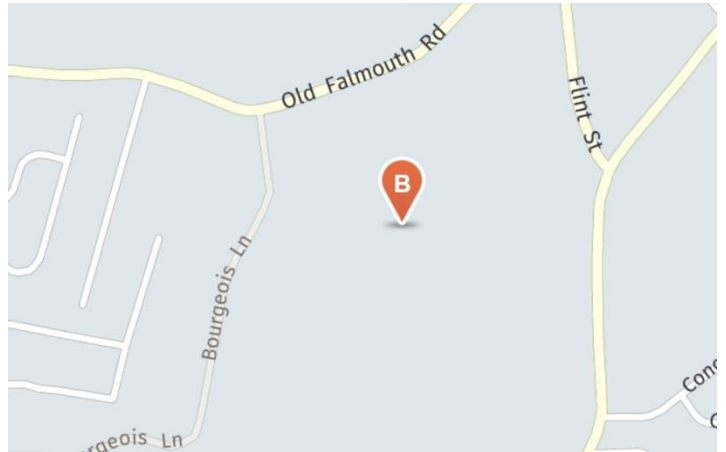
Generator

Project Working Title: Municipal Packer Replacement

Project Location: 45 Flint Street, Marstons Mills, MA 02648

Project Description: This project request is for replacement of existing municipal packer.

Project Justification: The municipal packer provides trash removal services for Town of Barnstable buildings, beaches, parks, main streets and other locations throughout the town. This piece of equipment is vital to removing trash from town properties.



Impact of Denial/Postponement: Denial of this request will result in the delay of trash removal from town buildings and properties. Holding on to this vehicle for too long will adversely affect town properties and buildings, due to a greater chance of a major breakdown involving costly repairs and lost working time.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$300,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: Quotes obtained through vendors and expected increases in costs

Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$300,000	Replacement of municipal packer

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget.



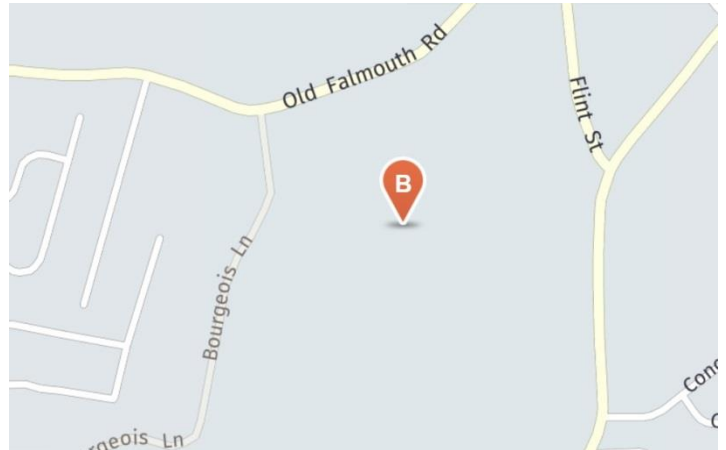
Existing Municipal Packer Needing Replacement

Project Working Title: Roll Off Truck Replacement

Project Location: 45 Flint Street, Marstons Mills, MA 02648

Project Description: Replacement of 1989 Roll Off Truck

Project Justification: The roll off truck is essential to the operation of the Solid Waste Division. This vehicle handles the full and empty containers at the facility. The truck also hauls full containers over the road to vendors for proper disposal of items. It is a vital component to the operation of the Transfer Station & Recycling Center.



Impact of Denial/Postponement: The 1989 model Roll Off Truck has more than exceeded its useful life. The truck is at the point in its life that it will not pass inspection and is only used at the facility. We have been maintaining up keep on the truck, but it has reached an irreparable stage.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$250,000
	Total Project Cost	-	\$250,000

Basis for Cost Estimates: Quotes obtained through vendors and expected increases in costs

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$250,000	Replacement of 1989 Roll Off Truck

Source of Funding: Enterprise Fund Reserves

Operating Budget Impact now or in future: Normal levels of operation would continue with no impact on staffing or operating budget.



1989 Roll Off Truck Needing Replacement

Comprehensive Water Management and Private Way Improvements Fund Projects

PROJECT: DPW-20-1

DEPARTMENT PRIORITY: 1 of 5

Project Working Title: Attucks Lane Pumps Station Area, Sewer Expansion

Project Location: RT 132, Old Strawberry Hill Road, MA 02632

Project Description: Installing sewer to feed the soon to be installed Attucks Lane Pump Station to south of Route 132 and Old Strawberry Hill Road.

Project Justification: This project will provide the businesses and residences a municipal solution to their wastewater issues, and in doing so begin to protect Shallow Pond from nutrients. This project is addressing areas that are included in the Water Resource Advisory Committee (WRAC) recommended Wastewater Management Plan.



Impact of Denial/Postponement: The Town has worked with a private developer to obtain ownership of a pump station in this area. It is important for the long-term viability of this station to tie in homes. If this area were not sewerred, Shallow Pond would be unprotected from nutrients from septic loads.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$1,850,000
	Project Management	-	\$250,000
	Project Contingency	-	\$400,000
	Total Project Cost	-	\$2,500,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** 24

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$2,500,000	Construction & Construction Management

Source of Funding: Comprehensive Water Management & Private Way Improvement Fund Reserves

Operating Budget Impact now or in future: 0.08 Full-time-equivalent employees, Grade 8 Operator.



Sewer Expansion Project Location

General Fund Projects

Police General Fund Project

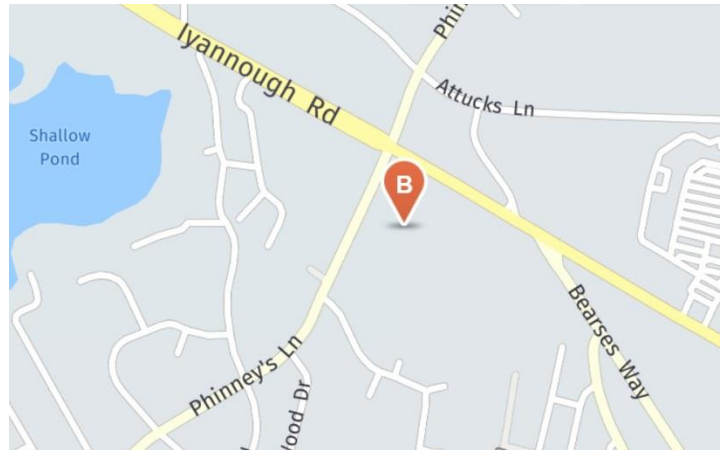
PROJECT: POL-20-1

DEPARTMENT PRIORITY: 1 of 1

Project Working Title: Barnstable Police Department Improvements/Replacement

Project Location: 1200 Phinney's Lane, Hyannis, MA 02632

Project Description: The Police Department facility was constructed over 30 years ago. The windows in the original building are coming to the end of their useful life and need replacement.



Phase 1: (public and employee security and safety)

- Front lobby security upgrades,
- Lobby bathroom upgrades for expanded use and ADA compliance,
- Concrete ramp and step improvements for ADA compliance; and
- Lobby ballistic separation wall installation.

Phase 2: (operational improvements)

- Replace exterior window systems,
- Increase front parking; and
- Install new garage ventilation and select overhead doors.

Phase 3 (finish upgrades)

- Replace interior floor finishes,
- Interior painting,
- Ceiling grid and panel replacement; and
- Elevator refurbishment.

Project Justification: Constructed in 1981, the Police Department Facility is one of the most heavily used buildings in Town. The facility is utilized 24/7 and as such building elements are worn out and need to be replaced. Hazardous material in the exterior masonry walls has bled through the old metal windows onto interior working surfaces with documented exposure events. This project will replace worn windows and remove any gaps in the existing openings.

Impact of Denial/Postponement: Separation between police personnel and unsecured public spaces will remain a hazard. Parking will continue to be inadequate. Disability access to the facility will continue to fail current standards. Systems will continue to deteriorate creating opportunities for vermiculite migration into interior spaces. The old windows are outdated, compromise energy efficiency, and allow the continued deterioration of the building envelope. Inflation will continue to erode purchasing power. Interior finishes will continue to erode and be sub-standard.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$275,180
	Construction or Acquisition	-	\$2,293,170
	Project Management	-	\$174,488
	Project Contingency	-	\$275,180
	All Other Cost	-	\$2,417
	Total Project Cost	-	\$3,020,435

Basis for Cost Estimates: Architect Assisted In-House Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$854,073	Phase 1 upgrades (security & safety)
2022	\$1,175,365	Phase 2 upgrades (operational improvements)
2023	\$990,997	Phase 3 upgrades (finishes)

Source of Funding: Possible Community Preservation funding and/or Capital Trust Fund Reserves

Operating Budget Impact now or in future: This project is to stabilize an existing Town building with marginal increase in utility costs.





Police Department Interior Improvements Needs

Administration Department General Fund Projects

PROJECT: ADM-20-1

DEPARTMENT PRIORITY: 1 of 3

Project Working Title: Unified Communications – VOIP (Voice over Internet Protocol)

Project Location: All Town locations connected by Barnstable Fiber Optic Network (BFON)

Project Description: Replace existing phone system(s) with Voice over Internet Protocol (VOIP) utilizing the Barnstable Fiber Optic Network (BFON)

Project Justification: The phone systems located in Town Hall (508-862-XXXX and 508-790-XXXX exchange) will be 19 years old as of July 2019 (FY20). This is archaic phone system by standards. There will be failures the more the system ages. The Town has been told by the phone vendor that parts are hard to find for systems of this age. With the system's age and scarce parts available, it is overdue to be replaced with a newer system. After BFON was completed and all Town and School buildings were connected by high-speed fiber, I.T. had planned that the next obvious step would be a unified communication system for all Town and School locations. With a proven solid data network backbone in place and aging telephone system(s), it makes sense to combine all locations into one unified communications platform. This will eliminate the islands of smaller CENTREX phone systems that exist today, (508-790-XXXX, Airport, Golf(s), Solid Waste, and Police Department etc.) along with the locations that utilize POTS lines (Plain Old Telephone Systems). Note: Schools received money for VOIP in FY18, and that the Schools were looking into systems specifically designed for schools and security. The schools did implement their own VOIP system.

Impact of Denial/Postponement: The Town would have to continue to use the various older systems and hope that parts can be found should hardware fail. There is no guarantee that replacement parts can be found in a timely fashion so that does add an element of risk to Town operations.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$56,500	-
	Project Contingency	\$10,000	-
	All Other Cost	\$148,875	\$148,875
	Total Project Cost	\$215,375	\$148,875

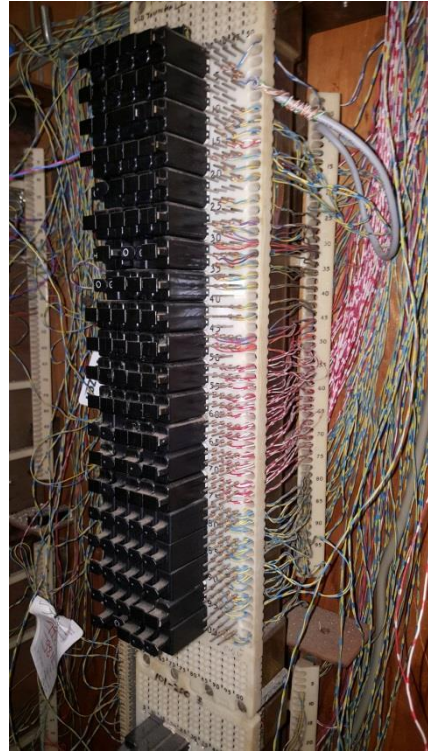
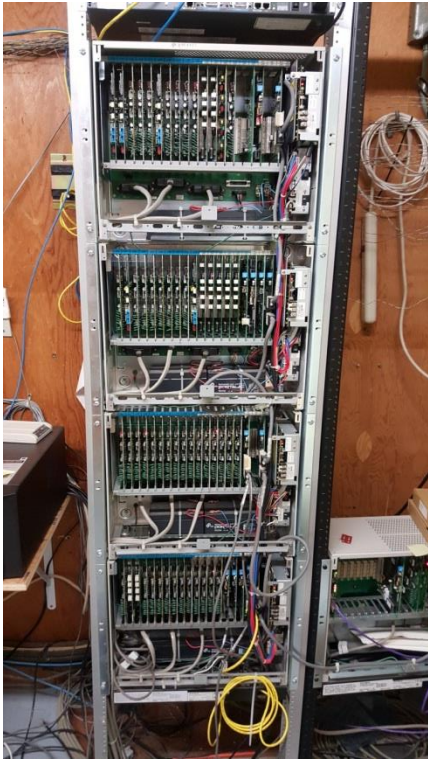
Basis for Cost Estimates: State Contract Vendor Pricing

Project Estimated Completion Date: 2021 **Design & Permit (months)** 4 **Construction (months)** 3

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$215,375	Yearly amount for phone service
2021	\$148,875	Yearly amount for phone service

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Structures and Grounds will still be responsible for POTS lines (Plain Old Telephone). These include alarm, fax, elevator lines, etc.



Voice over Protocol (VOIP) System

Marine & Environmental Affairs General Fund Projects

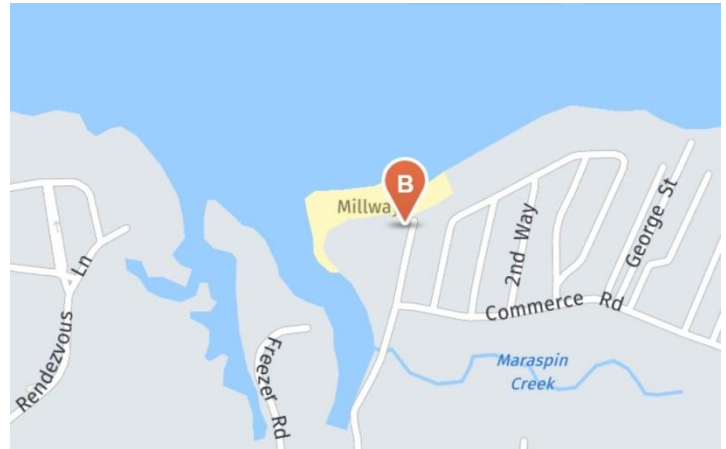
PROJECT: MEA-20-2

DEPARTMENT PRIORITY: 2 of 12

Project Working Title: Blish Point Construction for Long Term Solution

Project Location: 399 Millway, Barnstable, MA 02630

Project Description: This project is for design and permitting to restore coastal bank with stone revetment, or other protective armoring. In addition, includes sand nourishment, dune grass and other plantings, bioengineered stabilization, sand/impact fencing, mitigation, and associated work.



Project Justification: The unarmored coastal bank has experienced severe erosion on about a 2-year frequency in recent years due to severe storms, extreme high tides, and storm surges. This may be contributing to the recurring need to dredge accumulated sand/sediment from the Barnstable Harbor entrance channel every few years. Over a longer-term life cycle, a hardened revetment, similar to the one on the private side of the same beach is anticipated to be more cost effective and has been a proven approach for protecting Town assets at the Millway Beach parking lot.

Impact of Denial/Postponement: The cycle of erosion, sand replacement, and erosion will continue, and is expected to worsen due to the predictions of more frequent severe storms and sea levels rising. This is costly and eventually the erosion will be severe enough to damage or destroy the observation deck, bathhouse, parking lots, and road.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$200,000	-
	Construction or Acquisition	-	\$1,600,000
	Total Project Cost	\$200,000	\$1,600,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2024 **Design & Permit (months)** 24 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$200,000	Design & Permitting
2021	-	-
2022	\$1,600,000	Construction & Construction Management

Source of Funding: Grant Funding and/or Capital Trust Fund Reserves

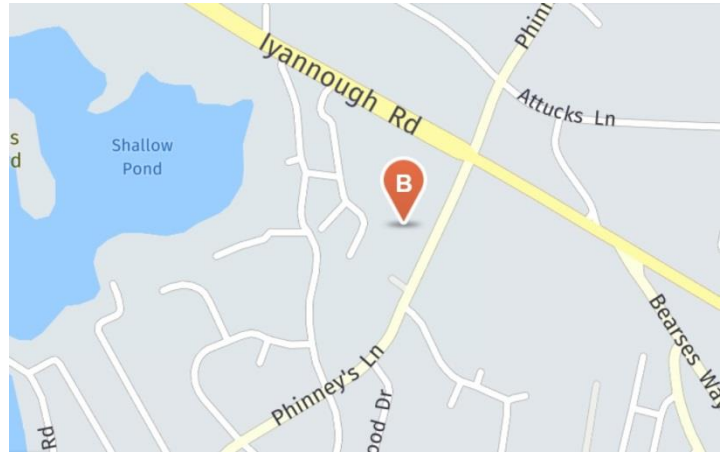
Operating Budget Impact now or in future: None. This is expected to reduce Operating & Maintenance costs and substantially reduce repair costs.



Blish Point Sand Barrier

Project Working Title: Marine & Environmental Affairs (MEA) Building Interior Project Phase III

Project Location: 1189 Phinney’s Lane, Centerville, MA 02632



Project Description: The project consists of interior improvements of the existing Marine & Environmental Affairs building.

Project Justification: Phase I & II Renovations of the Marine and Environmental Affairs building was recently completed, which converted temporary work areas into needed permanent open office areas. Phase III of the planned renovation work will include reconfiguration of the main entrance area to comply with accessibility requirements, restrooms will be made ADA compliant. Interior office areas will be refinished with new paint, flooring, and lighting. Much needed storage areas will be completed in the garage area.

Impact of Denial/Postponement: The restrooms are non-compliant in ADA terms and existing offices are below acceptable standards and need upgrading. This gives a poor impression of the Town to the visiting public using these facilities.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$9,526	-
	Construction or Acquisition	\$144,332	-
	Project Management	\$7,938	-
	Project Contingency	\$30,310	-
	Total Project Cost	\$192,106	-

Basis for Cost Estimates: In-House Cost Estimate

Project Estimated Completion Date: - **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$192,106	Design & Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: New facility will protect equipment and add to its longevity by putting it under cover. Increased utilities cost \$1,000 per year.



Marine & Environmental Affairs Office Building Interior

Project Working Title: Mill Pond & Long Pond Fish Ways –Construction

Project Location: Mill Pond Adjacent to Route 149 Marstons Mills & Long Pond off Holly Lane, Centerville

Project Description: Rehabilitation work at the Mill Pond site including replacement of the concrete flume, dam and associated access walks and fencing to allow appropriate fish passage. The Long Pond site includes construction of a permanent control structure and fish way, together with stream bank stabilization.

Project Justification: Alewife and blueback herring are collectively known as “river herring”. The two species are very similar in appearance and have been historically harvested and managed jointly. In 2006, National Marine Fisheries Services (NMFS) identified river herring as a “Species of Concern” due to drastic declines throughout much of their range. It is critical to provide appropriate fish passage for these species. The current layout for both locations does not achieve these goals and will need to be further designed with a plan approval by the Department of Marine and Fisheries. Public Works will also continue its working relationship with the Association to Preserve Cape Cod (APCC) to seek out grant and other funding opportunities.

Impact of Denial/Postponement: Delay of appropriating construction funding for these projects will result in continuation of the inability of fish to access headwaters and therefore upset the balance of nature in the ponds. This in turn will negatively affect the cultural and economic benefits to be gained.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$725,000
	Project Management	-	\$80,000
	Project Contingency	-	\$145,000
	Total Project Cost	-	\$950,000

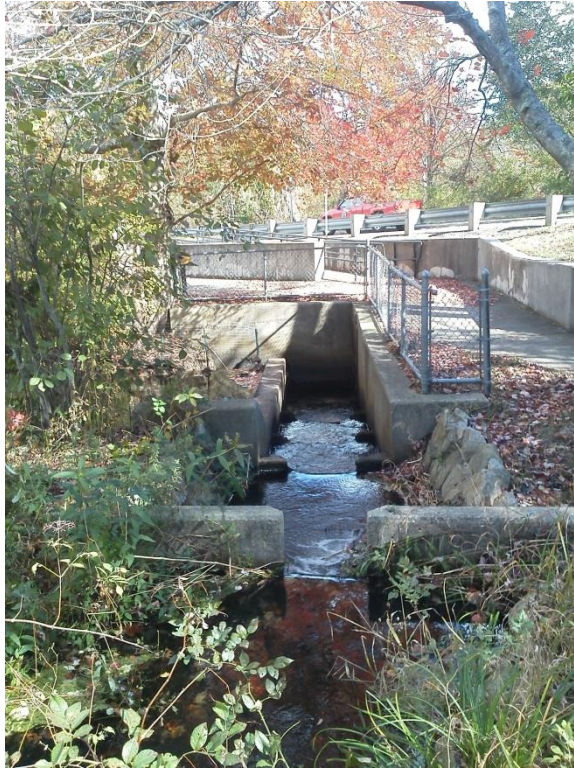
Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2023 **Design & Permit (months)** 6 **Construction (months)** 9

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$950,000	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: New construction will minimize the Operating & Maintenance (O&M) costs that MEA division has been handling to keep this running active. Volunteers also continue to help with these fish runs. The Department of Marine Fisheries will draft an O&M plan for the Town to implement.



Mill Pond Herring Run



Long Pond Herring Run

Project Working Title: Hyannis Breakwater Study Preliminary Design (for future repairs)

Project Location: Hyannis Harbor

Project Description: Analysis and preliminary design of the Hyannis Harbor Breakwater, final design, and construction costs will be established after preliminary work.

Project Justification: Support stones have been displaced along the breakwater resulting in gaps in the structure therefore reducing its effectiveness of protecting the harbor. The poor condition of the breakwater is a safety hazard for navigation, and the public who walk upon it. Harbormaster staff, Fire Dept., and other Public Officials have been called to rescue people trapped on the breakwater.

Impact of Denial/Postponement: Postponing study and analysis of the breakwater will allow more deterioration of the breakwater structure. Future storms will reduce the function of the breakwater allowing potential shoreline damage. The safety of the public walking on the breakwater will not be addressed.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$157,500	-
	Project Contingency	\$7,875	-
	All Other Cost	\$1,625	-
	Total Project Cost	\$167,000	-

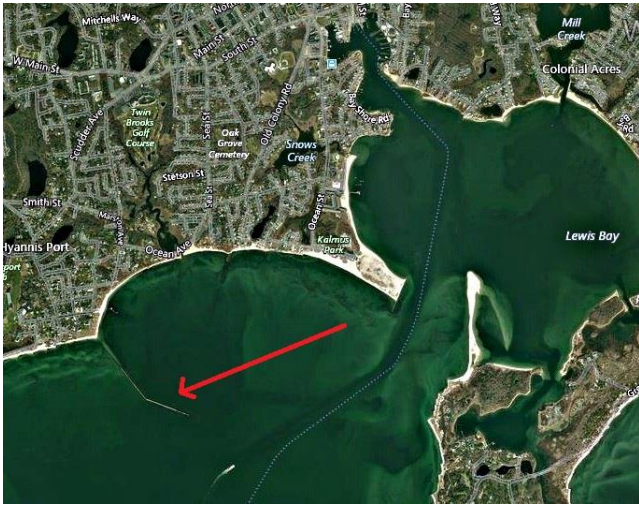
Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates - Comparison with West Bay breakwater design costs from Request for Proposal (RFP).

Project Estimated Completion Date: - **Design & Permit (months)** 18 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$167,000	Study and Preliminary Design
2021	TBD	Final design and Permitting
2022	TBD	Construction and Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: The Army Corps of Engineers has committed to repair the breakwater following the ferry accident in 2017. However, the Corps' commitment appears to be contingent on insurance monies from the steamship authority, and the timeframe for their repairs is indefinite. It is unclear whether a Town contribution might be required.



Hyannis Breakwater

Project Working Title: West Bay Breakwaters – Design and Construction

Project Location: West Bay Osterville

Project Description: A detailed report prepared by Ocean & Coastal Consultants published in March 2014 recommended repairs to reset the armor stones currently displaced and recommended a second layer of armor stones designed to accommodate the 100 year storm be integrated into the existing stone to increase the thickness and “soften” the side slopes of the breakwaters.

Project Justification: Numerous storms, heavy seas, and constant wave action have damaged the breakwaters that protect both sides of the channel entering West Bay from Nantucket Sound. The integrity of the structures is now compromised; the breakwaters have lost stones and have settled. The breakwaters provide for safe navigation in the area and prevent shoaling of the entrance channel.

Impact of Denial/Postponement: If not remedied, the structures will continue to deteriorate, the shoaling in the inlet will worsen as a result, and the channel becomes non-navigable. Water quality in the bay will be compromised.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$5,200,000
	Total Project Cost	-	\$5,200,000

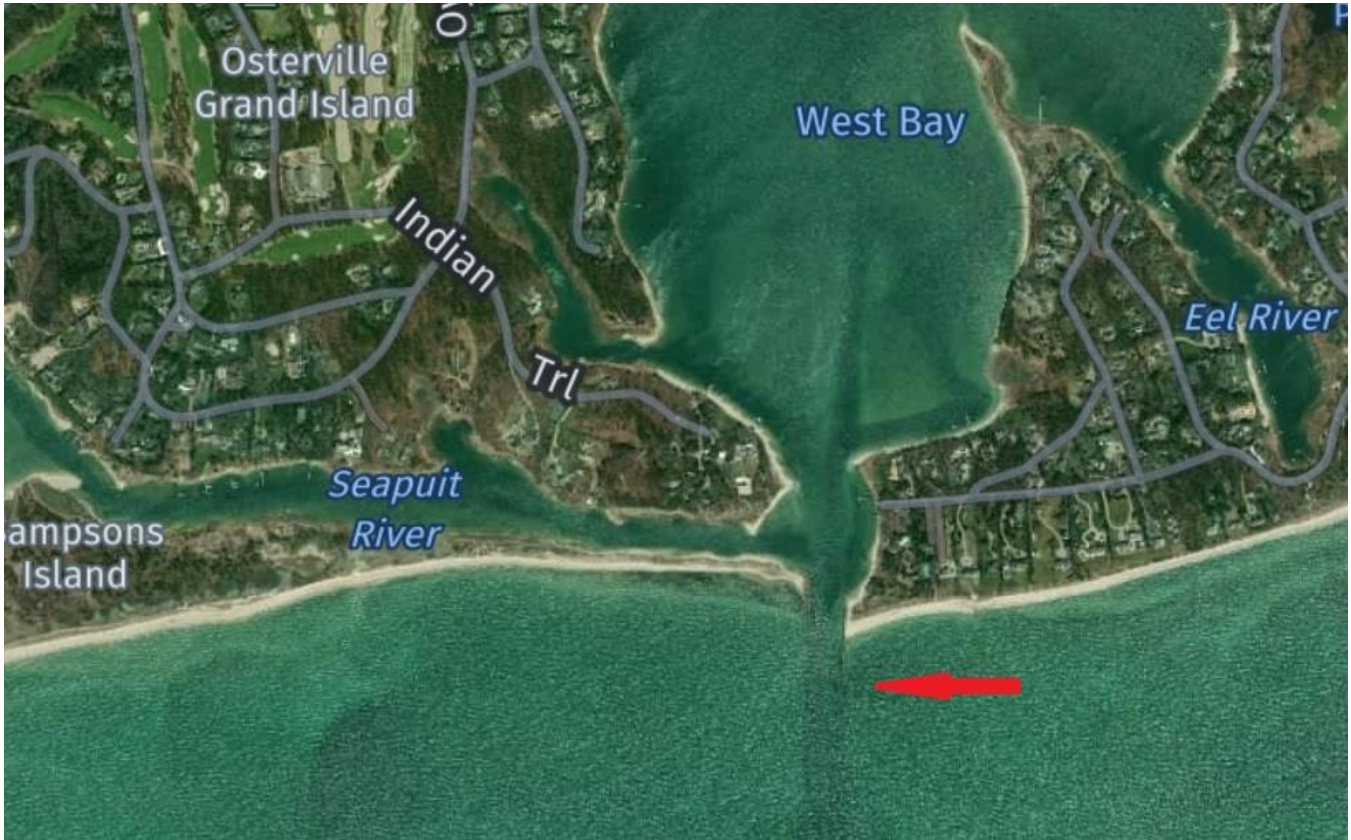
Basis for Cost Estimates: Consultant and Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 4

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$5,200,000	Project Design, Construction & Project Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Provision of a new ramp will alleviate the need for continues special repairs



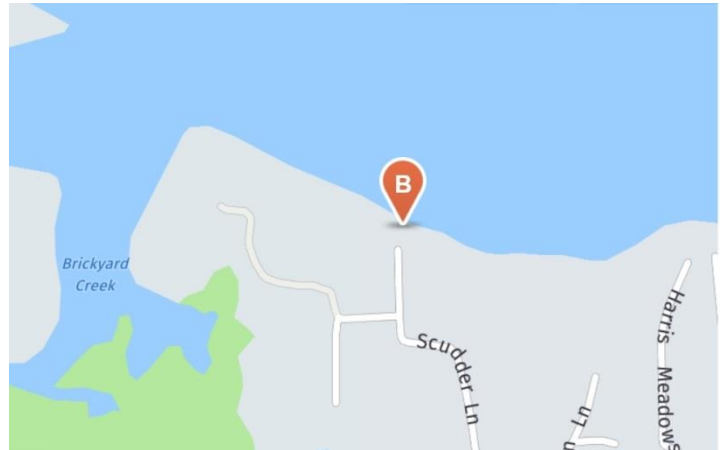
West Bay Breakwater

Project Working Title: Scudder’s Lane Boat Ramp Design & Construction

Project Location: 210 Scudder’s Lane, Barnstable, MA 02630

Project Description: Remove existing asphalt boat ramp and replace with concrete ramp, add additional storm water structures in the parking area.

Project Justification: The boat ramp is very old and the asphalt is collapsing creating both a safety hazard and restriction on use for the recreational and commercial (shellfish) needs of access to the water.



Impact of Denial/Postponement: Denial of moving forward with this project will result in the need for costly temporary repairs, and as the ramp deteriorates further, could result in closure of the ramp thus restricting access to important shell fishing and recreational boating.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		-
Construction or Acquisition		-	\$600,000
Project Management		-	\$10,000
Project Contingency		-	\$40,000
Total Project Cost		-	\$800,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2024 **Design & Permit (months)** 12 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$150,000	Design & Permitting
2022	-	-
2023	\$650,000	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Provision of a new ramp will alleviate the need for continues special repairs.

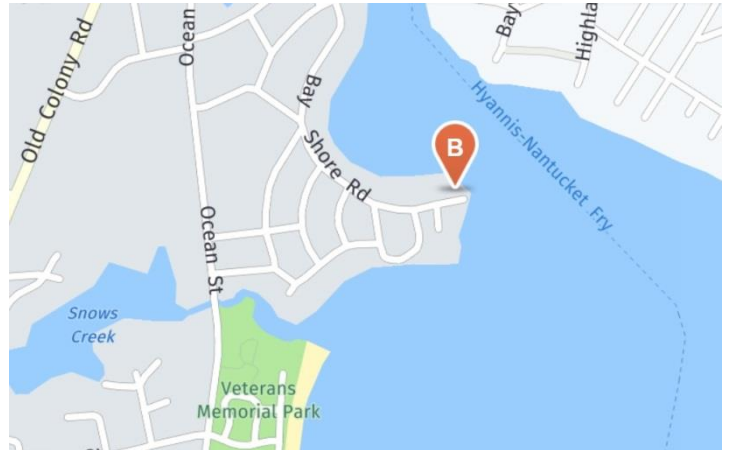


Scudder's Lane Boat Ramp

Project Working Title: Bay Shore Road Boat Ramp-Design and Construction

Project Location: 220 Bay Shore Road, Hyannis, MA 02601

Project Description: The existing boat ramp will be replaced and the adjacent parking area will be reconstructed with storm water detention or retention systems. Engineering design plans and environmental permitting will be completed prior to bidding and construction.



Project Justification: The Bay Shore Road boat ramp and associated parking area serve important mooring fields within Hyannis harbor and are heavily used by the boating population in the neighborhood. The existing asphalt ramp is deteriorated and needs replacement. Storm water facilities that were improved several years ago will undergo a further upgrade to protect water quality.

Impact of Denial/Postponement: If repairs are not made the ramp will continue to deteriorate and will eventually become unsafe and unusable. A ramp that is poor condition poses a safety hazard and could prove to be a liability should an accident occur due to the condition of the ramp.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$150,000
Construction or Acquisition	-	\$500,000
Project Contingency	-	\$100,000
Total Project Cost	-	\$750,000

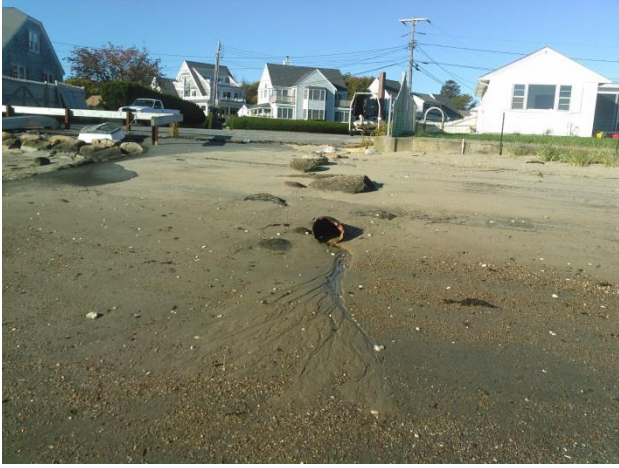
Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2025 **Design & Permit (months)** 12 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$150,000	Design & Permitting
2023	-	-
2024	\$600,000	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

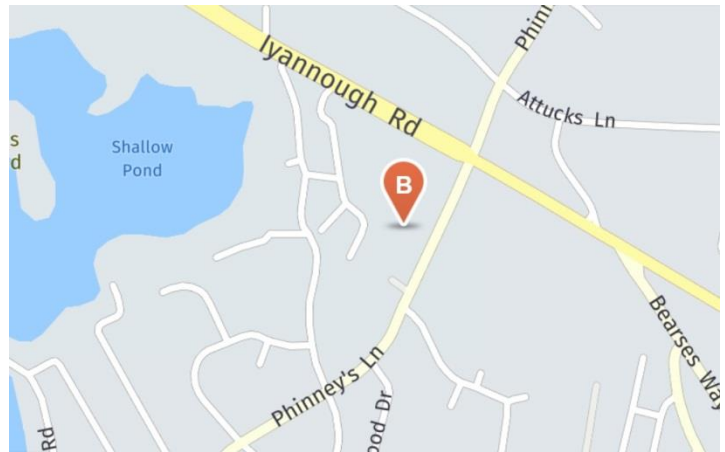
Operating Budget Impact now or in future: Normal operating costs for the facility will continue.



Bay Shore Road Boat Ramp

Project Working Title: Marine & Environmental Affairs (MEA) Storage Facility Project

Project Location: 1189 Phinney’s Lane, Centerville, MA 02632



Project Description: The project consists of funding for the design of a 2,500 square foot storage addition to the existing Marine Environmental Affairs building and associated site work upgrades.

Project Justification: The Marine and Environmental Affairs building does not have adequate room to accommodate MEA’s needed equipment. This is because of various reorganizations and repositioning of staffing over the years. MEA has had to create office space in the existing facility garage area, which reduced the storage space for vehicles and boats. This project will provide the needed space.

Impact of Denial/Postponement: The Town’s boats and other equipment being stored outside will continue to deteriorate at an undesirable rate and, as such, their useful life shortened.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$40,057
Construction or Acquisition	-	\$606,927
Project Management	-	\$33,381
Project Contingency	-	\$94,074
Total Project Cost	-	\$774,439

Basis for Cost Estimates: Owner’s Project Manager Cost Estimate

Project Estimated Completion Date: - **Design & Permit (months)** 10 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$106,819	Design
2023	\$667,620	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: New facility will protect equipment and add to its longevity by putting it under cover. An increased utility costs \$1,000 per year.



Marine & Environmental Affairs Building and Storage Site

Project Working Title: Centerville Herring Run System Hydrologic Study

Project Location: Centerville Herring Run System, Centerville, MA

Project Description: This project is for a hydrologic study to evaluate the Centerville herring run system, identify recommendations for herring run management in order to continue to provide safe passage for the fish migration within the herring run and to understand impacts on water levels within Lake Wequaquet and Long Pond.

Project Justification: Natural Resources manage the herring run according to the 1998 Lake Wequaquet Water Level Study. In recent years, increased frequency of high precipitation events and seasonal high groundwater levels have resulted in seasonally high water levels within Lake Wequaquet and Long Pond. This has resulted in instances of flow rates in the herring being too high at times for safe fish passage. The project will evaluate how seasonally high waters impact management of the herring run, and will allow Natural Resources to further refine action plans for management of the herring run. Furthermore, the project will evaluate what impacts, if any, herring run management has on water levels within the ponds. Additionally, the model developed for the study could be used for future similar evaluations within the system.

Impact of Denial/Postponement: Potential for conditions resulting in unsafe fish passage within the herring run will likely continue. Further understanding of water levels within Lake Wequaquet and Long Pond will be delayed.

Project Cost Estimates:		FY 2020	Future FY
	Study	\$150,000	-
	Total Project Cost	\$150,000	-

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2021 **Study (months)** 12 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$150,000	Study

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None

Community Services General Fund Projects

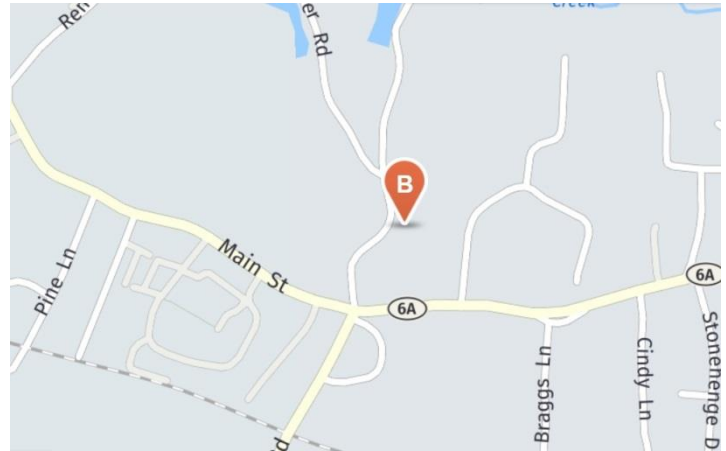
PROJECT: CSD-20-2

DEPARTMENT PRIORITY: 2 of 15

Project Working Title: Field Improvements

Project Location: Millway Road, Barnstable Village

Project Description: This year's project will fund improvements to the Barnstable Hollow Field including removal of the deteriorated player benches, perimeter fencing, backstop, flagpole, and non-compliant guardrail. The field will then be converted from a baseball field into a multiuse greenspace.



Project Justification: The Town's recent Comprehensive Field Study project created a 20-year Strategic Plan for many of the Town's recreational facilities. That plan suggested two approaches to addressing field needs. The first was to conduct large, comprehensive, projects of similar scope and scale to the Lombard Field project. The second approach focused on smaller incremental changes to facilities, using principally the Town's labor (with select subcontractors for specialties items like well drilling, fencing, etc.) and requires a significantly smaller capital investment per field. This approach was used on Lopes Field in 2017. The theory is though the results with the second approach will not necessarily be as dramatic as the first, they will be enough to get the facility to at least a rating of 3 (as defined by the Comprehensive Field Study), and with an investment in continued maintenance could continue to improve the facility over time. This capital project is to fund projects using the second approach.

Impact of Denial/Postponement: Fields will continue to deteriorate until much larger, complete field replacements, are required.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$11,000	-
	Construction or Acquisition	\$140,000	TBD
	Project Contingency	\$14,000	-
	Total Project Cost	\$165,000	TBD

Basis for Cost Estimates: In-House, supported by consultant recommendation.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 9

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$165,000	Barnstable Hollow Design and Construction
2021	TBD	Additional Field Renovation Projects

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: The field is already being maintained at a basic level (mowed). This will continue after the upgrade.

Project Working Title: Centerville Recreation Building Site Design & Construction

Project Location: 524 Main Street, Centerville, MA 02632

Project Description: The Centerville Recreation Building and playground are heavily used with recreation department activities and citizen groups. The parking area is crowded and under sized. The playground equipment and surfacing needs to be replaced to meet current playground standards. Currently there is no code compliant accessibility path to the playground. This project will install new ADA compliant playground equipment and access, restore the playing fields, and expand the parking lot.



Project Justification: The existing playground is unsafe by current standards. Parking is inadequate as the building and grounds are heavily used. The existing ball field has deep holes and ruts and is at the end of its useful life. Currently there is no handicapped access to the playground.

Impact of Denial/Postponement: Centerville Village will be without a needed parking lot for events at the Recreation Building, ballfield, and library along Main Street and the Historical Society. This is the center of the village.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$98,560	-
	Construction or Acquisition	\$896,000	-
	Project Management	\$49,280	-
	Project Contingency	\$188,160	-
	Total Project Cost	\$1,232,000	-

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$1,232,000	Design & Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A



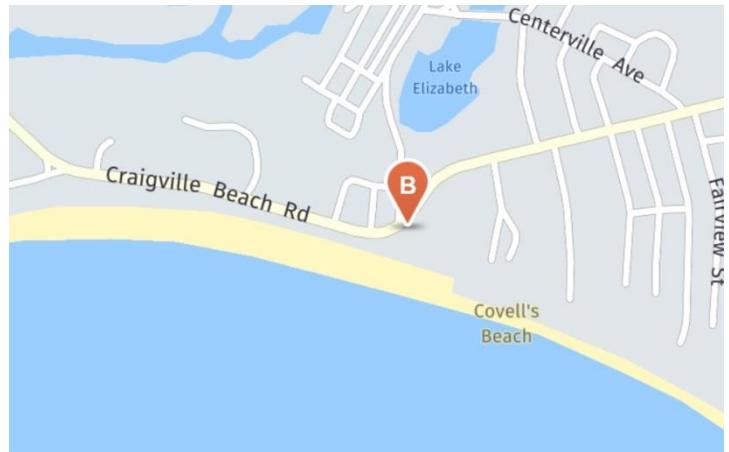
Centerville Recreation Playground And Ball Field

Project Working Title: Beach Parking Lot Rehabilitation - Covell's Beach

Project Location: 859 Craigville Beach Road, Centerville, MA 02632

Project Description: Project would include providing a level and overlay of pavement to Covell's Beach and new line striping.

Project Justification: The existing pavement has deteriorated such that rehabilitation is necessary. In some places, the pavement condition may be difficult or unsafe for some pedestrians.



Impact of Denial/Postponement: The parking lot will deteriorate further resulting in the need for more complete reconstruction. The facility will not properly serve the thousands of annual visitors to the beach

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$19,000
	Construction or Acquisition	-	\$185,000
	Project Management	-	\$10,000
	Project Contingency	-	\$34,000
	All Other Cost	-	\$2,000
	Total Project Cost	-	\$250,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2023 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	\$250,000	Design & Permitting, Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: New infrastructure is expected to reduce maintenance costs.



Covell's Beach Parking Lot

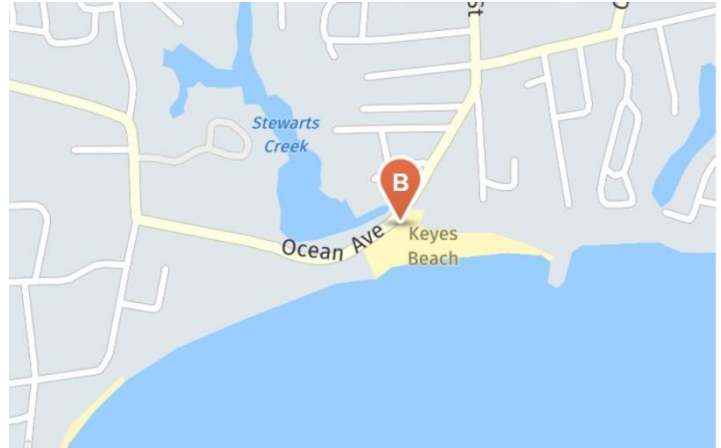
Project Working Title: Beach Parking Lot Rehabilitation - Keyes Memorial Beach

Project Location: 169 Ocean Ave, Hyannis, MA 02601

Project Description: Project would include providing a level and overlay of pavement to Keyes Memorial Beach and new line striping.

Project Justification: The existing pavement has deteriorated such that rehabilitation is necessary. In some places, the pavement condition may be difficult or unsafe for some pedestrians.

Impact of Denial/Postponement: The parking lot will deteriorate further resulting in the need for more complete reconstruction. The facility will not properly serve the thousands of annual visitors to the beach.



Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$11,000
	Construction or Acquisition	-	\$110,000
	Project Management	-	\$5,000
	Project Contingency	-	\$21,000
	All Other Cost	-	\$3,000
	Total Project Cost	-	\$150,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$150,000	Design & Permitting, Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: New infrastructure is expected to reduce maintenance costs.

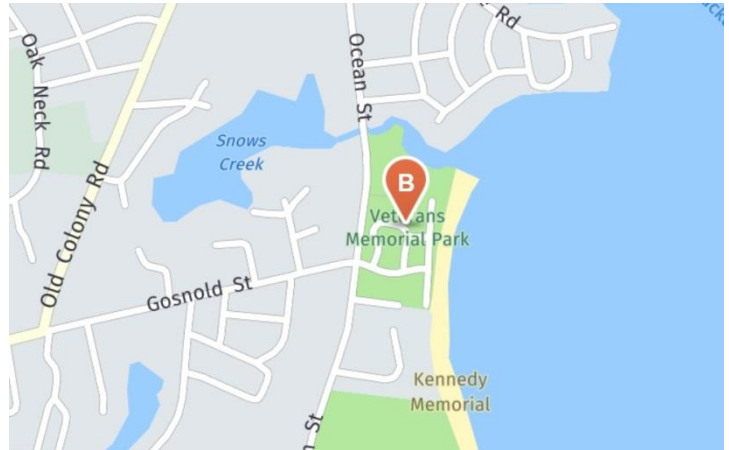


Keyes Memorial Beach Parking Lot

Project Working Title: Kennedy Memorial Renovation Construction

Project Location: 480 Ocean Street Hyannis, MA 02601

Project Description: In 2017 Weston & Sampson completed a preliminary design study of possible improvements to the JFK Memorial. Improvements included modernization of the plaza, fountain, and extension of the memorial onto the lower lawn area to the east. The proposed renovation was estimated to cost \$1,878,881.



This CIP limits scope of work to an historic restoration of the existing memorial maintaining the original design concept. Elements that have deteriorated over time, such as the fountain and plaza surface, need replacing. The original redwood and concrete plaza floor would be replaced with a concrete and composite material that would be more time stable. The existing deteriorated fountain would be replaced with a modern shallow edge fountain with lighting that would mimic the eternal flame as originally intended. The shallow edge fountain will allow the removal of the iron railing, that currently surrounds the pool, which was not original to the design. Broken granite memorial quotes will be repaired and the stone wall containing the bronze seal, restored.

Project Justification: Town of Barnstable owns and operates the John F. Kennedy Memorial Park located at 480 Ocean Street, Hyannis. The park was constructed in 1965 and dedicated on July 8, 1966, to memorialize our 35th President and his association with Cape Cod. The park has been a major tourist destination since its inception, and continues to be heavily visited. The park is currently in disrepair with aging fountain equipment and poor memorial surface conditions.

Impact of Denial/Postponement: This project has been identified as a priority by the JFK trust fund committee and Town Manager. The pool fountain and associated mechanical equipment is in a state of failure. Delay will result in rapid deterioration and increased costs of repairs.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$61,376	-
	Construction or Acquisition	-	\$767,200
	Project Management	\$10,000	\$20,688
	Project Contingency	-	\$76,720
	All Other Cost	-	\$31,000
	Total Project Cost	\$71,376	\$895,608

Basis for Cost Estimates: Consulting Architect Estimate

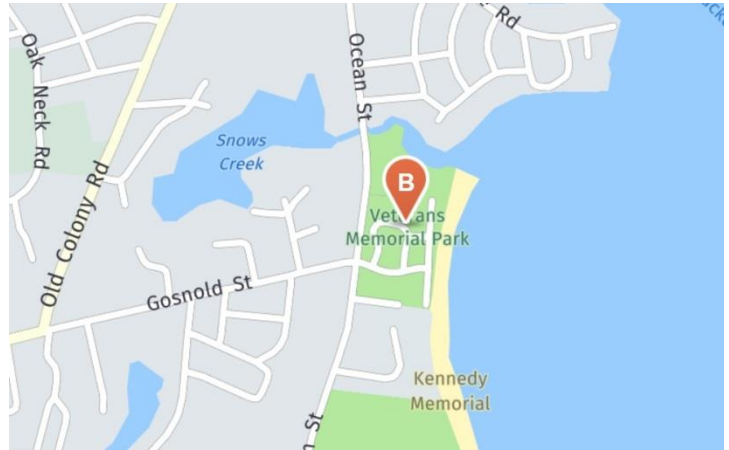
Project Estimated Completion Date: 2023 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$71,376	Design
2021	\$895,608	Construction

Project Working Title: Veterans Park Improvements

Project Location: 480 Ocean Street Hyannis, MA 02601

Project Description: Design to renovate and add improvements to Veterans Park. Improvements include renovations to the existing lifeguard building to add new code compliant toilet facilities and changing rooms. GPI landscape architects spent a year working with the community and town officials to develop schematic designs for the site, which include improvements to parking and traffic flow within the site, the creation, and organization of memorial spaces, concession, seating, and performance spaces while maintaining the character of wooded and picnic areas.



Project Justification: Veterans Park serves as a picnic area for beachgoers, a playground for children, and as a memorial area for reverence and reflection. The Town of Barnstable owns and operates the park and recognizes that a variety of capital improvements and upgrades are required. Significant issues and design elements that require attention include, pedestrian/auto conflicts, clarification/separation of uses, pedestrian circulation, safe drop-off areas, and emergency/maintenance access. The existing toilet facilities are out dated and are in need of replacement.

Impact of Denial/Postponement: The park will continue to operate in its existing state. Facilities will continue to age and not properly serve the public.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$294,360
Construction or Acquisition	-	\$2,943,600
Project Management	-	\$117,744
Project Contingency	-	\$294,360
All Other Cost	-	\$10,000
Total Project Cost	-	\$3,660,064

Basis for Cost Estimates: Consulting Architect & In-House Estimate

Project Estimated Completion Date: 2025 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	\$334,360	Design
2024	\$3,325,704	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: There will be some cost savings by not needing to maintain an existing deteriorated facility.



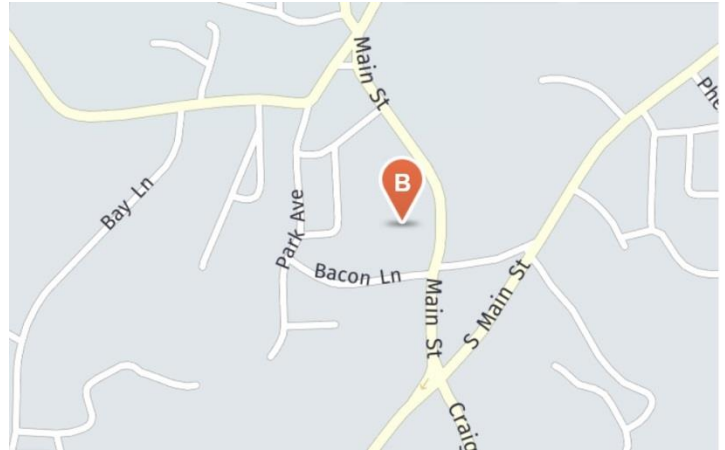
Veterans Park Design

Project Working Title: Centerville Recreation Interior Improvements

Project Location: 524 Main Street, Centerville, MA 02632

Project Description: Additional interior work: This project will fund the on-going historic adaptive reuse improvements to the Centerville Community Building and its related systems including:

- Replacement of steam heat, including installation of modulating gas boilers. This item includes work to all steam pipe and radiators/baseboard heaters,
- Corridor white paneling to be removed, original drywall, or plaster to be restored, with new doors installed at the old first floor classroom; and
- Ceiling repair work will be done through various spaces. Lighting and concealed wiring work will include new energy efficient light fixtures that reflect the historic character of the building. New kitchen cabinets and counters are to be installed chalkboards will be restored and the interior spaces painted.



Project Justification: The Centerville Community Building is a facility that is heavily used by Recreation Division programs, and the public on a daily basis, with its adjoining playground and ballfield. It is one of the busiest Town facilities used by our residents and programs. For the past several years, improvements have been made to the interior and exterior of the building and adjoining program areas. Continuing to renovate and maintain this town asset adds to the preservation of a historic town resource. Funding the improvements would alleviate high-energy costs and make a more comfortable facility. Given the heavy use of this facility, the interior needs a significant amount of upkeep and maintenance, which has been deferred for years. Our intention is to bring the building up to standard for safe use by all the citizenry.

Impact of Denial/Postponement: The interior of this building is in poor condition and will continue to decline without much needed maintenance and repair. The building will lose popularity with its users. This building has great historical significance, containing two, albeit in poor condition old school rooms with Coleman murals, which are a valuable historical resource.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$12,584	-
	Construction or Acquisition	\$254,680	\$250,000
	Project Management	\$12,584	-
	Project Contingency	\$12,584	-
	Total Project Cost	\$292,432	\$250,000

Basis for Cost Estimates: In-House Architect

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	\$292,432	Replace steam heat with new gas modulating boiler, pipe work, and radiators, replace paneling, and restore corridor, doors, chalkboard, and historic paint.
2021	\$150,000	Replace worn out aluminum windows with new energy efficient historic wood windows, add further insulation to building. Install new window treatments and blinds.
2022	\$75,000	Interior wainscoting and trim to be replaced with historically correct trim, additional painting
2023	\$25,000	Attic floor and insulation to be repaired, review roof ventilation

Source of Funding: Possible Community Preservation Funds and/or Capital Trust Fund Reserves

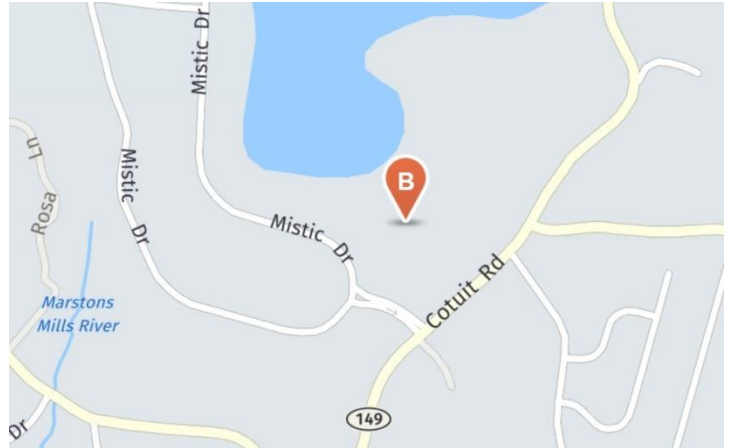
Operating Budget Impact now or in future: N/A



Centerville Recreation Interior Needed Repairs

Project Working Title: Hamblin Pond Bathhouse and Site Improvements**Project Location:** 415 Route 149, Marstons Mills, MA 02648**Project Description:** The project funds design and permitting to:

- Demolish the existing bathhouse and construct a new, larger bathhouse which meets current building code and accessibility requirements, and addresses recreational programming needs,
- Install a new pavilion with outdoor showers, picnic tables, benches, landscaping, and associated amenities,
- Restore beach frontage along the entire shoreline of the property and improving the beach elevation and width; and
- Reconfigure and pave the parking lot(s), constructing accessible walkway(s) to the beach, repaving the access drive, installing a new gate, improving drainage, storm water management and erosion controls, and associated infrastructure improvements.



Project Justification: A comparison of historical and current aerial photos shows that the beach at Hamblin Pond is less than half the size it was 50 years ago due to encroaching vegetation. The increasing frequency of high intensity rainstorms in recent years has caused substantial erosion on the site, creating hazardous ruts, the need for substantially more maintenance, and potential impacts to natural resources. The bathhouse is outdated and is not satisfying programmatic needs. The site lacks accessible facilities, lacks clear delineation of areas where vehicles are off-limits, and lacks additional amenities beachgoers expect to have. The project will address these and other deficiencies to improve public safety, access, and enjoyment of this resident-only freshwater beach.

Impact of Denial/Postponement: The condition of the property will continue to deteriorate, resulting in escalating maintenance costs, reduced utility, and lower public satisfaction.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$210,000	-
	Construction or Acquisition	-	\$1,320,000
	Project Management	\$60,000	\$60,000
	Project Contingency	\$30,000	\$250,000
	Total Project Cost	\$300,000	\$1,630,000

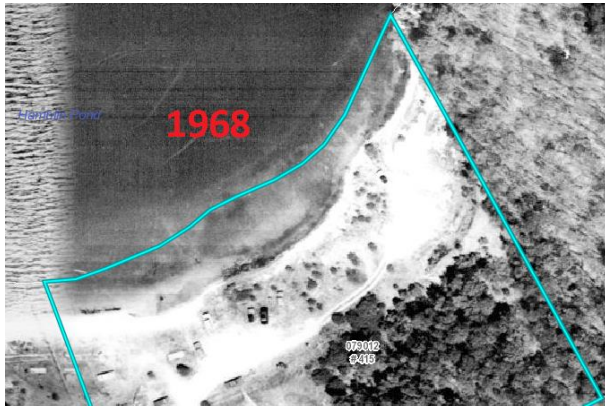
Basis for Cost Estimates: Department of Public Works Engineering and Architecture Cost Estimates

Project Estimated Completion Date: 2021 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$300,000	Design & Permitting
2021	\$1,630,000	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None anticipated. New infrastructure will be more energy efficient and reductions in some existing types of maintenance (e.g., regrading gravel parking) are expected to offset new types of maintenance (e.g., parking lot re-striping).



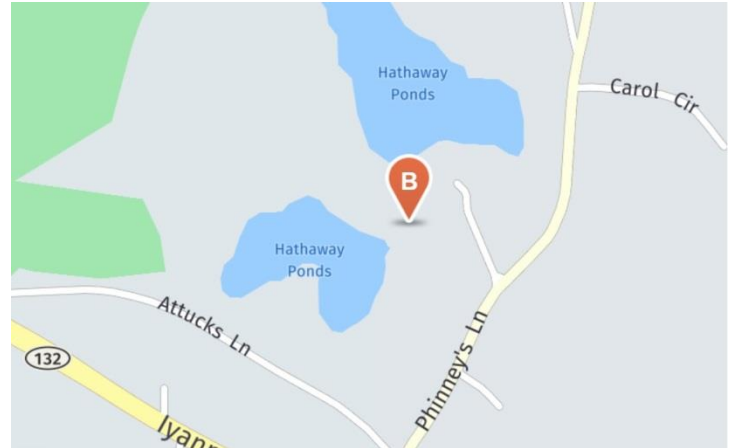
Hamblin Pond Aerial View of Beach and Parking Lot

Project Working Title: Hathaway's Pond Bathhouse and Site Improvements

Project Location: 1431 Phinney's Lane, Barnstable Village, MA 02630

Project Description: The project funds design and permitting:

- Demolish the existing bathhouse and construct a new, larger bathhouse which meets current building code and accessibility requirements, and addresses recreational programming needs,
- Install a new pavilion with outdoor showers, picnic tables, benches, landscaping, and associated amenities,
- Restore beach frontage along the entire shoreline of the property and improving the beach elevation and width; and
- Reconfigure and paving the parking lot(s), constructing accessible walkway(s) to the beach, repaving the access drive, installing a new gate, improving drainage, storm water management and erosion controls, and associated infrastructure improvements.



Project Justification: A comparison of historical and current aerial photos shows that the beach at Hamblin Pond is less than half the size it was 20 years ago due to rising water levels. The increasing frequency of high intensity rainstorms in recent years has caused substantial erosion on the site, creating hazardous ruts, the need for substantially more maintenance, and potential impacts to natural resources. The bathhouse is outdated and is not satisfying programmatic needs. The site lacks accessible facilities and additional amenities beachgoers expect to have. The project will address these and other deficiencies to improve public safety, access, and enjoyment of this public freshwater beach.

Impact of Denial/Postponement: The condition of the property will continue to deteriorate, resulting in escalating maintenance costs, reduced utility, and lower public satisfaction.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$240,000	-
	Construction or Acquisition	-	\$1,400,000
	Project Management	\$60,000	\$60,000
	Project Contingency	\$40,000	\$260,000
	Total Project Cost	\$340,000	\$1,720,000

Basis for Cost Estimates: Department of Public Works Engineering and Architecture Cost Estimates

Project Estimated Completion Date: 2021 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$340,000	Design & Permitting
2021	\$1,720,000	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None anticipated. New infrastructure will be more energy efficient and reductions in some existing types of maintenance (e.g., repairing potholes) are expected to offset new types of maintenance (e.g., winterizing showers).



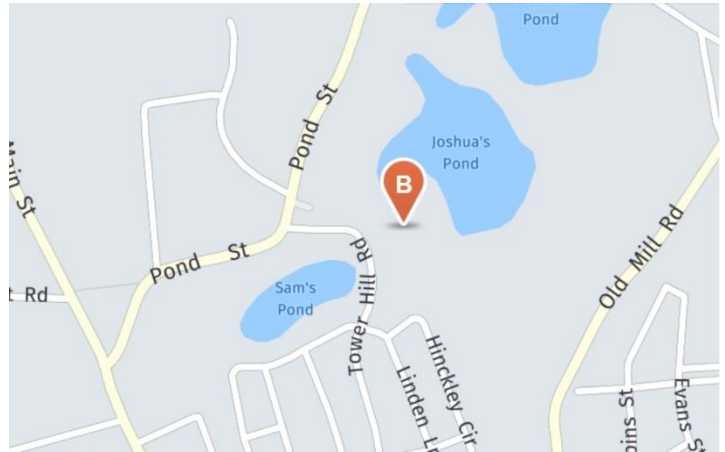
Hathaway Pond Bathhouse and Parking Lot

Project Working Title: Joshua's Pond Handicap Accessibility and Beach Improvements

Project Location: 290 Tower Hill Road, Osterville, MA 02655

Project Description: The project will fund design and permitting to construct a handicapped accessible ramp from the parking lot to the beach, stabilize the embankment between the parking lot and the beach, and enhance the beach by increasing its area and elevation with respect to fluctuating water levels.

Project Justification: Some residents have requested a ramp to the beach as access is currently limited to stairs down a steep embankment. In addition, during 2018 the pond level rose several feet higher than normal, submerging the beach, causing the stairs to separate, and creating large cracks in the mortared stone armoring on the embankment. These issues significantly limit recreational use of the beach and recreational programming such as swimming lessons. The ramp and beach improvements will complement improvements to the access drive and parking lot in 2017, allowing more utilization and enjoyment of this resident-only freshwater beach.



Impact of Denial/Postponement: Continuing the liability of user groups attempting to use the inadequate infrastructure to traverse onto the beach safely, and the possibility that the beach may have to be closed for public safety due to the compromised slope armoring.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$199,000	-
	Construction or Acquisition	-	\$1,324,000
	Project Management	\$20,000	\$20,000
	Project Contingency	\$20,000	\$133,000
	All Other Cost	\$1,000	\$10,000
	Total Project Cost	\$240,000	\$1,487,000

Basis for Cost Estimates: Consultant and Department of Public Works Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$240,000	Design and Permitting
2021	\$1,487,000	Construction and Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: These renovations are not expected to have a measurable impact on the Operating Budget.



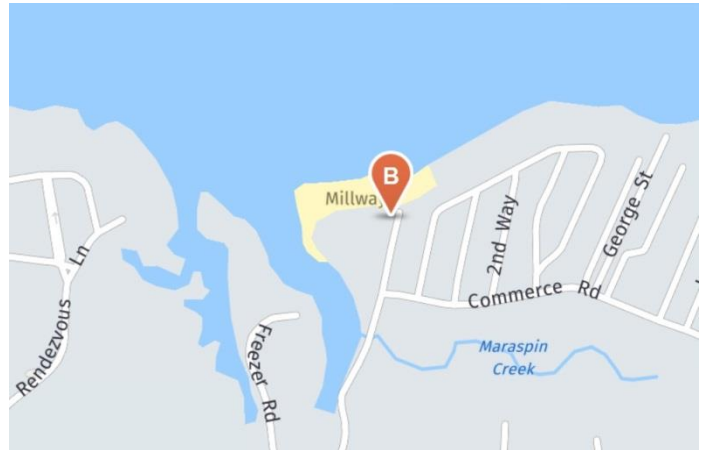
Joshua's Pond : Improvements Design, Walkways, and Beach

Project Working Title: Millway Beach ADA Access

Project Location: 399 Millway, Barnstable, MA 02630

Project Description: This project will fund the design and construction of a new ADA ramp to the beach.

Project Justification: Currently there is inadequate beach access for disabled persons at this location. The Architectural Access Board Regulations require the provision of code-compliant access to amenities provided by the Town. Temporary solutions have been attempted at this site, which have not satisfactorily met access requirements. This project would provide a permanent solution.



Impact of Denial/Postponement: The access point to the beach will continue to be susceptible to erosion and limit safe beach access. Wheelchair access to the beach will not be provided.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$19,360
	Construction or Acquisition	-	\$242,000
	Project Management	-	\$19,360
	Project Contingency	-	\$24,280
	Total Project Cost	-	\$305,000

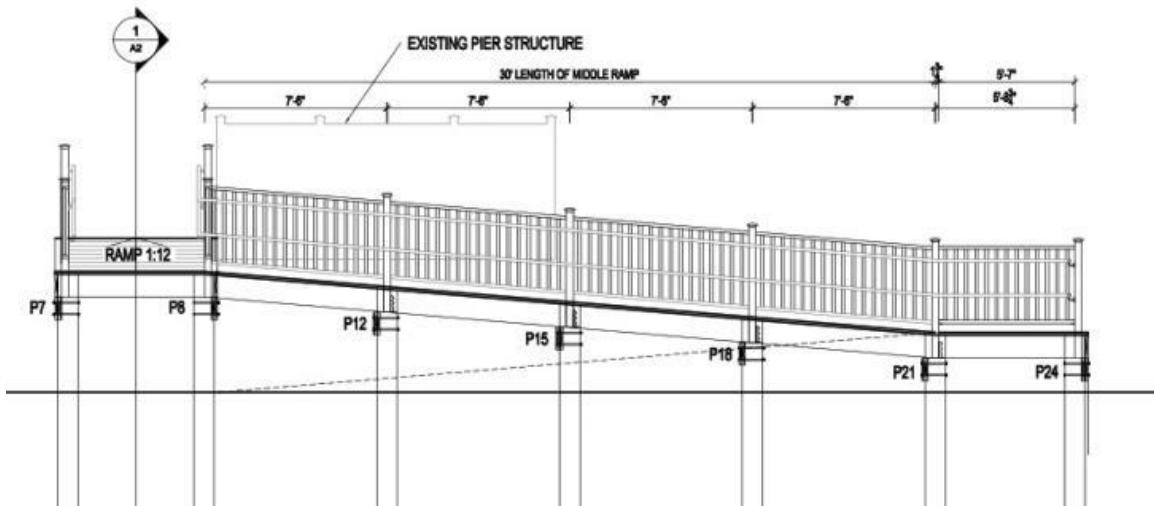
Basis for Cost Estimates: In-House Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 4 **Construction (months)** 4

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$305,000	Design Permitting and Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A



Americans with Disabilities (ADA) PathMat to be replaced with Project Ramp Construction

Public Works General Fund Projects

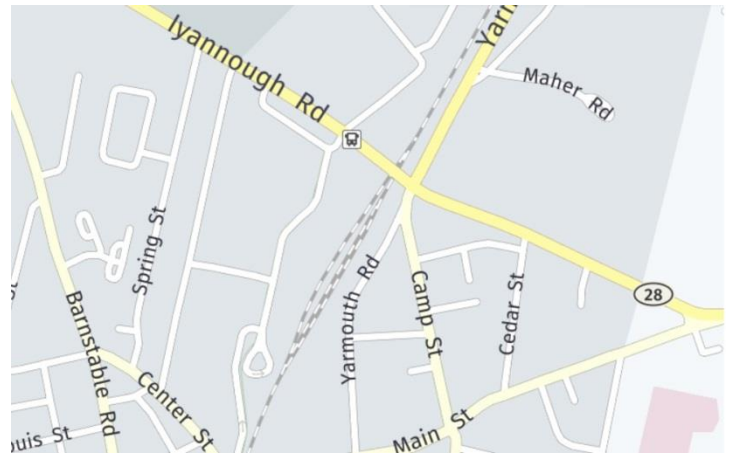
PROJECT: DPW-20-2

DEPARTMENT PRIORITY: 2 of 46

Project Working Title: Roadway and Sewer Improvements of Yarmouth Road and Route 28

Project Location: Route 28 between Engine House Road and Cedar Street and Yarmouth Road between Old Yarmouth Road and Camp Street

Project Description: The MassDOT is conducting a project at the intersection of Iyannough Road (Route 28) and Yarmouth Road. It would be cost advantageous for the Town to participate with MassDOT in this project to get improvements in the area. These would include additional roadway modifications and the installation of new sewer within the project limits that will be needed for future sewer expansions in the area.



Project Justification: Participating with MassDOT with their construction efforts at this location is cost advantageous. The Town can take advantage of discounted utility installation because MassDOT will pay for final pavement restoration. The Town can also add 'streetscape' elements that would not be included as part of MassDOT standards. Sewer design was complete and submitted to MassDOT in Spring 2018. Agreement with MassDOT will be finalized upon completion of bid set, which is estimated in Spring 2019.

Impact of Denial/Postponement: Failure to participate with MassDOT will require the Town receiving MassDOT standards for roadway improvements (trees, decorative lighting, stamped concrete are not standard). When this project is complete, there will be a minimum five-year moratorium for the pavement and the Town would not be able to upgrade or install new utilities within this area. In addition, this area is heavily congested with utilities and it would ease construction to address all utilities at one time. The Town has also participated in these efforts as part of the MassDOT project at Route 28 and Bearse's Way. This would provide continuity between the two intersections.

Project Cost Estimates:		FY 2020	Future FY
	Total Project Cost	TBD	-

Basis for Cost Estimates: Cost Estimate from MassDOT to be provided in mid-December

Project Estimated Completion Date: - **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	TBD	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

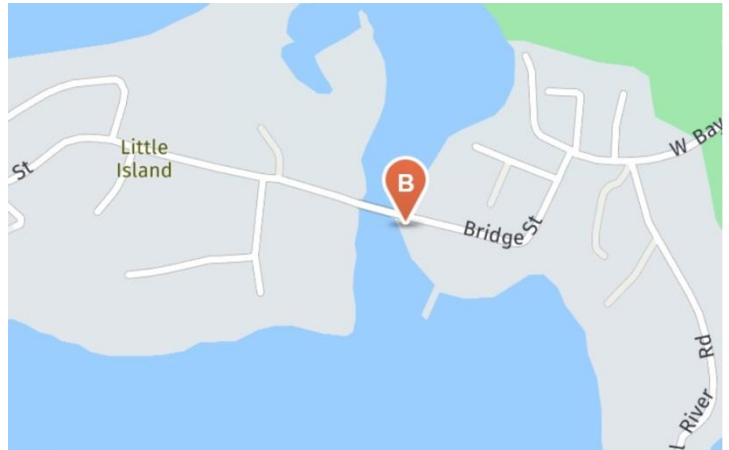
Operating Budget Impact now or in future: Fixtures will incur a maintenance cost.

Project Working Title: Oyster Harbors Bridge Study

Project Location: Bridge Street at North Bay, Osterville

Project Description: Prepare a feasibility study to evaluate potential bridge replacements.

Project Justification: The existing Oyster Harbors Bridge was constructed in 1946 to replace an earlier bridge. It is approaching the end of its useful life. It is uncertain whether the Town is best served by replacing it in kind or if other types of drawbridges or fixed bridges may provide increased benefits. This study will evaluate potential, including state builder consultations, for its replacement and make recommendations on the best approach and timing moving forward



Impact of Denial/Postponement: This type of study is the normal first step in undertaking a very large infrastructure project of this nature. Without the study, the Town will not be well positioned to discuss options and gather input from residents and Town leaders, to apply for grant funding, or to commence design and permitting.

Project Cost Estimates:		FY 2020	Future FY
	Study	\$200,000	-
	Total Project Cost	\$200,000	-

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2021 **Study (months)** 24 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$200,000	Study

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: None



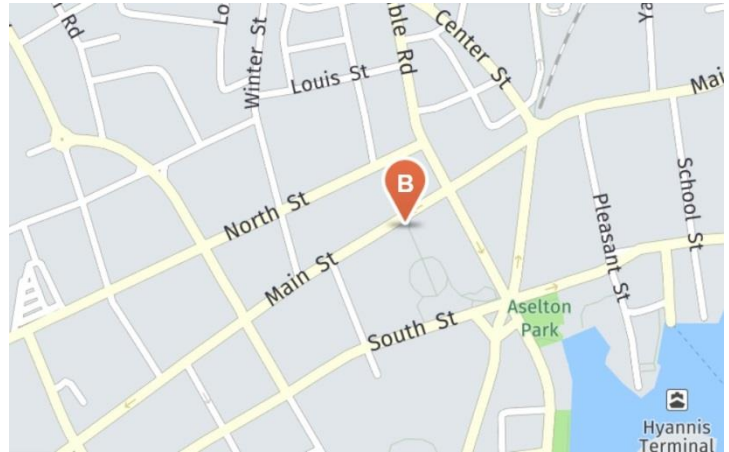
Oyster Harbors Bridge

Project Working Title: Town Hall site improvements - Parking Lots

Project Location: 367 Main Street, Hyannis, MA 02601

Project Description: The project will fund the design and construction of paving, curb, landscape, lighting, drainage work, and resolve issues with a disorganized site because of traffic conflicts and multiple curb cuts.

Project Justification: Town Hall parking lot is the central parking facility for town and school offices, art, and historical museum activities, and overflow parking for Main Street commerce. The proposed project would correct deficiencies in the current automobile traffic pattern and provide safe pedestrian access to associated connection points. Current vehicular and pedestrian traffic practices, and the interaction between the two, are dangerous and inconvenient. The proposed alterations are designed to correct these issues. Additional barrier free parking spaces will be created as part of this project.



Impact of Denial/Postponement: We will continue to have problems with pedestrian and vehicular traffic. The public will continue to endure poor lighting conditions and security issues while attending evening meetings.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$90,000	-
	Construction or Acquisition	-	\$700,000
	Project Management	\$20,000	\$20,000
	Project Contingency	\$20,000	\$130,000
	Total Project Cost	\$130,000	\$850,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2021 **Design & Permit (months)** 12 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$130,000	Design & Permitting
2021	\$850,000	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Additional electrical cost may occur if decorative lighting is included.

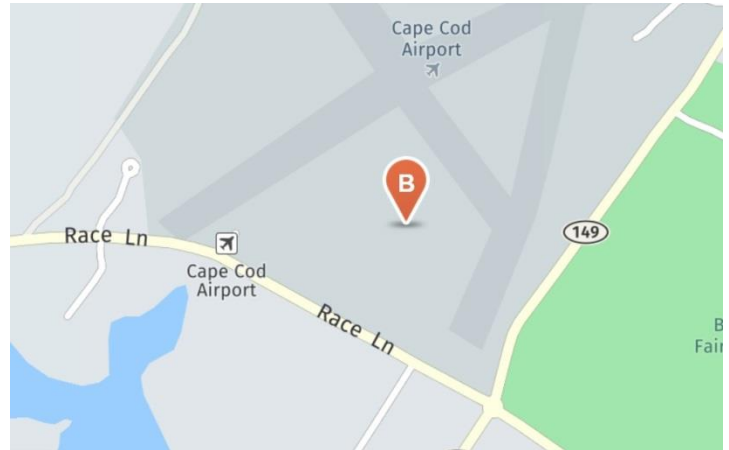


School Administration and Town Hall Parking Lots

Project Working Title: Cape Cod Airfield Hangar Repair

Project Location: 1000 Race Lane, West Barnstable, MA 02668

Project Description: This project would fund needed structural, exterior and hangar door repairs to the 1920 hangar building. Work will include repair / replacement of the metal roof and siding, cleaning, repair, and painting of interior corroded structural steel, and repair of the existing partially failed hangar door. These funds would provide for design, renovation, and construction.



Project Justification: Originally constructed in 1920, the hangar building has been used extensively for 96 years. Roof leaks have caused structural deterioration of columns and metal roof trusses. Metal roof and siding panels are deteriorated and in some cases missing. A structural assessment of the building was conducted in 2008. The assessment revealed extensive deterioration of structural elements along with additional issues. Temporary repairs and patching will no longer protect the building contents. Community Preservation Funds were sought in 2008 but not granted due to the age of the building not being 100 years old thus not considered historic. An adjacent hangar similar to this building was destroyed during Hurricane Bob in 1991.

Impact of Denial/Postponement: Continued deferred maintenance of this facility will contribute to its inevitable loss.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$29,517	-
	Construction or Acquisition	\$245,971	-
	Project Management	\$19,678	-
	Project Contingency	\$24,597	-
	All Other Cost	\$12,599	-
	Total Project Cost	\$332,362	-

Basis for Cost Estimates: Architect Assisted In-House Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$332,362	Design and Construction / Repair

Source of Funding: Possible Community Preservation Funds, State Historic Grant, and/or Capital Trust Fund Reserves

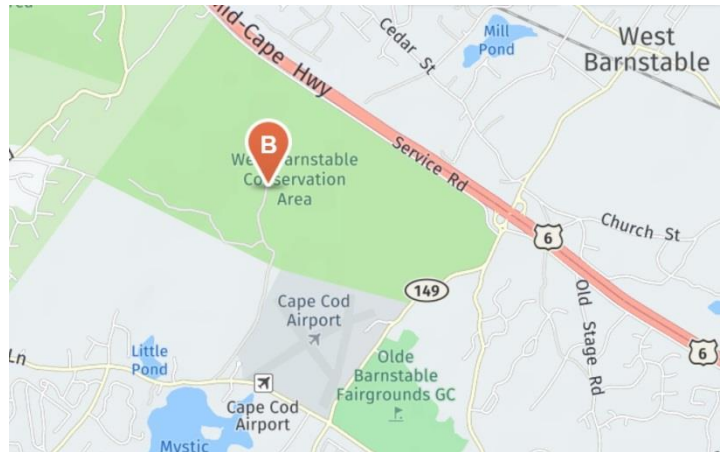
Operating Budget Impact now or in future: These renovations are not expected to have a measurable impact on the operating budget.



Cape Cod Airfield Hanger

Project Working Title: West Barnstable Shooting Range Comprehensive Site Assessment

Project Location: Service Road, West Barnstable, MA 02668



Project Description: The first phase of the project funded by a capital request included lead reclamation of the active ranges (pistol, rifle, and shotgun); shooting position improvements; and safety improvements (fencing – four foot high at the outer limits of the 600 parts per million (ppm) area and six foot high immediately surrounding the active ranges). This request is to conduct a comprehensive site assessment of the entire range, particularly focusing on the area outside the active ranges, but within the 600-ppm area. Future requests will implement the recommendations made in the comprehensive site assessment, which are assumed to include some level of remediation/cleanup of the lead shot area that is located outside the active ranges.

Project Justification: The State’s lead shot initiative allows gun ranges to operate under an Environmental Stewardship Plan. The Plan for the West Barnstable Shooting Range (Horsley & Witten, 2003) requires the removal of lead on a regular basis. This work was not accomplished, and resulted in the presence of significant amounts of lead in soils that far exceed the Department of Environmental Protection (DEP) maximum contaminant level of 600 ppm. The Town took the first steps to address this issue with the 2018 capital project request, by removing the largest pieces of lead from the three active ranges on the property (pistol, rifle, and shotgun) and securing all the areas above 600 ppm. The next step is to create a comprehensive plan for the remainder of the 600-ppm areas, which is defined as between the four-foot fence and the six-foot security fence.

Impact of Denial/Postponement: Ranges will not be able to open due to non-compliance with the Environmental Stewardship Plan and unsafe conditions.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$367,500	-
	Construction or Acquisition	-	TBD
	Total Project Cost	\$367,500	TBD

Basis for Cost Estimates: In-House, supported by consultant recommendation.

Project Estimated Completion Date: 2020 **Design & Permit (months)** 12 **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$367,500	Comprehensive Site Assessment
2021	-	-
2022	TBD	Lead shot remediation within the 600-ppm area

Source of Funding: Capital Trust Fund Reserves

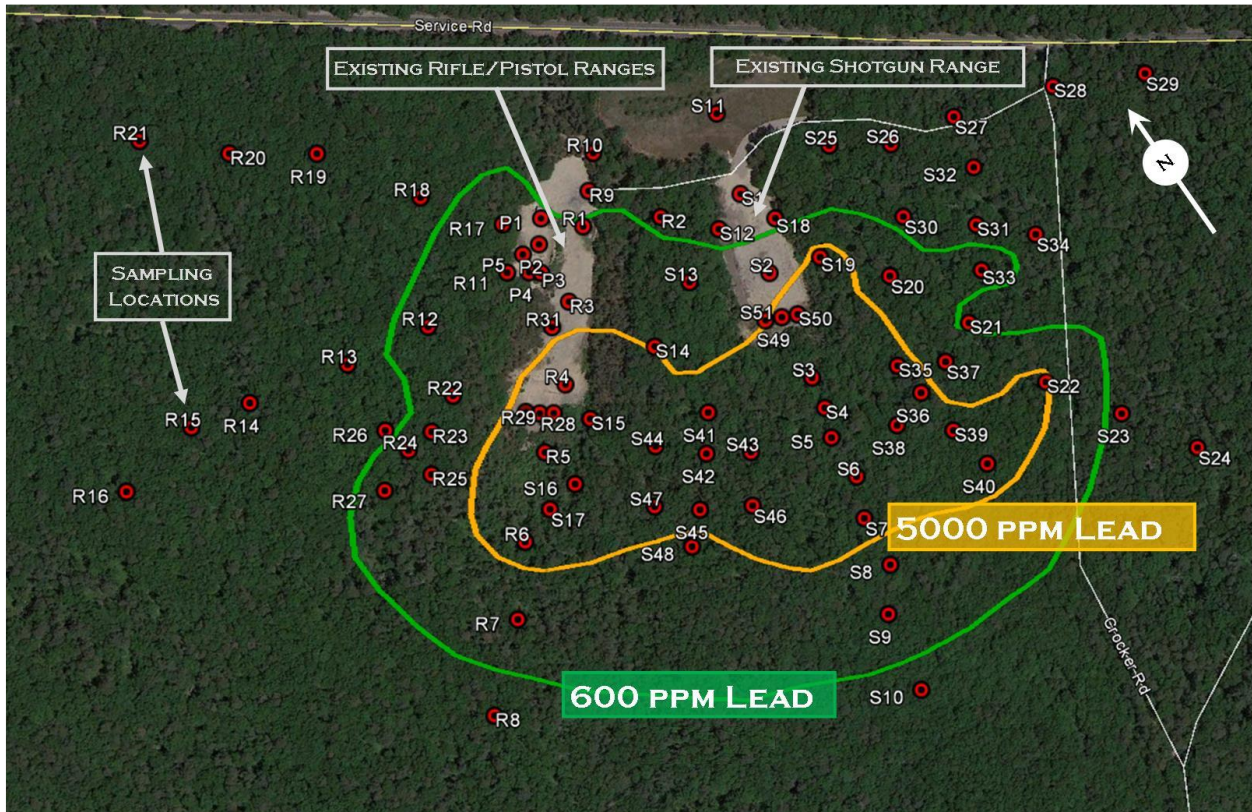
Operating Budget Impact now or in future: N/A



Range Area



Empty Cartridges

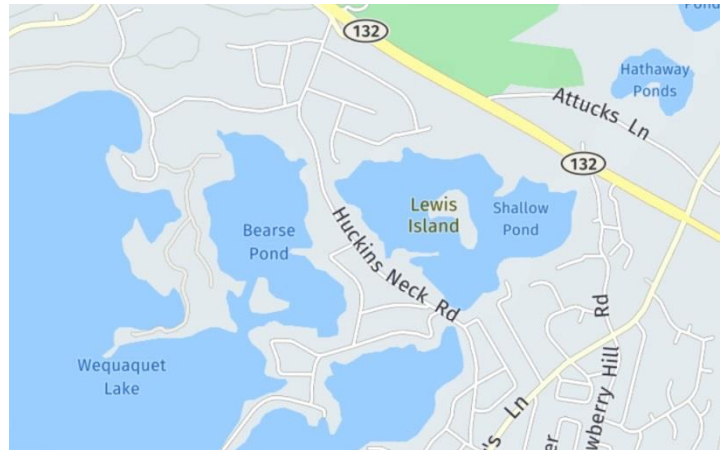


Shooting Range Aerial View - Lead Contamination Site

Project Working Title: Huckin’s Neck Road Reconstruction

Project Location: Centerville, connecting Phinney’s Lane with Route 132

Project Description: Project includes approximately 6,500 feet of roadway reclamation for Huckin’s Neck Road, which will include paving and storm water improvements. The project also includes horizontal and vertical sight line improvements. Design of this project was previously funded by the DPW Public Roads Maintenance CIP. This project would be broken down into two phases. The first phase would be storm water improvements and the second phase would be roadway pavement improvements.



Project Justification: The “Roadway Asset Management” system identified this section of roadway as needing repair. In 2016, a consultant finalized a design for significant road improvements, which resulted in a large, untenable, construction cost estimate. This design scaled back to address the immediate needs in a more cost effective way.

Impact of Denial/Postponement: The roadway surface will continue to deteriorate and cause more frequent “call outs” for repair. Failed storm water systems create water quality issues, which roadway runoff into adjacent ponds will not be addressed and safety of the traveling public could be jeopardized. Isolated flooding areas will not provide proper emergency access.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$15,000	-
	Construction or Acquisition	\$150,000	\$700,000
	Project Management	\$8,000	\$30,000
	Project Contingency	\$25,000	\$140,000
	All Other Costs	\$2,000	\$5,000
	Total Project Cost	\$200,000	\$875,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$200,000	Construction & Construction Management - Drainage
2021	\$875,000	Construction & Construction Management - Roadway

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Normal maintenance will need to be continued by the DPW Highway Division. A reduction in “call outs “for emergency repairs will be experienced. Over the past 18 months, DPW Highway has occurred approximately \$3,000 in emergency repairs to the road.

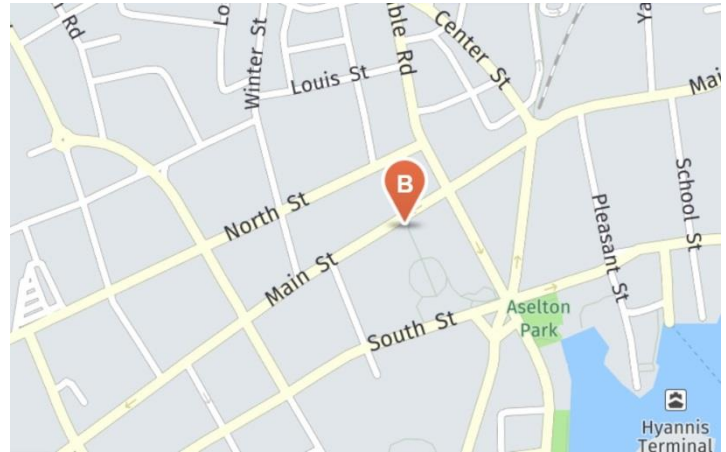


Huckin's Neck Road

Project Working Title: Town Hall Interior Renovations

Project Location: 367 Main Street, Hyannis, MA 02601

Project Description: Phase I of II projects, this includes architectural and engineering design, cost estimating, contract documents and renovation work for the lower basement and first floors of the building. The areas affected include Tax Collection, Assessors, Lunchroom, Mail and Copy Center and Corridor. Included will be the relocation of the existing TV Studio, energy efficient room lighting, power distribution, installation of new interior floor, wall, and ceiling finishes throughout, renovation of the sprinkler system to suit revised floor plan and upgraded lighting and alarm systems. Many of the interior improvements relate to public health, safety, and code issues that need immediate attention.



Due to the magnitude of the scope of work for renovations and possible reconfigurations, it is proposed that this work be executed under a multi-phased program. This will allow the Town Hall to function while in the renovation process.

Project Justification: The Town Hall is the public image of the Town. The building needs continual upgrades and improvements. The public areas in Town Hall are in poor condition and give a negative impression of the Town of Barnstable, with chipped paint, peeling wallpaper and significant water damaged exterior walls. The funding for the additional bathrooms and upgrade to ADA standards have been appropriated in a separate capital request. The lighting and electrical systems are inefficient and costly. The fire alarm system does not meet present day code standards. Air quality concerns exist with mold within walls and ceilings due to a poor HVAC system and many years of moisture leaking through the walls from the exterior. The existing steam based system is being replaced under a separate FY16 capital request. Much of the exterior plaster and drywall surfaces are in need of full replacement.

Impact of Denial/Postponement: Mechanical systems will continue to degrade and require increased maintenance and operating costs. The fire alarm system will continue to degrade and may result in a system that does not function properly thus compromising life safety. The public areas of the building will still be in deplorable condition, leaving a poor impression of Town Government. With the waterproofing of the exterior walls being completed, interior walls need major repairs to correct the damage and mold that has occurred by water penetration over many years.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	\$100,000	-
Construction or Acquisition	-	\$670,000
Project Management	\$30,000	\$30,000
Project Contingency	-	\$50,000
All Other Cost	\$20,500	-
Total Project Cost	\$150,500	\$750,000

Basis for Cost Estimates: In-House with Architect's Cost Estimate and Studies

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$150,500	Phase I Design
2021	\$250,000	Phase I Construction, Lower Floor
2022	\$250,000	Phase II Design & Renovation, First Floor
2023	\$250,000	Phase II Design & Renovation, Second Floor

Source of Funding: Cape Light Compact and Comcast funds may be available to supplement Capital Trust Fund Reserves

Operating Budget Impact now or in future: The facility is an existing Town facility that is currently maintained by the DPW. Improvements/upgrades are expected to result in improvement in energy usage with new lighting, insulation and HVAC, and are not expected to adversely impact the Operating Budget.



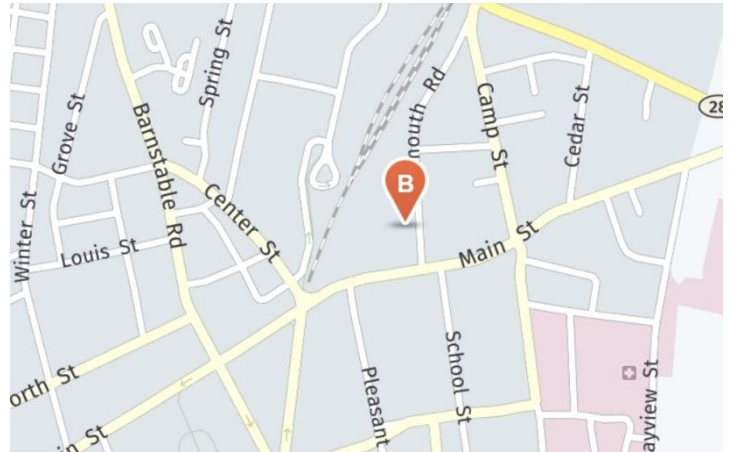
Town Hall Interior Repairs Needed

Project Working Title: 200 Main Street Mansard Roof Replacement

Project Location: 200 Main Street, Hyannis, MA 02601

Project Description: Replacement of the wood framed mansard roof and asphalt shingles have now deteriorated to the point where they need to be replaced.

Project Justification: Asphalt shingles have deteriorated to the point that water is infiltrating into the sub-structure and rotting the sheathing and framing of the mansard roof.



Impact of Denial/Postponement: Water will continue to infiltration into the enclosed framing and create a structural failure. Falling asphalt shingles will create a life safety hazard.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$23,223	-
	Construction or Acquisition	\$290,290	-
	Project Management	\$23,223	-
	Project Contingency	\$29,029	-
	All Other Cost	\$1,000	-
	Total Project Cost	\$366,765	-

Basis for Cost Estimates: Department of Public Works In-House Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$366,765	Design & Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: There will be no budget impact. This work is exterior in nature and will not affect insulation values or mechanical systems



200 Main Street Building Needed Roof Repairs

Project Working Title: Private Road Repair – Old Mill Road, School Street, and Asa Meigs Road

Project Location: Asa Meigs Road, School Street, and Old Mill Road in Marstons Mills

Project Description: Legislation passed in 2014 (Chapter 339 of the Acts of 2014 - signed by the Governor on 10/3/2014) allows that "the Town of Barnstable may from time to time, for the purpose of ensuring the safety of the general public, enter and make expenditures for undertaking maintenance and improvements within the layout, or any portion thereof, of one or more private ways within the Town". To do this the Town must make "a declaration of common usage of such private way by the general public by vote of the Town Council". Common usage is defined as "a road or any portion thereof that has been commonly used by the general public for a period of at least 20 consecutive years of travel directly from one public road or area to another public road or area." In FY 2016, two roads were improved under this legislation Flint Street and Willow Street. For this capital request, it is proposed to repair Asa Meigs Road, School Street, and Old Mill Road in Marstons Mills. These roads required almost 20 emergency repairs in the past 18 months.

Project Justification: The roads in question are in common usage, in need of repair, and are heavily traveled. All proposed roads will be reclaimed.

Impact of Denial/Postponement: The roads will continue to deteriorate, possibly leading to unsafe and ultimately unpassable conditions.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$950,000	-
	Project Management	\$50,000	-
	Total Project Cost	\$1,000,000	-

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$1,000,000	Design, Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

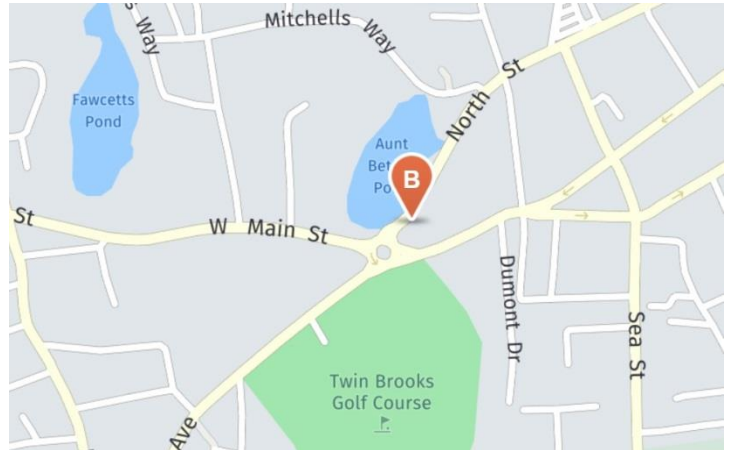
Operating Budget Impact now or in future: Repairs should result in a decrease of emergency repairs to private roads required for these three roads. The Town is occurring over \$2,000 per day on emergency repairs.



Needed Private Road Repairs

Project Working Title: Hyannis Main Street West End Rotary Study Design and Construction

Project Location: At the west end of Main Street, intersection with Scudder Lane, North Street and West Main Street and Main and South Streets up to Sea Street.



Project Description: This project is for a comprehensive review of vehicle, pedestrian and bicycle needs for this important “gateway” to Hyannis. Of particular concern is the lack of pedestrian access around the rotary and proper property access in its vicinity. All potential improvements will be considered including the possibility of a reconfiguration to include a modern roundabout. Storm water improvements and review of existing utilities will also be addressed.

Project Justification: Connecting pedestrian facilities from Main Street to West Main Street and North Street is non-existent. Important receptors including schools, open space, and business uses will benefit from pedestrian access. In 2018, DPW Engineering developed a contract to mill and overlay improving the aesthetics of this location. However, it does not address any of the concerns noted above.

Impact of Denial/Postponement: Lack of progress on this project will result in perpetuating unsafe conditions for pedestrians and cyclists. Vehicle movement will also be hampered especially during the summer season. Water quality in adjacent pond receiving waters will continue to deteriorate.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$250,000	-
	Construction or Acquisition	-	\$1,800,000
	Project Management	-	\$200,000
	Project Contingency	-	\$400,000
	All Other Cost	-	\$100,000
	Total Project Cost	\$250,000	\$2,500,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2023 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$250,000	Design & Permitting
2021	-	-
2022	\$2,500,000	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Required regular maintenance by DPW Highway Division will continue. Cost savings will result in less heavy maintenance for pot hole repair and drainage structure repair for the expected life of the project (20 years). The design could yield a requirement for operating & maintenance of decorative lighting.



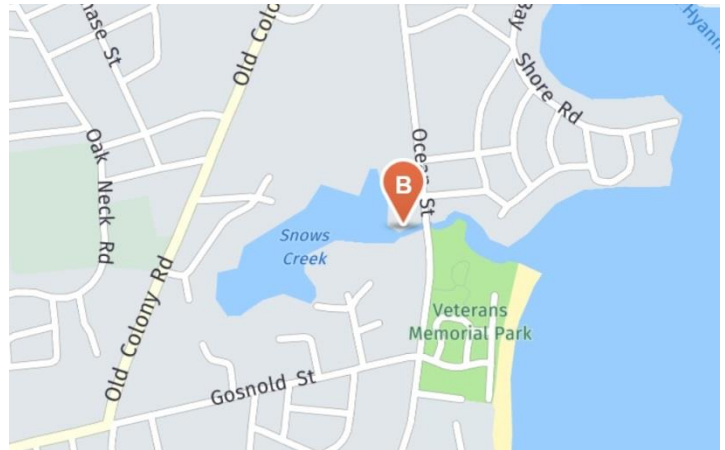
Hyannis Main Street West End Rotary

Project Working Title: Snows Creek Culvert Construction

Project Location: Snows Creek crossing at Ocean Street Hyannis

Project Description: Replacement of an existing small culvert with a larger box culvert. Installation of a sidewalk on the south side of Ocean Street in the culvert vicinity and construction of safety railings.

Project Justification: The existing small culvert under Ocean Street is in disrepair with cracked headwalls and eroded embankments. Installation of a new larger culvert will address the aged infrastructure and provide increased “flushing” into the upstream creek, which will improve water quality. A new sidewalk is also proposed on the east side of Ocean Street as part of the project. The Town will also seek grants to reduce the overall impact.



Impact of Denial/Postponement: Failure to construct this project will mean further deterioration of the creek estuary with associated loss of aquatic and land based species. Potential expansion of algae growth and invasive species will harm the value of this resource area and affect the neighboring property values.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$1,000,000	-
	Project Management	\$100,000	-
	Project Contingency	\$290,000	-
	All Other Cost	\$110,000	-
	Total Project Cost	\$1,500,000	-

Basis for Cost Estimates: Consulting Engineers analysis w/ Public Works Review

Project Estimated Completion Date: 2021 **Design & Permit (months)** - **Construction (months)** 7

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$1,500,000	Construction and Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: This project will increase the Town’s annualized maintenance costs by an estimated \$2,800 per year for snow clearing, sweeping, brush clearing, pavement maintenance and repairs, railing maintenance and repairs, grate cleaning, and wingwall/headwall/culvert inspection, cleaning, sealing and repairs.



Snows Creek Culvert

Project Working Title: Cape Cod Rail Trail Ext. Shared Use Path from Yarmouth Town Line to Sandwich Town Line – Design

Project Location: CCRT Phase 3 (Old Town House Road in Yarmouth to a parking lot adjacent Mary Dunn Road in Barnstable) is currently being designed and is scheduled for construction starting in 2022.

Project Description: The Town is responsible for design and permitting, property/easement acquisitions, and non-participating items. MassDOT is responsible for construction.

Project Justification: This project is a significant link in the “vision” to create an off-road path from the Cape Cod Canal to Provincetown. At this time, construction has recently been completed on a section of the path terminating at Station Avenue in Yarmouth and plans have been developed to the 25% design stage for the path extension to Mary Dunn Road in Barnstable. To the west, the section of path in Sandwich from Route 130 to the Barnstable Town Line is scheduled for construction start in 2022.

Impact of Denial/Postponement: The regionally important expansion of the major shared use path connection on Cape Cod will be delayed, thereby affecting the overall economic growth of the region. Off-road paths for bicycle and other non-vehicular users are a major attraction to visitors and residents alike and this link is essential to the “vision” of connectivity.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$500,000	\$1,000,000
	Construction or Acquisition	-	\$1,000,000
	Total Project Cost	\$500,000	\$2,000,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimates

Project Estimated Completion Date: 2022 **Design & Permit (months)** 48 **Construction (months)** -
(Phase 3), TBD (Phase 4)

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$500,000	Design & Permitting, Acquisition
2021	\$500,000	Design & Permitting, Acquisition
2022	\$500,000	Design & Permitting, Acquisition, Non-Participating Items Construction
2023	\$500,000	Design & Permitting, Acquisition
2024	\$500,000	Design & Permitting, Acquisition

Source of Funding: The Town is responsible for design and permitting, property/easement acquisitions, and non-participating items. MassDOT is responsible for construction. Phase 3 designs, permitting, and acquisitions have been funded from Community Preservation funds, as has the Phase 4 study of route alternatives. Design and permitting and acquisition of Phase 4 is anticipated to cost about \$2,500,000 over several years; at this time Town funding is the anticipated source. MassDOT has committed \$7.6 million for construction of Phase 3, and Phase 4 construction is estimated to total about \$20 million over several stages.

Operating Budget Impact now or in future: None or incidental. It has been the standard practice for the Mass. Division of Conservation and Recreation to be responsible for the maintenance of completed shared use paths; however there may be some incidental maintenance activity increase in areas connected to the facility.

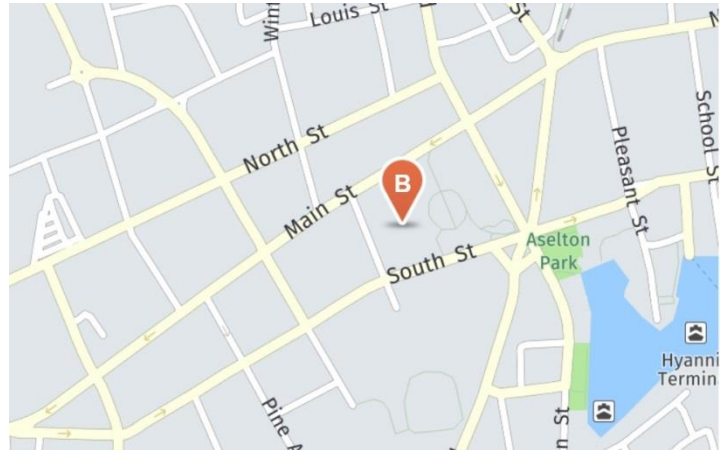


Cape Cod Rail Trail Extension Paths

Project Working Title: Old Town Hall Fan Coil Replacements

Project Location: 397 Main St, Hyannis, MA 02601

Project Description: This project will fund the design and installation of aging fan coil units as well as replace a 850,000 British Thermal Unit (BTU) boiler at the Old Town Hall. The old boiler will be replaced with a modulating boiler. Work is expected to include hazardous materials remediation, installation of 27 fan coil units, and replacement of the existing boiler.



Project Justification: Installed in 2002, the fan coil units that heat and cool the Old Town Hall have exceeded their useful life. Although currently operating, replacement parts for these units are no longer available. FY20 funds will allow for the design of a replacement system. FY21 funds will allow the installation of the system.

Impact of Denial/Postponement: Mechanical systems will continue to be inefficient. Repair parts are becoming increasingly rare. The units will eventually not be repairable. This building houses the JFK Museum, and is a highly used building by the public with 60,000 visitors each year.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$22,866	-
	Construction or Acquisition	-	\$285,824
	Project Management	\$22,866	-
	Project Contingency	-	\$28,582
	All Other Cost	\$40,000	-
	Total Project Cost	\$85,732	\$314,406

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 8 **Construction (months)** 4

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$85,732	Design
2021	\$314,406	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: There will be an energy efficiency cost savings of \$1,000 per year.

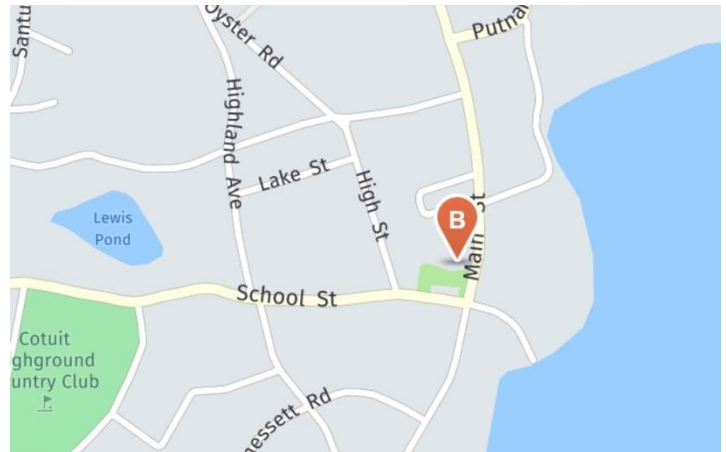


John F. Kennedy Museum and Boiler

Project Working Title: Cotuit Memorial Park Restoration

Project Location: School Street, Cotuit, MA 02635

Project Description: This project will fund the design and restoration of the existing Park. Work will include the installation of new brick walks, relocation of one war memorial, installation of a new flagpole, tree replacements, benches, landscaping. This project will correct handicapped accessibility issues and replace decaying Norway maple trees.



Project Justification: The Cotuit Memorial park is the focal point for the village connecting the library, waterfront, playground, and post office. It provides support for local events including the artisan fair, village day, craft festivals, and non-profit fund raising activities. The Cotuit Civic Association has requested the rejuvenation of the park and has worked with the Town Architect and Grounds division to develop preliminary designs for the enhancement of the site. These plans will improve pedestrian accessibility by bringing non-conforming walks into compliance with ADA, as well as replacing park benches, deteriorated flagpole, diseased trees, and asphalt walks. This work will decrease the amount of maintenance currently required to maintain the park as well as allow expanded use.

Impact of Denial/Postponement: The condition of the park and trees will continue to decline. The asphalt walkways will continue to be displaced by tree roots and settling. The use of the park will continue to be limited.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$15,597	-
	Construction or Acquisition	\$259,952	-
	Project Management	\$20,796	-
	Project Contingency	\$25,995	-
	Total Project Cost	\$322,340	-

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 4

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$322,340	Design & Construction

Source of Funding: Capital Trust Fund Reserves

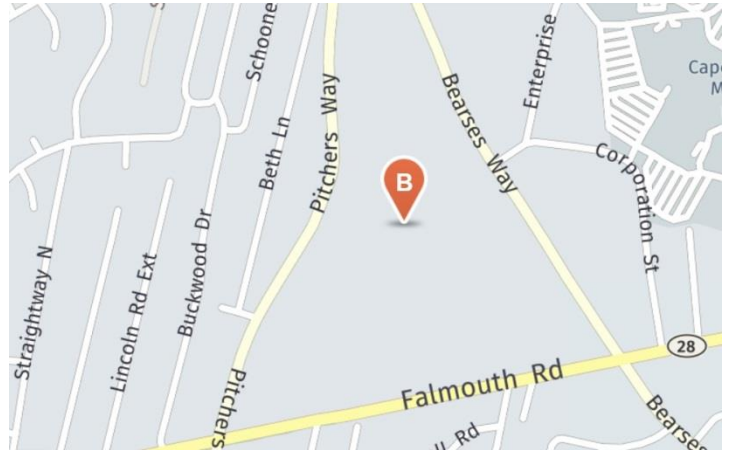
Operating Budget Impact now or in future: None. Any savings will be offset by new maintenance costs.



Cotuit Park and Design

Project Working Title: Department of Public Works Offices (DPW) Phase III Construction

Project Location: 382 Falmouth Road, Hyannis, MA 02601



Project Description: Construction of the Administrative and Highway Division managerial offices to include: employee lockers, showers, and toilet rooms within the current garage area of the existing Administration / Highway building.

Project Justification: This project will provide much needed accommodations for our growing female staff, and office space for the administrative staff, which has filled every available slot in the building. Construction will also allow for the removal of the old “temporary” staff trailer (which is at the end of its useful life), thus increasing much needed parking.

Impact of Denial/Postponement: The DPW feasibility study has shown that greater efficiency will be realized through consolidation of the Administrative and Highway offices at this site. Once the work is completed, the remaining staff trailer will then be demolished. Decreased operational and utility costs will be realized by elimination of the last trailer with the renovation.

Project Cost Estimates:	FY 2020	Future FY
Construction or Acquisition	-	\$896,825
Project Management	-	\$15,000
Project Contingency	-	\$75,000
Total Project Cost	-	\$986,825

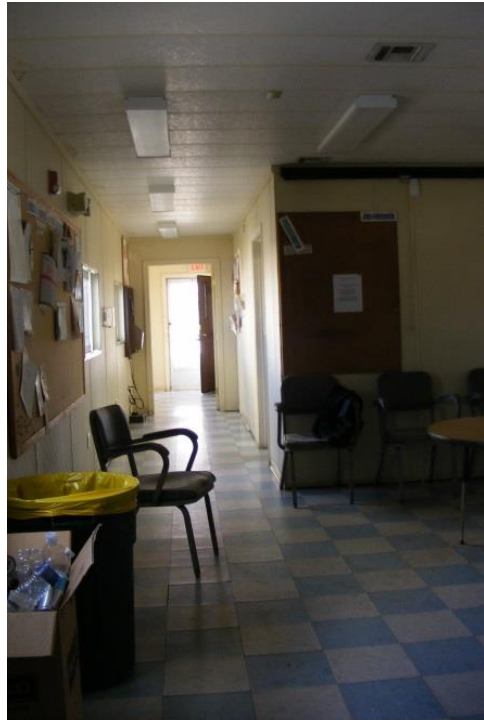
Basis for Cost Estimates: Department of Public Works In-House Cost Estimate

Project Estimated Completion Date: 2023 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$986,825	Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Phase III should have a negligible impact on the operating budget. Utility costs for the new spaces will be offset by elimination of the utilities on the existing, inefficient, temporary trailers that currently house employees.

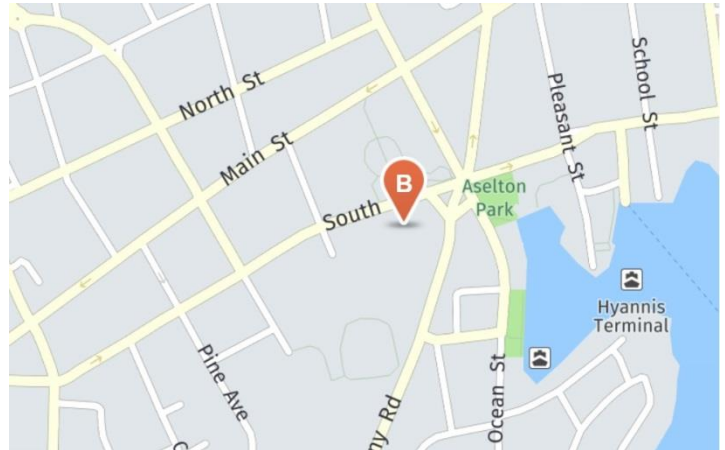


Department of Public Works Employee Facilities

Project Working Title: Armory Building Improvements

Project Location: South Street, Hyannis, MA 02601

Project Description: This project will fund the construction work needed to replace/upgrade essential systems and failing building envelope items in the Armory. These changes will allow the Town to either lease the space to an outside entity, or proceed to converting the building into a municipal facility. If the Town elects to proceed with the latter option, the final project would result in:



- 6,000 square feet of Office Space,
- 4,600 square feet of meeting area,
- 250 seat Town Council Hearing Room with first floor ADA compliant access, and modern communications,
- Modern Conference Room/Executive Emergency Operations Center,
- It is projected that the renovated facility would house the Executive and Legislative Branches of Town

Government including:

- Town Manager’s Offices,
- Legal Offices,
- Community Services Department Head/Director of Communications,
- Town Council Offices; and
- Town Council Hearing Room.

Project Justification: There has been a long, unsuccessful, history trying to find a suitable tenant for this facility, with one of the main deterrents being its existing condition. This phase of the project will fund the construction monies necessary to make basic, minimum improvements to address this deterrent. If the Town elects to proceed with a municipal solution, subsequent phases would leverage its unique location (adjacent to existing Town Campus) to provide key Town offices that are one level, ADA friendly, and easily accessible by the public. The remainder of Town Hall could then have additional security measures placed on it to protect those employees that do not need routine public access. If the Town elects to not pursue this project but instead demolish the facility that has been estimated to cost approximately \$1,300,000.

Impact of Denial/Postponement: The building will continue to deteriorate, and continue to be uncopyable. At some point, the Town will have to address these issues for the building, or risk it falling into complete ruin.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$280,000
Construction or Acquisition	-	\$4,076,000
Project Management	-	\$192,000
Project Contingency	-	\$212,000
Total Project Cost	-	\$4,760,000

Basis for Cost Estimates: Department of Public Works Cost Estimate

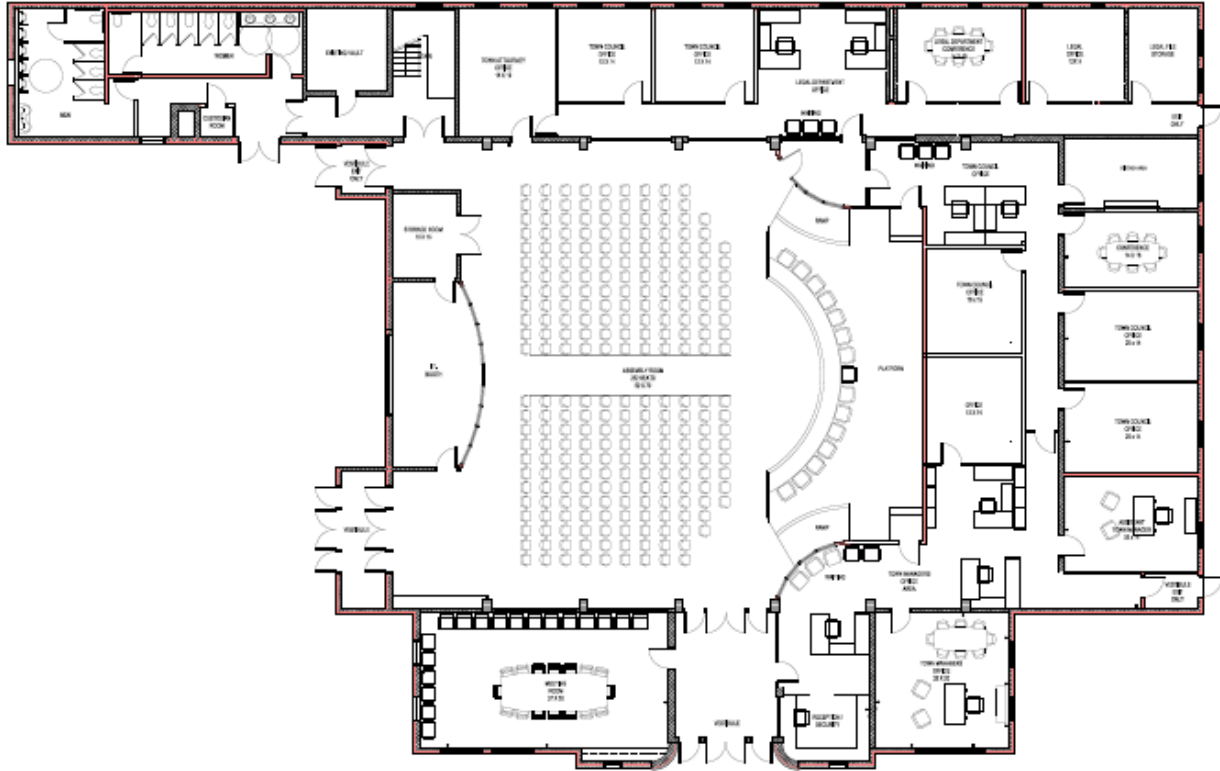
Project Estimated Completion Date: 2022 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$1,835,000	Construction for remainder of minimum solution
2022	-	-
2023	\$2,925,000	Construction for final build out (municipal solution)

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Though an existing building, it currently is a cold storage facility. Custodial staff (assumed to be one full time Grade 4) will be needed to clean the building and preform light maintenance.



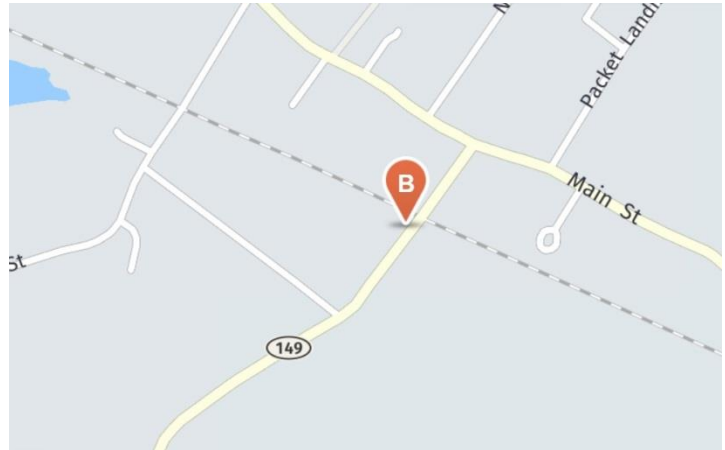
Armory Building Design and Building Facade

Project Working Title: West Barnstable Railroad Depot Restoration

Project Location: 2469 Meetinghouse Way (Route 149) West Barnstable

Project Description: Undertake required exterior roof & fenestration repairs of the West Barnstable Train Station.

Project Justification: Erected in 1910, the Arts & Crafts / Mission Style Architecture building has been patched, repaired and painted, but more substantive renovations are now necessary. The clay tile roof is leaking, causing damage to underlayment, soffits, and interior historic finishes. Interior finishes and windows need to be restored and or repaired. Exterior deterioration continues to allow moisture penetration into the structure, causing further damage. It is expected that additional repair items will be discovered during the design and construction process. This is a contributing structure to the West Barnstable Historic District as well as the Old Kings Highway Regional Historic District. This building is a leased property with historic significance.



Impact of Denial/Postponement: Continuing to defer maintenance on this facility will contribute to its deterioration, and will result in increased future repair costs and extensive structural damage. At some point the structure could become inhabitable

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$39,178
	Construction or Acquisition	-	\$326,480
	Project Management	-	\$16,324
	Project Contingency	-	\$32,648
	All Other Cost	-	\$13,359
	Total Project Cost	-	\$427,989

Basis for Cost Estimates: Architect Assisted with Department of Public Works In-House Cost Estimate

Project Estimated Completion Date: 2023 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$101,509	Design
2022	\$326,480	Restoration

Source of Funding: Potential Community Preservation funds, State Historic grants, and/or Capital Trust Fund Reserves

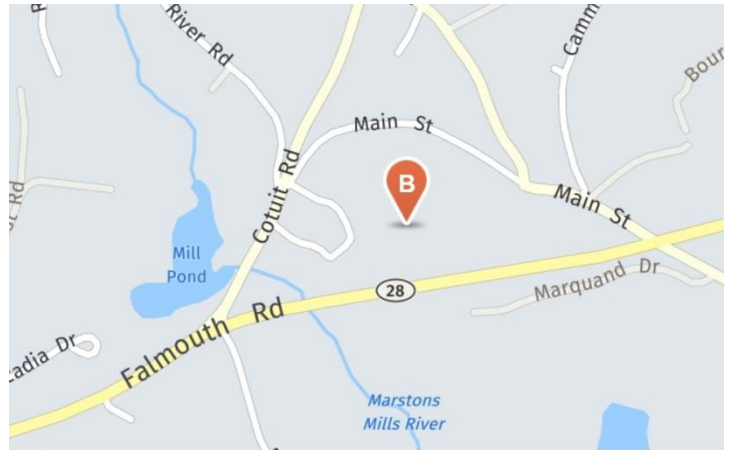
Operating Budget Impact now or in future: This facility is an existing facility that is currently maintained by the DPW. These improvements are not expected to affect the Operating Budget.



West Barnstable Railroad Depot

Project Working Title: Marstons Mills Elementary School Demolition

Project Location: 2095 Main Street , Marstons Mills, MA 02648



Project Description: Demolition of the structures on the Marstons Mills School property is scheduled to be completed in two phases. Phase I was funded in FY19, and will demolish the modular units attached to the main school building including the removal of all hazardous material and utilities. Phase I also includes hazardous materials surveying of the main school building and removal of asbestos that is not required to keep the building weather tight. Phase II operations include design, abatement of all remaining hazardous materials, and demolition of the main school building, loaming and seeding the project site.

Project Justification: The former elementary school was closed in 2009 by the Barnstable Public Schools during a major reconfiguration of the schools districts. It was used for two years as a storage facility to support the surplus school furniture from the closure of four facilities across the district. During that time, the school was heated and kept clean to avoid deterioration. Twice the facility, and its accompanying land, was advertised for lease by the school department to no avail. In 2012, the school committee declared the building surplus to their needs and transferred it to the Town Manager’s control. The Town then tried to lease the space, also to no avail. It has now been decided that the best course of action is to demolish the structures on the property, and perform basic site restoration (loam and seed), in preparation to determined future use.

Impact of Denial/Postponement: The structures will continue to deteriorate, be unoccupied, and render the remainder of the property unusable. At some point, the Town will have to address these issues, or risk the structures collapsing and becoming a public safety issue.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$108,500
Construction or Acquisition	-	\$723,330
Project Management	-	\$50,633
Project Contingency	-	\$72,333
All Other Cost	-	\$40,300
Total Project Cost	-	\$995,096

Basis for Cost Estimates: Department of Public Works Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$995,096	Demolition, loam and seed

Source of Funding: Capital Trust Fund Reserves

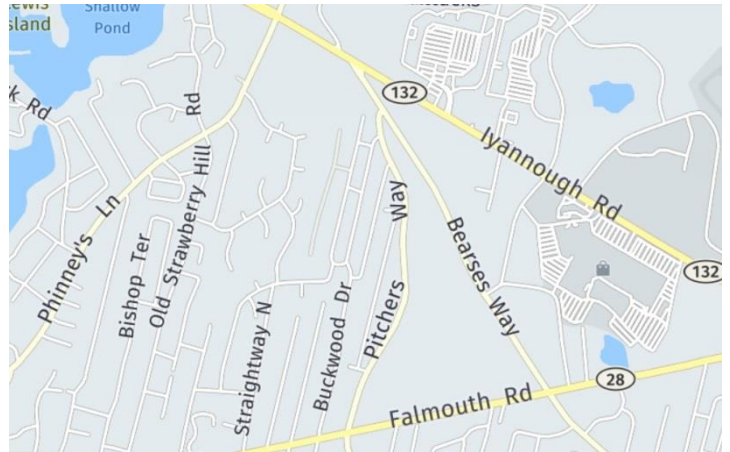
Operating Budget Impact now or in future: Demolition the building will create electric utility savings from discontinued use of about \$20 per month.



Marston Mills Elementary School (Closed in 2010) to be demolished

Project Working Title: Sidewalks on Pitchers Way (Bears’s Way to Route 28) Design & Construction

Project Location: Adjacent to Pitchers Way from Bears’s Way to Route 28



Project Description: Provide pedestrian access for residents along Pitchers Way and its abutting streets to the commercial area north on Route 132 and to the south via the Route 28 bike path.

Project Justification: The section of Pitcher’s Way from Route 28 to Route 132 is heavily populated and an attractive pedestrian way to various locations on Route 132. An unfortunate pedestrian fatality on this section of Pitcher’s Way highlights the need for a sidewalk. The project will be a great benefit to walkers and joggers in the area.

Impact of Denial/Postponement: Failure to implement this project construction will perpetuate unsafe conditions for pedestrians traveling along the road.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$50,000
Construction or Acquisition	-	\$450,000
Project Management	-	\$45,000
Project Contingency	-	\$95,000
All Other Cost	-	\$10,000
Total Project Cost	-	\$650,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$650,000	Design, Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Normal maintenance requirements will be expanded to this section of sidewalk including snow removal.



Location of Sidewalks on Pitches Way (Bears's Way to Route 28)

Project Working Title: Sidewalk Installation: Bumps River Rd Centerville, Main St Cotuit, South St Hyannis

Project Location: Bumps River Road, Centerville (Fuller Road to Babbling Brook Road); Main Street Cotuit (Ocean View Avenue to Freedom Hall); and South Street Hyannis (Ocean Street to Pleasant Street)

Project Description: Installation of new sidewalks

Project Justification: Citizens have brought to our attention the need for improvements to our network of sidewalks on Town arterial and connector roads. The staff has reviewed these needs, and has prioritized the requests based on safety considerations, pedestrian activity, and the speed and volume of traffic additional criterion that is also considered is location with respect to activity centers such as schools, libraries, recreational facilities, and commercial areas.

Impact of Denial/Postponement: Denial of the project will result in a lack of sidewalks for pedestrians along these routes, which will adversely affect pedestrian safety and access.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$75,000
	Construction or Acquisition	-	\$650,000
	Project Management	-	\$15,000
	Project Contingency	-	\$75,000
	All Other Cost	-	\$10,000
	Total Project Cost	-	\$825,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2023 **Design & Permit (months)** 12 **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$825,000	Design & Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: This project will increase the Town's sidewalk maintenance costs by an estimated \$3,000 per year for snow clearing, sweeping, brush clearing, and pavement maintenance and repairs.



Main Street Cotuit (Ocean View Avenue to Freedom Hall)



Bumps River Road, Centerville (Fuller Road to Babbling Brook Road)



South Street Hyannis (Ocean Street to Pleasant Street)

Project Working Title: Sidewalks on Ocean Street from Gosnold Street to Kalmus Beach

Project Location: Adjacent to Ocean Street from Gosnold Street to Kalmus Beach

Project Description: Provide pedestrian access along the east side of Ocean Street and safety lighting for residents and tourists utilizing the Legacy Trail along Ocean Street from the JFK Memorial near Gosnold Street to Kalmus Beach at the end of Ocean Street near Hawes Avenue.



Project Justification: The Legacy Trail has great importance to the historical nature of this area of Town. Although this location has not been formally added as a landmark on the Legacy Trail, Kalmus Beach has views of Egg Island, which was used by the Kennedy's for quiet leisurely retreats. This will also provide pedestrian accommodations for local residents and tourists who desire to visit Kalmus Beach and its amenities, and allow Kalmus Beach visitors to safely travel to the JFK and Veterans Memorials.

Impact of Denial/Postponement: Failure to implement this project will perpetuate unsafe conditions for pedestrians traveling along the road.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$500,000	-
	Project Management	\$50,000	-
	Project Contingency	\$100,000	-
	All Other Cost	\$15,000	-
	Total Project Cost	\$665,000	-

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 12 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$665,000	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

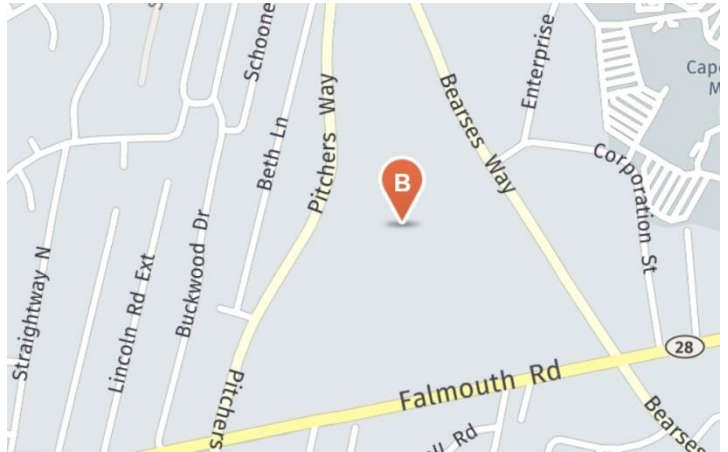
Operating Budget Impact now or in future: Normal maintenance requirements will be expanded to this section of sidewalk including snow removal and the additional electrical cost for the decorative lighting.



Gosnold Street to Kalmus Beach

Project Working Title: Highway Truck Storage Facilities Design & Construction

Project Location: 382 Falmouth Road, Hyannis, MA 02601



Project Description: This project is for the design of a new enclosed and insulated truck garage and shops, with drive-through capability that will be used to park, store and perform daily maintenance on trucks and equipment. The new building will incorporate the design of taller doors, which allow for access by larger equipment, and would have a lean-to for plow storage. Sanding trucks must be kept protected, in a temperate environment, allowing for quick response to snow and ice emergencies. This design work includes site master planning for the entire campus.

Project Justification: This project will involve design work required to create a new enclosed and insulated truck garage and shops. The garage is required to provide for the protection, storage, and daily maintenance of valuable trucks and equipment. Currently most trucks are left outside and deteriorate at a much faster rate and cannot be accessed quickly during storm events and emergencies.

Impact of Denial/Postponement: The trucks continue to be stored outside and will negatively impact snow and ice operations and result in more rapid deterioration of the fleet.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$434,700
Construction or Acquisition	-	\$4,347,000
Project Management	-	\$130,410
Project Contingency	-	\$434,700
All Other Cost	-	\$55,000
Total Project Cost	-	\$5,401,810

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2024 **Design & Permit (months)** 12 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$514,700	Design of new Highway Truck Garage
2023	-	-
2024	\$4,887,110	Construction of new Highway Truck Garage

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Protection and increased longevity of vehicles will offset the cost of increased utilities.

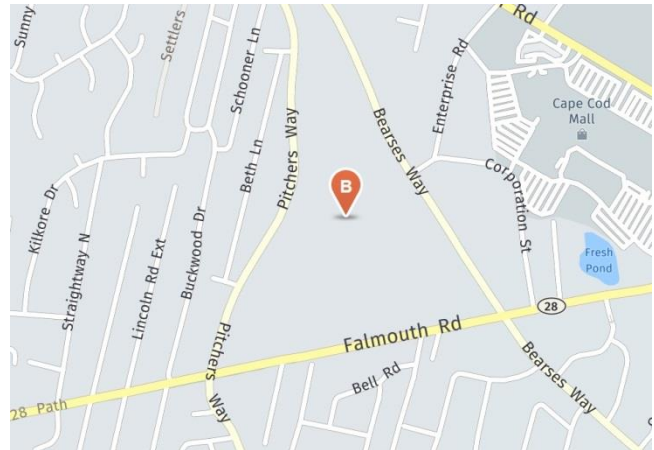


Public Works Highway Division Equipment Outdoors

Project Working Title: Department of Public Works (DPW) Salt Storage Facility

Project Location: 382 Falmouth Road, Hyannis, MA 02601

Project Description: This involves the demolition of the existing salt shed and the design and construction of a new 13,000 square foot salt shed with 6,500-ton storage capacity.



Project Justification: The Town has two existing salt sheds, which are located at the DPW and the transfer station. Together, the capacity of both salt sheds yields approximately 4,000 tons of salt. The existing salt storage does not provide enough capacity to perform best management practices during a major snowstorm event. In addition, inconsistent salt deliveries provide unreliable response during snow emergencies. The proposed salt shed at the DPW would provide adequate storage for one winter season, which would increase the effectiveness to respond to snow emergencies.

Impact of Denial/Postponement: Failure to construct this project will decrease the department’s effectiveness during snow emergency responses. In addition, further deterioration of the existing salt shed would result in failure long-term.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$160,000
Construction or Acquisition	-	\$1,600,000
Project Management	-	\$160,000
Project Contingency	-	\$80,000
Total Project Cost	-	\$2,000,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2024 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	\$2,000,000	Design & Construction of a Salt Shed

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Additional electrical cost will be required and minimal since it would only occur during deliveries and snow events.



Public Works Salt Storage Facility

Project Working Title: Parking Lots Maintenance

Project Location: Various Town Parking Lots

Project Description: This capital project would allow funding for an evaluation of the existing municipal parking lots condition and prioritize based on need. This would develop a recurring, annual budget, for refurbishing the Town's municipal parking lots.

Project Justification: The Town has 54 parking lots that the DPW maintains. DPW addresses small maintenance type items, but does not have the budgets for larger issues such as resurfacing, significant drainage reconstruction, rebuilding, etc. This request is intended to start an annual program, much like the public roads program, that allows the department to address these larger work items in a systematic way.

Impact of Denial/Postponement: Denial of the project will result in unresolved safety concerns (i.e. tripping hazards, unsafe traffic flows due to illegible pavement markings, etc.) for visitors and residents utilizing these deteriorating parking lots. Currently, the parking lots are only addressed to this level of maintenance on a project by project basis, and generally only once the parking lot has significantly deteriorated.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting		\$60,000
Construction or Acquisition		\$350,000	\$1,400,000
Project Management		\$20,000	\$80,000
Project Contingency		\$70,000	\$280,000
Total Project Cost		\$500,000	\$2,000,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: Annual **Design & Permit (months)** - **Construction (months)** -

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$500,000	Design & Construction
2021	\$500,000	Design & Construction
2022	\$500,000	Design & Construction
2023	\$500,000	Design & Construction
2024	\$500,000	Design & Construction

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Work will be completed by contractors, and project-funded employees; and scheduled during traditionally slower times for the Engineering inspectors.



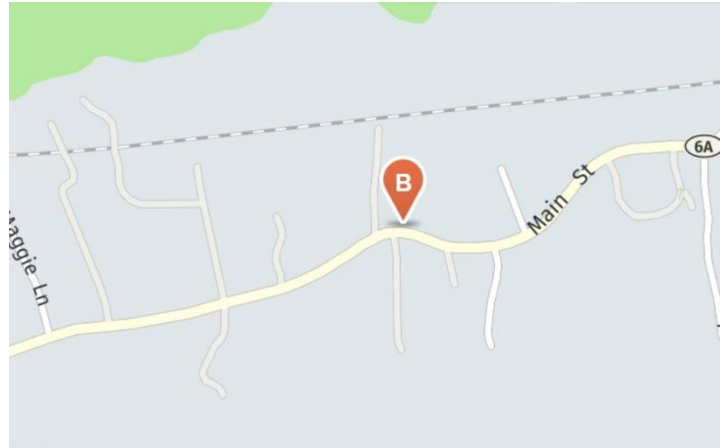
Various Parking Lots Town wide

Project Working Title: U.S. Custom House Interior Work

Project Location: 2252 Main Street, Route 6A, Barnstable, MA 02668

Project Description: This project would fund needed interior repairs for finishes, HVAC systems, and lighting.

Project Justification: Erected in 1856 the building has been patched, repaired, and painted but heavier renovations are now necessary. Handicap access, handicap accessible toilets, and interior finishes need to be addressed.



Impact of Denial/Postponement: Continued deferred repair of the interior of this facility will contribute to its deterioration, and could ultimately result in an increase in repair costs, or require the replacement of existing building items in the future while limiting the public's use of the building.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$30,814
Construction or Acquisition	-	\$308,143	
Project Management	-	\$15,407	
Project Contingency	-	\$30,814	
All Other Cost	-	\$8,000	
Total Project Cost	-	\$393,178	

Basis for Cost Estimates: Architect Assisted In-House Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 10

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$393,178	Interior design and restoration

Source of Funding: Possible Community Preservation funds, State Grant funds, and/or Capital Trust Fund Reserves

Operating Budget Impact now or in future: This work will result in some reduction in maintenance requirements, but should not have a significant impact on the operating budgets.

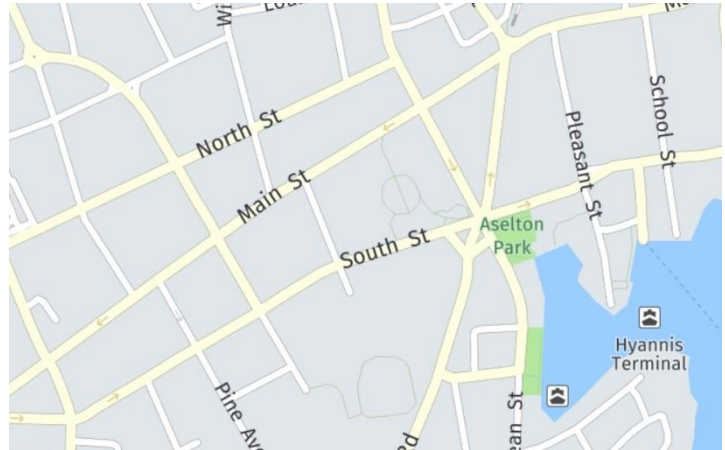


U.S Customs House Interior

Project Working Title: South Street Improvements Design and Construction

Project Location: South Street Hyannis (Sea Street to Lewis Bay Road)

Project Description: Design and permitting of a complete street, involving traffic flow analysis, roadway base and subbase analysis, bicycle and pedestrian movement analysis, and an evaluation of the sidewalks, roadway surface and storm water systems.



Project Justification: South Street is one of the main transportation arteries in Hyannis. The roadway carries traffic from the west enabling access to the Cape Cod Hospital, Hyannis waterfront, arts centers, museums and the center of Town government. Several years ago, the water mains were upgraded in the roadway but only a thin overlay was provided to cover the resulting trenches. Presently the gas utilities are being replaced. Next, sewer work is scheduled. At the end of all this work the road surface will need to be addressed. Additionally, the major signalized intersection at Old Colony, South and Ocean Street needs upgrading. The adjacent curbing and sidewalks are showing signs of disrepair. Lighting should be provided for pedestrian and vehicle safety. Drainage systems in the roadway are inadequate, resulting in major flooding in the road at times of heavy rainfall. Allocation of space in the road layout for bicycles and pedestrians will result in addressing the needs for these modes of travel and increase the accessibility to the many attractions along the roadway for local users and visitors alike.

Impact of Denial/Postponement: Failure to fund South Street improvements will result in continued deterioration of the roadway surface features and underground utilities. An opportunity to upgrade the corridor to provide excellent access to the many businesses, cultural attractions and Municipal offices will be lost. Safety issues with curb ramps and sidewalks will be exacerbated and excessive maintenance funds required to provide a minimum level of service.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$400,000
Construction or Acquisition	-	\$5,500,000
Project Management	-	\$500,000
Project Contingency	-	\$600,000
All Other Cost	-	\$100,000
Total Project Cost	-	\$7,100,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2025 **Design & Permit (months)** 12 **Construction (months)** 24

Cost/Description FY 2020 and Follow-On Years:

Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$400,000	Design & Permitting
2022	-	-
2023	\$6,700,000	Construction & Project Management

Source of Funding: Capital Trust Fund Reserves

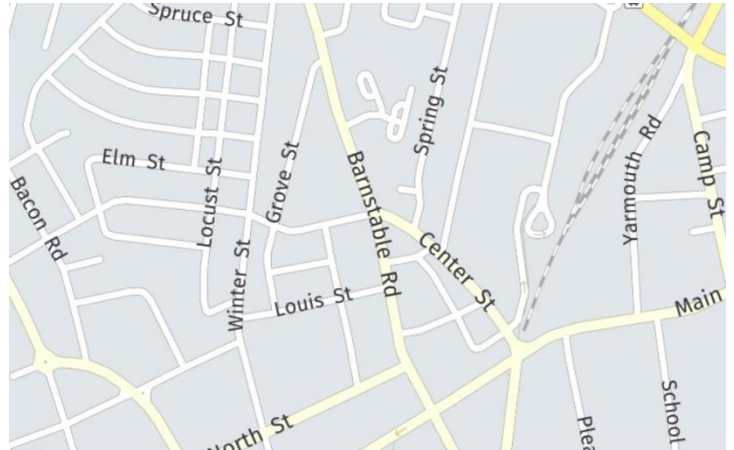
Operating Budget Impact now or in future: With new construction, extra maintenance from Highway division will be reduced. Over the past 18 months, DPW Highway has occurred approximately \$10,750 in emergency repairs to the road. Additional electrical cost will occur if decorative lighting is added.



South Street Hyannis

Project Working Title: Barnstable Road Reconstruction Design and Construction

Project Location: Barnstable Road, Hyannis, MA 02601



Project Description: The project will consist of the design and permitting for a complete reconstruction of Barnstable Road in Hyannis and its associated utilities. The Water Division has previously requested, and been granted, design monies for their pipe replacement. The Water Pollution Control Department is making a similar request for their pipe in this year’s Capital Improvements Plan. This request is to cover the design of the stormwater utilities, and actual road reconstruction.

Project Justification: The April 2007 Water Division Master Plan recommended the 3,200 feet water main in Barnstable Road is replaced. The Water Pollution Control Division has sewer in the Barnstable Road that dates back to the 1930s. Barnstable Road is expected to deteriorate over the next 5-10 years. As a result, DPW would like to take this opportunity to address all utilities and the road at once, rather than with multiple projects over a number of years. It is felt this would limit inconvenience to the citizens to one project while addressing multiple problems at once.

Impact of Denial/Postponement: Work will be accomplished in a piece-meal way. The water work will proceed, leaving a large trench patch in the road. Sewer work will be accomplished within the next 5 years leaving yet another trench patch. Storm drainage will not be addressed and the road will deteriorate.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$400,000
Construction or Acquisition	-	\$5,500,000
Project Management	-	\$500,000
Project Contingency	-	\$600,000
All Other Cost	-	\$100,000
Total Project Cost	-	\$7,100,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2025 **Design & Permit (months)** 12 **Construction (months)** 24

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$400,000	Design & Permitting
2022	-	-
2023	\$6,700,000	Construction & Project Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: The additional impact to the budget will be due to the electrical cost

of the new decorative lighting. Over the past 18 months, DPW Highway has occurred approximately \$500 in emergency repairs to the road.

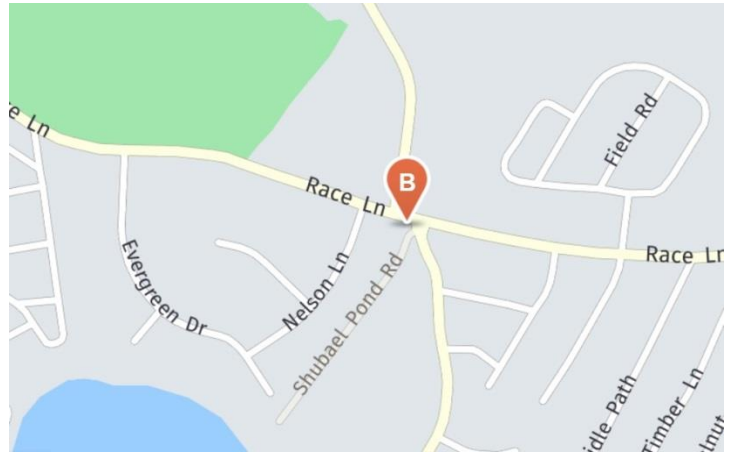


Barnstable Road

Project Working Title: Signalized Intersection at Osterville West Barnstable Road and Race Lane

Project Location: Osterville West Barnstable & Race Lane, Marstons Mills, MA 02648

Project Description: In January 2012, a traffic engineering inventory, analysis, and operations plan was developed for 24 existing Town-owned traffic signal systems. A recommendation from this study concluded signalized of the intersection of Osterville West Barnstable Road and Race Lane.



Project Justification: Traffic signal installation is recommended at this location to improve the current level of service (LOS E for morning peak traffic and a LOS F for evening peak traffic) and reduce the risk of crashes. The Osterville West Barnstable Road southbound approach to Race Lane is offset by 170 feet to the west of the northbound approach.

Impact of Denial/Postponement: Failure to install a signalized intersection at this location will continue to provide a very poor level of service during peak hours for residents and tourists at this location. It also increases the risk of motor vehicle and pedestrian accidents.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$77,000
	Construction or Acquisition	-	\$310,000
	Project Contingency	-	\$102,000
	Total Project Cost	-	\$489,000

Basis for Cost Estimates: Consultant Cost Estimate

Project Estimated Completion Date: 2023 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$77,000	Design & Permitting
2023	\$412,000	Construction & Project Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: The additional cost would consist of maintenance and electrical metering.



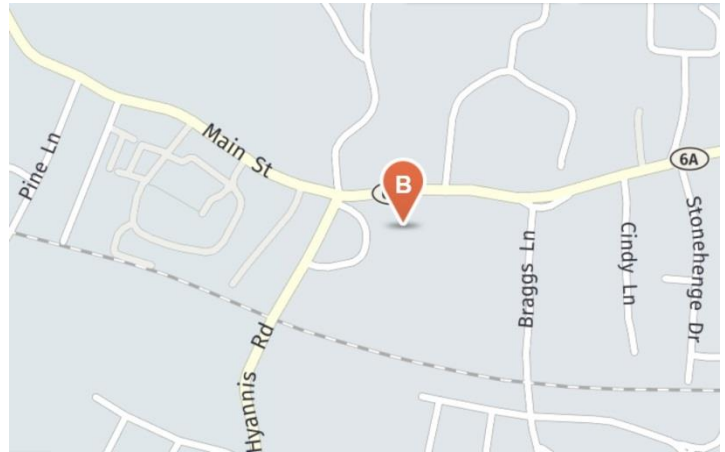
Signalized Intersection at Osterville West Barnstable Road and Race Lane

Project Working Title: Old Jail Repairs

Project Location: 3365 Main Street, Route 6A, Barnstable, MA 02630

Project Description: This project would fund needed structural, exterior and site improvements to the building. These funds would provide for design and renovation/construction.

Project Justification: Originally constructed in 1690, the building has been moved, patched, repaired, and painted, but additional renovations are now necessary. Extensive deterioration of original floor supports has been observed in the basement.



Impact of Denial/Postponement: Continued deferred maintenance of this facility will contribute to its continued deterioration.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$42,000
	Construction or Acquisition	-	\$242,316
	Project Management	-	\$12,000
	Project Contingency	-	\$24,000
	Total Project Cost	-	\$320,316

Basis for Cost Estimates: Architect Assisted In-House Cost Estimate

Project Estimated Completion Date: 2025 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	-	-
2023	-	-
2024	\$320,316	Design / Construction / Restoration / Preservation

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: These renovations are not expected to have a measurable impact on the Operating Budget.



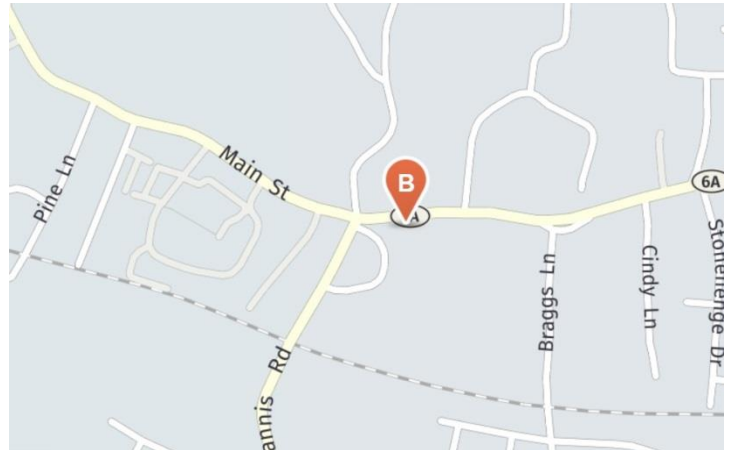
Old Jail House Interior and Exterior Repairs Needed

Project Working Title: U.S. Custom House Site Improvements

Project Location: 3353 Main Street, Route 6A, Barnstable, MA 02630

Project Description: This project funds needed site improvements, including restoration of perimeter iron fence, new site walls, parking areas, planting, and lighting.

Project Justification: Erected in 1856, the building is in the process of a phased restoration. Work to the historic landscape is now necessary. Landscape items such as the historic cast iron fence is deteriorating or missing. Parking areas have deteriorated and become undefined. Stone parking areas need new surfacing.



Impact of Denial/Postponement: Continuing to defer maintenance on this facility will contribute to its deterioration and will result in increased future repair costs and damage.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$26,565
Construction or Acquisition	-	\$177,100
Project Management	-	\$14,168
Project Contingency	-	\$17,710
Total Project Cost	-	\$235,543

Basis for Cost Estimates: Architect Assisted In-House Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$30,000	Site Restoration Design
2022	\$205,543	Site Restoration Construction

Source of Funding: Possible Community Preservation Funds, State Historic Grants, and/or Capital Trust Fund Reserves

Operating Budget Impact now or in future: This facility is an existing facility that is currently maintained by the DPW. These improvements are not expected to affect the operating budget.

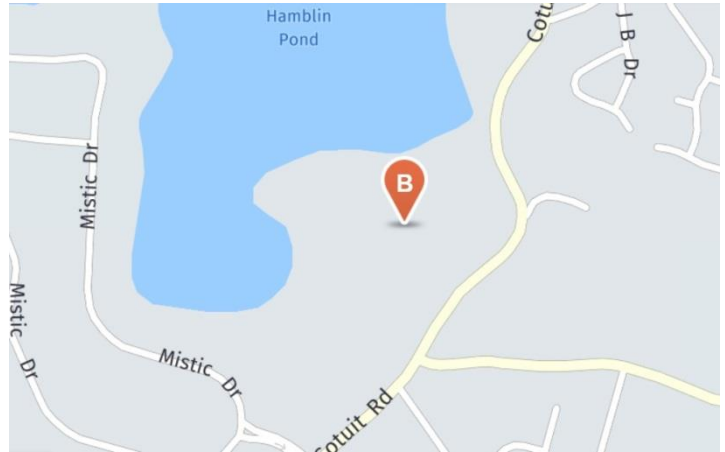


U.S. Custom House Site Improvements

Project Working Title: Burgess Barn Interior

Project Location: 559 Route 149, Marstons Mills, MA 02648

Project Description: This project would fund interior renovations and stabilization of the building interior and access improvements to the Burgess Barn. The work would include floor construction, mechanical, electrical, thermal insulation, interior restoration, and installation of new ADA toilet facilities.



Project Justification: Erected in the late 1700's, the building was in a state of significant disrepair and in danger of being lost. Recently Community Preservation Act funding was approved to preserve the exterior of the building. Work is being complete to shore up structural elements. Windows and doors have been restored and new siding has been installed. The roof was replaced in 2016. Additional funding would allow the building to become usable by adding ADA access, toilet, and storage facilities. Without additional funding, the building would be suitable for cold storage only and underutilized.

Impact of Denial/Postponement: Continued deferred renovation of this building will continue its non-use, thus resulting in deterioration of work previously funded by the Community Preservation Board.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$30,430
Construction or Acquisition	-	\$304,304
Project Management	-	\$24,344
Project Contingency	-	\$30,430
Total Project Cost	-	\$389,508

Basis for Cost Estimates: Architect Assisted In-House Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 6 **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$50,000	Design
2022	\$339,508	Construction

Source of Funding: Possible Community Preservation Funds and/or Capital Trust Fund Reserves

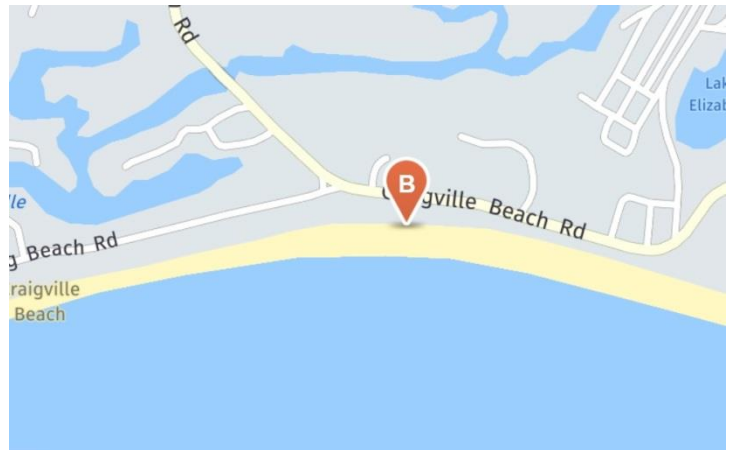
Operating Budget Impact now or in future: This project is to stabilize an existing Town building and would require marginal increase in utility costs.



Burgess Barn Interior and Exterior Needed Repairs

Project Working Title: Craigville Beach Road Pump Station and Force Main

Project Location: Craigville Beach Bathhouse (997 Craigville Beach Road), Craigville Beach Road, Centerville Avenue, and Old Craigville Road



Project Description: Provision of a new wastewater pumping station located at the existing bathhouse, standby generator, construction of a sanitary sewer force main and collector line in anticipation of sewer expansion in the area. Rehabilitation of the roadway after construction to include trench patching.

Project Justification: Craigville Beach is one of the most heavily utilized beaches in Town. In 2014, the FEMA maps rezoned the area of the Craigville Beach bathhouse as part of the flood (velocity) zone making onsite wastewater solutions costly and difficult to implement. This work is recommended by the Town’s recent wastewater planning efforts.

The project location lies directly within the Districts of Critical Planning Concern, DEP Wetlands, Nitrogen Removal area, and Area of Concern (AOC) as identified in the Comprehensive Wastewater Management Plan (June 2010) and Wastewater Facilities Plan (1994). Identified as an AOC in 1994, this area was found to not be suitable for septic systems. While this project does not address the entire sewer extension to this area, it will provide the backbone infrastructure needed to allow future connections. This project will address approximately 140 properties and their future wastewater needs.

Impact of Denial/Postponement: Denial of the project will result in the Town not being able to provide alternatives for nearby residents with failing septic systems, which will affect nearby receiving waters.

Project Cost Estimates:	FY 2020	Future FY
Design & Permitting	-	\$600,000
Construction or Acquisition	-	\$3,000,000
Project Contingency	-	\$750,000
Total Project Cost	-	\$4,350,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2023 **Design & Permit (months)** 18 **Construction (months)** 36

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$600,000	Design & Permitting
2023	-	-
2024	\$3,750,000	Construction & Project Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: A new pump station would bring additional costs for maintenance, electrical, gas, and personnel. The Craigville Beach Bathroom recently installed tight tanks, which needs to be routinely pumped. This solution would eliminate that need to pay those pump costs.



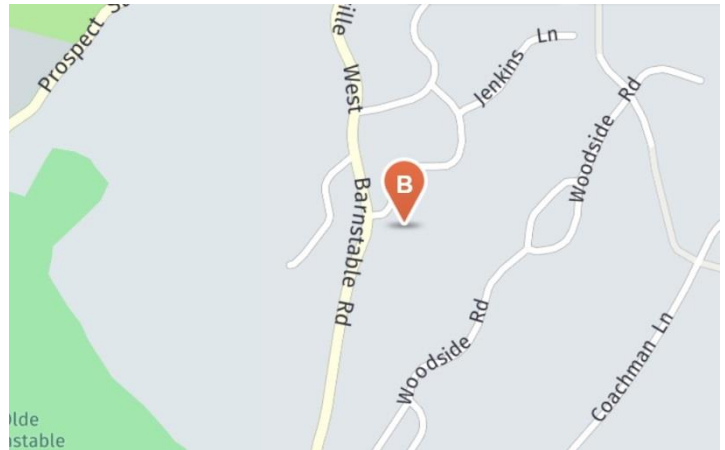
Craigville Bathhouse Septic Location

Project Working Title: Osterville West Barnstable Rd and Pioneer Path Intersection Retaining Wall

Project Location: Westside of Osterville-West Barnstable Road South of Pioneer Path

Project Description: Design and permitting to regrade the road shoulder and install a retaining wall. May involve regrading adjacent section of Osterville-West Barnstable Road.

Project Justification: Some residents on Pioneer Path have requested roadway modifications to improve the safety of left turns from Osterville-West Barnstable Road onto Pioneer Path. The sight distance for this maneuver is lower than MassDOT's recommended value. The project will increase the sight distance so that drivers preparing to make the left turn will be able to see oncoming vehicles at a greater distance, and vice versa, providing additional time to complete the maneuver when there is a safe gap in oncoming traffic.



Impact of Denial/Postponement: The sight distance deficiency for left turns from Osterville-West Barnstable Road onto Pioneer Path will persist, adversely impacting the safety of this maneuver.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$60,000
	Construction or Acquisition	-	\$350,000
	Project Management	-	\$25,000
	Project Contingency	-	\$50,000
	All Other Cost	-	\$15,000
	Total Project Cost	-	\$500,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$100,000	Design & Permitting
2022	\$400,000	Construction & Project Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: The retaining wall will require inspections and repairs, initially on a 5 to 10-year cycle (unless damaged due to an accident or other cause).



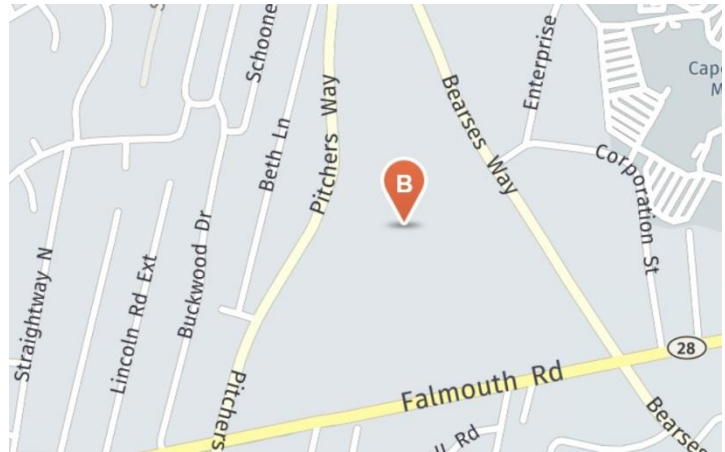
Osterville-West Barnstable Road, Road Schematic, and Example of a Retaining Wall

Project Working Title: DPW 382 Falmouth Rd Facility Parking Lot Repairs

Project Location: 382 Falmouth Road, Hyannis, MA 02601

Project Description: Reclaim/regrade parking lot, provide new asphalt paving, and line striping.

Project Justification: This parking lot is the hub of activity for employee and visitors parking at the DPW main facility. In addition, working vehicles use the lot extensively. The parking lot has deteriorated with many cracks and irregularities.



Impact of Denial/Postponement: Failure to repair the parking lot will result in further damage to the surface from vehicle and snow removal activities. The parking lot will become difficult to use for critical functions and become a safety hazard for vehicles and pedestrians alike.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition		-
Project Contingency		-	\$44,000
Total Project Cost		-	\$264,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$264,000	Construction & Construction Management

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: There would be no negative impact on the operating budget. Repaving will alleviate the need for continued special repairs.



Department of Public Works Parking Lot

Project Working Title: Mosswood Cemetery Building Improvements

Project Location: 280 Putnam Ave, Cotuit, MA 02635

Project Description: Renovation to the present Mosswood Office for the purpose of providing ADA accessibility and restroom facilities.

Project Justification: Mosswood, our largest cemetery, has one inadequate restroom that is used by employees, visitors, and mourners while they conduct business at the office and attend burial services. The renovation would provide a new toilet that it will be handicapped accessible and provide public handicap access to the building. In order to renovate, modifications to the front entrance will be required. A small addition to the side of the building will accomplish this.



Impact of Denial/Postponement: We will continue to not have an accessible public restroom or acceptable access to the building. Customers and residents will continue to be inconvenienced by the existing conditions. There will be continued use of inadequate facilities by our employees.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	\$9,591	-
	Construction or Acquisition	-	\$114,180
	Project Management	\$6,000	-
	Project Contingency	\$11,909	\$5,820
	Total Project Cost	\$27,500	\$120,000

Basis for Cost Estimates: Department of Public Works Engineering Cost Estimate

Project Estimated Completion Date: 2020 **Design & Permit (months)** 3 **Construction (months)** 8

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$27,500	Design
2021	\$120,000	Construction

Source of Funding: Capital Trust Fund Reserves and/or Kirkman Trust Fund

Operating Budget Impact now or in future: none



Mosswood Cemetery Building

School Department Projects

PROJECT: SCH-20-8

DEPARTMENT PRIORITY: 8 of 21

Project Working Title: Building Interior & Exterior Painting Improvements

Project Location: Districtwide, (BUE, BWB, WVE Lobby and Common Areas)

Project Description: Repair and Paint Common Building Areas

Project Justification: Preventative Maintenance and Aesthetics

Impact of Denial/Postponement: Denial or postponement of this project will affect visual appearance and life of interior/exterior of district buildings.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	\$100,000	\$400,000
	Total Project Cost	\$100,000	\$400,000

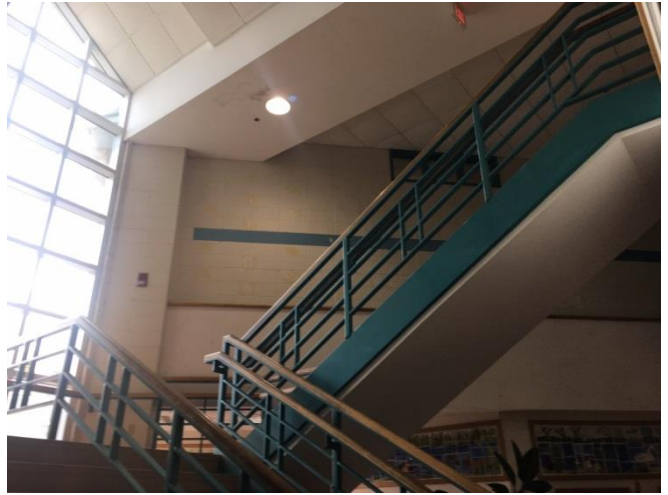
Basis for Cost Estimates: Historical Cost

Project Estimated Completion Date: 2022 **Design & Permit (months)** - **Construction (months)** 60

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	\$100,000	Painting
2021	\$100,000	Painting
2022	\$100,000	Painting
2023	\$100,000	Painting
2024	\$100,000	Painting

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: Repair and painting will protect building surfaces from deterioration and the need for more extensive repairs.



School Interior Needed Repairs

Project Working Title: Flooring Replacement and Upgrades

Project Location: Districtwide

Project Description: This is a multi-year project to begin the replacement of worn tile, carpet and vinyl tile throughout the school district.

Project Justification: Existing flooring is becoming worn and tattered in all schools throughout the district including gym floors.

Impact of Denial/Postponement: Denial or postponement of this request will result in continued deterioration of existing flooring and cause safety issues.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$400,000
	Total Project Cost	-	\$400,000

Basis for Cost Estimates: Vendor Quotes

Project Estimated Completion Date: 2024 **Design & Permit (months)** 1 **Construction (months)** 48

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$100,000	Flooring
2022	\$100,000	Flooring
2023	\$100,000	Flooring
2024	\$100,000	Flooring

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A



Barnstable West Barnstable Gym Floor



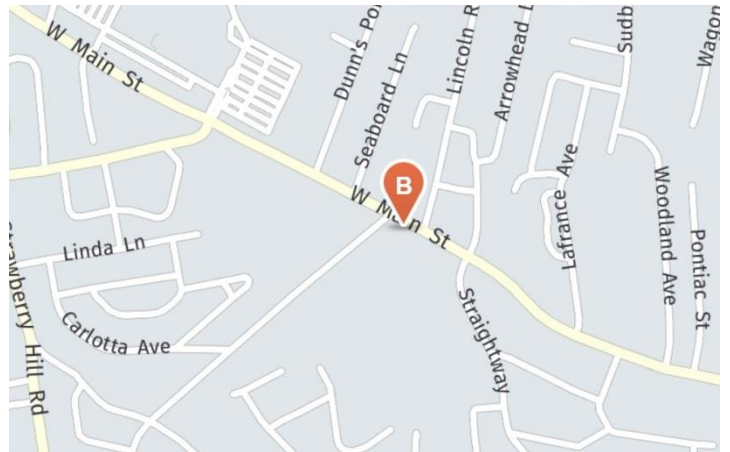
Barnstable High School Floor

Project Working Title: Hyannis West Elementary (HYW) Interior/Exterior Door Replacement

Project Location: 549 West Main Street, Hyannis, MA 02601

Project Description: Upgrade and replace aged interior and exterior doors throughout building to improve security and energy usage.

Project Justification: Existing doors are > 50 years old and in need of replacement. Some units are warped to the point where air and rodent infiltration has become an issue, which places building security at risk.



Impact of Denial/Postponement: Denial or postponement affects building efficiencies, security issues, and potential rodent problems.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$200,000
	Total Project Cost	-	\$200,000

Basis for Cost Estimates: N/A

Project Estimated Completion Date: 2020 **Design & Permit (months)** 2 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$100,000	HYW Floor Replacement
2022	\$100,000	HYW Door Replacement

Source of Funding: Capital Trust Fund Reserves

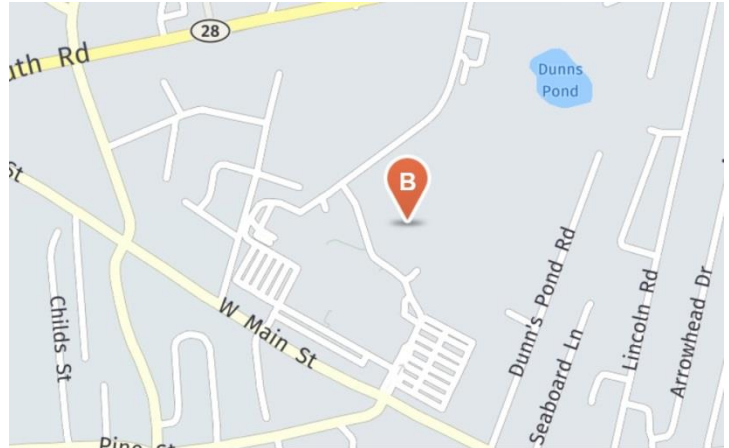
Operating Budget Impact now or in future: This project will realize energy savings due to reduced air and water infiltration.



Hyannis West Doors

Project Working Title: Barnstable High School Gym and Field House Improvements

Project Location: 744 West Main Street, Hyannis, MA 02601



Project Description: Repairs to Barnstable High School’s Field House interior space and doors. The Field House’s open room design allows for ultimate athletic and wellness program flexibility and is large enough to host large community events and town meetings. We use the field house for freshman and Junior Varsity volleyball practice and games. It is also used in the fall on inclement weather days by football, field hockey, boys’ soccer, and girls’ soccer teams as a practice facility during the week. It is used on Saturday mornings as a workout area for JV/Varsity football. We host multiple school pre-season volleyball playdates. In the winter, it is used for sub varsity boys and girls basketball practices and as a winter track training facility during the week and on Saturdays. We also host wrestling, volleyball, and basketball tournaments. The scope of the project includes flooring, painting, and equipment upgrades.

Project Justification: Improvements are necessary to be able to provide safe and acceptable areas for sports programs.

Impact of Denial/Postponement: Denial or postponement of this project will cause floors, walls, and equipment to suffer continued deterioration and increased safety liabilities.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$750,000
	Total Project Cost	-	\$750,000

Basis for Cost Estimates: Budgetary Cost Estimates are based on previous projects

Project Estimated Completion Date: 2021 **Design & Permit (months)** 3 **Construction (months)** 36

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$250,000	Field House Improvements
2022	\$250,000	High School Gym & Field House Improvements
2023	\$250,000	High School Gym & Field House Improvements

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A



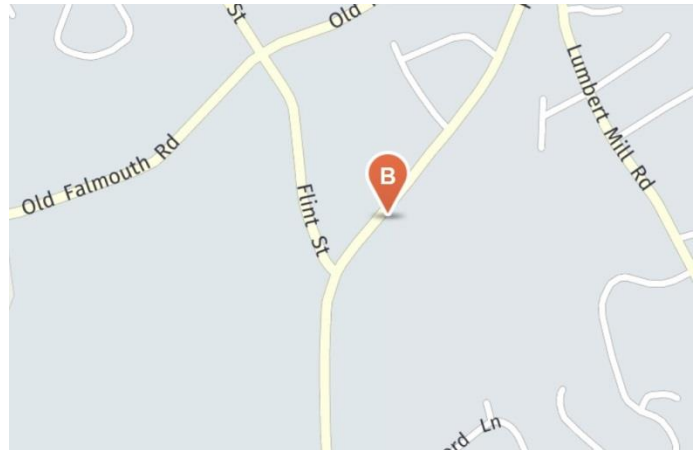
Barnstable High School Field House Floor



Barnstable High School Field House

Project Working Title: Barnstable United Elementary Courtyard Improvements

Project Location: 730 Osterville-West Barnstable, Marston Mills, MA 02648



Project Description: This project seeks to improve the school’s central courtyard, which once housed a manmade combination pond, and wetlands area that had significantly contributed to major building moisture infiltration issues. Through student, staff, and private contractor efforts, the entire system has been removed (2012-2014). The courtyard is currently almost entirely hardscape. The project will redesign the courtyard to include a greater landscape to hardscape ratio, featuring increased areas for absorption of storm water via drought tolerant landscaped areas, pervious paving, and bioswales. The improved courtyard will reduce storm water runoff and provide an outdoor educational environment that facilitate curriculum for science programs, geography, photography, 2D art, and English composition.

Project Justification: This funding is needed to complete the project and make the courtyard a more usable space for school and community use.

Impact of Denial/Postponement: Denial or postponement of this project will render the courtyard space unusable with loss of educational programming opportunities.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$100,000
	Total Project Cost	-	\$100,000

Basis for Cost Estimates: Previous Installations and Vendor Budgetary Quotes, (Astro Park Experience)

Project Estimated Completion Date: 2021 **Design & Permit (months)** 2 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$100,000	Barnstable United Courtyard Improvements

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A



Barnstable United Elementary Courtyard Improvements

Project Working Title: Barnstable Public Schools Campus Wide Paving

Project Location: Campus Wide

Project Description: Pave and repair campus parking lots and sidewalks as needed.

Project Justification: Safety and maintenance

Impact of Denial/Postponement: Denial or postponement will result in continued deterioration to school properties and assets.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$1,000,000
	Total Project Cost	-	\$1,000,000

Basis for Cost Estimates: In-House Cost Estimates to be determined by Department of Public Works.

Project Estimated Completion Date: 2024 **Design & Permit (months)** 3 **Construction (months)** 48

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$250,000	Paving/Masonry/Crack Sealing
2022	\$250,000	Paving/Masonry/Crack Sealing
2023	\$250,000	Paving/Masonry/Crack Sealing
2024	\$250,000	Paving/Masonry/Crack Sealing

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A



Paving/Sidewalks

Project Working Title: Electric Utility Transformer Upgrade

Project Location: Barnstable West Barnstable, Barnstable Community Horace Mann Charter Public School, Osterville Elementary, Cotuit Elementary

Project Description: All four of these locations are still electrically serviced by transformers, which are housed in on-site underground vaults. These transformers should be removed and replaced with above ground transformers and all service panels should be upgraded.

Project Justification: Increased Safety & Reliability

Impact of Denial/Postponement: Denial or postponement of this request could adversely affect service in the event of a transformer failure.

Project Cost Estimates:		FY 2020	Future FY
	Construction or Acquisition	-	\$275,000
	Project Contingency	-	\$25,000
	Total Project Cost	-	\$300,000

Basis for Cost Estimates: N/A

Project Estimated Completion Date: 2020 **Design & Permit (months)** 6 **Construction (months)** 36

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$300,000	Replace Underground Transformers

Source of Funding: Capital Trust Fund Reserves

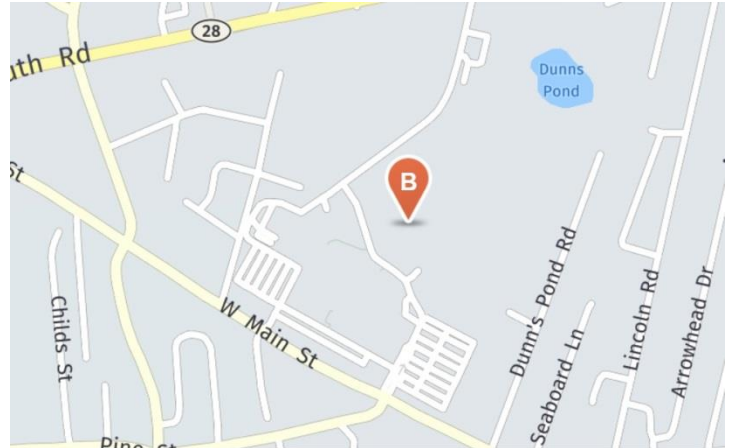
Operating Budget Impact now or in future: Transformer retrofit will provide increased service reliability.



Typical Underground Transformer Vault

Project Working Title: Barnstable High School Culinary Arts Kitchen

Project Location: 744 West Main Street, Hyannis, MA 02601



Project Description: Design and installation of a full service commercial and culinary arts type kitchen at the Barnstable High School. The project would include HVAC, commercial exhaust, equipment, and all necessary infrastructures to support a Culinary Arts Massachusetts Skills Capital Grant Program.

Project Justification: The addition of this facility would provide the necessary teaching space to prepare students who are interested in pursuing a career in the food service industry. Barnstable Public Schools (BPS) have already received a matching grant for \$50,000 for equipment and design. BPS will also be applying for a future grant of \$100,000.

Impact of Denial/Postponement: Postponement of this project would delay implementation of BHS Culinary Program

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$500,000
	Total Project Cost	-	\$500,000

Basis for Cost Estimates: Budgetary Cost Estimate provided by CBI Consulting and GGD Mechanical.

Project Estimated Completion Date: 2021 **Design & Permit (months)** 6 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$500,000	Design and Engineering for Culinary Arts Kitchen

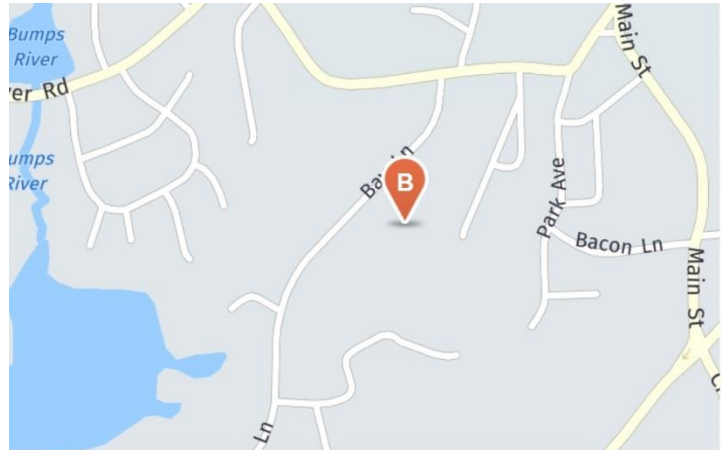
Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A

Project Working Title: Centerville School Window Replacement

Project Location: 658 Bay Ln, Centerville, MA 02632

Project Description: This project involves the replacement of the 1950’s era single pane windows. With the exception of the windows on the front building (replaced FY08/FY09) current windows are drafty and damp and will be replaced with energy efficient units.



Project Justification: Existing units are leaking and inefficient, failure to replace will result in security, maintenance, and energy consumption issues. Existing windows create uncomfortable learning spaces due to excessive solar gain, heat loss due to infiltration, and security issues.

Impact of Denial/Postponement: Single pane windows will continue to hamper the education of children, a cause of frustration for teachers and a waste of energy dollars as a continual source of repair work orders for our maintenance staff. Unsafe window sections will continue to be repaired and possibly replaced with inferior solutions to prevent accidents to children.

Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$1,000,000
	Total Project Cost	-	\$1,000,000

Basis for Cost Estimates: Costs determined using budgetary market pricing.

Project Estimated Completion Date: 2022 **Design & Permit (months)** 1 **Construction (months)** 12

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$1,000,000	Window Replacement

Source of Funding: Capital Trust Fund Reserve

Operating Budget Impact now or in future: Can expect heating energy savings of +10%, project will qualify for MSBA funding (typically at 30%).



Centerville Windows Need Replacing

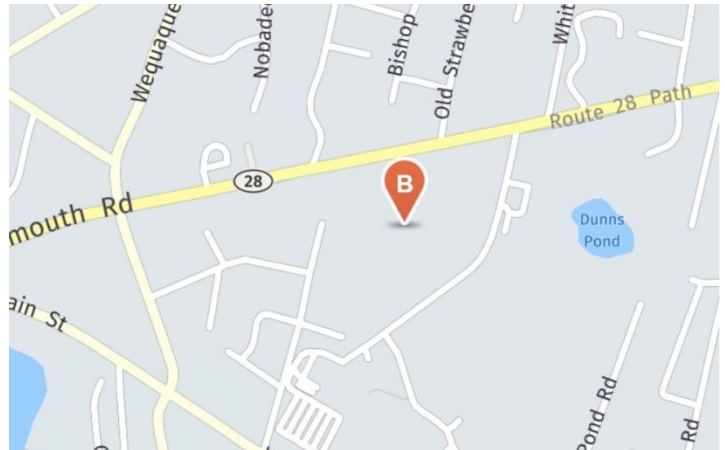
Project Working Title: Barnstable Intermediate School (BIS) Walk-In Freezer

Project Location: 895 Falmouth Road, Barnstable MA 02601

Project Description: The addition of a new walk-in freezer at Barnstable Intermediate School (BIS)

Project Justification: Existing reach-in unit is at end of life and does not have enough food storage capacity to support current lunch program

Impact of Denial/Postponement: Denial or postponement affects efficient food handling and storage operations. Eventual permanent failure of existing reach-in could result in loss of food inventory.



Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$10,000
	Construction or Acquisition	-	\$65,000
	Total Project Cost	-	\$75,000

Basis for Cost Estimates: Previous installations and vendor budgetary quotes

Project Estimated Completion Date: 2021 **Design & Permit (months)** 2 **Construction (months)** 2

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	\$75,000	BIS Walk-In Freezer

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A



Current BIS Reach-In Freezer



Proposed Space for New Walk-In Freezer

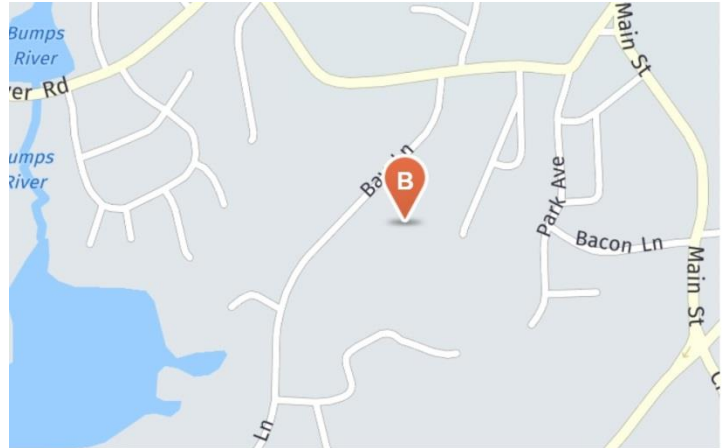
Project Working Title: Centerville Elementary School Elevator Project

Project Location: 658 Bay Ln, Centerville, MA 02632

Project Description: Replace existing wheel chair lift with conventional 2-stop elevator car.

Project Justification: Existing configuration is not suitable for growing population of students needing daily access to elevator service between floors.

Impact of Denial/Postponement: Denial or postponement of this request will result in continued use of wheelchair lift, which is not suited for continuous daily use.



Project Cost Estimates:		FY 2020	Future FY
	Design & Permitting	-	\$20,000
	Construction or Acquisition	-	\$220,000
	Project Contingency	-	\$10,000
	Total Project Cost	-	\$250,000

Basis for Cost Estimates: Eagle Elevator Budgetary Estimate

Project Estimated Completion Date: 2022 **Design & Permit (months)** 3 **Construction (months)** 6

Cost/Description FY 2020 and Follow-On Years:		
Fiscal Year	Cost	Project Description/Components
2020	-	-
2021	-	-
2022	\$250,000	Elevator Install and Components

Source of Funding: Capital Trust Fund Reserves

Operating Budget Impact now or in future: N/A



Centerville Elementary School Elevator

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APPENDIX A – FISCAL YEAR 2020 CAPITAL BUDGET APPROPRIATIONS ORDERS

2019-093 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds vote)

ORDERED:

That the sum of **\$250,000** be appropriated for the purpose of funding the Engineering and Planning Segment of Phase 2 of the Field Improvements as part of the Barnstable High School Sports Field Upgrade Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$250,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-094 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds vote)

ORDERED:

That the sum of **\$500,000** be appropriated for the purpose of funding the Barnstable Public School District –Wide Communication, Video Surveillance and Entry Improvement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$500,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-095 APPROPRIATION AND LOAN ORDER General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,000,000** be appropriated for the purpose of funding the Barnstable High School (BHS) Synthetic Turf Replacement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,000,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto, and further ordered that **\$886,000** of the **\$4,236,000** borrowing authorized by Town Council order **2016-081** on April 7, 2016 for the Barnstable Community Horace Mann Charter Public School Roof and Façade Improvement Project, which is no longer needed for such project, is hereby rescinded.

2019-096 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$250,000** be appropriated for the purpose of funding the Barnstable Public School Campus Wide Mechanical Upgrades Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$250,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-097 APPROPRIATION, LOAN AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,000,000** be appropriated for the purpose of funding the Barnstable Public School Barnstable High School Environmental Lab Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$178,000** be transferred from the remaining unexpended funds under Town Council order **2016-082** and that **\$500,000** be transferred from the remaining unexpended funds under Town Council order **2016-081** that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$322,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-098 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,500,000** be appropriated for the purpose of funding the Barnstable High School and Barnstable Intermediate School Roof Top Unit Ventilator Replacement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,500,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-099 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$500,000** be appropriated for the purpose of funding the Centerville Elementary School Unit Ventilator Upgrade Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$500,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-100 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$150,000** be appropriated for the purpose of funding the Comprehensive School Facilities Assessment as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$150,000** be transferred from General Fund Surplus, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes.

2019-101 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$450,000** be appropriated for the purpose of funding the Hyannis West Elementary School Roof Replacement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$450,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-102 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$250,000** be appropriated for the purpose of funding the Centerville Elementary School Roof Replacement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$250,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable School Committee is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-103 APPROPRIATION AND LOAN ORDER
Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$220,000** be appropriated for the purpose of funding the Airport's Replacement of Aircraft Rescue and Fire Fighting (ARFF) Equipment as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$220,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-104 APPROPRIATION AND LOAN ORDER
Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$490,000** be appropriated for the purpose of funding the Airport's Aircraft Rescue and Fire Fighting Building Roof Repairs as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$490,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-105 APPROPRIATION AND LOAN ORDER
Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$800,000** be appropriated for the purpose of funding the Airport's Snow Removal Equipment Replacement (Kodiak Snow Blower) as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$800,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-106 APPROPRIATION AND LOAN ORDER
Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$230,000** be appropriated for the purpose of funding the Airport's Snow Removal Equipment Replacement (Heavy Duty Carrier Vehicle with Plow and Sander) as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$230,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-107 APPROPRIATION AND LOAN ORDER
Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$280,000** be appropriated for the purpose of funding the Airport's Main Terminal Ramp Hardstands for Heavy Aircraft Parking as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$280,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-108 APPROPRIATION AND LOAN ORDER
Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$475,000** be appropriated for the purpose of funding the Airport's Runway 15-33 Surface Treatment and Repainting Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$475,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-109 APPROPRIATION AND LOAN ORDER
Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,000,000** be appropriated for the purpose of funding the Airport's Repairs to the Access Road on the East Side of the Airfield Including Drainage and Utilities as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,000,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-110 APPROPRIATION AND TRANSFER ORDER
Airport Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$100,000** be appropriated for the purpose of funding the Airport's PFOS Mitigation Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$100,000** be transferred from the Airport Enterprise Fund reserves, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-111 APPROPRIATION AND LOAN ORDER
Airport Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$165,000** be appropriated for the purpose of funding the Airport's Replacement of Airfield Mowing Equipment as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$165,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-112 APPROPRIATION AND TRANSFER ORDER
Airport Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$100,000** be appropriated for the purpose of funding the Airport's Replacement of Steel i-Beams in the Airport Owned Hangar Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$100,000** be transferred from the Airport Enterprise Fund reserves, and that the Barnstable Airport Commission is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-113 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$100,000** be appropriated for the purpose of funding the Aerial Flyover & Mapping Update Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$100,000** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-114 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$50,000** be appropriated for the purpose of funding the Summer Aerial Flyover of Waterways Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$50,000** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-115 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$679,000** be appropriated for the purpose of funding the Hyannis Youth and Community Center Roof, HVAC Controls, Parking and Security Improvement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$679,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-116 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$415,000** be appropriated for the purpose of funding the Craigville Bath House and Parking Lot Improvement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$415,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-117 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$620,000** be appropriated for the purpose of funding the Marstons Mills Tennis Court Improvement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$620,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-118 APPROPRIATION TRANSFER AND LOAN ORDER
Golf Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$446,000** be appropriated for the purpose of funding the Hyannis Golf Course Cart Path System Replacement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$32,000** be transferred from the remaining funds in Town Council order **2015-106**, and that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$414,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to

contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-119 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,730,000** be appropriated for the purpose of funding the Channel Dredging Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$980,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that **\$750,000** be transferred from the Comprehensive Water Management and Private Way Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto, and further ordered that **\$1,000,000** of borrowing authorized by Town Council order **2018-074** for dredging the first phase of the Cotuit Bay Entrance Channel Project, which is no longer needed for such project, is hereby rescinded.

2019-120 APPROPRIATION AND TRANSFER ORDER
Sandy Neck Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$60,000** be appropriated for the purpose of funding the Design and Permitting of the Sandy Neck Gatehouse and Off Road Vehicle Access Trail Relocation as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$60,000** be transferred from the Sandy Neck Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-121 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$3,450,000** be appropriated for the purpose of funding the Public Roads Maintenance Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$3,450,000** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-122 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$500,000** be appropriated for the purpose of funding the Public Bridge Improvements and Repairs Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$500,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-123 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$125,000** be appropriated for the purpose of funding the Bearses Way Bike Path Design & Permitting Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$125,000** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-124 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$900,000** be appropriated for the purpose of funding the Bumps River Bridge Repairs Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$900,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-125 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$314,000** be appropriated for the purpose of funding the Sidewalk Overlay & Guardrail Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$314,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-126 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$114,000** be appropriated for the purpose of funding the Main Street Hyannis Tree Lighting Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$114,000** be transferred from the General Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-127 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$150,000** be appropriated for the purpose of funding the Municipal Separate Storm Sewer System (MS4) Program as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$150,000** be transferred from the remaining funds in Town Council order **2016-105**, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-128 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$300,000** be appropriated for the purpose of funding the Crosswalk Improvement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$300,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-129 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$480,000** be appropriated for the purpose of funding the Town Hall Security Improvement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$480,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-130 APPROPRIATION AND TRANSFER ORDER
Water Pollution Control Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$600,000** be appropriated for the purpose of funding the Effluent Flow Meter Evaluation, Design, and Construction Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$600,000** be transferred from the Water Pollution Control Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-131 APPROPRIATION AND LOAN ORDER
Water Pollution Control Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$380,000** be appropriated for the purpose of funding the Sewer System Evaluation Surveys Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$380,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-132 APPROPRIATION AND LOAN ORDER
Water Pollution Control Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,160,000** be appropriated for the purpose of funding the Rendezvous Lane Pump Station Replacement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,160,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-133 APPROPRIATION AND LOAN ORDER
Water Pollution Control Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,125,000** be appropriated for the purpose of funding the Bearse's Way Vacuum Sewer Replacement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,125,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-134 APPROPRIATION AND LOAN ORDER
Water Pollution Control Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$4,019,000** be appropriated for the purpose of funding the South Street Sewer Rehabilitation Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$4,019,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-135 APPROPRIATION AND LOAN ORDER
Water Supply Enterprise Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$1,050,000** be appropriated for the purpose of funding the Pipe Replacement and Upgrade Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$1,050,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-136 APPROPRIATION AND TRANSFER ORDER
Water Supply Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$200,000** be appropriated for the purpose of funding the Wells, Pump Stations, Treatment Plant Repair & Upgrade Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$200,000** be transferred from the Water Supply Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-137 APPROPRIATION AND TRANSFER ORDER
Water Supply Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$75,000** be appropriated for the purpose of funding the purchase of a Valve Maintenance Trailer System as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$75,000** be transferred from the Water Supply Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-138 APPROPRIATION AND TRANSFER ORDER
Water Supply Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$220,000** be appropriated for the purpose of funding the Wells Treatment Options Evaluation as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$220,000** be transferred from the Water Supply Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-139 APPROPRIATION AND TRANSFER ORDER
Solid Waste Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$60,000** be appropriated for the purpose of funding the Repair and Upgrade of Five Compactor Units as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$60,000** be transferred from the Solid Waste Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-140 APPROPRIATION AND TRANSFER ORDER
Solid Waste Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$80,000** be appropriated for the purpose of funding the Replacement of an All-Terrain Litter Vacuum and Kubota Rough Terrain Vehicle as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$80,000** be transferred from the Solid Waste Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-141 APPROPRIATION AND TRANSFER ORDER
Solid Waste Enterprise Fund Capital Improvement Plan (Majority Vote)

ORDERED:

That the sum of **\$100,000** be appropriated for the purpose of funding the Roll Off Trailer Replacement as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$100,000** be transferred from the Solid Waste Enterprise Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-142 APPROPRIATION AND TRANSFER ORDER
Comprehensive Water Management and Private Way Fund Capital Improvement Program (Majority Vote)

ORDERED:

That the sum of **\$612,000** be appropriated for the purpose of funding the Marstons Mills School Pump Station and Associated RT 28 Collection System Preliminary Design as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$612,000** be transferred from the Comprehensive Water Management and Private Way Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-143 APPROPRIATION AND TRANSFER ORDER

Comprehensive Water Management and Private Way Fund Capital Improvement Program (Majority Vote)

ORDERED:

That the sum of **\$938,000** be appropriated for the purpose of funding the Long Pond Area Sewer Expansion Final Design and Permitting as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$938,000** be transferred from the Comprehensive Water Management and Private Way Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-144 APPROPRIATION AND TRANSFER ORDER

Comprehensive Water Management and Private Way Fund Capital Improvement Program (Majority Vote)

ORDERED:

That the sum of **\$612,000** be appropriated for the purpose of funding the Marstons Mills River Treatment System Design and Permitting as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$612,000** be transferred from the Comprehensive Water Management and Private Way Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-145 APPROPRIATION AND TRANSFER ORDER

Comprehensive Water Management and Private Way Fund Capital Improvement Program (Majority Vote)

ORDERED:

That the sum of **\$735,000** be appropriated for the purpose of funding the Phinney's Lane Sewer Expansion Final Design and Permitting as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$735,000** be transferred from the Comprehensive Water Management and Private Way Fund reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-146 APPROPRIATION AND LOAN ORDER

General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$797,000** be appropriated for the purpose of funding the Osterville Field Construction and Site Improvement Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$797,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-147 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$300,000** be appropriated for the purpose of funding the Design and Permitting of Commerce Rd. Improvements in Barnstable Village as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$300,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-148 APPROPRIATION AND LOAN ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$996,000** be appropriated for the purpose of funding the Improvements to the School Administration Building Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that the Town Treasurer, with the approval of the Town Manager, is authorized to borrow **\$996,000**, and that in accordance with Chapter 44, Section 20 of the General Laws, any premium received by the Town upon the sale of any bonds or notes thereunder, less any such premium applied to the payment of the costs of issuance of such bonds and notes, may be applied to pay such project costs, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-149 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$125,000** be appropriated for the purpose of funding the Design and Permitting of a New Municipal Pier Project as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$125,000** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

2019-150 APPROPRIATION AND TRANSFER ORDER
General Fund Capital Improvement Plan (Two-thirds Vote)

ORDERED:

That the sum of **\$75,000** be appropriated for the purpose of funding the Design and Permitting to Extend the Cotuit Town Dock as outlined in the FY 2020 - FY 2024 Capital Improvement Plan, including the payment of costs incidental or related thereto; and that to meet this appropriation, that **\$75,000** be transferred from the Capital Trust Fund Reserves, and that the Town Manager is authorized to contract for and expend the appropriation made available for these purposes and be authorized to accept any grants or gifts in relation thereto.

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APPENDIX B - DEBT AMORTIZATION SCHEDULES AS OF FEBRUARY 6, 2019

GENERAL FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
CTF Land Acquisition (I) - Hyannis Golf Course \$748,000 Refunded	02/17/15	02/15/26	325,200	47,600	46,080	44,560	43,040	35,520	34,240	32,960	-	-	-	-
CTF Land Acquisition - CAP \$365,200 Refunded	06/21/16	06/30/23	115,000	27,640	26,680	23,720	21,840	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2002 Land Acquisitions BUTAPS	06/14/11	06/15/20	1,102,000	135,200	-	-	-	-	-	-	-	-	-	-
Total Land Acquisition Interest & Principal				210,440	72,760	68,280	64,880	35,520	34,240	32,960				
GENERAL FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
High School Construction - Refunded	02/15/07	02/15/19	27,486,190	-	-	-	-	-	-	-	-	-	-	-
Barnstable Middle School - Refunded 2	02/15/07	02/15/20	1,548,520	150,800	-	-	-	-	-	-	-	-	-	-
Barnstable Middle School - Refunded 1	02/15/07	02/15/20	7,071,300	681,200	-	-	-	-	-	-	-	-	-	-
CTF School Upgrades 1 (I) \$360,000 Refunded	02/17/15	02/15/22	104,700	21,280	20,520	19,760	-	-	-	-	-	-	-	-
CTF School Facilities Repair & Improvement (I) \$660,000 Refunded	02/17/15	02/15/22	199,700	42,520	41,000	38,480	-	-	-	-	-	-	-	-
CTF School Health & Safety Improvements \$478,000 Refunded	02/17/15	02/15/26	193,400	29,620	28,660	27,700	21,740	19,980	19,260	18,540	-	-	-	-
CTF MME Roof Replacement (I) \$750,000 Refunded	02/17/15	02/15/26	329,800	47,800	46,280	44,760	43,240	40,720	34,240	32,960	-	-	-	-
CTF School Upgrades 2 (I) \$150,000 Refunded	02/17/15	02/15/27	47,400	6,420	6,220	6,020	5,820	5,620	4,920	4,240	4,120	-	-	-
CTF BHMCPs Roof (I) \$910,000 Refunded	02/17/15	02/15/27	426,900	55,770	54,050	52,330	50,610	48,890	46,170	44,490	42,230	-	-	-
CTF School Facility Improvements 1 (I) \$916,600 Refunded	06/21/16	06/30/28	295,700	36,928	34,080	36,000	34,800	33,600	32,400	31,800	31,200	30,600	-	-
CTF School Building Improvements	06/16/10	06/15/30	936,000	62,494	61,144	59,794	58,331	56,869	55,294	53,719	52,088	50,288	48,600	46,800
CTF School Facilities Upgrades/Repairs V (I)	06/14/11	06/15/31	884,000	65,119	63,319	61,519	59,719	57,919	56,400	54,825	53,138	46,450	44,850	43,250
CTF School Parking Lot (I)	06/14/11	06/15/21	250,000	27,000	26,000	-	-	-	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs IV	06/14/11	06/15/21	332,000	32,400	31,200	-	-	-	-	-	-	-	-	-
CTF School Remolding - Asbestos 00-110 Refunded	06/14/11	06/15/22	50,000	5,600	5,400	5,200	-	-	-	-	-	-	-	-
CTF School Facilities Upgrades/Repairs II	06/14/11	06/15/26	179,000	12,663	12,263	11,863	11,463	11,063	10,725	10,375	-	-	-	-
CTF School Facilities Upgrades/Repairs III	06/14/11	06/15/26	190,000	12,663	12,263	11,863	11,463	11,063	10,725	10,375	-	-	-	-
CTF School Improvement (I)	06/14/11	06/15/26	487,000	37,988	36,788	35,588	34,388	33,188	32,175	31,125	-	-	-	-
HS Addition & Renovation Advance Refund 6/15/2003	04/18/12	09/15/18	58,100	-	-	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 School Remodel II	04/18/12	09/15/22	193,400	22,180	21,580	17,940	15,300	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 School Remodel I	04/18/12	09/15/22	242,700	28,609	22,806	21,192	20,196	-	-	-	-	-	-	-
CTF School Roof Repairs	11/22/13	11/15/23	600,000	67,500	65,700	63,900	62,250	60,750	-	-	-	-	-	-
CTF HS Library AC Units	11/22/13	11/15/23	450,000	50,625	49,275	47,925	46,688	45,563	-	-	-	-	-	-
CTF School Fire & Communications System	11/22/13	11/15/23	200,000	22,500	21,900	21,300	20,750	20,250	-	-	-	-	-	-
CTF School Computer Network Infrastructure	11/22/13	11/15/23	189,000	22,100	21,500	15,975	15,563	15,188	-	-	-	-	-	-
CTF Intermediate School Roof & Façade Design	11/22/13	11/15/18	100,000	-	-	-	-	-	-	-	-	-	-	-
CTF School Hot Water Pump Replacement	11/22/13	11/15/18	85,000	-	-	-	-	-	-	-	-	-	-	-
CTF School Gym Bleacher Upgrades	11/22/13	11/15/18	55,000	-	-	-	-	-	-	-	-	-	-	-
CTF School Grounds Maintenance Equipment	11/22/13	11/15/18	150,000	-	-	-	-	-	-	-	-	-	-	-
CTF School Kitchen Equipment	11/22/13	11/15/18	110,000	-	-	-	-	-	-	-	-	-	-	-
CTF Early Learning Center Modular Facility	02/17/15	02/15/35	2,000,000	153,125	149,125	145,125	141,125	137,125	133,125	129,125	126,125	123,125	120,625	118,000
CTF Elementary School Modular Classroom (#2015-115)	02/25/16	06/30/36	3,720,000	293,106	280,506	273,106	265,706	258,306	250,906	243,506	236,106	232,406	227,781	223,850
CTF BIS Façade & Roof Improvements (#2015-116)	02/25/16	06/30/36	3,353,000	263,181	256,381	249,581	242,781	235,981	229,181	222,381	210,581	207,281	203,156	199,650
CTF BCHMCPs Façade & Roof Improvements (#2015-117)	02/25/16	06/30/26	260,000	32,000	31,000	30,000	29,000	28,000	27,000	26,000	-	-	-	-
CTF High School & Middle School Boiler Upgrades (#2015-119)	02/25/16	06/30/26	350,000	44,800	43,400	42,000	40,600	39,200	37,800	36,400	-	-	-	-
CTF W Village Elementary A/C Replacement (#2015-120)	02/25/16	06/30/26	250,000	32,000	31,000	30,000	29,000	28,000	27,000	26,000	-	-	-	-
CTF School Parking Lot Light Pole Replacement (I) (#2016-082)	02/23/17	06/30/27	435,000	58,800	57,000	55,200	53,400	51,600	44,800	43,200	41,600	-	-	-
CTF School Unit Ventilator Upgrade (I) (#2016-083)	02/23/17	06/30/27	230,000	32,200	31,200	30,200	29,200	23,200	22,400	21,600	20,800	-	-	-
CTF Horace Mann Roof (I) (#2016-081)	02/27/18	06/30/38	2,350,000	207,919	203,119	197,119	191,119	187,519	181,519	175,519	169,519	163,519	152,519	147,919
CTF Barnstable Public Schools Unit Ventilator (I) (#2017-062)	02/27/18	06/30/28	225,000	34,250	33,250	32,000	30,750	25,000	24,000	23,000	22,000	21,000	-	-
CTF Barnstable High School Learning Center (I) (#2017-063)	02/27/18	06/30/38	2,968,500	260,856	254,856	247,356	239,856	235,356	227,856	220,356	212,856	205,356	197,856	191,856
CTF Barnstable Public Schools Asbestos Abatement (I) (#2017-066)	02/27/18	06/30/28	270,000	41,200	40,000	38,500	32,000	31,250	30,000	28,750	27,500	26,250	-	-
CTF Barnstable High School Stadium Bleachers (I) (#2017-067)	02/27/18	06/30/33	966,000	103,050	100,450	97,200	93,950	92,000	88,750	85,500	82,250	79,000	75,750	73,150
CTF Barnstable High School Cafeteria Window (I) (#2017-068)	02/27/18	06/30/38	400,000	34,925	34,125	33,125	32,125	31,525	30,525	29,525	28,525	27,525	26,525	25,725
CTF Hyannis West Elementary School Roof Truss System (2019-058)	08/15/19	06/30/39	850,000	79,464	78,300	76,050	73,800	71,550	69,300	67,050	64,800	62,550	60,300	53,050
CTF Barnstable High School Sports Field Upgrade (#2018-064)	08/15/19	06/30/34	4,600,000	509,318	500,100	484,600	469,100	453,600	433,100	417,850	402,600	387,350	372,100	356,850
Total Schools Interest & Principal				3,721,971	2,805,758	2,660,270	2,505,831	2,389,873	2,159,571	2,088,211	1,828,038	1,662,700	1,530,063	1,480,100

GENERAL FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Land Acquisition (I) - Hyannis Golf Course \$748,000 Refunded	02/17/15	02/15/26	325,200	-	-	-	-	-	-	-	-	-	-	-	333,310
CTF Land Acquisition - CAP \$365,200 Refunded	06/21/16	06/30/23	115,000	-	-	-	-	-	-	-	-	-	-	-	128,480
CTF Advance Refund 6/15/2002 Land Acquisitions BUTAPS	06/14/11	06/15/20	1,102,000	-	-	-	-	-	-	-	-	-	-	-	275,600
Total Land Acquisition Interest & Principal				-	-	-	-	-	-	-	-	-	-	-	737,390
GENERAL FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
High School Construction - Refunded	02/15/07	02/15/19	27,486,190	-	-	-	-	-	-	-	-	-	-	-	3,433,500
Barnstable Middle School - Refunded 2	02/15/07	02/15/20	1,548,520	-	-	-	-	-	-	-	-	-	-	-	308,850
Barnstable Middle School - Refunded 1	02/15/07	02/15/20	7,071,300	-	-	-	-	-	-	-	-	-	-	-	1,400,400
CTF School Upgrades 1 (I) \$360,000 Refunded	02/17/15	02/15/22	104,700	-	-	-	-	-	-	-	-	-	-	-	88,920
CTF School Facilities Repair & Improvement (I) \$660,000 Refunded	02/17/15	02/15/22	199,700	-	-	-	-	-	-	-	-	-	-	-	171,455
CTF School Health & Safety Improvements \$478,000 Refunded	02/17/15	02/15/26	193,400	-	-	-	-	-	-	-	-	-	-	-	196,200
CTF MME Roof Replacement (I) \$750,000 Refunded	02/17/15	02/15/26	329,800	-	-	-	-	-	-	-	-	-	-	-	339,510
CTF School Upgrades 2 (I) \$150,000 Refunded	02/17/15	02/15/27	47,400	-	-	-	-	-	-	-	-	-	-	-	50,025
CTF BHMCPs Roof (I) \$910,000 Refunded	02/17/15	02/15/27	426,900	-	-	-	-	-	-	-	-	-	-	-	452,245
CTF School Facility Improvements 1 (I) \$916,600 Refunded	06/21/16	06/30/28	295,700	-	-	-	-	-	-	-	-	-	-	-	340,836
CTF School Building Improvements	06/16/10	06/15/30	936,000	-	-	-	-	-	-	-	-	-	-	-	670,163
CTF School Facilities Upgrades/Repairs V (I)	06/14/11	06/15/31	884,000	41,650	-	-	-	-	-	-	-	-	-	-	715,075
CTF School Parking Lot (I)	06/14/11	06/15/21	250,000	-	-	-	-	-	-	-	-	-	-	-	81,000
CTF School Facilities Upgrades/Repairs IV	06/14/11	06/15/21	332,000	-	-	-	-	-	-	-	-	-	-	-	97,200
CTF School Remolding - Asbestos 00-110 Refunded	06/14/11	06/15/22	50,000	-	-	-	-	-	-	-	-	-	-	-	22,000
CTF School Facilities Upgrades/Repairs II	06/14/11	06/15/26	179,000	-	-	-	-	-	-	-	-	-	-	-	93,475
CTF School Facilities Upgrades/Repairs III	06/14/11	06/15/26	190,000	-	-	-	-	-	-	-	-	-	-	-	98,675
CTF School Improvement (I)	06/14/11	06/15/26	487,000	-	-	-	-	-	-	-	-	-	-	-	280,425
HS Addition & Renovation Advance Refund 6/15/2003	04/18/12	09/15/18	58,100	-	-	-	-	-	-	-	-	-	-	-	8,222
CTF Advance Refund 6/15/2003 School Remodel II	04/18/12	09/15/22	193,400	-	-	-	-	-	-	-	-	-	-	-	99,780
CTF Advance Refund 6/15/2003 School Remodel I	04/18/12	09/15/22	242,700	-	-	-	-	-	-	-	-	-	-	-	122,192
CTF School Roof Repairs	11/22/13	11/15/23	600,000	-	-	-	-	-	-	-	-	-	-	-	389,100
CTF HS Library AC Units	11/22/13	11/15/23	450,000	-	-	-	-	-	-	-	-	-	-	-	291,825
CTF School Fire & Communications System	11/22/13	11/15/23	200,000	-	-	-	-	-	-	-	-	-	-	-	129,700
CTF School Computer Network Infrastructure	11/22/13	11/15/23	189,000	-	-	-	-	-	-	-	-	-	-	-	112,925
CTF Intermediate School Roof & Façade Design	11/22/13	11/15/18	100,000	-	-	-	-	-	-	-	-	-	-	-	20,200
CTF School Hot Water Pump Replacement	11/22/13	11/15/18	85,000	-	-	-	-	-	-	-	-	-	-	-	15,150
CTF School Gym Bleacher Upgrades	11/22/13	11/15/18	55,000	-	-	-	-	-	-	-	-	-	-	-	10,100
CTF School Grounds Maintenance Equipment	11/22/13	11/15/18	150,000	-	-	-	-	-	-	-	-	-	-	-	30,300
CTF School Kitchen Equipment	11/22/13	11/15/18	110,000	-	-	-	-	-	-	-	-	-	-	-	20,200
CTF Early Learning Center Modular Facility	02/17/15	02/15/35	2,000,000	115,000	112,000	109,000	106,000	103,000	-	-	-	-	-	-	2,178,375
CTF Elementary School Modular Classroom (#2015-115)	02/25/16	06/30/36	3,720,000	218,300	212,750	207,200	201,650	196,100	190,550	-	-	-	-	-	4,312,544
CTF BIS Façade & Roof Improvements (#2015-116)	02/25/16	06/30/36	3,353,000	194,700	189,750	184,800	179,850	174,900	169,950	-	-	-	-	-	3,884,069
CTF BCHMCPs Façade & Roof Improvements (#2015-117)	02/25/16	06/30/26	260,000	-	-	-	-	-	-	-	-	-	-	-	236,000
CTF High School & Middle School Boiler Upgrades (#2015-119)	02/25/16	06/30/26	350,000	-	-	-	-	-	-	-	-	-	-	-	330,400
CTF W Village Elementary A/C Replacement (#2015-120)	02/25/16	06/30/26	250,000	-	-	-	-	-	-	-	-	-	-	-	236,000
CTF School Parking Lot Light Pole Replacement (I) (#2016-082)	02/23/17	06/30/27	435,000	-	-	-	-	-	-	-	-	-	-	-	466,200
CTF School Unit Ventilator Upgrade (I) (#2016-083)	02/23/17	06/30/27	230,000	-	-	-	-	-	-	-	-	-	-	-	244,000
CTF Horace Mann Roof (I) (#2016-081)	02/27/18	06/30/38	2,350,000	143,319	139,869	136,419	132,969	129,519	126,069	122,475	118,738	-	-	-	3,235,150
CTF Barnstable Public Schools Unit Ventilator (I) (#2017-062)	02/27/18	06/30/28	225,000	-	-	-	-	-	-	-	-	-	-	-	279,917
CTF Barnstable High School Learning Center (I) (#2017-063)	02/27/18	06/30/38	2,968,500	185,856	176,356	172,006	167,656	163,306	158,956	154,425	149,713	-	-	-	4,087,806
CTF Barnstable Public Schools Asbestos Abatement (I) (#2017-066)	02/27/18	06/30/28	270,000	-	-	-	-	-	-	-	-	-	-	-	337,147
CTF Barnstable High School Stadium Bleachers (I) (#2017-067)	02/27/18	06/30/33	966,000	70,550	63,600	61,800	-	-	-	-	-	-	-	-	1,271,696
CTF Barnstable High School Cafeteria Window (I) (#2017-068)	02/27/18	06/30/38	400,000	24,925	24,325	23,725	23,125	22,525	21,925	21,300	20,650	-	-	-	551,683
CTF Hyannis West Elementary School Roof Truss System (2019-058)	08/15/19	06/30/39	850,000	51,050	49,850	48,650	47,450	46,250	45,050	43,850	42,600	41,300	-	-	1,172,264
CTF Barnstable High School Sports Field Upgrade (#2018-064)	08/15/19	06/30/34	4,600,000	341,600	332,450	323,300	314,150	-	-	-	-	-	-	-	6,098,068
Total Schools Interest & Principal				1,386,950	1,300,950	1,266,900	1,172,850	835,600	712,500	342,050	331,700	41,300	-	-	39,010,963

GENERAL FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
CTF Private Road Repairs \$1,607,900	06/21/16	06/30/23	509,000	120,160	112,000	108,000	104,000	-	-	-	-	-	-	-
CTF Bridge Repair	06/14/11	06/15/21	250,000	27,000	26,000	-	-	-	-	-	-	-	-	-
CTF Sidewalk Improvements	06/14/11	06/15/21	350,000	37,800	36,400	-	-	-	-	-	-	-	-	-
CTF Baxter's Neck Road - Private Way	06/14/11	06/15/26	350,000	30,725	29,725	23,725	22,925	22,125	21,450	20,750	-	-	-	-
CTF Advance Refund 6/15/2003 Main St. Hyannis Infr. Improv.	04/18/12	09/15/20	39,100	5,198	4,162	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 1 (I)	04/18/12	09/15/22	193,200	22,228	21,628	18,968	15,504	-	-	-	-	-	-	-
CTF Private Road Repairs (I) \$633,000	11/22/13	11/15/23	633,000	72,575	65,700	63,900	62,250	60,750	-	-	-	-	-	-
CTF Sidewalk Overlays	11/22/13	11/15/23	190,000	22,250	21,650	21,050	15,563	15,188	-	-	-	-	-	-
CTF Bumps River Bridge Repair	11/22/13	11/15/23	120,000	11,250	10,950	10,650	10,375	10,125	-	-	-	-	-	-
CTF Guardrail Replacements	11/22/13	11/15/18	60,000	-	-	-	-	-	-	-	-	-	-	-
CTF Sidewalk/Guardrail Improvements 1	02/17/15	02/15/20	200,000	41,600	-	-	-	-	-	-	-	-	-	-
CTF Sidewalk/Guardrail Improvements 2	02/17/15	02/15/20	85,000	15,600	-	-	-	-	-	-	-	-	-	-
CTF Guardrail Improvements (#2015-098)	02/25/16	06/30/36	170,000	24,400	18,600	18,000	17,400	16,800	16,200	15,600	-	-	-	-
CTF Sidewalk Improvements (#2015-098)	02/25/16	06/30/36	230,000	31,200	30,200	29,200	23,200	22,400	21,600	20,800	-	-	-	-
CTF Road Repairs (#2015-102)	02/25/16	06/30/31	518,000	48,919	47,519	46,119	44,719	43,319	41,919	40,519	39,119	38,419	37,544	31,800
CTF Road Repairs - Governor's Way (#2016-037)	02/25/16	06/30/31	304,000	28,125	27,325	26,525	25,725	24,925	24,125	23,325	22,525	22,125	21,625	21,200
CTF Private Roads Repairs (I) \$167,300	02/23/17	06/30/31	167,300	20,200	19,600	19,000	13,400	13,000	12,600	12,200	11,800	11,400	11,000	10,600
CTF Guardrail & Sidewalk Improvement Program (I) (#2016-103)	02/23/17	06/30/32	680,750	67,050	65,250	63,450	61,650	59,850	58,050	56,250	54,450	52,650	50,850	49,050
CTF Guardrail & Sidewalk (I) (#2017-073)	02/27/18	06/30/33	287,000	31,350	30,550	29,550	28,550	27,950	26,950	25,950	24,950	23,950	22,950	22,150
Total Public Ways Interest & Principal				657,630	567,258	478,137	445,260	316,431	222,894	215,394	152,844	148,544	143,969	134,800

GENERAL FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
CTF Police Station Construction (I) \$400,000 Adv Refunded 6-15-05	02/17/15	02/15/25	181,650	22,320	21,600	20,880	20,160	19,440	18,720	-	-	-	-	-
CTF Building - Senior Center - Refunded	02/15/07	02/15/19	702,378	-	-	-	-	-	-	-	-	-	-	-
CTF Beach Facilities Improvements (I) \$270,000 Refunded	02/15/15	02/15/22	71,300	15,680	15,120	14,560	-	-	-	-	-	-	-	-
CTF Senior Center - Garden Level \$457,000 Refunded	02/17/15	02/15/27	195,000	24,700	23,940	23,180	22,420	21,660	20,900	20,140	19,570	-	-	-
CTF Town Building Repairs & Renovations \$685,000 Refunded	02/17/15	02/15/27	317,600	43,410	41,050	39,730	38,410	37,090	30,770	29,650	27,810	-	-	-
CTF Bismore Park Visitor Center - CAP \$150,000	06/21/16	06/30/23	48,000	11,520	11,120	8,720	10,400	-	-	-	-	-	-	-
CTF Bismore Park Visitor Center \$465,000 Refunded	06/21/16	06/30/23	147,500	34,200	33,520	32,200	29,120	-	-	-	-	-	-	-
CTF Municipal Building Improvements \$297,000 Refunded	06/21/16	06/30/28	49,300	5,672	6,200	6,000	5,800	5,600	5,400	5,300	5,200	5,100	-	-
CTF Municipal Facility Improvements	06/16/10	06/15/29	402,500	6,744	6,594	6,444	6,281	6,119	5,944	5,769	5,588	5,388	5,200	-
CTF Police Facility	06/16/10	06/15/30	508,000	34,719	33,969	33,219	32,406	31,594	30,719	29,844	28,938	27,938	27,000	26,000
CTF Building - Town Hall Space - 00-110 Refunded	06/14/11	06/15/21	180,000	20,520	19,760	-	-	-	-	-	-	-	-	-
CTF Municipal Facility Improvement	06/14/11	06/15/21	300,000	32,400	31,200	-	-	-	-	-	-	-	-	-
CTF Building - Town Hall Repairs - 01-087 Refunded	06/14/11	06/15/22	100,000	11,160	10,760	9,360	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Building Improvements	04/18/12	09/15/22	96,600	11,114	10,814	10,464	6,732	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Police Facility Addition	04/18/12	09/15/22	626,900	67,500	65,700	63,600	61,200	-	-	-	-	-	-	-
CTF Tennis Courts	11/22/13	11/15/23	500,000	56,250	54,750	53,250	51,875	50,625	-	-	-	-	-	-
CTF US Custom House upgrades	11/22/13	11/15/23	263,000	28,125	27,375	26,625	25,938	25,313	-	-	-	-	-	-
CTF Osterville Community Building Upgrades	11/22/13	11/15/23	200,000	22,500	21,900	21,300	20,750	20,250	-	-	-	-	-	-
CTF Police Station Upgrades	11/22/13	11/15/23	168,000	16,875	16,425	15,975	15,563	15,188	-	-	-	-	-	-
CTF Town Hall Interior Upgrades	11/22/13	11/15/23	150,000	16,875	16,425	15,975	15,563	15,188	-	-	-	-	-	-
CTF Guyer Barn Upgrades	11/22/13	11/15/23	148,000	16,750	16,300	15,850	15,438	10,125	-	-	-	-	-	-
CTF MEA Facility Upgrades	11/22/13	11/15/23	131,000	16,325	10,950	10,650	10,375	10,125	-	-	-	-	-	-
CTF Beach Facility Design	11/22/13	11/15/18	115,000	-	-	-	-	-	-	-	-	-	-	-
CTF Pearl St Building Upgrades	11/22/13	11/15/23	114,000	11,250	10,950	10,650	10,375	10,125	-	-	-	-	-	-
CTF S&G Facility Roof Repairs	11/22/13	11/15/23	103,000	11,250	10,950	10,650	10,375	10,125	-	-	-	-	-	-
CTF Lombard Parking & Ballfield Design	11/22/13	11/15/18	101,000	-	-	-	-	-	-	-	-	-	-	-
CTF West Barnstable Community Building Upgrades	11/22/13	11/15/23	72,000	5,625	5,475	5,325	5,188	5,063	-	-	-	-	-	-
CTF Highway Operations Facility Construction	11/22/13	11/15/23	66,000	5,625	5,475	5,325	5,188	5,063	-	-	-	-	-	-
CTF Centerville Recreation Building	02/17/15	02/15/35	185,000	14,863	14,463	14,063	13,663	13,263	12,863	12,463	12,163	11,863	11,613	11,350
CTF Senior Center - Parking Lot Expansion	02/17/15	02/15/30	290,000	27,325	26,525	25,725	24,925	24,125	23,325	22,525	21,925	21,325	20,825	10,300
CTF Police Facilities	02/17/15	02/15/35	288,000	22,519	21,919	21,319	20,719	20,119	19,519	18,919	18,469	18,019	17,644	17,250
CTF Police Station Remodeling (#2015-100)	02/25/16	06/30/36	355,000	29,844	29,044	28,244	27,444	26,644	25,844	25,044	24,244	18,844	18,469	18,150

GENERAL FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Private Road Repairs \$1,607,900	06/21/16	06/30/23	509,000	-	-	-	-	-	-	-	-	-	-	-	569,520
CTF Bridge Repair	06/14/11	06/15/21	250,000	-	-	-	-	-	-	-	-	-	-	-	81,000
CTF Sidewalk Improvements	06/14/11	06/15/21	350,000	-	-	-	-	-	-	-	-	-	-	-	113,400
CTF Baxter's Neck Road - Private Way	06/14/11	06/15/26	350,000	-	-	-	-	-	-	-	-	-	-	-	203,150
CTF Advance Refund 6/15/2003 Main St. Hyannis Infr. Improv.	04/18/12	09/15/20	39,100	-	-	-	-	-	-	-	-	-	-	-	14,708
CTF Advance Refund 6/15/2003 Drainage 1 (i)	04/18/12	09/15/22	193,200	-	-	-	-	-	-	-	-	-	-	-	101,156
CTF Private Road Repairs (I) \$633,000	11/22/13	11/15/23	633,000	-	-	-	-	-	-	-	-	-	-	-	399,375
CTF Sidewalk Overlays	11/22/13	11/15/23	190,000	-	-	-	-	-	-	-	-	-	-	-	118,450
CTF Bumps River Bridge Repair	11/22/13	11/15/23	120,000	-	-	-	-	-	-	-	-	-	-	-	64,850
CTF Guardrail Replacements	11/22/13	11/15/18	60,000	-	-	-	-	-	-	-	-	-	-	-	10,100
CTF Sidewalk/Guardrail Improvements 1	02/17/15	02/15/20	200,000	-	-	-	-	-	-	-	-	-	-	-	85,000
CTF Sidewalk/Guardrail Improvements 2	02/17/15	02/15/20	85,000	-	-	-	-	-	-	-	-	-	-	-	31,875
CTF Guardrail Improvements (#2015-098)	02/25/16	06/30/36	170,000	-	-	-	-	-	-	-	-	-	-	-	152,200
CTF Sidewalk Improvements (#2015-098)	02/25/16	06/30/36	230,000	-	-	-	-	-	-	-	-	-	-	-	210,800
CTF Road Repairs (#2015-102)	02/25/16	06/30/31	518,000	30,900	-	-	-	-	-	-	-	-	-	-	541,131
CTF Road Repairs - Governor's Way (#2016-037)	02/25/16	06/30/31	304,000	20,600	-	-	-	-	-	-	-	-	-	-	317,075
CTF Private Roads Repairs (I) \$167,300	02/23/17	06/30/31	167,300	10,300	-	-	-	-	-	-	-	-	-	-	185,900
CTF Guardrail & Sidewalk Improvement Program (I) (#2016-103)	02/23/17	06/30/32	680,750	47,700	46,350	-	-	-	-	-	-	-	-	-	801,450
CTF Guardrail & Sidewalk (I) (#2017-073)	02/27/18	06/30/33	287,000	16,350	15,900	15,450	-	-	-	-	-	-	-	-	376,160
Total Public Ways Interest & Principal				125,850	62,250	15,450									4,377,300

GENERAL FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Police Station Construction (I) \$400,000 Adv Refunded 6-15-05	02/17/15	02/15/25	181,650	-	-	-	-	-	-	-	-	-	-	-	146,250
CTF Building - Senior Center - Refunded	02/15/07	02/15/19	702,378	-	-	-	-	-	-	-	-	-	-	-	26,250
CTF Beach Facilities Improvements (I) \$270,000 Refunded	02/15/15	02/15/22	71,300	-	-	-	-	-	-	-	-	-	-	-	61,670
CTF Senior Center - Garden Level \$457,000 Refunded	02/17/15	02/15/27	195,000	-	-	-	-	-	-	-	-	-	-	-	202,065
CTF Town Building Repairs & Renovations \$685,000 Refunded	02/17/15	02/15/27	317,600	-	-	-	-	-	-	-	-	-	-	-	332,860
CTF Bismore Park Visitor Center - CAP \$150,000	06/21/16	06/30/23	48,000	-	-	-	-	-	-	-	-	-	-	-	53,680
CTF Bismore Park Visitor Center \$465,000 Refunded	06/21/16	06/30/23	147,500	-	-	-	-	-	-	-	-	-	-	-	165,060
CTF Municipal Building Improvements \$297,000 Refunded	06/21/16	06/30/28	49,300	-	-	-	-	-	-	-	-	-	-	-	56,844
CTF Municipal Facility Improvements	06/16/10	06/15/29	402,500	-	-	-	-	-	-	-	-	-	-	-	67,063
CTF Police Facility	06/16/10	06/15/30	508,000	-	-	-	-	-	-	-	-	-	-	-	372,313
CTF Building - Town Hall Space - 00-110 Refunded	06/14/11	06/15/21	180,000	-	-	-	-	-	-	-	-	-	-	-	61,560
CTF Municipal Facility Improvement	06/14/11	06/15/21	300,000	-	-	-	-	-	-	-	-	-	-	-	97,200
CTF Building - Town Hall Repairs - 01-087 Refunded	06/14/11	06/15/22	100,000	-	-	-	-	-	-	-	-	-	-	-	42,840
CTF Advance Refund 6/15/2003 Building Improvements	04/18/12	09/15/22	96,600	-	-	-	-	-	-	-	-	-	-	-	50,538
CTF Advance Refund 6/15/2003 Police Facility Addition	04/18/12	09/15/22	626,900	-	-	-	-	-	-	-	-	-	-	-	329,229
CTF Tennis Courts	11/22/13	11/15/23	500,000	-	-	-	-	-	-	-	-	-	-	-	324,250
CTF US Custom House upgrades	11/22/13	11/15/23	263,000	-	-	-	-	-	-	-	-	-	-	-	162,125
CTF Osterville Community Building Upgrades	11/22/13	11/15/23	200,000	-	-	-	-	-	-	-	-	-	-	-	129,700
CTF Police Station Upgrades	11/22/13	11/15/23	168,000	-	-	-	-	-	-	-	-	-	-	-	97,275
CTF Town Hall Interior Upgrades	11/22/13	11/15/23	150,000	-	-	-	-	-	-	-	-	-	-	-	97,275
CTF Guyer Barn Upgrades	11/22/13	11/15/23	148,000	-	-	-	-	-	-	-	-	-	-	-	91,588
CTF MEA Facility Upgrades	11/22/13	11/15/23	131,000	-	-	-	-	-	-	-	-	-	-	-	75,125
CTF Beach Facility Design	11/22/13	11/15/18	115,000	-	-	-	-	-	-	-	-	-	-	-	20,200
CTF Pearl St Building Upgrades	11/22/13	11/15/23	114,000	-	-	-	-	-	-	-	-	-	-	-	64,850
CTF S&G Facility Roof Repairs	11/22/13	11/15/23	103,000	-	-	-	-	-	-	-	-	-	-	-	64,850
CTF Lombard Parking & Ballfield Design	11/22/13	11/15/18	101,000	-	-	-	-	-	-	-	-	-	-	-	20,200
CTF West Barnstable Community Building Upgrades	11/22/13	11/15/23	72,000	-	-	-	-	-	-	-	-	-	-	-	32,425
CTF Highway Operations Facility Construction	11/22/13	11/15/23	66,000	-	-	-	-	-	-	-	-	-	-	-	32,425
CTF Centerville Recreation Building	02/17/15	02/15/35	185,000	11,050	10,750	5,450	5,300	5,150	-	-	-	-	-	-	195,638
CTF Senior Center - Parking Lot Expansion	02/17/15	02/15/30	290,000	-	-	-	-	-	-	-	-	-	-	-	277,075
CTF Police Facilities	02/17/15	02/15/35	288,000	16,800	16,350	10,900	10,600	10,300	-	-	-	-	-	-	304,556
CTF Police Station Remodeling (#2015-100)	02/25/16	06/30/36	355,000	17,700	17,250	16,800	16,350	15,900	15,450	-	-	-	-	-	401,906

CTF Town Hall Remodeling (#2015-101)	02/25/16	06/30/36	939,000	75,831	73,831	71,831	69,831	62,831	61,031	59,231	57,431	56,531	55,406	54,450
CTF Joshua's Pond Recreational Facility (#2015-111)	02/25/16	06/30/31	282,000	27,594	26,794	25,994	25,194	24,394	23,594	22,794	21,994	16,594	16,219	15,900
CTF Craigville Beach Bathhouse (#2016-031)	02/25/16	06/30/36	450,000	37,525	36,525	35,525	34,525	33,525	32,525	31,525	25,525	25,125	24,625	24,200
CTF IT Hardware and Software Upgrade (I) (#2016-086)	02/23/17	06/30/22	342,000	78,000	70,200	67,600	-	-	-	-	-	-	-	-
CTF Marstons Mills Parking Lot (I) (#2016-087)	02/23/17	06/30/22	246,450	55,800	53,800	46,800	-	-	-	-	-	-	-	-
CTF Beach Facility Improvement (I) (#2016-110)	02/23/17	06/30/27	438,000	58,800	57,000	55,200	53,400	51,600	44,800	43,200	41,600	-	-	-
CTF Osterville Bay Elem School Improvements (I) (#2016-112)	02/23/17	06/30/37	724,300	63,194	61,594	54,994	53,594	52,194	50,794	49,394	47,994	46,594	45,194	43,794
CTF Lombard Field Improvements (I) (#2016-113)	02/23/17	06/30/37	895,000	74,138	72,338	70,538	68,738	66,938	65,138	63,338	61,538	59,738	57,938	56,138
CTF West Barnstable Shooting Range (I) (#2017-074)	02/27/18	06/30/28	314,000	47,800	41,400	39,900	38,400	37,500	36,000	34,500	33,000	31,500	-	-
CTF Design and Hazmat Removal Project Armory Building (2018-096)	08/15/19	06/30/24	461,750	119,132	113,250	103,500	99,000	94,500	-	-	-	-	-	-
CTF Senior Center Renovations (#2018-076)	08/15/19	06/30/39	659,000	65,890	60,788	59,038	57,288	55,538	53,788	52,038	50,288	48,538	46,788	45,038
CTF Osterville Recreation Building Design & Construction (#2017-086)	08/15/19	06/30/39	675,000	62,278	61,388	59,638	57,888	56,138	54,388	52,638	50,888	49,138	47,388	45,638
CTF Town Hall Restroom Renovations	08/15/19	06/30/39	560,000	52,836	52,056	50,556	49,056	47,556	46,056	44,556	43,056	41,556	40,056	38,556
CTF Former Marston Mills Elementary School Demo (2018-094)	08/15/19	06/30/24	176,050	44,584	42,000	40,250	38,500	36,750	-	-	-	-	-	-
CTF School Administration Building (#2018-092)	08/15/19	06/30/24	285,000	73,815	71,250	63,250	60,500	57,750	-	-	-	-	-	-
Total Public Facilities Interest & Principal				1,580,874	1,514,484	1,394,014	1,212,217	1,060,053	662,115	622,865	597,218	483,788	434,363	406,763

GENERAL FUND INTEREST & PRINCIPAL														
	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
CTF Pleasant St. Dock - 1 \$350,000 Refunded	06/21/16	06/30/23	109,500	25,960	24,560	22,680	21,840	-	-	-	-	-	-	-
CTF Pleasant St. Dock - 2 \$350,000 Refunded	06/21/16	06/30/23	110,000	26,480	24,560	22,680	21,840	-	-	-	-	-	-	-
CTF Boat Ramps - CAP \$927,000 Refunded	06/21/16	06/30/23	290,000	69,400	67,000	64,600	57,200	-	-	-	-	-	-	-
CTF Dredging	06/16/10	06/15/24	419,250	34,625	33,725	32,825	31,850	25,875	-	-	-	-	-	-
CTF Boat Ramp Renovations	06/14/11	06/15/21	250,000	27,000	26,000	-	-	-	-	-	-	-	-	-
CTF Dredging East Bay & Blish Point	06/14/11	06/15/21	665,000	70,200	67,600	-	-	-	-	-	-	-	-	-
CTF Prince Cove/Hayward Rd. Boat Ramp	06/14/11	06/15/26	600,000	50,650	49,050	47,450	45,850	44,250	42,900	41,500	-	-	-	-
CTF East Bay Dredging	11/22/13	11/15/23	600,000	67,500	65,700	63,900	62,250	60,750	-	-	-	-	-	-
CTF Hyannis Harbor Bulkhead Construction	11/22/13	11/15/23	142,000	16,475	16,025	10,650	10,375	10,125	-	-	-	-	-	-
CTF Millway Boat Ramp & Dock Upgrades	11/22/13	11/15/23	133,000	16,325	10,950	10,650	10,375	10,125	-	-	-	-	-	-
CTF Blish Point Sand Management	02/17/15	02/15/20	215,000	41,600	-	-	-	-	-	-	-	-	-	-
CTF Dredge Permitting/Planning	02/17/15	02/15/20	341,000	67,600	-	-	-	-	-	-	-	-	-	-
CTF Marstons Mills Fish Run Reconstruction	02/17/15	02/15/30	326,000	27,625	26,825	26,025	25,225	24,425	23,625	22,825	22,225	21,625	21,125	20,600
CTF Paving: Bay Street Boat Ramp (#2015-099)	02/25/16	06/30/26	142,000	18,800	18,200	17,600	17,000	16,400	10,800	10,400	-	-	-	-
CTF Channel Dredging- Barnstable Harbor (#2016-035)	02/25/16	06/30/26	490,000	63,600	61,600	59,600	57,600	55,600	48,600	46,800	-	-	-	-
CTF Blish Point Boat Access Channel Dredging (I) (#2016-111)	02/23/17	06/30/37	943,900	80,506	78,506	76,506	74,506	72,506	70,506	63,506	61,706	59,906	58,106	56,306
Total Waterways Interest & Principal				704,346	570,301	455,166	435,911	320,056	196,431	185,031	83,931	81,531	79,231	76,906

GENERAL FUND INTEREST & PRINCIPAL														
	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
CTF MWPAT CW-04-31 Pool 11	11/09/07	07/15/20	389,216	33,999	33,999	-	-	-	-	-	-	-	-	-
CTF Lake Treatment	06/16/10	06/15/25	275,000	23,075	17,475	17,025	16,538	16,050	15,525	-	-	-	-	-
CTF Nitrogen Management CW-04-31-A	03/15/11	07/15/20	211,460	23,330	23,330	-	-	-	-	-	-	-	-	-
CTF Advance Refund 6/15/2003 Drainage 2 (I)	04/18/12	09/15/22	96,700	11,118	10,818	10,468	6,834	-	-	-	-	-	-	-
CTF Nitrogen Management CW-04-31-B Series 16	05/14/15	07/15/20	157,531	27,922	27,963	-	-	-	-	-	-	-	-	-
CTF Water Quality Evaluation	11/22/13	11/15/23	230,000	27,575	21,900	21,300	20,750	20,250	-	-	-	-	-	-
CTF Sewer Expansion Analysis	11/22/13	11/15/18	70,000	-	-	-	-	-	-	-	-	-	-	-
CTF Hamblin Pond Alum Treatment (#2015-112)	02/25/16	06/30/31	300,000	28,125	27,325	26,525	25,725	24,925	24,125	23,325	22,525	22,125	21,625	21,200
CTF CW-04-31-R Mass Clean Water Trust (#2002-081)	04/13/17	07/15/20	255,941	88,898	-	-	-	-	-	-	-	-	-	-
Total Water Quality Interest & Principal				264,043	162,810	75,318	69,847	61,225	39,650	23,325	22,525	22,125	21,625	21,200

TOTAL GENERAL FUND BOND OBLIGATIONS				7,139,304	5,693,372	5,131,185	4,733,946	4,183,158	3,314,901	3,167,786	2,684,555	2,398,688	2,209,250	2,119,769
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ENTERPRISE FUND INTEREST & PRINCIPAL														
	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
Airport (O)	06/14/11	06/15/31	730,000	54,400	53,000	51,600	55,200	53,600	52,250	50,850	54,350	52,663	50,863	54,063
Airport Terminal Ramp Construction - Phase 2 (O) (#2013-0101)	02/23/17	06/30/37	428,000	29,213	28,613	28,013	32,413	31,613	30,813	30,013	29,213	28,413	32,613	31,613
Airport New Fuel Farm (I) (#2013-102)	02/23/17	06/30/36	634,500	45,875	44,875	43,875	47,875	46,675	45,475	44,275	48,075	46,675	45,275	43,875
Airport East Ramp Design & Construction (O) (#2014-053)	02/23/17	06/30/37	641,200	46,169	45,169	44,169	43,169	47,169	45,969	44,769	43,569	42,369	46,169	44,769

CTF Town Hall Remodeling (#2015-101)	02/25/16	06/30/36	939,000	53,100	51,750	50,400	49,050	47,700	46,350	-	-	-	-	-	-	1,074,419
CTF Joshua's Pond Recreational Facility (#2015-111)	02/25/16	06/30/31	282,000	15,450	-	-	-	-	-	-	-	-	-	-	-	290,906
CTF Craigville Beach Bathhouse (#2016-031)	02/25/16	06/30/36	450,000	23,600	23,000	22,400	21,800	21,200	20,600	-	-	-	-	-	-	512,275
CTF IT Hardware and Software Upgrade (I) (#2016-086)	02/23/17	06/30/22	342,000	-	-	-	-	-	-	-	-	-	-	-	-	296,600
CTF Marstons Mills Parking Lot (I) (#2016-087)	02/23/17	06/30/22	246,450	-	-	-	-	-	-	-	-	-	-	-	-	214,200
CTF Beach Facility Improvement (I) (#2016-110)	02/23/17	06/30/27	438,000	-	-	-	-	-	-	-	-	-	-	-	-	466,200
CTF Osterville Bay Elem School Improvements (I) (#2016-112)	02/23/17	06/30/37	724,300	42,744	41,694	40,644	39,594	38,456	37,319	36,181	-	-	-	-	-	910,756
CTF Lombard Field Improvements (I) (#2016-113)	02/23/17	06/30/37	895,000	54,788	53,438	52,088	50,738	49,275	47,813	41,350	-	-	-	-	-	1,141,938
CTF West Barnstable Shooting Range (I) (#2017-074)	02/27/18	06/30/28	314,000	-	-	-	-	-	-	-	-	-	-	-	-	392,504
CTF Design and Hazmat Removal Project Armory Building (2018-096)	08/15/19	06/30/24	461,750	-	-	-	-	-	-	-	-	-	-	-	-	529,382
CTF Senior Center Renovations (#2018-076)	08/15/19	06/30/39	659,000	38,288	37,388	36,488	35,588	34,688	33,788	32,888	31,950	30,975	-	-	-	907,052
CTF Osterville Recreation Building Design & Construction (#2017-086)	08/15/19	06/30/39	675,000	43,888	42,838	41,788	40,738	39,688	38,638	37,588	36,538	35,488	-	-	-	930,940
CTF Town Hall Restroom Renovations	08/15/19	06/30/39	560,000	37,056	31,156	30,406	29,656	28,906	28,156	27,406	26,625	25,813	-	-	-	771,080
CTF Former Marston Mills Elementary School Demo (2018-094)	08/15/19	06/30/24	176,050	-	-	-	-	-	-	-	-	-	-	-	-	202,084
CTF School Administration Building (#2018-092)	08/15/19	06/30/24	285,000	-	-	-	-	-	-	-	-	-	-	-	-	326,565
Total Public Facilities Interest & Principal				354,463	325,613	307,363	299,413	286,263	263,263	170,713	90,525	87,763	-	-	-	13,423,785

GENERAL FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Pleasant St. Dock - 1 \$350,000 Refunded	06/21/16	06/30/23	109,500	-	-	-	-	-	-	-	-	-	-	-	122,420
CTF Pleasant St. Dock - 2 \$350,000 Refunded	06/21/16	06/30/23	110,000	-	-	-	-	-	-	-	-	-	-	-	122,960
CTF Boat Ramps - CAP \$927,000 Refunded	06/21/16	06/30/23	290,000	-	-	-	-	-	-	-	-	-	-	-	324,800
CTF Dredging	06/16/10	06/15/24	419,250	-	-	-	-	-	-	-	-	-	-	-	195,025
CTF Boat Ramp Renovations	06/14/11	06/15/21	250,000	-	-	-	-	-	-	-	-	-	-	-	81,000
CTF Dredging East Bay & Blish Point	06/14/11	06/15/21	665,000	-	-	-	-	-	-	-	-	-	-	-	210,600
CTF Prince Cove/Hayward Rd. Boat Ramp	06/14/11	06/15/26	600,000	-	-	-	-	-	-	-	-	-	-	-	373,900
CTF East Bay Dredging	11/22/13	11/15/23	600,000	-	-	-	-	-	-	-	-	-	-	-	389,100
CTF Hyannis Harbor Bulkhead Construction	11/22/13	11/15/23	142,000	-	-	-	-	-	-	-	-	-	-	-	80,500
CTF Millway Boat Ramp & Dock Upgrades	11/22/13	11/15/23	133,000	-	-	-	-	-	-	-	-	-	-	-	75,125
CTF Blish Point Sand Management	02/17/15	02/15/20	215,000	-	-	-	-	-	-	-	-	-	-	-	85,000
CTF Dredge Permitting/Planning	02/17/15	02/15/20	341,000	-	-	-	-	-	-	-	-	-	-	-	138,125
CTF Marstons Mills Fish Run Reconstruction	02/17/15	02/15/30	326,000	-	-	-	-	-	-	-	-	-	-	-	295,900
CTF Paving: Bay Street Boat Ramp (#2015-099)	02/25/16	06/30/26	142,000	-	-	-	-	-	-	-	-	-	-	-	128,600
CTF Channel Dredging- Barnstable Harbor (#2016-035)	02/25/16	06/30/26	490,000	-	-	-	-	-	-	-	-	-	-	-	459,000
CTF Blish Point Boat Access Channel Dredging (I) (#2016-111)	02/23/17	06/30/37	943,900	54,956	53,606	52,256	50,906	49,444	47,981	46,519	-	-	-	-	1,190,744
Total Waterways Interest & Principal				54,956	53,606	52,256	50,906	49,444	47,981	46,519	-	-	-	-	4,272,799

GENERAL FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF MWPAT CW-04-31 Pool 11	11/09/07	07/15/20	389,216	-	-	-	-	-	-	-	-	-	-	-	101,998
CTF Lake Treatment	06/16/10	06/15/25	275,000	-	-	-	-	-	-	-	-	-	-	-	129,763
CTF Nitrogen Management CW-04-31-A	03/15/11	07/15/20	211,460	-	-	-	-	-	-	-	-	-	-	-	69,991
CTF Advance Refund 6/15/2003 Drainage 2 (I)	04/18/12	09/15/22	96,700	-	-	-	-	-	-	-	-	-	-	-	50,656
CTF Nitrogen Management CW-04-31-B Series 16	05/14/15	07/15/20	157,531	-	-	-	-	-	-	-	-	-	-	-	83,767
CTF Water Quality Evaluation	11/22/13	11/15/23	230,000	-	-	-	-	-	-	-	-	-	-	-	139,975
CTF Sewer Expansion Analysis	11/22/13	11/15/18	70,000	-	-	-	-	-	-	-	-	-	-	-	10,100
CTF Hamblin Pond Alum Treatment (#2015-112)	02/25/16	06/30/31	300,000	20,600	-	-	-	-	-	-	-	-	-	-	317,075
CTF CW-04-31-R Mass Clean Water Trust (#2002-081)	04/13/17	07/15/20	255,941	-	-	-	-	-	-	-	-	-	-	-	177,648
Total Water Quality Interest & Principal				20,600	-	-	-	-	-	-	-	-	-	-	1,080,972

TOTAL GENERAL FUND BOND OBLIGATIONS				1,942,819	1,742,419	1,641,969	1,523,169	1,171,306	1,023,744	559,281	422,225	129,063	-	-	62,903,209
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ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
Airport (O)	06/14/11	06/15/31	730,000	52,063	-	-	-	-	-	-	-	-	-	-	685,500
Airport Terminal Ramp Construction - Phase 2 (O) (#2013-0101)	02/23/17	06/30/37	428,000	30,863	30,113	29,363	28,613	27,800	31,988	31,013	-	-	-	-	572,100
Airport New Fuel Farm (I) (#2013-102)	02/23/17	06/30/36	634,500	47,825	46,625	45,425	44,225	47,925	46,463	-	-	-	-	-	828,188
Airport East Ramp Design & Construction (O) (#2014-053)	02/23/17	06/30/37	641,200	43,719	42,669	46,619	45,419	44,119	42,819	46,519	-	-	-	-	852,506

Runway Reconstruction & Generator Replacement	08/15/19	06/30/39	355,500	35,205	34,144	33,144	32,144	31,144	30,144	29,144	28,144	27,144	26,144	25,144
Airfield Improvements	08/15/19	06/30/31	59,700	7,497	7,650	7,400	7,150	6,900	6,650	6,400	6,150	5,900	5,650	5,400
Total Airport Fund Bonds				218,358	213,450	208,200	217,950	217,100	211,300	205,450	209,500	203,163	206,713	204,863

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
Hyannis Golf Course Acquisition \$3,900,000 Refunded	02/17/15	02/15/25	1,951,500	289,760	289,600	289,080	288,200	291,960	290,160	-	-	-	-	-
Olde Barnstable Golf Course Maintenance Equipment	02/17/15	02/15/20	200,000	41,600	-	-	-	-	-	-	-	-	-	-
Olde Barnstable Building Improvements (#2015-105)	02/25/16	06/30/26	174,000	20,200	19,600	24,000	23,200	22,400	21,600	20,800	-	-	-	-
Hyannis Building Improvements (#2015-106)	02/25/16	06/30/26	140,000	19,200	18,600	18,000	17,400	16,800	16,200	15,600	-	-	-	-
Olde Barnstable Fairgrounds Golf Course (I) (#2016-107)	02/23/17	06/30/37	245,000	22,913	22,313	21,713	21,113	20,513	19,913	19,313	13,713	13,313	12,913	12,513
Hyannis Golf Course Improvements (I) (#2016-108)	02/23/17	06/30/37	292,700	24,275	23,675	23,075	22,475	21,875	21,275	20,675	20,075	19,475	18,875	18,275
Hyannis Golf Course Turf Maintenance (I) (#2017-085)	02/27/18	06/30/23	310,000	75,400	67,800	64,800	61,800	-	-	-	-	-	-	-
Total Golf Course				493,348	441,588	440,668	434,188	373,548	369,148	76,388	33,788	32,788	31,788	30,788

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
Sewer 98-27, Series 5	08/25/04	08/01/19	329,295	26,961	-	-	-	-	-	-	-	-	-	-
Sewer 98-27	08/25/04	08/01/19	(subsidy)	(8,491)	-	-	-	-	-	-	-	-	-	-
Sewer 98-42, Series 5	08/25/04	08/01/19	216,429	20,550	-	-	-	-	-	-	-	-	-	-
Sewer 98-42, Series 5	08/25/04	08/01/19	(subsidy)	(5,578)	-	-	-	-	-	-	-	-	-	-
Sewer 98-44, Series 5	08/25/04	08/01/19	112,262	9,113	-	-	-	-	-	-	-	-	-	-
Sewer 98-44, Series 5	08/25/04	08/01/19	(subsidy)	(2,908)	-	-	-	-	-	-	-	-	-	-
Sewer 98-46, Series 5	08/25/04	08/01/19	1,398,265	118,163	-	-	-	-	-	-	-	-	-	-
Sewer 98-46, Series 5	08/25/04	08/01/19	(subsidy)	(36,199)	-	-	-	-	-	-	-	-	-	-
Shallow Well Injection - CW-00-60 - Pool 8	08/25/04	08/01/22	436,370	33,983	33,040	32,250	30,750	-	-	-	-	-	-	-
Shallow Well Injection - CW-00-60 - Pool 8	08/25/04	08/01/22	(subsidy)	(10,636)	(10,267)	(9,974)	(9,028)	-	-	-	-	-	-	-
Sewer 98-44A	12/14/06	08/01/23	1,582,178	126,831	126,588	121,424	120,681	115,000	-	-	-	-	-	-
Sewer 98-44A	12/14/06	08/01/23	(subsidy)	(45,096)	(42,911)	(40,775)	(38,360)	(34,430)	-	-	-	-	-	-
Sewer 98-49A	12/14/06	08/01/23	556,458	42,747	45,863	43,989	41,976	40,000	-	-	-	-	-	-
Sewer 98-49A	12/14/06	08/01/23	(subsidy)	(15,872)	(15,082)	(14,307)	(13,463)	(12,096)	-	-	-	-	-	-
Waste Water Treatment Plant Sewer Turbine Generator \$570,000 Refunded	06/21/16	06/30/28	251,000	31,040	31,080	30,080	26,080	33,200	27,000	26,500	26,000	25,500	-	-
MWPAT CW-04-35	12/15/09	07/15/27	4,938,114	326,669	326,668	326,668	326,668	326,668	326,668	326,668	326,668	326,668	-	-
Sewer 05-28 Restructured	03/15/11	07/15/28	629,403	41,636	41,637	41,637	41,636	41,637	41,637	41,637	41,637	41,636	41,637	-
Sewer (I)	06/14/11	06/15/21	300,000	32,400	31,200	-	-	-	-	-	-	-	-	-
Sewer CW-04-35A Pool 13	06/06/12	07/15/27	1,469,137	107,295	107,284	107,272	107,259	107,247	107,234	107,221	107,207	107,193	-	-
Rehab Clarifiers (#2015-091)	02/17/15	06/30/36	1,000,000	77,813	75,813	73,813	71,813	69,813	67,813	65,813	63,813	62,813	61,563	60,500
Pump Station/Sewer Main Const (#2009-132)	02/25/16	06/30/21	318,000	64,800	62,400	-	-	-	-	-	-	-	-	-
Wastewater Treatment Plant Clarifiers Rehab (O) (#2016-097)	02/23/17	06/30/37	1,146,000	97,219	94,819	92,419	90,019	87,619	85,219	82,819	75,419	73,219	71,019	68,819
Wastewater Treatment Plant Backup Generator (O) (#2016-098)	02/23/17	06/30/37	862,000	73,050	71,250	69,450	67,650	65,850	64,050	62,250	60,450	58,650	56,850	50,050
Total Water Pollution Control Enterprise Fund				1,105,487	979,381	873,944	863,680	840,507	719,619	712,907	701,193	695,679	231,068	179,369

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
Solid Waste Landfill Closure - 98-24, Series 4	08/25/04	08/01/18	5,166,301	-	-	-	-	-	-	-	-	-	-	-
Solid Waste Landfill Closure - 98-24, Series 4	08/25/04	08/01/18	(subsidy)	-	-	-	-	-	-	-	-	-	-	-
Solid Waste Facility (I) \$630,000 Refunded	02/17/15	02/15/27	284,900	37,520	36,360	35,200	33,040	31,920	30,800	29,680	28,840	-	-	-
Advance Refund 6/15/2003 Transfer Station Improvements	04/18/12	09/15/22	241,500	27,785	27,035	22,240	20,910	-	-	-	-	-	-	-
Total Solid Waste Fund				65,305	63,395	57,440	53,950	31,920	30,800	29,680	28,840	-	-	-

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
Water Co. (Level Debt) (O) \$10,000,000 Refunded	02/17/15	02/15/27	5,704,800	690,430	693,870	691,350	692,070	691,870	689,750	692,750	692,160	-	-	-
MWPAT DWS-09-02	07/08/10	07/15/30	2,788,911	169,184	169,184	169,185	169,184	169,184	169,185	169,184	169,184	169,184	169,184	169,184
DW-09-02 Series 16	05/14/15	07/15/32	533,117	35,089	35,129	35,170	35,213	35,256	35,300	35,346	35,391	35,439	35,487	35,536
DWP-11-09 Series 17A	05/14/15	01/15/33	793,438	52,620	52,689	52,759	52,831	52,904	52,980	53,057	53,135	53,215	53,298	53,381
DWP-11-10 Series 17A	05/22/13	01/15/33	560,761	34,148	34,193	34,238	34,285	34,332	34,382	34,431	34,482	34,534	34,587	34,641
Water Main Loop	02/17/15	02/15/35	540,000	44,138	42,938	41,738	40,538	39,338	38,138	36,938	36,038	35,138	34,388	23,600
MCWT Series 19 DWP-13-01	02/11/16	06/30/36	2,418,547	146,723	146,904	147,089	147,278	147,471	147,668	147,870	148,076	148,286	148,501	148,720

Runway Reconstruction & Generator Replacement	08/15/19	06/30/39	355,500	19,144	18,694	18,244	17,794	17,344	16,894	16,444	15,975	15,488	-	-	487,662
Airfield Improvements	08/15/19	06/30/31	59,700	5,150	-	-	-	-	-	-	-	-	-	-	77,897
Total Airport Fund Bonds				198,763	138,100	139,650	136,050	137,188	138,163	93,975	15,975	15,488	-	-	3,503,852
ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
Hyannis Golf Course Acquisition \$3,900,000 Refunded	02/17/15	02/15/25	1,951,500	-	-	-	-	-	-	-	-	-	-	-	2,029,420
Olde Barnstable Golf Course Maintenance Equipment	02/17/15	02/15/20	200,000	-	-	-	-	-	-	-	-	-	-	-	85,000
Olde Barnstable Building Improvements (#2015-105)	02/25/16	06/30/26	174,000	-	-	-	-	-	-	-	-	-	-	-	172,600
Hyannis Building Improvements (#2015-106)	02/25/16	06/30/26	140,000	-	-	-	-	-	-	-	-	-	-	-	141,600
Olde Barnstable Fairgrounds Golf Course (I) (#2016-107)	02/23/17	06/30/37	245,000	12,213	11,913	11,613	11,313	10,988	10,663	10,338	-	-	-	-	302,788
Hyannis Golf Course Improvements (I) (#2016-108)	02/23/17	06/30/37	292,700	17,825	17,375	16,925	16,475	15,988	15,663	15,338	-	-	-	-	359,488
Hyannis Golf Course Turf Maintenance (I) (#2017-085)	02/27/18	06/30/23	310,000	-	-	-	-	-	-	-	-	-	-	-	346,738
Total Golf Course				30,038	29,288	28,538	27,788	21,975	21,325	20,675	-	-	-	-	3,437,633
ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
Sewer 98-27, Series 5	08/25/04	08/01/19	329,295	-	-	-	-	-	-	-	-	-	-	-	55,155
Sewer 98-27	08/25/04	08/01/19	(subsidy)	-	-	-	-	-	-	-	-	-	-	-	(17,932)
Sewer 98-42, Series 5	08/25/04	08/01/19	216,429	-	-	-	-	-	-	-	-	-	-	-	36,907
Sewer 98-42, Series 5	08/25/04	08/01/19	(subsidy)	-	-	-	-	-	-	-	-	-	-	-	(11,819)
Sewer 98-44, Series 5	08/25/04	08/01/19	112,262	-	-	-	-	-	-	-	-	-	-	-	18,642
Sewer 98-44, Series 5	08/25/04	08/01/19	(subsidy)	-	-	-	-	-	-	-	-	-	-	-	(6,137)
Sewer 98-46, Series 5	08/25/04	08/01/19	1,398,265	-	-	-	-	-	-	-	-	-	-	-	236,598
Sewer 98-46, Series 5	08/25/04	08/01/19	(subsidy)	-	-	-	-	-	-	-	-	-	-	-	(76,500)
Shallow Well Injection - CW-00-60 - Pool 8	08/25/04	08/01/22	436,370	-	-	-	-	-	-	-	-	-	-	-	161,327
Shallow Well Injection - CW-00-60 - Pool 8	08/25/04	08/01/22	(subsidy)	-	-	-	-	-	-	-	-	-	-	-	(51,609)
Sewer 98-44A	12/14/06	08/01/23	1,582,178	-	-	-	-	-	-	-	-	-	-	-	736,958
Sewer 98-44A	12/14/06	08/01/23	(subsidy)	-	-	-	-	-	-	-	-	-	-	-	(248,492)
Sewer 98-49A	12/14/06	08/01/23	556,458	-	-	-	-	-	-	-	-	-	-	-	258,863
Sewer 98-49A	12/14/06	08/01/23	(subsidy)	-	-	-	-	-	-	-	-	-	-	-	(87,299)
Waste Water Treatment Plant Sewer Turbine Generator \$570,000 Refunded	06/21/16	06/30/28	251,000	-	-	-	-	-	-	-	-	-	-	-	289,520
MWPAT CW-04-35	12/15/09	07/15/27	4,938,114	-	-	-	-	-	-	-	-	-	-	-	3,266,682
Sewer 05-28 Restructured	03/15/11	07/15/28	629,403	-	-	-	-	-	-	-	-	-	-	-	458,003
Sewer (I)	06/14/11	06/15/21	300,000	-	-	-	-	-	-	-	-	-	-	-	97,200
Sewer CW-04-35A Pool 13	06/06/12	07/15/27	1,469,137	-	-	-	-	-	-	-	-	-	-	-	1,072,517
Rehab Clarifiers (#2015-091)	02/25/16	06/30/36	1,000,000	59,000	57,500	56,000	54,500	53,000	51,500	-	-	-	-	-	1,162,688
Pump Station/Sewer Main Const (#2009-132)	02/25/16	06/30/21	318,000	-	-	-	-	-	-	-	-	-	-	-	199,600
Wastewater Treatment Plant Clarifiers Rehab (O) (#2016-097)	02/23/17	06/30/37	1,146,000	67,169	65,519	63,869	62,219	60,431	58,644	56,856	-	-	-	-	1,452,931
Wastewater Treatment Plant Backup Generator (O) (#2016-098)	02/23/17	06/30/37	862,000	48,850	47,650	46,450	45,250	43,950	42,650	41,350	-	-	-	-	1,090,550
Total Water Pollution Control Enterprise Fund				175,019	170,669	166,319	161,969	157,381	152,794	98,206	-	-	-	-	10,094,351
ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
Solid Waste Landfill Closure - 98-24, Series 4	08/25/04	08/01/18	5,166,301	-	-	-	-	-	-	-	-	-	-	-	465,350
Solid Waste Landfill Closure - 98-24, Series 4	08/25/04	08/01/18	(subsidy)	-	-	-	-	-	-	-	-	-	-	-	(129,348)
Solid Waste Facility (I) \$630,000 Refunded	02/17/15	02/15/27	284,900	-	-	-	-	-	-	-	-	-	-	-	302,185
Advance Refund 6/15/2003 Transfer Station Improvements	04/18/12	09/15/22	241,500	-	-	-	-	-	-	-	-	-	-	-	126,505
Total Solid Waste Fund				-	-	-	-	-	-	-	-	-	-	-	764,692
ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
Water Co. (Level Debt) (O) \$10,000,000 Refunded	02/17/15	02/15/27	5,704,800	-	-	-	-	-	-	-	-	-	-	-	6,225,865
MWPAT DWS-09-02	07/08/10	07/15/30	2,788,911	169,184	-	-	-	-	-	-	-	-	-	-	2,199,396
DW-09-02 Series 16	05/14/15	07/15/32	533,117	35,586	35,637	35,689	-	-	-	-	-	-	-	-	530,315
DWP-11-09 Series 17A	05/14/15	01/15/33	793,438	53,466	53,553	53,643	-	-	-	-	-	-	-	-	796,084
DWP-11-10 Series 17A	05/22/13	01/15/33	560,761	34,698	34,754	34,812	-	-	-	-	-	-	-	-	516,619
Water Main Loop	02/17/15	02/15/35	540,000	23,000	22,400	21,800	21,200	20,600	-	-	-	-	-	-	567,413
MCWT Series 19 DWP-13-01	02/11/16	06/30/36	2,418,547	148,945	149,174	149,408	149,647	149,891	150,141	-	-	-	-	-	2,668,339

Water Main Replacement (#2010-097)	02/25/16	06/30/21	380,000	81,000	78,000	-	-	-	-	-	-	-	-	-
Pipe Replacement Upgrade FY17 (#2015-085)	02/25/16	06/30/36	900,000	70,031	68,231	66,431	64,631	62,831	61,031	59,231	57,431	56,531	55,406	54,450
Paint/Repair Mary Dunn 2 (#2015-087)	02/25/16	06/30/21	615,000	129,600	124,800	-	-	-	-	-	-	-	-	-
Hyannis Water System Pipe Replacement (O) (#2016-093)	02/23/17	06/30/37	858,400	72,850	71,050	69,250	67,450	65,650	63,850	62,050	60,250	58,450	51,650	50,050
DWP-14-09 Mass Clean Water Trust (#2014-071, 2013-085, 2013-088)	04/13/17	07/15/37	1,467,339	88,910	89,017	89,127	89,240	89,354	89,471	89,591	89,713	89,838	89,966	90,096
Well Reactivation (O) (#2017-080)	02/27/18	06/30/38	276,000	25,413	24,813	24,063	23,313	22,863	22,113	21,363	20,613	19,863	19,113	18,513
Water Pipe Replacement (O) (#2017-081)	02/27/18	06/30/38	468,000	42,575	41,575	40,325	39,075	38,325	37,075	35,825	34,575	33,325	32,075	31,075
Mary Dunn Water Storage Tank Site Work (O) (#2017-083)	02/27/18	06/30/38	600,500	52,388	51,188	49,688	48,188	47,288	45,788	44,288	42,788	41,288	39,788	38,588
Water Carbon Filter Units (O) (#2017-079)	02/27/18	06/30/18	440,000	63,400	61,600	59,350	57,100	55,750	53,500	51,250	44,000	42,000	-	-
MCWT Series 21 DWP-16-17	09/12/18	07/15/38	2,939,657	180,836	180,836	180,836	180,836	180,837	180,836	180,837	180,836	180,836	180,837	180,837
Pipe Replacement Upgrade FY19 (#2018-081)	08/15/19	06/30/39	1,050,000	97,474	96,063	93,313	90,563	87,813	85,063	82,313	79,563	76,813	74,063	66,313
Carbon Treatment System Construction at Maher Wellfield (2017-099)	08/15/19	06/30/28	318,500	53,938	49,000	47,250	45,500	43,750	42,000	40,250	38,500	36,750	-	-
Well Exploration Program (2013-087)	08/15/19	06/30/28	489,500	83,227	76,500	73,750	71,000	68,250	65,500	62,750	55,000	52,500	-	-
Total Water Enterprise Fund				2,213,974	2,187,578	1,964,912	1,948,294	1,933,065	1,913,628	1,899,322	1,871,734	1,163,988	1,018,341	994,982

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
CTF Marina Bulkhead Repair I	06/14/11	06/15/30	725,000	55,631	54,031	52,431	50,831	44,231	43,050	41,825	40,513	39,200	37,800	36,400
Marina Bulkhead Repair II	06/14/11	06/15/30	525,000	38,300	37,300	41,300	40,100	38,900	37,888	36,838	40,713	39,400	38,000	41,600
Advance Refund 6/14/2004 Prince Cove Marina Acquisition	04/18/12	09/15/22	864,000	105,310	98,550	95,400	91,800	-	-	-	-	-	-	-
Gateway Marina Dredging (#2015-108)	02/25/16	06/30/26	280,000	37,600	36,400	35,200	29,000	28,000	27,000	26,000	-	-	-	-
Prince Cover Marina Bulkhead (#2015-109)	02/25/16	06/30/36	570,000	45,788	44,588	43,388	42,188	40,988	39,788	38,588	37,388	36,788	36,038	35,400
Hyannis Harbor Bulkhead (#2015-110)	02/25/16	06/30/21	158,000	32,400	31,200	-	-	-	-	-	-	-	-	-
Gateway Marina Maintenance Dredging (I) (#2016-109)	02/23/17	06/30/37	476,500	40,475	39,475	38,475	37,475	36,475	35,475	34,475	33,475	32,475	31,475	30,475
Total Marina Enterprise Fund				355,504	341,544	306,194	291,394	188,594	183,200	177,725	152,088	147,863	143,313	143,875

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
Sandy Neck Beach House II	06/14/11	06/15/26	81,000	6,519	6,319	6,119	5,919	5,719	5,550	10,375	-	-	-	-
Sandy Neck Beach House I	06/14/11	06/15/31	966,491	70,606	68,806	72,006	70,006	68,006	71,319	69,394	72,331	70,081	67,681	70,281
Sandy Neck Beach House III	06/14/11	06/15/31	217,509	15,456	15,056	14,656	14,256	13,856	13,519	13,169	12,794	17,419	16,819	16,219
Total Sandy Neck Enterprise Fund				92,581	90,181	92,781	90,181	87,581	90,388	92,938	85,125	87,500	84,500	86,500

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
CTF HYCC 1 (I) \$1,000,000 Refunded	02/17/15	02/15/27	474,900	62,230	60,310	58,390	56,470	53,550	51,670	49,790	47,380	-	-	-
CTF HYCC 2 (I) \$8,000,000 Refunded	02/17/15	02/15/27	3,794,400	495,450	480,170	463,890	447,650	430,450	413,330	396,290	380,070	-	-	-
CTF HYCC 3 (I) \$1,600,000 Refunded	02/17/15	02/15/27	759,000	98,670	95,630	92,590	89,550	86,510	82,470	79,470	76,220	-	-	-
CTF HYCC 4 (I) \$6,765,000 Refunded	06/21/16	06/30/28	3,320,000	433,200	419,600	404,000	384,480	374,200	360,800	344,100	332,600	316,200	-	-
Total HYCC Enterprise Fund				1,089,550	1,055,710	1,018,870	978,150	944,710	908,270	869,650	836,270	316,200	-	-

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
Land Acquisition - 2004-105 Bone Hill \$200k Refunded	02/17/15	02/15/25	90,850	11,160	10,800	10,440	10,080	9,720	9,360	-	-	-	-	-
Land Acquisition - 06-15-05 - 2004-106 \$180k Refunded	02/17/15	02/15/25	73,600	11,440	11,040	4,640	4,480	4,320	4,160	-	-	-	-	-
Land Acquisition - Hyannis Golf \$5,500,000 Refunded	02/17/15	02/15/25	2,496,300	308,540	301,580	286,500	277,620	266,700	255,320	-	-	-	-	-
Land Acquisition - Archibald \$500,000 Refunded	02/17/15	02/15/26	212,100	30,330	29,370	28,410	26,450	25,530	24,610	23,690	-	-	-	-
Town Hall Renovations	06/16/10	06/15/30	1,332,520	90,269	88,319	86,369	84,256	82,144	79,869	77,594	75,238	72,638	70,200	67,600
Land Acquisition 1 Adv Ref 6/15/2002	06/14/11	06/15/22	7,065,000	684,120	624,480	526,240	-	-	-	-	-	-	-	-
Advance Refund 6/15/2003 Landbank Acquisitions	04/18/12	09/15/22	964,600	106,859	104,009	100,684	96,492	-	-	-	-	-	-	-
Advance Refund 6/15/2004 Landbank Acquisitions 3	04/18/12	09/15/22	5,385,600	650,624	623,374	597,544	567,732	-	-	-	-	-	-	-
Advance Refund 6/15/2004 Landbank Acquisitions 2	04/18/12	09/15/22	227,300	28,125	27,375	26,500	25,500	-	-	-	-	-	-	-
Total Community Preservation Fund				1,921,467	1,820,347	1,667,327	1,092,610	388,414	373,319	101,284	75,238	72,638	70,200	67,600

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030
Title V - Phase I - 97-1131 Series 6-	07/25/02	08/01/20	197,403	11,209	10,468	-	-	-	-	-	-	-	-	-
Title V - Phase I - 97-1131 Series 6-	07/25/02	08/01/20	(subsidiy)	(809)	(268)	-	-	-	-	-	-	-	-	-
Title V - Phase I - 97-1131 Series 6	07/01/04	08/01/22	190,580	11,741	11,242	10,969	10,459	-	-	-	-	-	-	-
Title V - Phase I - 97-1131 Series 6	07/01/04	08/01/22	(subsidiy)	(1,769)	(1,270)	(765)	(255)	-	-	-	-	-	-	-

Water Main Replacement (#2010-097)	02/25/16	06/30/21	380,000	-	-	-	-	-	-	-	-	-	-	-	-	243,000
Pipe Replacement Upgrade FY17 (#2015-085)	02/25/16	06/30/36	900,000	53,100	51,750	50,400	49,050	47,700	46,350	-	-	-	-	-	-	1,046,419
Paint/Repair Mary Dunn 2 (#2015-087)	02/25/16	06/30/21	615,000	-	-	-	-	-	-	-	-	-	-	-	-	394,000
Hyannis Water System Pipe Replacement (O) (#2016-093)	02/23/17	06/30/37	858,400	48,850	47,650	46,450	45,250	43,950	42,650	41,350	-	-	-	-	-	1,083,350
DWP-14-09 Mass Clean Water Trust (#2014-071, 2013-085, 2013-088)	04/13/17	07/15/37	1,467,339	90,229	90,366	90,505	90,647	90,791	90,939	91,091	-	-	-	-	-	1,707,695
Well Reactivation (O) (#2017-080)	02/27/18	06/30/38	276,000	17,913	17,463	17,013	11,563	11,263	10,963	10,650	10,325	-	-	-	-	375,717
Water Pipe Replacement (O) (#2017-081)	02/27/18	06/30/38	468,000	30,075	24,325	23,725	23,125	22,525	21,925	21,300	20,650	-	-	-	-	639,276
Mary Dunn Water Storage Tank Site Work (O) (#2017-083)	02/27/18	06/30/38	600,500	37,388	36,488	35,588	34,688	33,788	32,888	31,950	30,975	-	-	-	-	828,038
Water Carbon Filter Units (O) (#2017-079)	02/27/18	06/30/18	440,000	-	-	-	-	-	-	-	-	-	-	-	-	552,042
MCWT Series 21 DWP-16-17	09/12/18	07/15/38	2,939,657	180,836	180,836	180,836	180,836	180,836	180,836	180,836	180,836	180,836	180,836	180,836	-	3,653,020
Pipe Replacement Upgrade FY19 (#2018-081)	08/15/19	06/30/39	1,050,000	63,813	62,313	60,813	59,313	57,813	56,313	54,813	53,250	51,625	-	-	-	1,449,411
Carbon Treatment System Construction at Maher Wellfield (2017-099)	08/15/19	06/30/28	318,500	-	-	-	-	-	-	-	-	-	-	-	-	396,938
Well Exploration Program (2013-087)	08/15/19	06/30/28	489,500	-	-	-	-	-	-	-	-	-	-	-	-	608,477
Total Water Enterprise Fund				987,080	806,707	800,681	665,318	659,156	633,004	431,990	296,036	232,461	-	-	-	26,481,415

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF Marina Bulkhead Repair I	06/14/11	06/15/30	725,000	-	-	-	-	-	-	-	-	-	-	-	553,175
Marina Bulkhead Repair II	06/14/11	06/15/30	525,000	-	-	-	-	-	-	-	-	-	-	-	469,638
Advance Refund 6/14/2004 Prince Cove Marina Acquisition	04/18/12	09/15/22	864,000	-	-	-	-	-	-	-	-	-	-	-	500,205
Gateway Marina Dredging (#2015-108)	02/25/16	06/30/26	280,000	-	-	-	-	-	-	-	-	-	-	-	258,000
Prince Cover Marina Bulkhead (#2015-109)	02/25/16	06/30/36	570,000	29,500	28,750	28,000	27,250	26,500	25,750	-	-	-	-	-	653,663
Hyannis Harbor Bulkhead (#2015-110)	02/25/16	06/30/21	158,000	-	-	-	-	-	-	-	-	-	-	-	97,200
Gateway Marina Maintenance Dredging (I) (#2016-109)	02/23/17	06/30/37	476,500	29,725	28,975	23,225	22,625	21,975	21,325	20,675	-	-	-	-	600,225
Total Marina Enterprise Fund				59,225	57,725	51,225	49,875	48,475	47,075	20,675	-	-	-	-	3,132,105

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
Sandy Neck Beach House II	06/14/11	06/15/26	81,000	-	-	-	-	-	-	-	-	-	-	-	53,238
Sandy Neck Beach House I	06/14/11	06/15/31	966,491	67,681	-	-	-	-	-	-	-	-	-	-	910,606
Sandy Neck Beach House III	06/14/11	06/15/31	217,509	15,619	-	-	-	-	-	-	-	-	-	-	194,694
Total Sandy Neck Enterprise Fund				83,300	-	-	-	-	-	-	-	-	-	-	1,158,538

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
CTF HYCC 1 (I) \$1,000,000 Refunded	02/17/15	02/15/27	474,900	-	-	-	-	-	-	-	-	-	-	-	504,180
CTF HYCC 2 (I) \$8,000,000 Refunded	02/17/15	02/15/27	3,794,400	-	-	-	-	-	-	-	-	-	-	-	4,023,075
CTF HYCC 3 (I) \$1,600,000 Refunded	02/17/15	02/15/27	759,000	-	-	-	-	-	-	-	-	-	-	-	804,245
CTF HYCC 4 (I) \$6,765,000 Refunded	06/21/16	06/30/28	3,320,000	-	-	-	-	-	-	-	-	-	-	-	3,821,180
Total HYCC Enterprise Fund				-	-	-	-	-	-	-	-	-	-	-	9,152,680

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
Land Acquisition - 2004-105 Bone Hill \$200k Refunded	02/17/15	02/15/25	90,850	-	-	-	-	-	-	-	-	-	-	-	73,125
Land Acquisition - 06-15-05 - 2004-106 \$180k Refunded	02/17/15	02/15/25	73,600	-	-	-	-	-	-	-	-	-	-	-	50,925
Land Acquisition - Hyannis Golf \$5,500,000 Refunded	02/17/15	02/15/25	2,496,300	-	-	-	-	-	-	-	-	-	-	-	2,018,095
Land Acquisition - Archibald \$500,000 Refunded	02/17/15	02/15/26	212,100	-	-	-	-	-	-	-	-	-	-	-	219,800
Town Hall Renovations	06/16/10	06/15/30	1,332,520	-	-	-	-	-	-	-	-	-	-	-	968,013
Land Acquisition 1 Adv Ref 6/15/2002	06/14/11	06/15/22	7,065,000	-	-	-	-	-	-	-	-	-	-	-	2,652,800
Advance Refund 6/15/2003 Landbank Acquisitions	04/18/12	09/15/22	964,600	-	-	-	-	-	-	-	-	-	-	-	517,753
Advance Refund 6/15/2004 Landbank Acquisitions 3	04/18/12	09/15/22	5,385,600	-	-	-	-	-	-	-	-	-	-	-	3,121,508
Advance Refund 6/15/2004 Landbank Acquisitions 2	04/18/12	09/15/22	227,300	-	-	-	-	-	-	-	-	-	-	-	136,375
Total Community Preservation Fund				-	-	-	-	-	-	-	-	-	-	-	9,758,394

ENTERPRISE FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
Title V - Phase I - 97-1131 Series 6-	07/25/02	08/01/20	197,403	-	-	-	-	-	-	-	-	-	-	-	33,450
Title V - Phase I - 97-1131 Series 6-	07/25/02	08/01/20	(subsidy)	-	-	-	-	-	-	-	-	-	-	-	(2,450)
Title V - Phase I - 97-1131 Series 6	07/01/04	08/01/22	190,580	-	-	-	-	-	-	-	-	-	-	-	56,650
Title V - Phase I - 97-1131 Series 6	07/01/04	08/01/22	(subsidy)	-	-	-	-	-	-	-	-	-	-	-	(6,326)

Title V - Phase III - Pool 11 T5-97-1131-2	10/31/05	07/15/25	200,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-	-
Title V - Phase IV - Pool 11 T5-97-1131-3	10/31/05	07/15/25	200,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-	-
Title V - Phase V - Pool 12 97-1131-4D	12/14/06	07/15/26	200,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	-	-	-
Total Title V				50,372	50,172	40,204	40,204	30,000	30,000	30,000	10,000	-	-	-	-
WATER QUALITY IMPROVEMENT FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2020	Payments FY 2021	Payments FY 2022	Payments FY 2023	Payments FY 2024	Payments FY 2025	Payments FY 2026	Payments FY 2027	Payments FY 2028	Payments FY 2029	Payments FY 2030	
MWPAT CWS-09-07	07/08/10	07/15/30	3,285,646	199,318	199,318	199,318	199,318	199,318	199,318	199,318	199,318	199,318	199,318	199,318	
Sewer CWS-09-07-A Series 16	05/14/15	07/15/32	4,592,367	302,260	302,608	302,965	303,329	303,701	304,082	304,471	304,868	305,273	305,688	306,111	
Total Water Quality Management & Private Way Improvement Fund				501,578	501,926	502,283	502,647	503,019	503,400	503,788	504,185	504,591	505,006	505,430	
TOTAL ENTERPRISE FUND BOND OBLIGATIONS				8,107,523	7,745,272	7,172,822	6,513,247	5,538,457	5,333,071	4,699,131	4,507,960	3,224,408	2,290,927	2,213,406	
GRAND TOTAL TOWN OF BARNSTABLE BOND OBLIGATIONS				15,246,828	13,438,644	12,304,006	11,247,193	9,721,615	8,647,972	7,866,917	7,192,515	5,623,095	4,500,177	4,333,174	

Title V - Phase III - Pool 11 T5-97-1131-2	10/31/05	07/15/25	200,000	-	-	-	-	-	-	-	-	-	-	-	80,000
Title V - Phase IV - Pool 11 T5-97-1131-3	10/31/05	07/15/25	200,000	-	-	-	-	-	-	-	-	-	-	-	80,000
Title V - Phase V - Pool 12 97-1131-4D	12/14/06	07/15/26	200,000	-	-	-	-	-	-	-	-	-	-	-	90,000
Total Title V				-	-	-	-	-	-	-	-	-	-	-	331,324
WATER QUALITY IMPROVEMENT FUND INTEREST & PRINCIPAL	Issue Date	Maturity Date	Original Amount	Payments FY 2031	Payments FY 2032	Payments FY 2033	Payments FY 2034	Payments FY 2035	Payments FY 2036	Payments FY 2037	Payments FY 2038	Payments FY 2039	Payments FY 2040	Payments FY 2041	Balance
MWPAT CWS-09-07	07/08/10	07/15/30	3,285,646	199,318	-	-	-	-	-	-	-	-	-	-	2,591,133
Sewer CWS-09-07-A Series 16	05/14/15	07/15/32	4,592,367	306,544	306,986	307,438	-	-	-	-	-	-	-	-	4,568,241
Total Water Quality Management & Private Way Improvement Fund				505,862	306,986	307,438	-	-	-	-	-	-	-	-	7,159,374
TOTAL ENTERPRISE FUND BOND OBLIGATIONS				2,039,286	1,509,475	1,493,849	1,040,999	1,024,175	992,360	665,522	312,011	247,949	-	-	74,974,359
GRAND TOTAL TOWN OF BARNSTABLE BOND OBLIGATIONS				3,982,105	3,251,893	3,135,818	2,564,168	2,195,481	2,016,104	1,224,803	734,236	377,011	-	-	137,877,568

October 18, 2018

FY 2020 Budget Action Calendar

DATE	ACTION
Saturday, September 15, 2018	Town Council meets to review and update their Strategic Plan
Friday, October 5, 2018	Town Manager issues instructions to Departments for FY 2020 Operating & Capital budgets
Monday, October 15, 2018	Town Manager & School Superintendent develop annual policy agreement on allocation of projected FY 2020 General Fund revenue
Friday, October 19, 2018	Municipal Departments submit preliminary listing of any proposed FY 2020 position changes with supporting justification to Human Resources (HR) with copy to Town Manager
Monday, October 22, 2018	Departments submit Calendar Year permit and fees change requests to Town Manager along with supporting documentation
Thursday, November 1, 2018	Town Council conducts joint meeting/workshop with School Committee in accordance with Town Charter to review financial condition of the Town
Thursday, November 8, 2018	Town Manager conducts public hearing on any changes to Calendar Year permits and fees
Thursday, November 15, 2018	HR Director submits position changes summary including comments to Town Manager
Monday, November 19, 2018	Departments submit Capital Improvements Project (CIP) project data sheets <i>with supporting photos</i> and review of existing capital projects to Town Manager
Monday, November 26, 2018	CIP Task Force provided copy of CIP submissions
Thursday, December 6, 2018	CIP Task Force conducts workshop on CIP submissions
Monday, December 10, 2018	Town Manager begins formal review of CIP project requests with individual Department Managers
Thursday, December 6, 2018	Annual Organization of Town Council (TM must submit budget to Town Council within 170 days per M.G.L. 44 § 32) (Friday, May 24, 2019)
Wednesday, December 19, 2018	Department Managers submit Operating Budget Decision Packages
Monday, January 7, 2019	Town Manager begins review of Operating Budget requests with Department Managers
Monday, January 21, 2019	Department Managers submit Operating Budget Narratives including photos
Tuesday, January 29, 2019	Departments submit Fiscal Year permit and fees change requests to Town Manager along with supporting documentation
Tuesday, February 12, 2019	Town Manager conducts public hearing on Fiscal Year permits and fees
Monday, February 25, 2019	Town Manager submits recommended FY 2020 Capital Budget to Town Council per Part VI, Section 6-5 (a) of the Charter (TC must adopt plan BEFORE June 1, 2019)
Thursday, March 21, 2019	Town Council conducts first reading of FY 2020 Capital Budget Orders
Thursday, March 28, 2019	CFAC submits their review of recommended FY 2020 Capital Budget to Town Council
Wednesday, April 3, 2019	School Department submits adopted FY 2020 School budget due to Town Manager
Thursday, April 4, 2019	Town Council conducts first public hearing on FY 2020 Capital Budget per Part VI Section 6-5 of the Charter
Thursday, April 18, 2019	Town Council conducts second public hearing on FY 2020 Capital Budget if needed
Monday, April 22, 2019	Town Manager submits recommended FY 2020 Operating Budget to the Town Council. Town Council must adopt budget within 45 days (by June 6, 2019) otherwise it becomes part of FY20 appropriations per Section 6-3 (b) of the Charter
Thursday, May 2, 2019	Town Council conducts first reading of FY 2020 Operating Budget Orders
Tuesday, May 14, 2019	CFAC submits their review of recommended FY 2019 Operating Budget to Town Council
Thursday, May 16, 2019	Town Council conducts first public hearing on 2020 Operating Budget
Thursday, June 6, 2019	Town Council conducts second public hearing on FY 2020 Operating Budget
Friday, May 31, 2019	Last weekday FY 2020 Capital Improvements Plan can be adopted by Town Council per Part VI, Section 6-5 (d) of the Charter
Thursday, June 6, 2019	Last weekday FY 2020 Operating Budget can be adopted by Town Council per Part VI Section 6-3 (b) of the charter (TC must adopt within 45 days of receiving budget)
June 30, 2019	Unless otherwise provided for in the vote of Town Council or encumbered by contractual obligation, remaining balances in Specific Appropriations authorized during & before FY 2017 expire

