# TOWN ADMINISTRATOR PROPOSED 2021-2030 Capital Improvement Program

Page #											
65	Public Works - Operations Division	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
66	Road Resurfacing Program	435,000	435,000	435,000	435,000	435,000	435,000	435,000	435,000	435,000	435,000
68	Crack Seal Program	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
69	Sidewalk Improvement Program	36,000							_		
71	Culvert and Outfalls Program	80,000	85,000								
72	Drainage Program	30,000	30,000	20,000							
	Oyster River Dam (Mill Pond)	275,000	1,400,000	3,240,000				-			
	Madbury Roadway, Sidewalk, Drainage Design & Construction	640,000		2,485,000		-					
78	Chipper Replacement	73,000									
79	Hot Box Pavement Patch System	40,000									··
80	Mill Road Culvert Over Oyster River	80,000	450,000			<u>-</u>					
82	Dump Truck Replacement (3-5 Ton)		179,700	179,700		185,900	193,200	200,100	206,100	212,100	
83	Roadway Sweeper Replacement		143,000							-	·
84	Front End Loader Replacement		205,000								
85	Mobile Air Compressor Replacement		17,500				<u>.</u> .				
86	Longmarsh Road Bridge Replacement		<u>-</u> .	1,300,000							
87	Pickup Truck Replacement (3/4 Ton)			42,500			_				
88	Aerial Bucket Truck Replacement			130,000			-		<u>.</u>		_
89	Sidewalk Plow Tractor Replacement			170,000				180,000			
91	Engineering Jeep Replacement						21,000	···			
92	Dame Road Paving						455,000				_
93	Pickup Truck Replacement (Dodge Ram)						·	42,500			
94	Rubber Tired Excavator Replacement		<del></del> -		· <del>-</del> ···						310,000
	PW - OPERATIONS TOTALS	1,714,000	2,970,200	8,027,200	460,000	645,900	1,129,200	882,600	666,100	672,100	770,000

# 2021-2030 PROPOSED ROAD PROGRAM COST ESTIMATED AT \$435,000 PER YEAR

Public Works has recently adopted pavement management system software which will provide a baseline condition assessment for the over 60 miles of Town maintained roadways including sidewalks, curb ramps and related roadway infrastructure. This assessment will allow for the strategic planning of the annual Roads Program and begins with the comprehensive inspection of the entire roadway network. This assessment will inform decision making by developing a Pavement Condition Index or PCI. A roadway PCI is generated based on pavement distresses and their severity for each segment in the Town's roadway network. The Pavement Management software will then allow for various scenarios to be reviewed which will prioritize pavement rehabilitation and preventive maintenance repair projects. The software analyzes which type of rehabilitation treatment would be the most economical and appropriate for each road segment. The PCI, rehabilitation treatment cost, repair service life and traffic volume of the roadway are used to calculate the benefit value index (BVI) which prioritizes the Town's rehabilitation projects for a given year. Roads are then selected for rehabilitation based upon a combination of pavement management software output, engineering judgment, and coordination with other planned Town and 3rd party utility projects. Sound pavement management emphasizes adequate investment in road rehabilitation, drainage system improvements, as applicable combined with preventive and routine maintenance such as crack sealing and full depth patching. The fiscal year 2021 Road Program consists of roadway reclamation and paving of approximately 1.4 miles of roadway including Sullivan Falls, Mathes Cove, Kelsey Drive and Tall Pines Road. Also included in the fiscal year 2021 Program is a targeted mill and pave program consisting of approximately 2,000 square yards in the Woodridge neighborhood. This includes improvements on select areas of roadway exhibiting significant distress on Merserve Road, Moharinet Way, Fogg Lane, Fogg Drive and Bartlett Roads. This interim approach will extend the overall longevity of the roadway until such time the entire roadway becomes a candidate for reclamation and paving. Upon completion of the StreetScan roadway network evaluation, DPW will be positioned to develop a long-range comprehensive road program with a 5 year actionable road program plan.

PROJECT YEAR	2021	PROJECT COST	\$435,000
DESCRIPTION	Road Program	DEPARTMENT	Public Works

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept. Initiative

# DESCRIPTION (TO INCLUDE JUSTIFICATION)

The fiscal year 2021 Road Program consists of roadway reclamation and paving of approximately 1.4 miles of roadway including Sullivan Falls, Mathes Cove, Kelsey Drive and Tall Pines Road. Also included in the fiscal year 2021 Program is a targeted mill and pave program consisting of approximately 2,000 square yards in the Woodridge neighborhood. This includes improvements on select areas of roadway exhibiting significant distress on Merserve Road, Moharinet Way, Fogg Lane, Fogg Drive and Bartlett Roads. DPW proposes the addition of an engineer in the division and will be partially funding this position through the road program. For 2021 the proposed position will be funded \$15,000 through the road program.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$ -	
	FINAL DESIGN AND ENGINEERING	\$ -	
•	CONSTRUCTION ENGINEERING OVERSIGHT	\$ -	
•	CONSTRUCTION COSTS	\$ 435,000	
	CONTINGENCY	\$ 	
	TOTAL PROJECT COST	\$ 435,000	
FINANCING	OPERATING BUDGET	\$ 435,000	
	UNH - CASH	\$ -	
	BOND - TOWN PORTION	\$ -	
	UNH PORTION	\$ -	•
	FEDERAL/STATE GRANT	\$ -	
	CAPITAL RESERVE ACCOUNT	\$ <u>-</u>	
	TOTAL FINANCING COSTS	\$ 435,000	
IF BONDED:	NUMBER OF YEARS	 N/A	
	TOTAL PRINCIPAL	\$ -	
	TOTAL INTEREST	\$ <u> </u>	÷
	TOTAL ESTIMATED COST	\$ _	

ROAD NAME	TREATMENT TYPE	RECLAIM MILEAGE	PARTIAL REPAIR- SQ YARDS	DISTANCE (FEET)	LAST TREATMENT		COST
		H M total Maria estra estr	****	an agrapicia i amministramentes envotantes esterbetanos i intervitórios estellos estellos estellos estellos es			
BARLETT ROAD	Partial + 1"		550	1381	2004	\$	5,00
FOGG DRIVE	Pantal + 1"		550	2040	2004	\$	5,00
FOGG LANE	Partial + 1"	######################################	550	211	2004	\$	5,00
KELSEY DRIVE	Reclaim + 3.5"	0.30		1585	2006	\$	87,66
MATHES COVE	Reclaim + 3.5"	0.39		2100		s	105,40
MESERVE ROAD	Partial + 1"	H3M4441444444444444444444444444444444444	550	1761	2004	\$	5,00
MOHARINET WAY	Partial + 1"	Z	550	525	2004	\$	5.00
SULLIVAN FALLS	Reclaim + 3.5"	0.26		1380		\$	98,30
TALL PINES ROAD	Reclaim + 3.5"	0.42		2218	2006	\$	113,54
WOODRIDGE ROAD	Partial + 1"		550	4700	2004	\$	5,00
		1.37	3300		SUBTOTAL	\$	434,90

PROJECT YEAR	2021-2030	PROJECT COST	\$25,000
DESCRIPTION	Crackseal Program	DEPARTMENT	Public Works

IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept. Initiative

# **DESCRIPTION (TO INCLUDE JUSTIFICATION)**

A critical component of a successful road program is adequate investments in pavement preservation. Crack sealing is one pavement maintenance operation which will prevent water infiltration into the roadway base and sub-base materials which cause erosion and compromise the structural integrity of the aggregate materials beneath the roadway. This results in premature roadway failure, even more so when the roadway network experiences numerous freeze/thaw cycles. Studies have demonstrated that an effective crack sealing program can prolong pavement life from 3-8 years.

Durham Public Works proposes to incorporate this fundamental element into its pavement management strategy and recommends an annual investment of \$25,000 beginning in year one. Subsequent investments in future years may be adjusted downward following completion and recommendations from the town-wide pavement evaluation.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	<del>-</del>	-
	FINAL DESIGN AND ENGINEERING	\$	-	
	CONSTRUCTION ENGINEERING OVERSIGHT	\$	-	
	CONSTRUCTION COSTS	\$	25,000	
	CONTINGENCY	\$_		
	TOTAL PROJECT COST	\$	25,000	
FINANCING	OPERATING BUDGET	\$	25,000	
•	UNH - CASH	\$		
	BOND - TOWN PORTION	\$	-	
	UNH PORTION	\$	-	
	FEDERAL/STATE GRANT	\$	<u>.</u>	
	CAPITAL RESERVE ACCOUNT	\$	<u>-</u>	
	TOTAL FINANCING COSTS	\$	25,000	
IF BONDED:	NUMBER OF YEARS		N/A	
	TOTAL PRINCIPAL	\$.	-	
	TOTAL INTEREST	\$	<del>-</del>	
	TOTAL ESTIMATED COST	\$		



Town Administrator Proposed October 31, 2020

# 2021-2024 PROPOSED SIDEWALK PROGRAM

2021 \$36,000

Dover Road (intersection of Route 108 to Dover Road Pump Station)

The rehabilitation and replacement of existing sidewalks including curb ramps is a critical component of the Town's transportation program. The Town's sidewalk inventory consists of approximately 10 miles of sidewalks and curb ramps. Sidewalks are inspected and rated in conjunction with the pavement condition assessment as detailed within the Road Program section funding explanation. This includes a Town-wide inventory of curb ramps planned for 2020 to assess compliance with current ADA standards. Public Works staff develops repair strategies and project scopes based on the sidewalk and curb ramp condition assessments. and observations and recommendations of other Town staff including Planning, Police, Town Administrator, Economic Development and Recreation who assist in evaluating safety hazards and need. Preference is given to repairs involving areas within walking distance to schools, ADA compliance, and areas with high volumes of pedestrian traffic. Final selections are incorporated in the annual Roads Program project or bid as stand-alone projects. The StreetScan town-wide sidewalk and curb ramp assessment scheduled for September/October 2021 will provide condition and compliance data which will allow Durham Public Works to make informed decisions around appropriate investments in this critical infrastructure. The 2021 Sidewalk plan consists of construction and improvements to the sidewalk located on Dover Road (intersection of Route 108 to Dover Road Pump Station). Upon completion of the Town-wide assessment, a 5 year action plan will be developed.

PROJECT YEAR	2021	PROJECT COST	\$36,000
DESCRIPTION	Sidewalk Improvements	DEPARTMENT	Public Works - Operations

# IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

The rehabilitation and replacement of existing sidewalks including curb ramps is a critical component of the Town's transportation program. The Town's sidewalk inventory consists of approximately 10 miles of sidewalks and curb ramps. Sidewalks are inspected and rated in conjunction with the pavement condition assessment as detailed within the Road Program section funding explanation. This includes a Townwide inventory of curb ramps planned for 2020 to assess compliance with current ADA standards. Public Works staff develops repair strategies and project scopes based on the sidewalk and curb ramp condition assessments, and observations and recommendations of other Town staff including Planning, Police, Town Administrator, Economic Development and Recreation who assist in evaluating safety hazards and need. Preference is given to repairs involving areas within walking distance to schools, ADA compliance, and areas with high volumes of pedestrian traffic. Final selections are incorporated in the annual Roads Program project or bid as stand-alone projects. The StreetScan town-wide sidewalk and curb ramp assessment scheduled for September/October 2021 will provide condition and compliance data which will allow Durham Public Works to make informed decisions around appropriate investments in this critical infrastructure. The 2021 Sidewalk plan consists of construction and improvements to the sidewalk located on Dover Road (intersection of Route 108 to Dover Road Pump Station). Upon completion of the Town-wide assessment, a 5 year action plan will be developed. Additionally, DPW proposes to partially fund the addition of a Public Works Engineer with \$5,000 from the Sidewalks CIP account.

# **DESCRIPTION (TO INCLUDE JUSTIFICATION)**

#### Dover Road - Intersection of Route 108 to Dover Road Pump Station

* Demolition	2011 ft	\$6,500	
* Crushed Gravel/Loam/Seed		\$6,480	
* Asphalt Sidewalk	170 tons @ \$135/ton	\$22,950	
*Funding towards engineering position		\$5,000	

Total:	\$36,000
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	10tal. \$30,000			
ESTIMATED COSTS	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	-	
	FINAL DESIGN AND ENGINEERING	\$	-	
	CONSTRUCTION ENGINEERING OVERSIGHT	\$		
•	CONSTRUCTION COSTS	\$	36,000	
	CONTINGENCY	_\$		
	TOTAL PROJECT COST	\$	36,000	 
FINANCING	OPERATING BUDGET	\$	36,000	 
	UNH - CASH	\$	-	
	BOND - TOWN PORTION	\$	_	
	FEDERAL/STATE GRANT	\$	-	
	CAPITAL RESERVE ACCOUNT	\$		
	TOTAL FINANCING COSTS	\$	36,000	 
IF BONDED:	NUMBER OF YEARS		N/A	 
	TOTAL PRINCIPAL	\$		
	TOTAL INTEREST	\$	-	
	TOTAL ESTIMATED COST	\$	-	 
		41 T		 



PROJECT YEAR	2021-2022	PROJECT COST	2021 - \$80,000
DESCRIPTION	Culvert & Outfalls Program	DEPARTMENT	Public Works
IMPETUS FOR PROJEC	T (IE. MANDATED, COUNCIL GO	DAL, DEPT INITIATIVE, E	TC.)
Department Initiative, MS-4 Permit			
DESCRIPTION (TO INCL	LUDE JUSTIFICATION)		
2021 - Bennett Road Culvert	at Beaudette Brook- \$80,000		
2022 - Mill Road @ College B	rook (headwall and outlet) - \$85,000		
		<del>-</del>	
ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN A	ND ENGINEERING \$	•
	FINAL DESIGN AND ENGINEERIN	IG \$	10,000
	CONSTRUCTION ENGINEERING	OVERSIGHT \$	•
	CONSTRUCTION COSTS	\$	70,000
	CONTINGENCY		<u> </u>
	TOTAL PROJECT COST	\$	80,000
FINANCING	OPERATING BUDGET	\$	•
•	UNH - CASH	\$	-
	BOND - TOWN PORTION	\$	80,000
	UNH PORTION	\$	•
	FEDERAL/STATE GRANT	\$	
	CAPITAL RESERVE ACCOUNT	\$	•
	TOTAL FINANCING COSTS	. \$	80,000
IF BONDED:	NUMBER OF YEARS		10
	TOTAL PRINCIPAL	\$	80,000
•	TOTAL INTEREST	\$	8.800
	TOTAL ESTIMATED COST	\$	88,800

**INSERT PICTURE** 

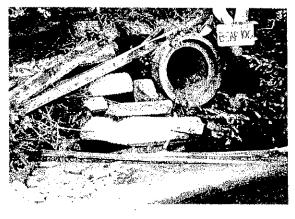


PROJECT YEAR	2021	PROJECT COST	\$30,000
DESCRIPTION	Drainage Program	DEPARTMENT	Public Works
IMPETUS FOR PROJECT	(IE. MANDATED, COUNCIL O	GOAL, DEPT INITIATIVE, ETC	.)

# **DESCRIPTION (TO INCLUDE JUSTIFICATION)**

The Drainage Program funds rehabilitation, replacement, additions, and major repairs to the Town's stormwater drainage system consisting of approximately 70 culverts and outfalls, 30 drainage manholes, 525 catch basins, 10 miles of drain lines and 4 bioretention areas and 5 rain gardens. The drainage program also funds compliance with EPA's National Pollution Discharge Elimination System Municipal Separate Storm Sewer System Phase II General Permit (NPDES MS4 Permit). The revised final permit, recently re-issued in 2018, requires towns to meet "Minimal Control Measures" to improve water quality within jurisdictional areas. These minimum control measures include: 1. Public education and outreach 2. Public involvement and participation 3. Illicit discharge detection and elimination 4. Construction-site stormwater runoff control 5. Post-construction stormwater management in new development and redevelopment 6. Pollution prevention and good housekeeping in municipal operations. The FY2021 request includes design and construction improvements the following culverts, Bennett Road at . In addition Durham Public Works is proposing to develop a drainage master plan utilizing 3<sup>rd</sup> party engineering services which will include an inventory, evaluation and condition assessment of all drainage infrastructure which will allow for the development of a drainage GIS layer and prioritization of drainage system rehabilitation. We expect this component to be funded over a period of three consecutive years beginning in fiscal year 2021 in an amount of \$30,000.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	• .		<del></del>
l		\$	•	
	FINAL DESIGN AND ENGINEERING	\$	10,000	
	CONSTRUCTION ENGINEERING OVERSIGHT	\$	-	
	CONSTRUCTION COSTS	\$	20,000	
	CONTINGENCY	\$	-	
	TOTAL PROJECT COST	\$	30,000	
FINANCING	OPERATING BUDGET	\$	30,000	
	UNH - CASH	\$	-	
	BOND - TOWN PORTION	\$	-	
	UNH PORTION	\$	-	
	FEDERAL/STATE GRANT	\$	-	
	CAPITAL RESERVE ACCOUNT	\$	·	
	TOTAL FINANCING COSTS	\$	30,000	
IF BONDED:	NUMBER OF YEARS		N/A	
	TOTAL PRINCIPAL	\$	-	
	TOTAL INTEREST	\$	<u> </u>	
	TOTAL ESTIMATED COST	\$	-	



PROJECT YEAR	2021	PROJECT COST	\$275,000
DESCRIPTION	Oyster River Dam (Mill Pond) Design	DEPARTMENT	Public Works - Operations
IMPETUS FOR PROJEC	CT /IE MANDATED COUNCI	I GOAL DEPTINITIATIVE ETC \	

Department Initiative

# **DESCRIPTION (TO INCLUDE JUSTIFICATION)**

Following receipt and review of the Feasibility Study the Town of Durham will need to decide how it wishes to proceed with the Oyster River Dam. Possibilities include repairing the dam or removing the dam in its entirety. These FY21 funds will be allocated towards engineering design of the selected alternative, either removal or stabilization.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$ 125,000		
	FINAL DESIGN AND ENGINEERING	\$ 150,000		
	CONSTRUCTION ENGINEERING OVERSIGHT	\$ -		
	CONSTRUCTION COSTS	\$ -		
	CONTINGENCY	\$ 		1
	TOTAL PROJECT COST	\$ 275,000		
FINANCING	OPERATING BUDGET	\$ •	-	
	UNH - CASH	\$ •		
	BOND - TOWN PORTION	\$ 275,000		
	FEDERAL/STATE GRANT	\$ -		
	CAPITAL RESERVE ACCOUNT	\$ 		
	TOTAL FINANCING COSTS	\$ 275,000		
IF BONDED:	NUMBER OF YEARS	10		
	TOTAL PRINCIPAL	\$ 275,000		
	TOTAL INTEREST	\$ 9,000		
	TOTAL ESTIMATED COST	\$ 284,000		



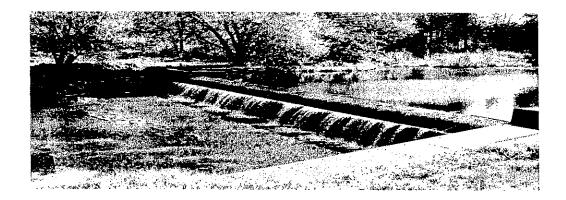
PROJECT YEAR	2022	PROJECT COST	\$1,400,000
DESCRIPTION	Oyster River Dam Const. Stabilization or Removal	DEPARTMENT	Public Works - Operations
IMPETUS FOR PROJEC	CT (IE. MANDATED, COUNC	CIL GOAL, DEPT INITIATIVE, ETC.	)

Department Initiative

# DESCRIPTION (TO INCLUDE JUSTIFICATION)

Following receipt and review of the Feasibility Study the Town of Durham will need to decide how it wishes to proceed with the Oyster River Dam. Possibilities include repairing the dam or removing the dam in its entirety. These FY22 funds will be allocated for construction of either dam removal or dam stabilization. The dam stabilization alternative requires that a non-menance waiver be aquired from NHDES. The dam removal alternative is likely to be eligible for 30-50% grant funding.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$ -	
	FINAL DESIGN AND ENGINEERING	\$ -	
	CONSTRUCTION ENGINEERING OVERSIGHT	\$ -	
	CONSTRUCTION COSTS	\$ 1,400,000	
	CONTINGENCY	\$ -	
	TOTAL PROJECT COST	\$ 1,400,000	
FINANCING	OPERATING BUDGET	\$ 	,
	UNH - CASH	\$ <b>~</b>	
ļ	BOND - TOWN PORTION	\$ 1,400,000	
•	FEDERAL/STATE GRANT	\$ -	
	CAPITAL RESERVE ACCOUNT	\$ 	
	TOTAL FINANCING COSTS	\$ 1,400,000	
IF BONDED:	NUMBER OF YEARS	20	
	TOTAL PRINCIPAL	\$ 1,400,000	
	TOTAL INTEREST	\$ 367,500	
	TOTAL ESTIMATED COST	\$ 1,767,500	



PROJECT YEAR	2023	PROJECT COST	\$3,240,000
DESCRIPTION	Oyster River Dam (Mill Pond) Dredge	DEPARTMENT	Public Works - Operations
IMPETUS FOR PROJE	CT (IE. MANDATED, COUNCI	L GOAL, DEPT INITIATIVE, E	TC.)

Department Initiative

# **DESCRIPTION (TO INCLUDE JUSTIFICATION)**

Following receipt and review of the Feasibility Study the Town of Durham will need to decide how it wishes to proceed with the Oyster River Dam. Possibilities include repairing the dam or removing the dam in its entirety. This is a FY23 place holder for Mill Pond dredging to reestablish open water and the health of the pond following the dam stabilization alternative. \*\*\*\*This work is subject to state and federal permits and it will be likely very difficult to obtain approval.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$ -
	FINAL DESIGN AND ENGINEERING	\$ -
	CONSTRUCTION ENGINEERING OVERSIGHT	\$ -
	CONSTRUCTION COSTS	\$ 3,240,000
	CONTINGENCY	<u>\$</u> -
	TOTAL PROJECT COST	\$ 3,240,000
FINANCING	OPERATING BUDGET	\$ -
	UNH - CASH	<b>\$</b> -
	BOND - TOWN PORTION	\$ 3,240,000
	FEDERAL/STATE GRANT	<b>\$</b> -
	CAPITAL RESERVE ACCOUNT	\$
	TOTAL FINANCING COSTS	\$ 3,240,000
IF BONDED:	NUMBER OF YEARS	20
	TOTAL PRINCIPAL	\$ 3,240,000
	TOTAL INTEREST	\$ 850,500
	TOTAL ESTIMATED COST	\$ 4,090,500



PROJECT YEAR	2021	PROJECT COST	\$640,000
DESCRIPTION	Madbury Roadway, Sidewalk and Drainage Construction Improvements -Design	DEPARTMENT	Public Works
MADETUS FOR AROUS	CT //C MANDATED COUNCIL CO.		

#### IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative

# **DESCRIPTION (TO INCLUDE JUSTIFICATION)**

Madbury Road - Roadway, Sidewalk and Drainage Construction Improvements - Madbury Road is approximately 6,500 feet in length and serves as a major arterial roadway in Durham with Average Daily Traffic exceeding 4,500 vehicles. The roadway was transferred to Town ownership from the State of New Hampshire when Route 4 was upgraded many years ago. The roadway was last paved in 2009 at which time it received an overlay treatment. Currently the roadway is in poor condition with significant pavement raveling, delamination, longitudinal and alligator cracking, rutting, settlement, and base failure. The sidewalks and curb ramps are ADA non-compliant and curb reveal is minimal or non-existent in some areas. The drainage system is undersized with drainage structures and drainage pipeline in a deteriorated condition. The current capital plan includes water main replacement along Madbury Road from Garrison Road to Route 4 scheduled for construction in Fiscal Year 2023. Due to the current condition of the roadway along with impacts from the water main replacement project it is recommended that \$621,000 in funding for survey, design and permitting be budgeted within the capital budget for fiscal year 2021 followed by roadway, sidewalk and construction funding in an amount of \$2,485,000 in 2023. The design is proposed to take a complete streets approach evaluating multimodal transportation improvements where possible including traffic calming and pedestrian and bicycle accommodations.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$ 640,000	
	FINAL DESIGN AND ENGINEERING		
	CONSTRUCTION ENGINEERING OVERSIGHT	\$ -	
	CONSTRUCTION COSTS		
	CONTINGENCY	\$ -	
	TOTAL PROJECT COST	\$ 640,000	
FINANCING	OPERATING BUDGET	\$ -	,
	UNH - CASH	\$ -	
	BOND - TOWN PORTION	\$ 640,000	
	UNH PORTION	\$ -	
	FEDERAL/STATE GRANT	\$ _	
	CAPITAL RESERVE ACCOUNT	\$ _	
	TOTAL FINANCING COSTS	\$ 640,000	
IF BONDED:	NUMBER OF YEARS	5	
	TOTAL PRINCIPAL	\$ 640,000	
	TOTAL INTEREST	\$ 52,800	
	TOTAL ESTIMATED COST	\$ 692,800	



PROJECT YEAR	2023	PROJECT COST	\$2,485,000
DESCRIPTION	Madbury Roadway, Sidewalk and Drainage Construction Improvements- Construction	DEPARTMENT	Public Works

# IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Department Initiative

#### DESCRIPTION (TO INCLUDE JUSTIFICATION)

Madbury Road - Roadway, Sidewalk and Drainage Construction Improvements - Madbury Road is approximately 6,500 feet in length and serves as a major arterial roadway in Durham with Average Daily Traffic exceeding 4,500 vehicles. The roadway was transferred to Town ownership from the State of New Hampshire when Route 4 was upgraded many years ago. The roadway was last paved in 2009 at which time it received an overlay treatment. Currently the roadway is in poor condition with significant pavement raveling, delamination, longitudinal and alligator cracking, rutting, settlement, and base failure. The sidewalks and curb ramps are ADA non-compliant and curb reveal is minimal or non-existent in some areas. The drainage system is undersized with drainage structures and drainage pipeline in a deteriorated condition. The current capital plan includes water main replacement along Madbury Road from Garrison Road to Route 4 scheduled for construction in Fiscal Year 2023. Due to the current condition of the roadway along with impacts from the water main replacement project it is recommended that \$621,000 in funding for survey, design and permitting be budgeted within the capital budget for fiscal year 2021 followed by roadway, sidewalk and construction funding in an amount of \$2,485,000 in 2023. The design is proposed to take a complete streets approach evaluating multimodal transportation improvements where possible including traffic calming and pedestrian and bicycle accommodations.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$ 2,485,000
	FINAL DESIGN AND ENGINEERING	\$ <u>-</u>
	CONSTRUCTION ENGINEERING OVERSIGHT	\$ •
	CONSTRUCTION COSTS	\$ -
	CONTINGENCY	\$
	TOTAL PROJECT COST	\$ 2,485,000
FINANCING	OPERATING BUDGET	\$ -
	UNH - CASH	\$ •
	BOND - TOWN PORTION	\$ 2,485,000
	UNH PORTION	\$ •
	FEDERAL/STATE GRANT	\$ -
	CAPITAL RESERVE ACCOUNT	\$ <u>.</u>
	TOTAL FINANCING COSTS	\$ 2,485,000
IF BONDED:	NUMBER OF YEARS	20
	TOTAL PRINCIPAL	\$ 2,485,000
	TOTAL INTEREST	\$ 652,300
	TOTAL ESTIMATED COST	\$ 3,137,300



PROJECT YEAR	2021	EQUIPMENT COST	\$73,000
DESCRIPTION	Replacement of Chipper	DEPARTMENT	Public Works- Operations

# DESCRIPTION (TO INCLUDE JUSTIFICATION):

DPW will be purchasing a new chipper this year. This request replaces the existing 1992 model 200 Performance First Brush Bandit Chipper with a new bandit 19XPC, towable drum/disc chipper capable of transporting with a standard license. The current chipper logged 1510 hours however the Hr meter was inoperative for a period of time in 2010. This front line piece of equipment is capable of chipping trees up to 19 inches in diameter and replaces the existing 28-year old chipper which is well beyond its expected useful life. This equipment will allow Durham Public Works to continue with its routine tree maintenance and removal program while also ensuring we are well prepared for any storm damage response.

Equipment to be Replaced: 1992 model 200 Performance First Brush Bandit Chipper

	<del> </del>			
ESTIMATED COST	PURCHASE PRICE	\$	73,000	•
	ACCESSORIES*	\$	-	
	LESS TRADE-IN**	\$	-	
	NET PURCHASE PRICE	\$	73,000	
	*Accessories include lighting, rad	ios, strip	oing, misc. ea	tuipment.
FINANCING	OPERATING BUDGET	\$		
	UNH - CASH	\$		
	BOND - TOWN PORTION	\$	73,000	
	FEDERAL/STATE GRANT	\$	-	
	CAPITAL RESERVE ACCOUNT	\$	<u> </u>	
	TOTAL FINANCING COSTS	\$	73,000	
IF BONDED	NUMBER OF YEARS		10	
	TOTAL PRINCIPAL	\$	73,000	
	TOTAL INTEREST (EST'D)	\$	8,000	
	TOTAL PROJECT COST	\$	81,000	

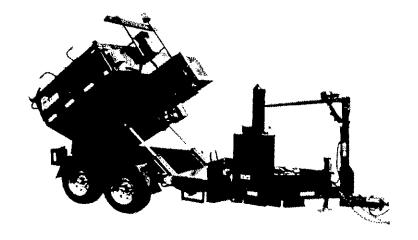


PROJECT YEAR	2021	VEHICLE COST	\$40,000
DESCRIPTION	Falcon Hot Box Pavement Patch System	DEPARTMENT	Public Works - Operations

# **DESCRIPTION (TO INCLUDE JUSTIFICATION):**

Part of a comprehensive pavement management program includes pavement preservation techniques such as full depth and ongoing patching. During cold weather winter conditions, the options for patching are limited and public works operations resort to using a "cold patch" mixture. Cold patch is a mixture of asphalt, aggregate and liquid asphalt and serves as a temporary measure typically used in emergency situations requiring multiple visits to maintain. A hot box pavement patch system allows for the use of heated bituminous asphalt year-round allowing for cold weather pavement work. A hot box trailer is a cost-effective way to transport asphalt and keep it hot all day. The unit will hold hot mix overnight and heat or re-heat throughout the day. The hot box trailer improves sustainable public works practices as it can also recycle leftover asphalt chunks and millings for use in the patching program.

ESTIMATED COST	PURCHASE PRICE	\$	40,000	
	ACCESSORIES*	\$	-	
	LESS TRADE-IN**	<b>\$</b>	<u> </u>	
	NET PURCHASE PRICE	\$	40,000	
	*Accessories include lighting, radios	s, striping, r	nisc. equipment.	
FINANCING	OPERATING BUDGET	\$	-	
	BOND - TOWN	\$	40,000	
	FEDERAL/STATE GRANT	\$	-	
	CAPITAL RESERVE ACCOUNT	_\$	<u> </u>	
	TOTAL FINANCING COSTS	\$	40,000	
IF BONDED:	NUMBER OF YEARS		10	· · · · · · · · · · · · · · · · · · ·
	TOTAL PRINCIPAL	\$	40,000	
	TOTAL INTEREST (EST'D)	\$	4,400	
	TOTAL PROJECT COST	\$	44,400	



	<del></del>		
PROJECT YEAR	2021	PROJECT COST	\$80,000
	Mill Road Culvert Over Oyster River		
DESCRIPTION		DEPARTMENT	Public Works
IMPETUS FOR DROID	CT //E MANDATED COUNCIL COA	DEDTUNITATIVE ETG	

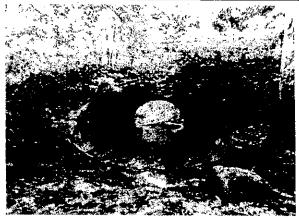
#### IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept Initiative

# DESCRIPTION (TO INCLUDE JUSTIFICATION)

Mill Road Culvert over the Oyster River has recently been identified as a Red Listed Structure (rated poor) per the NHDOT Municipally-Owned Bridge Red List. The culvert is a 23ft span metal pipe culvert that was constructed in 1971. Inspection report shows moderate rusting, pitting and scaling on invert, bolts are heavily rusted and outlet end shows 8 foot long cracked area. Structure is at the end of its useful life. There is not gravity sewer through this section of Mill Road however there is a critical 12" water main crossing coming from the Foss Farm Tank. Project challenges that will be explored during design include traffic and pedestrian considerations, construction duration/timelline, and environmental permitting. Construction techniques that would not impact traffic, such as lining the culvert, will be explored. DPW will begin the Request for Qualifications (RFQ) Process to select a design engineering firm. Construction estimate will be refined during the design phase.

ESTIMATED COSTS:	DDEL MINARY CTURY DECICN AND ENGINEERING		
ESTIMATED COSTS.	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	40,000
	FINAL DESIGN AND ENGINEERING	\$	40,000
	CONSTRUCTION ENGINEERING OVERSIGHT	\$	-
	CONSTRUCTION COSTS	\$	. <del>-</del>
	CONTINGENCY	\$	<u>-</u> _
	TOTAL PROJECT COST	\$	80,000
FINANCING	OPERATING BUDGET	\$	-
	UNH - CASH	\$	-
	BOND - TOWN PORTION	\$	80,000
:	UNH PORTION	\$	-
	FEDERAL/STATE GRANT	\$	-
	CAPITAL RESERVE ACCOUNT	\$	
	TOTAL FINANCING COSTS	\$	80,000
IF BONDED:	NUMBER OF YEARS		5
	TOTAL PRINCIPAL	\$	80,000
,	TOTAL INTEREST	_\$	3,600
	TOTAL ESTIMATED COST	\$	83,600



PROJECT YEAR	2022	PROJECT COST	\$450,000
DESCRIPTION	Mill Road Culvert Over Oyster River Construction	DEPARTMENT	Public Works
IMPETUS FOR PROJE	OT //E MANDATED COUNCIL COA	L DEDT BUT TO CE SE	

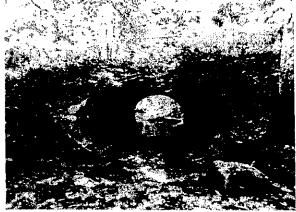
# IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept Initiative

#### DESCRIPTION (TO INCLUDE JUSTIFICATION)

Mill Road Culvert over the Oyster River has recently been identified as a Red Listed Structure (rated poor) per the NHDOT Municipally-Owned Bridge Red List. The culvert is a 23ft span metal pipe culvert that was constructed in 1971. Inspection report shows moderate rusting, pitting and scaling on invert, bolts are heavily rusted and outlet end shows 8 foot long cracked area. Structure is at the end of its useful life. There is not gravity sewer through this section of Mill Road however there is a critical 12" water main crossing coming from the Foss Farm Tank. Project challenges that will be explored during design include traffic and pedestrian considerations (likely a 10-12 min detour from road closure), construction duration/timeline, and environmental permitting. Construction techniques that would not impact traffic, such as lining the culvert, will be explored.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$ -	
•	FINAL DESIGN AND ENGINEERING	\$ -	
	CONSTRUCTION ENGINEERING OVERSIGHT	\$ -	
	CONSTRUCTION COSTS	\$ 450,000	
	CONTINGENCY	\$ 	
	TOTAL PROJECT COST	\$ 450,000	
FINANCING	OPERATING BUDGET	\$ -	
	UNH - CASH	\$ -	
	BOND - TOWN PORTION	\$ 450,000	
	UNH PORTION	\$ -	
	FEDERAL/STATE GRANT	\$ -	
	CAPITAL RESERVE ACCOUNT	\$ 	
	TOTAL FINANCING COSTS	\$ 450,000	_
IF BONDED:	NUMBER OF YEARS	2	·
	TOTAL PRINCIPAL	\$ 450,000	
	TOTAL INTEREST	\$ 118,000	
·	TOTAL ESTIMATED COST	\$ 568,000	



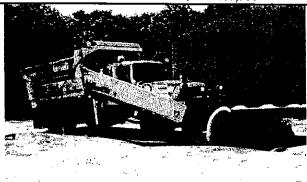
PROJECT YEAR	2022 - 2027	VEHICLE COST	Year 2022 - \$179,700
DESCRIPTION	Dump Truck 35,000 GVW Replacement	DEPARTMENT	Public Works - Operations
DESCRIPTION (TO IN	CLUDE JUSTIFICATION):		<u> </u>

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Purchase of a 35,000 LB GVW (Gross Vehicle Weight) dump truck with sand/salt spreader, side wing and front plow.

Public Works has six 35,000 LB GVW dump trucks that are replaced on a 10 year replacement schedule. Sandblasting, priming and painting of frame is completed at the 5 year interval. These dump trucks operate up to 8 hours per day 4-5 days a week for various hauling and construction projects and comprise the front line snow removal equipment for all Town roads during the winter months. The Town completes all of its snow removal operations in house with this equipment and supplements with contractors as needed. As of 2020, DPW does not have any backup trucks so dependability is very important to our operation. We propose to not trade in truck #18 during the new purchase this year in order to create a backup truck to be used during snow storms.

Y	'ear 2022	Vehicle to be Replaced:	*#18	*#18 was to be traded, going to keep for backup		
Y	'ear 2023	Vehicle to be Replaced:	Truck # 18, 2013 Peterbilt (In Serv. Date 9/2012)			
Y	'ear 2025	Vehicle to be Replaced;	Trucl	k#7,2013 P	eterbilt (In Serv. Date 8/2013)	
Y	'ear 2026	Vehicle to be Replaced;	Trucl	k # 1, 2015 In	iternational/Navistar (In Serv. Date 6/2014)	
Y	ear 2027)	Vehicle to be Replaced:	Trucl	k # 14, 2015 l	International/Navistar	
Υ	'ear 2028	Vehicle to be Replaced:	Truc	k # 31, 2016 l	International/Navistar	
Υ	'ear 2029	Vehicle to be Replaced:	Trucl	k # 2, 2018 In	itemational/Navistar	
ESTIMATED C	OST	PURCHASE PRICE	\$	179,700		
		ACCESSORIES*	\$	-	•	
		LESS TRADE-IN**	\$_	-		
		NET PURCHASE PRICE	\$	179,700		
<u>.</u>		*Accessories include lighting, ra	ıdios, st	riping, misc.	equipment.	
FINANCING		OPERATING BUDGET	\$		······································	
		UNH - CASH	\$	· •		
		BOND - TOWN PORTION	\$	179,700		
		FEDERAL/STATE GRANT	\$	-		
		CAPITAL RESERVE ACCOUNT	\$			
		TOTAL FINANCING COSTS	\$	179,700		
IF BONDED:	•	NUMBER OF YEARS		5		
		TOTAL PRINCIPAL	\$	179,700	·	
		TOTAL INTEREST (EST'D)	_\$	8,000	•	
		TOTAL PROJECT COST	\$	187,700	·	



PROJECT YEAR	2022	EQUIPMENT COST	\$143,000
DESCRIPTION	Roadway Sweeper Replacement	DEPARTMENT	Public Works - Operations
DESCRIPTION (TO IN	ICLUDE JUSTIFICATION):		

In 2022 the current Elgin Roadway Sweeper will be ten (10) years old and showing signs of deterioration. The DPW sweeps roadways two (2) times per week and for the entire month of March due to winter sanding operations. Broom replacement will run \$600/year.

Equipment to be replaced: 2012 Elgin 2000 Series Sweeper

ESTIMATED COST	PURCHASE PRICE	\$	148,000	·-	
	ACCESSORIES*	\$	-		
	LESS TRADE-IN**	\$	(5,000)		
	NET PURCHASE PRICE	\$	143,000		
	*Accessories include lighting, rac	lios, strij	oing, misc. equip	ment.	
FINANCING	OPERATING BUDGET	\$	•		<u> </u>
	UNH - CASH	\$	-		
	BOND - TOWN PORTION	\$	143,000		
	FEDERAL/STATE GRANT	\$	-		
	CAPITAL RESERVE ACCOUNT	\$	<u> </u>		
	TOTAL FINANCING COSTS	\$	143,000		
IF BONDED:	NUMBER OF YEARS		5		
	TOTAL PRINCIPAL	\$	143,000		
	TOTAL INTEREST (EST'D)	\$	6,500		
	TOTAL PROJECT COST	\$	149,500	_	



PROJECT YEAR	2022	FOI	JIPMENT COST	\$205,000
TROOLOT TEAR	2022		DIFMENT COST	\$205,000
DESCRIPTION	Front End Loader Replacement	DEF	PARTMENT	Public Works - Operations
DESCRIPTION (TO II	NCLUDE JUSTIFICATION):		· ·	<del></del>
	•			
The Town's 1990 John D	eere 544E front end loader will need to l	be repla	ced in 2022 when it w	ill be 32 years old. Due to it's
age and condition it's relia	ability and repair history have become a	concer	n to DPW for this for the	nis front line piece of equipment.
Equipment to Replace:	1990 John Deere 544E			
			•	
ESTIMATED COST	PURCHASE PRICE	\$	210,000	
	ACCESSORIES*	\$	-	•
	LESS TRADE-IN**	\$	5,000	
	NET PURCHASE PRICE	\$	205,000	
	*Accessories include lighting, rad	ios, stri	ping, mísc. equipme	nt.
FINANCING	OPERATING BUDGET	\$	•	·
	UNH - CASH	\$	-	
	BOND - TOWN PORTION	\$	205,000	
	FEDERAL/STATE GRANT	\$	•	
	CAPITAL RESERVE ACCOUNT	\$	-	
	TOTAL FINANCING COSTS	\$	205,000	
IF BONDED	NUMBER OF YEARS		5	
	TOTAL PRINCIPAL	\$	205,000	
	TOTAL INTEREST (EST'D)	_\$_	9,200	
	TOTAL PROJECT COST	\$	214,200	•



PROJECT YEAR	2022	EQUIPMENT COST	\$17,500
DESCRIPTION	Mobile Air Compressor Replacement	DEPARTMENT	Public Works - Operations
DESCRIPTION (TO INC	LUDE JUSTIFICATION):		

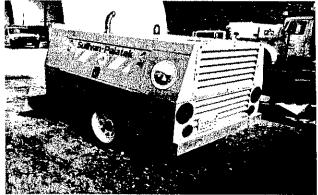
Current 2006 Air Compressor is scheduled for replacement in 2022.

This equipment operates all of our pneumatic (air driven) tools, i.e. pavement cutter/drills, outside of the DPW shop.

Equipment to be replaced:

2006 Sullivan/Palatek D210

					<u>-</u>
ESTIMATED COST	PURCHASE PRICE	\$	17,500		
	ACCESSORIES*	\$	-		
	LESS TRADE-IN**	\$	<u> </u>		
	NET PURCHASE PRICE	\$	17,500		
	*Accessories include lighting, ra	dios, s	triping, misc.	equipment.	
FINANCING	OPERATING BUDGET	\$	17,500		
	UNH - CASH	\$	-		
	<b>BOND - TOWN PORTION</b>	\$	-		
	FEDERAL/STATE GRANT	\$	-		
	CAPITAL RESERVE ACCOUNT	\$			
	TOTAL FINANCING COSTS	\$	17,500		
IF BONDED:	NUMBER OF YEARS		N/A		
	TOTAL PRINCIPAL	\$	_		
	TOTAL INTEREST (EST'D)	\$			
	TOTAL PROJECT COST	\$	-		
· · · · · · · · · · · · · · · · · · ·					



PROJECT YEAR	2023	PROJECT COST	\$1,300,000
DESCRIPTION	Longmarsh Road Bridge	DEPARTMENT	Public Works

|IMPETUS FOR PROJECT (IE. MANDATED, COUNCIL GOAL, DEPT INITIATIVE, ETC.)

Dept Initiative

# **DESCRIPTION (TO INCLUDE JUSTIFICATION)**

This project includes the replacement of the existing culverts at the Longmarsh Road crossing of Longmarsh Brook with a 59 foot clear span bridge. The Longmarsh Road crossing over Longmarsh Brook is a causeway like structure consisting of two 60-inch diameter corrugated metal pipes (CMP) with dry- laid stone headwalls. The existing structure was constructed in the 1980's and has been reconstructed after being washed out during storm events in 2006, 2007, and 2010. The combination of a low roadway profile elevation over Longmarsh Brook and the inadequate hydraulic capacity of the existing culverts results in frequent overtopping of the roadway. The proposed improvements involve both replacement of the existing structure for one with a greater hydraulic capacity and increasing the roadway profile elevation at the low point of the crossing. The Town previously had a FEMA Hazard Mitigation grant but due to the costs of the construction, the Town could not justify that the project was cost effective under FEMA's benefit-to-cost analysis. Other sources of funding including State Bridge Aid will be explored.

ESTIMATED COSTS:	PRELIMINARY STUDY, DESIGN AND ENGINEERING	\$	-
•	FINAL DESIGN AND ENGINEERING	\$	~
	CONSTRUCTION ENGINEERING OVERSIGHT	\$	150,000
	CONSTRUCTION COSTS	\$	1,150,000
	CONTINGENCY	\$	
	TOTAL PROJECT COST	\$	1,300,000
FINANCING	OPERATING BUDGET	\$	-
	UNH - CASH	. \$	-
	BOND - TOWN PORTION	\$	1,300,000
	UNH PORTION	\$	-
	FEDERAL/STATE GRANT	\$	-
	CAPITAL RESERVE ACCOUNT	_\$	
·	TOTAL FINANCING COSTS	\$	1,300,000
IF BONDED:	NUMBER OF YEARS		20
	TOTAL PRINCIPAL	\$	1,300,000
	TOTAL INTEREST	\$	341,200
·	TOTAL ESTIMATED COST	\$	1,641,200



PROJECT YEAR	2023	VEHICLE COST	\$42,500
DESCRIPTION	3/4 Ton Pick-Up Replacement	DEPARTMENT	Public Works - Operations
DECODISTION (TO U	OLUBE HIOTIEIOATION)		- · · · · · · · · · · · · · · · · · · ·

#### DESCRIPTION (TO INCLUDE JUSTIFICATION):

Replace Assistant Director of Operations 2013 F-150 pick-up truck. The truck fleet is currently on a 10 -12 year replacement program. This vehicle is the Assistant Operations Director's daily means of transportation during all work hours. This employee supervises the Operations Division, Building & Grounds Division, Sanitation Division, and Water Division. This vehicle is currently a 2013 F-150 1/2 Ton Pick-up which averages 15,000 miles per year and is scheduled for replacement in 2023. It will be replaced with a 3/4 4WD Ton Pick-Up with plow package to utilize more effectively during winter storms as well.

The current vehicle will be handed down to the Sanitation Division.

Vehicle to be Replaced:

2013 Ford F-150

ESTIMATED COST	PURCHASE PRICE	\$	41,500		
	ACCESSORIES*	\$	1,000		
•	LESS TRADE-IN**	\$			
	NET PURCHASE PRICE	\$	42,500		
	*Accessories include lighting, rad	lios, stri	ping, misc. equi	pment.	_
FINANCING	OPERATING BUDGET	\$	•		
	UNH - CASH	\$	-		
	BOND - TOWN PORTION	\$	42,500		
	FEDERAL/STATE GRANT	\$	-		
	CAPITAL RESERVE ACCOUNT	_\$	- `		
	TOTAL FINANCING COSTS	\$	42,500		
IF BONDED:	NUMBER OF YEARS	\$	5		
	TOTAL PRINCIPAL	\$	42,500		
	TOTAL INTEREST (EST'D)	\$	1,900		
	TOTAL PROJECT COST	\$	44,400		,



PROJECT YEAR	2023	VEHICLE COST	\$130,000
DESCRIPTION	Aerial Bucket Truck	DEPARTMENT	Public Works - Operations

# DESCRIPTION (TO INCLUDE JUSTIFICATION):

The 2011 Aerial Bucket Truck is scheduled for replacement in 2023.

This vehicle is utilized for traffic control devices, repairs and installation, vegetation, facility maintenance and any projects which require a height above twelve (12) feet. DPW proposes to purchase a bucket truck with increased working height to 40' in order to work on street lighting efficiently, which DPW became responsible for following the upgrade to LED lights. The truck would be increased to a F-550 in order to accomodate the new higher lift. This truck will also have new utility compartments.

Vehicle to be Replaced: 2011 Ford F-450

ESTIMATED COST	PURCHASE PRICE	\$	150,000	· · · · · · · · · · · · · · · · · · ·
	ACCESSORIES*	\$		
	LESS TRADE-IN**	\$	(20,000)	
	NET PURCHASE PRICE	\$	130,000	
	*Accessories include lighting, ra	dios, s	triping, misc. equipment.	
FINANCING	OPERATING BUDGET	\$	w	
	UNH - CASH	\$	-	
	<b>BOND - TOWN PORTION</b>	\$	130,000	
	FEDERAL/STATE GRANT	\$	-	
	CAPITAL RESERVE ACCOUNT	\$	<u>-</u>	
	TOTAL FINANCING COSTS	\$	130,000	
IF BONDED:	NUMBER OF YEARS		5 .	
	TOTAL PRINCIPAL	\$	130,000	•
	TOTAL INTEREST (EST'D)	\$	5,800	
	TOTAL PROJECT COST	\$	135,800	



PROJECT YEAR	2023	EQUIPMENT COST	\$170,000
DESCRIPTION	Sidewalk Plow Tractor Replacement	DEPARTMENT	Public Works - Operations

#### **DESCRIPTION (TO INCLUDE JUSTIFICATION):**

Replacement of the current 1998 Landini Sidewalk Snow tractor is needed. Durham has over 14 miles of sidewalks and has always been a walking community. DPW would like to purchase Prinoth SW4S which is a municipal snow removal vehicle engineered and designed for snow removal and clearing of sidewalks in compact municipal settings. A quick-mount attachment system allows the sidewalk machine to be equipped with a wide variety of standard skid-steer implements, such as a snow blower, power angle front blade and V-plow. This powerful tracked vehicle can accomplish the most demanding snow and ice clearing jobs in tight areas even in the worse of storms and also serves as a high efficiency blower to quickly load trucks during snow removal and haul out operations of Durham's business district and parking lots.

Vehicle to be Replaced:

1998 Landini Sidewalk Tractor Plow

ESTIMATED COST	PURCHASE PRICE	\$	170,000	-	
	ACCESSORIES*	\$	-		
	LESS TRADE-IN**	\$		,	
	NET PURCHASE PRICE	\$	170,000		
	*Accessories include lighting, rad	dios, st	riping, misc. e	quipment.	
FINANCING	OPERATING BUDGET	\$	-		
	UNH - CASH	\$	-		
	<b>BOND - TOWN PORTION</b>	\$	170,000		
	FEDERAL/STATE GRANT	\$	-		
•	CAPITAL RESERVE ACCOUNT	\$			
	TOTAL FINANCING COSTS	\$	170,000		
IF BONDED:	NUMBER OF YEARS		5	<u>-</u> -	
	TOTAL PRINCIPAL	\$	170,000		
	TOTAL INTEREST (EST'D)	\$	7,600		
	TOTAL PROJECT COST	\$	177,600		



PROJECT YEAR	2027	EQUIPMENT COST	\$180,000
DESCRIPTION	Sidewalk Plow Tractor Replacement	DEPARTMENT	Public Works - Operations
DECODIDETION (TO	MOLUDE MOTICIOATION		······································

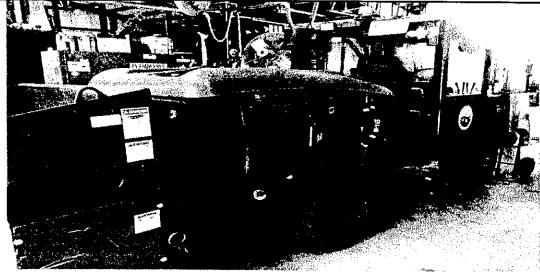
# DESCRIPTION (TO INCLUDE JUSTIFICATION):

Replacement of the current 2012 McClean Sidewalk Snow tractor is needed. This sidewalk tractor is on a 15 year replacement schedule. Durham has over 14 miles of sidewalks and has always been a walking community. The new sidewalk snow tractor would meet all snow removal, maintenance and de-icing needs. This tractor will also be used during the summer months for misc. projects such as sidewalk sweeping and roadside mowing. This new tractor will require less maintenance time/dollars due to initial 3 year warranty.

Vehicle to be Replaced:

2012 Mcclean Sidewalk Tractor

ESTIMATED COST	PURCHASE PRICE	\$	180,000	
	ACCESSORIES*	\$	-	
	LESS TRADE-IN**	\$	<u> </u>	
	NET PURCHASE PRICE	\$	180,000	
	*Accessories include lighting, ra	dios, st	riping, misc	. equipment.
FINANCING	OPERATING BUDGET	\$		
	UNH - CASH	\$	-	
	BOND - TOWN PORTION	\$	180,000	
	FEDERAL/STATE GRANT	\$	-	
	CAPITAL RESERVE ACCOUNT	\$		
	TOTAL FINANCING COSTS	\$	180,000	
IF BONDED:	NUMBER OF YEARS		5	
	TOTAL PRINCIPAL	\$	180,000	
	TOTAL INTEREST (EST'D)	\$	8,100	
	TOTAL PROJECT COST	\$	188,100	



PROJECT YEAR	2026	EQUIPMENT COST	\$21,000
DESCRIPTION	Engineering Jeep Replacement	DEPARTMENT	Engineering

# DESCRIPTION (TO INCLUDE JUSTIFICATION):

We will be replacing the 2014 Jeep Patriot utilized for engineering in 2026. This vehicle is used to go from one job site to another for the engineering division, at times traveling across rough terrain. A small or midsized SUV, potentially a hybrid or fully electric vehicle will be investigated to replace the current Jeep in 2026.

Vehicle to be Replaced: 2014 Jeep Patriot

ESTIMATED COST	PURCHASE PRICE	\$	25,000	
	ACCESSORIES*	\$	•	
	LESS TRADE-IN**	\$	(4,000)	
	NET PURCHASE PRICE	\$	21,000	
	*Accessories include lighting, rad	ios, strip	ping, misc. equipment.	
FINANCING	OPERATING BUDGET	\$	-	
	UNH - CASH	\$	<u>-</u>	
	BOND - TOWN PORTION	\$	21,000	
•	FEDERAL/STATE GRANT	\$	•	
	CAPITAL RESERVE ACCOUNT	\$	<u> </u>	
	TOTAL FINANCING COSTS	\$	21,000	
IF BONDED	NUMBER OF YEARS		5	
	TOTAL PRINCIPAL	\$	21,000	
	TOTAL INTEREST (EST'D)	_\$	1,000	•
	TOTAL PROJECT COST	\$	22,000	



PROJECT YEAR	2027	PROJECT COST				\$455,000
DECORPTION			<u>.                                    </u>	<u></u>	F	Public Works-
DESCRIPTION	Dame Road Paving	DEPARTMENT				Operations
IMPETUS FOR PROJE	ECT (IE. MANDATED, COU	NCIL GOAL, DEPT INI	TIATIVE, I	ETC.)		
Department Initiative following se	everal conversations with residents.					
DESCRIPTION (TO IN	CLUDE JUSTIFICATION)			<del> </del>		<del>-</del>
	DPW has two options to	present for the paving of I	Dame Road.			
OPTION 1						
Roadside ditching and 20 foot wi Durham Point Road end and Nev	de pavement over 10,560 feet on both th wmarket Road end of Dame Road.	ne				
Durham Point Road end:		OPTION 2				
• Grading, Pavement- \$		Pave the entire 14,560 ft. le	ngth of Dame I	Road:		
•	18,000 11,500					
Total: \$1	37,500	<ul><li>Pavement-</li><li>Drainage-</li></ul>	\$343,000 \$ 36,000			
Newmarket Road end; • Grading, Pavement- \$	82,000	Tree Removal-	\$ 34,500			
<ul><li>Drainage-</li></ul>	18,000	PROJECT TOTAL	\$413,500 -	+ contingency		
<u>• Tree Removal-</u> \$ Total: \$1	<u>11,500</u>					
	249,000 + contingency					
ESTIMATED COSTS			OP	TION 1		OPTION 2
•	FINAL DESIGN AND ENG	SINEERING	\$		\$	
	CONSTRUCTION ENGIN	EERING OVERSIGHT	\$		\$	_
	CONSTRUCTION COSTS		•	249,000	\$	412 50
	CONTINGENCY		\$	13,000	\$	413,50
	TOTAL PROJECT CO	ST	\$	262,000	\$	41,50 455,00
FINANCING	OPERATING BUDGET	·	\$	262,000	\$	455,00
	UNH - CASH		\$	_02,000	\$	_
	BOND - TOWN PORTION	İ	\$	_	\$	455,00
	FEDERAL/STATE GRAN	Т	\$	-	\$	-
	CAPITAL RESERVE ACC	COUNT	\$	-	\$	_
١	TOTAL FINANCING C	OSTS	\$	262,000	\$	455,00
IF BONDED	NUMBER OF YEARS			N/A		20
	TOTAL PRINCIPAL		\$	-	\$	455,00
	TOTAL INTEREST		<u>\$</u>		\$	12,00
	TOTAL ESTIMATED O	OST	\$		\$	467,00

PROJECT YEAR	2027	EQUIPMENT COST	\$42,500
	Replacement of Highway Foreman's	<u> </u>	
DESCRIPTION	Truck	DEPARTMENT	DPW- Operations

# **DESCRIPTION (TO INCLUDE JUSTIFICATION):**

Replace Highway Foreman's 2017 Dodge Ram 2500 Pick-up truck. The truck fleet is currently on a 10-12 year replacement program. This vehicle is used by the Highway Foreman for daily transportation of equipment for his job of maintaining/ supervising roads, bridges and dams, traffic control, stormwater, snow plowing and annual cleanups. Due to the needs of various different projects and responsibilities, this truck must have adequate utility body or tool storage for things such as chain saws, etc. DPW proposes to replace with a one-ton to include a utility body and plow package on this vehicle.

Vehicle to be Replaced:

2017 Dodge Ram 2500

ESTIMATED COST	PURCHASE PRICE	\$	47,500	
	ACCESSORIES*	\$	-	
ı	LESS TRADE-IN**	\$	(5,000)	
	NET PURCHASE PRICE	\$	42,500	
	*Accessories include lighting, radi	os, strip	ing, misc. equi	pment.
FINANCING	OPERATING BUDGET	\$	-	
	UNH - CASH	\$	-	
	<b>BOND - TOWN PORTION</b>	\$	42,500	
	FEDERAL/STATE GRANT	\$	-	
	CAPITAL RESERVE ACCOUNT	\$		
	TOTAL FINANCING COSTS	\$	42,500	
IF BONDED	NUMBER OF YEARS		5	
	TOTAL PRINCIPAL	\$	42,500	
	TOTAL INTEREST (EST'D)	\$	1,900	
	TOTAL PROJECT COST	\$	44,400	



PROJECT YEAR	2030	EQUIPMENT COST	\$310,000
DESCRIPTION	Replacement of Rubber Tired Excavator	DEPARTMENT	Public Works Operations/ Water
DESCRIPTION (TO IN	ICLUDE HISTIFICATIONS		

Public Works will be replacing the 2013 Volvo rubber tired excavator in 2030. This is the most important piece of front line equipment. The excavator is utilized in many facets such as water breaks, road side mowing, excavation work, both large and small drainage work, culverts and road side ditching as well as many other miscellaneaous projects. This piece of equipment will be funded 25% from the water department.

Vehicle to be Replaced:

2013 Volvo Rubber tired Excavator

COTIMATED COCT	DUDÁNIAS PRIOS			
ESTIMATED COST	PURCHASE PRICE	\$	310,000	
	ACCESSORIES*	\$	•	
	LESS TRADE-IN**	\$		
	NET PURCHASE PRICE	\$	310,000	
	*Accessories include lighting, rad	ios, stri	ping, misc. equipment.	
FINANCING	OPERATING BUDGET	\$	•	
	UNH - CASH	\$	-	
	<b>BOND - TOWN PORTION</b>	\$	310,000	
	FEDERAL/STATE GRANT	\$	-	
	CAPITAL RESERVE ACCOUNT	\$		
	TOTAL FINANCING COSTS	\$	310,000	
IF BONDED	NUMBER OF YEARS		5	<u> </u>
	TOTAL PRINCIPAL	\$	310,000	
	TOTAL INTEREST (EST'D)	_\$	14,000	
	TOTAL PROJECT COST	\$	324,000	

