

# Andover Capital Improvement Planning

Revision 1.1

## Executive Summary

At Andover's 1991 town meeting a warrant article was approved to adopt a capital improvement plan under the provisions of NH RSA 674:5 to *"...look at the town's long term needs and to schedule spending on those long term needs in a way that enables more intelligent planning."*

The Capital Improvement Plan (CIP) Cost Analysis Report was prepared by the CIP Committee for the Andover Board of Selectmen and the Budget Committee. The report addresses the capital improvements needed by each town department, provides an analysis of different funding options, and makes recommendations based on cost considerations. The report contains recommendation for 2017 and a more detailed breakdown by department.

### **Projects and Capital items are considered by the Committee if:**

The project or item exceeds a total cost of \$10,000.00 and has a life expectancy of 5 years or more.

The Committee's goal was to look at capital projects / expenditures for the upcoming 10 years.

In April 2015 and May 2016 all town departments were solicited for input for items fitting the criteria above. Contained in this plan are the inputs the Capital Improvements Committee received.

The capital improvements required by each department require different funding strategies for several reasons:

- ☐ Purchasing options vary
- ☐ Existing capital reserves
- ☐ Age, condition, and life expectancy of equipment, roads, and buildings
- ☐ Availability of grants.

In general, the most cost---effective approach for funding capital improvements is through accumulating capital reserves so that money is available for improvements when they are needed. Using capital reserves accomplishes the following:

- ☐ Limits or does away with interest charges and fees
- ☐ Places the town in a better bargaining position
- ☐ Allows departments to make purchases at the optimal time
- ☐ Places the town in a better position for state and federal matching grants
- ☐ Reduces yearly payments and long---term debt
- ☐ Helps reduce and stabilize the tax rate over time
- ☐ Lessens the financial impact of emergencies

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Since the town only has limited capital reserves capital expenditures and will need to spend at least \$1,952,000 for capital improvements over the next 10 years, the CIP committee recommends that the town fund these improvements by building capital reserves where possible and use leases and bonds to cover capital expenses where reserves are not sufficient. Taking out leases and bonds will reduce yearly costs during the first few years and allow the town to build reserves for future purchases. The committee recognizes that building capital reserves presents a significant challenge to the town because reserves are created and funded by voter approval of warrant articles. The complexity of the current financial situation and the approaches to cost - effective - long term planning will require significant voter education.

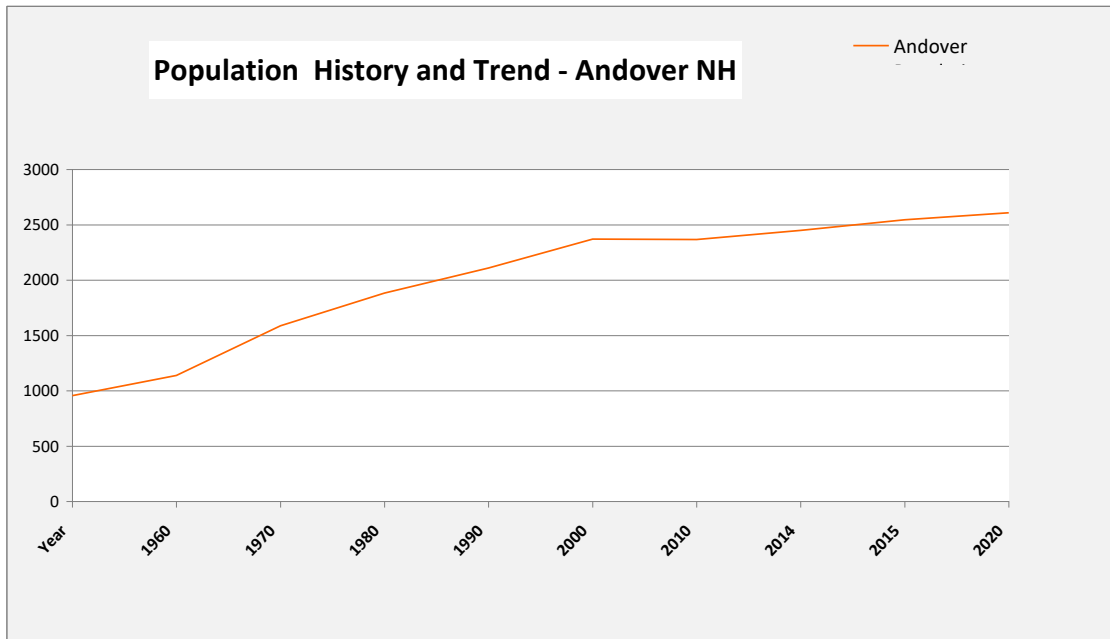
Finally, the CIP is a work in progress. The committee is in its second year of operation, and has made progress in understanding the needs of each department and developing analytical tools to evaluate the town's capital improvement needs. However, the CIP is only as reliable as the accuracy of the data we receive. The accuracy of the data we received varied. Some estimates were based on study by committees (Fire Department), budgetary estimates (Road Agent), and some on past history. In all cases, the departments should provide the town with updated figures for the budget and warrant articles. The CIP committee can provide updated financial information on the impact of decisions by the Board of Selectmen, the Budget Committee, and voters.

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## Analysis of Andover Demographics

The State of New Hampshire provides basic information for population projection by town and county. The graph below depicts historical and projected population information for the town. Based on the data, the town can expect moderate population growth for the duration of the 10 year capital improvement horizon.



Source: New Hampshire Population Forecast by Municipality: 2013  
State of NH Office of Energy and Planning

## General Overview

This section provides an overview of the Capital Improvement Plan (CIP) for 2017. The goal of the CIP Committee is to fund all or a significant portion of capital improvements through capital reserves. Funding improvements through capital reserves is the most cost-effective approach for purchasing capital improvements because it results in the lowest yearly and total costs. The approaches for funding improvements for each department are covered in more detail later in the report.

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**Capital Improvement Costs (Table 1)**

		<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>
<b>Fire</b>	Reserve Funding	\$18,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$55,000	\$34,000	\$50,000		
<b>Vehicle</b>	Reserve Balance	\$18,000	\$73,000	\$128,000	\$183,000	\$238,000	\$293,000	\$348,000				
	Expenditure							<b>\$350,000</b>				
<b>Police</b>	Reserve Funding	\$7,708	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500	\$6,500
<b>Vehicle</b>	Reserve Balance	\$17,292	\$6,500	\$13,000	\$19,500	\$26,000	\$7,500	\$14,000	\$20,500	\$27,000	\$8,500	\$15,000
	Expenditure	<b>\$25,000</b>				<b>\$25,000</b>				<b>\$25,000</b>		
<b>Roads</b>	Reserve Funding	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
	Reserve Balance	\$5,000	\$25,000	\$0	\$150,000	\$50,000	\$25,000	\$55,000	\$205,000	\$105,000	\$255,000	\$405,000
	Expenditure	<b>\$145,000</b>	<b>\$130,000</b>	<b>\$175,000</b>	\$0	<b>\$250,000</b>	<b>\$175,000</b>	<b>\$120,000</b>	\$0	<b>\$250,000</b>		
<b>Grader</b>	Reserve Funding	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
	Reserve Balance	\$105,000	\$115,000	\$125,000	\$135,000	\$145,000	\$155,000	\$165,000	\$175,000	\$185,000	\$195,000	\$205,000
	Expenditure											
<b>Town Server</b>	Reserve Funding	\$6,000										
	Reserve Balance	\$5,000										
	Expenditure	<b>\$11,000</b>										
<b>Town HVAC</b>	Reserve Funding											
	Reserve Balance	\$10,000										
	Expenditure	<b>\$46,000</b>										
<b>School</b>	<b>3,600,000 Bond</b>											
	<i>Projected Tax Rate per \$1,000 assessed value.</i>											
	<b>10 Year Bond</b>	\$1.69	\$1.65	\$1.63	\$1.60	\$1.58	\$1.56	\$1.53	\$1.51	\$1.48	\$1.46	\$0.00
<b>Rescue</b>	Reserve Funding	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
<b>Vehicle</b>	Reserve Balance	\$150,000	\$175,000	\$200,000	\$0	\$25,000	\$50,000	\$75,000	\$100,000	\$125,000	\$150,000	\$175,000
	Expenditure				<b>\$225,000</b>							
	<b>TOTAL CAPITAL EXPENDITURES</b>	<b>\$227,000</b>	<b>\$130,000</b>	<b>\$175,000</b>	<b>\$225,000</b>	<b>\$275,000</b>	<b>\$175,000</b>	<b>\$470,000</b>	<b>\$0</b>	<b>\$275,000</b>	<b>\$0</b>	<b>\$0</b>
	<b>TOTAL RESERVE APPROPRIATIONS</b>	<b>\$216,708</b>	<b>\$246,500</b>	<b>\$246,500</b>	<b>\$246,500</b>	<b>\$246,500</b>	<b>\$246,500</b>	<b>\$246,500</b>	<b>\$225,500</b>	<b>\$241,500</b>	<b>\$191,500</b>	<b>\$191,500</b>
Tax Rate	Capital Only	\$0.86	\$0.98	\$0.98	\$0.98	\$0.98	\$0.98	\$0.98	\$0.90	\$0.96	\$0.76	\$0.76
Tax Rate	School Bond Only	\$1.69	\$1.65	\$1.63	\$1.60	\$1.58	\$1.56	\$1.53	\$1.51	\$1.48	\$1.46	\$0.00
Tax Rate	Total (Capital + School Bond)	<b>\$2.55</b>	<b>\$2.63</b>	<b>\$2.61</b>	<b>\$2.58</b>	<b>\$2.56</b>	<b>\$2.54</b>	<b>\$2.51</b>	<b>\$2.41</b>	<b>\$2.44</b>	<b>\$2.22</b>	<b>\$0.76</b>

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## **Recommended Warrant Articles**

The committee estimates that the total cost of capital improvements over the next 10 years will be at least \$1,952,000 (\$5,850,616 with School Bond). The total amount needed for 2017 is \$268,708. The recommendations for warrant articles for capital expenses are presented in Table 2.

Department – Capital Project or Equipment	Funding This Cycle	Existing Reserve	Bond Needed This Cycle	Total Final Cost Next 10 Years	Year of Expenditure
Town Office – Computer Server	\$6,000	\$5,000	\$0	\$11,000	2017
Town Office – HVAC Upgrade	\$46,000	\$10,000	\$0	\$46,000	2017
Police Department - Vehicle	\$7,708	\$17,294	\$0	\$75,000	2017, 2021, 2025
* Road Equipment Grader	\$10,000	\$108,395	\$0		2037
Roads – Phase 1 Projects	\$150,000	\$0	\$0	\$1,245,000	End of current plan 2025
Fire Department – D1&D2 - Truck	\$18,000	\$18,000	\$0	\$350,000	2023
Emergency Services - Ambulance	\$25,000	\$150,000	\$0	\$225,000	2020 or later
** School – Building Addition/Upgrade	\$3,600,000	\$0	\$3,600,000	\$3,944,616	2017
Total without Bond				<b>\$1,952,000</b>	
Total with Bond	<b>\$262,708</b>			<b>\$5,896,616</b>	
* Grader purchase falls beyond 10 year projection, not in total.					
** Bond amount not included in 2017 capital expenditure total. Includes Interest (\$344,616) based on 10 year term.					

Table 2

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## Review of Tax Rates 2011 – 2015

Source: Marj Roy, Town Administrator

	Amount to be raised by Property Taxes- Appropriations-Less Revenue-Plus War Credits and Overlay 2015	Based on Valuation of:	Tax Rate/Amount to be raised by Property Taxes by taxable property in thousands	Amount to be raised by Property Taxes- Appropriations-Less Revenue-Plus War Credits and Overlay 2014	Based on Valuation of:	Tax Rate/Amount to be raised by Property Taxes by taxable property in thousands	Amount to be raised by Property Taxes- Appropriations-Less Revenue-Plus War Credits and Overlay 2013	Based on Valuation of:	Tax Rate/Amount to be raised by Property Taxes by taxable property in thousands	Amount to be raised by Property Taxes- Appropriations-Less Revenue-Plus War Credits and Overlay 2012	Based on Valuation of:	Tax Rate/Amount to be raised by Property Taxes by taxable property in thousands	Amount to be raised by Property Taxes- Appropriations-Less Revenue-Plus War Credits and Overlay 2011
Town	\$ 1,021,829.00	\$ 251,456,815	4.07 \$	981,822	\$ 250,836,552	3.92	949,810	257,413,327	3.55 \$	885,750	\$ 257,618,854	3.35	\$948,811
School Local	\$ 2,671,796.00	\$ 251,456,815	10.62 \$	27,350,043	\$ 250,836,552	10.96	2,682,730	257,413,327	10.03 \$	2,665,243	\$ 257,618,854	9.89	\$2,712,281
School State	\$ 557,726.00	\$ 239,154,515	2.37 \$	632,332	\$ 238,494,782	2.65	599,046	254,815,527	2.35 \$	544,033	\$ 255,021,054	2.13	\$555,482
County	\$ 709,154.00	\$ 251,456,815	2.82 \$	714,545	\$ 250,836,552	2.85	752,807	257,413,327	2.82 \$	712,308	\$ 257,618,854	2.65	\$539,951
Total Rate before Fire Precincts	\$ 19.88		20.38			20.38			18.03			18.03	
Andover Fire District No. 1	\$ 67,146.00	103,301,917	0.65	67,064	103,174,999	0.65	68,577	108,852,222	0.64 \$	68,926	\$ 108,883,554	0.64	\$68,928
East Andover Fire Precinct	\$ 56,314.00	148,194,088	0.38	56,111	146,681,553	0.38	53,911	158,561,105	0.35 \$	54,183	\$ 158,517,946	0.35	\$53,507
Total Rate for Properties in Andover Fire District No. 1	\$ 20.53		21.03			21.03			18.67			18.67	
Total Rate for Properties in East Andover Fire Precinct	\$ 20.26		20.76			20.76			18.38			18.38	

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Table 3

## Police Department

### Overview

The Police Department has four vehicles (2001 Chevrolet Tahoe, 2009 Crown Victoria, 2013 Ford Explorer, 2014 Ford Explorer). For personnel safety and cost considerations the desired replacement plan is to purchase a new vehicle every four years. As well, each vehicle needs to be outfitted for police work at an estimated cost of about \$5,500, however these costs are contained in the operating budget of the department. The current estimated cost of a new vehicle is \$25,000.

### Analysis

The current plan is to retire the Tahoe and Crown Victoria and purchase a new vehicle. A capital reserve fund has been set up for the purchase which currently has a balance of \$17,294.00.

Paying cash and building capital reserves saves interest costs. Paying cash, however, can cause large spikes in the tax rate and make purchasing other capital equipment in the same year cost-prohibitive. Building capital reserves on a yearly basis (saving) lowers yearly and long-term costs and stabilizes the tax rate. Leasing allows the town to purchase equipment without building reserves. It stabilizes the tax rate, but there are higher yearly and long-term costs due to interest and fees.

### Recommendations

The table below shows a plan for managing the capital reserve for vehicle replacement. Following this plan allows for the purchase of a new vehicle every four years with a service life of eight years. The third car (car 3) would most likely be a retired car to be used for light duty tasks or 'detail' activity.

Proposed Police Vehicle Replacement Plan

		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Car 1		New								New	
Car 2						New					
Car 3											
Reserve Deposit		7,708	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
Reserve Balance	17,292	0	6,500	13,000	19,500	1,000	7,500	14,000	20,500	2,000	
Purchase		25,000				25,000				25,000	

\$17,292.00 (current reserve balance)

\$7,708.00 (needed to purchase the next vehicle)

\$25,000.00 (estimated vehicle cost)

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## ***Fire Department***

### ***Overview***

The Andover Fire Department is currently planning to purchase a new fire fighting vehicle costing approximately \$350,000.

### ***Fire Truck***

The Fire Department Truck Replacement Committee has determined the next major replacement is planned for 2023. Table 4 below depicts the current replacement schedule and proposed capital reserve plan.

Andover Fire Department Truck Replacement Plan

Dist.	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
D1	\$18k	\$18k	\$30k	\$30k	\$30k	\$30k	\$30k	\$30k	\$17k	\$25k
								\$8K Bond		
D2			\$25k	\$25k	\$25k	\$25k	\$25k	\$25k	\$17k	\$25k
								\$8K Bond		
								~\$350k Purchase		
Tax Rate / \$1000	0.07	0.07	0.22	0.22	0.22	0.22	0.22	0.22	0.14	0.20

Source: Andover Fire Dept.

Table 4

### ***Analysis***

As seen in Table 4 (above), starting in 2018 the capital reserve amount is projected to increase by \$37,000 bringing the total yearly reserve appropriation from \$18,000 to \$55,000 per year. The increase is intended to prepare for the purchase of a new vehicle costing approximately \$350,000 in 2023. In 2023 two bonds totaling \$16,000 is proposed to complete the needed funding for the purchase.

### ***Recommendations***

The committee recommends the plan as presented by the Fire Department be followed and adjusted as new information is discovered.

### ***Tax Impact***

The increase to the capital reserve program from \$18,000 to \$55,000 will result in a \$0.07 to \$0.22/ \$1,000 increase to the tax rate for the taxpayers up to the 2023 proposed purchase date.



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## ***Rescue Squad – Ambulance***

### **Overview as submitted by John Kinney –**

As reported in past annual reports:

Our Road Rescue ambulance is built on a 2003 diesel Ford F-350. The typical life span of an ambulance is seven to eight years, but because we're somewhat rural and do not have the call volume of a traditional full-time service, we hope that with quality routine maintenance we can stretch the use to 12 to 14 years.

Here we are in 2016. Our ambulance is still going strong and is not showing any signs to cause worry that it won't be able to respond when needed. Warrant articles each year since 2012 have each added \$25,000 annually to the capital reserve fund established in 2012 for the eventual need to replace our ambulance.

How we choose to replace our ambulance is a matter for debate. There are two basic components to our ambulance: the chassis and the cab. The following options have been thrown on the table and each of the scenarios start with the removal of all reusable equipment, such as radios and oxygen supply.

- 1: Sell the 2003 ambulance as is to the highest bidder on the open market (or use it as a trade-in) and purchase a new ambulance.
- 2: Sell the 2003 ambulance as is to the highest bidder on the open market (or use it as a trade-in) and purchase a used ambulance – one that's still newer than our 2003.
- 3: Remove the existing cab and have it mounted onto a new chassis. The old chassis can then be sold on open market (or used as a trade-in).

Option 1 is probably the easiest but it's also the most expensive – at least up front. The estimated cost of a new ambulance (chassis & cab) is \$175,000-\$225,000 depending on make/model plus features & options.

Option 2 has the greatest unknown factors of all three choices. Whereas suitable used ambulances that are 5-7 years old can be purchased for a quarter of the cost versus new, you inherit possible problems that are the reasons the previous owner replaced it. Even if there are no problems the expected longevity would be a fraction of something new with a full warranty thus we'd have to go through the replacement process on 3-5 year intervals. With anticipate higher maintenance costs for a used vehicle this option may not save much in the long run and will most certainly require more time from our volunteer staff.

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Option 3 has promise, but since our cab is showing more signs of wear-n-tear than the chassis it would seem that option 3 may not be the best to pursue unless there was a reconditioning option.

The Andover EMS department will begin to gather specific cost estimates for all options in 2016 so we're prepared as the need approaches to replace our ambulance. To date, here is the projected cost for the ambulance replacement plan. (Bond figures are estimates should the replacement occur that year):

<b>Reserve</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>\$100,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>	<b>25,000</b>
<b>Balance</b>	<b>125,000</b>	<b>150,000</b>	<b>175,000</b>	<b>200,000</b>	<b>225,000</b>
<b>Bond</b>	<b>100,000</b>	<b>75,000</b>	<b>50,000</b>	<b>25,000</b>	<b>0</b>

Source: Andover EMS.

Table 5 – EMS Vehicle Replacement

## ***Recommendations***

The committee recommends following option 1, as described above.

This will allow time to build capital reserve funds up to the estimated \$225,000.00 replacement cost and fund the purchase of a new ambulance in 2020 without the need for the town to borrow funds.

## ***Tax Impact***

This capital item does not change the capital reserve plan as it stands today. No increase will be incurred if option 1, above, is followed.

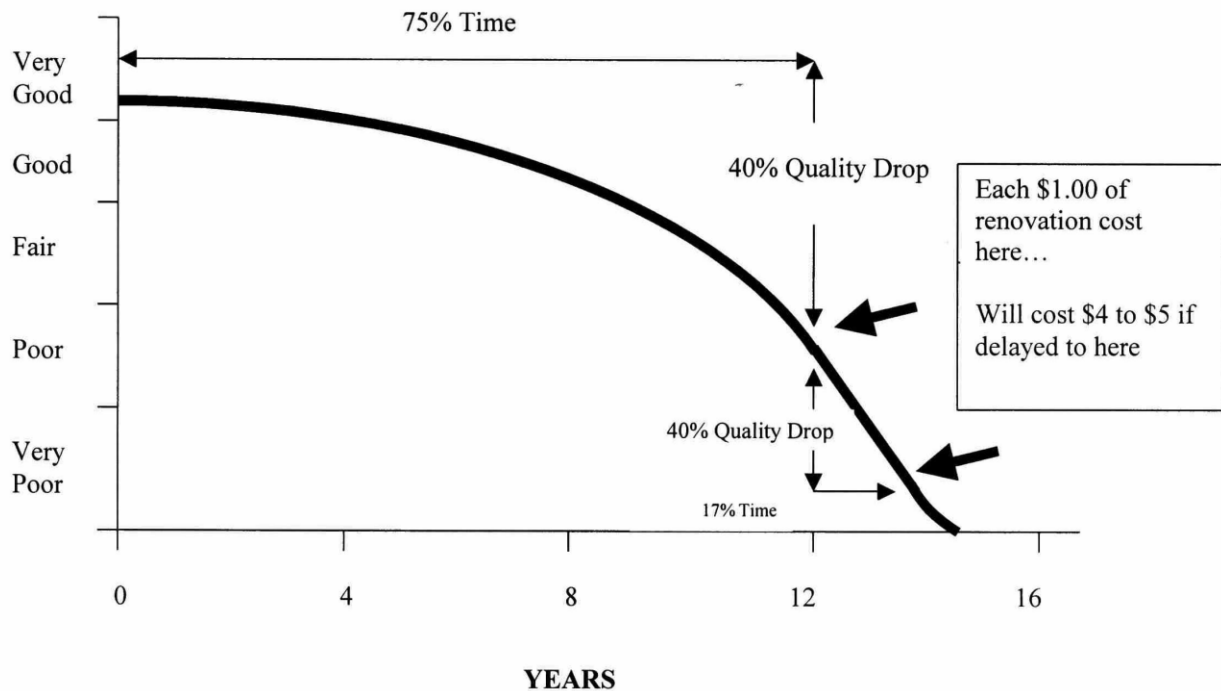
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## Town Roads

### Overview

The most cost---effective method of keeping roads in good repair is to resurface them before they begin to deteriorate, usually between 10 and 12 years. Figure shows that there is a 40% quality-drop in roads over 12 years with an additional 40% quality drop over the next 3 years. The cost of reconstructing roads after 12 years can increase 4 to 5 times.



Our current situation is that we have a number of roads that have not been resurfaced for an extended period and require significant reconstruction.

The estimated cost for major road reconstruction over the next 5 years is \$700,000 with an additional \$545,000 over the next 5 years for a total cost of \$1,245,000. It should be noted that these budgetary estimates are not based on engineering studies.

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## Analysis

Although this plan (See Table 6) was submitted as a 3 to 5 year plan. Funding constraints forced the Committee to consider a 10 year scope for the list of projects. The non-Capital line items, Ditching and Drainage, Rock Crushing were removed from consideration in this plan. The road agent has not recommended any priority be applied to the project list. As a result, the committee has positioned (See Table 7) the projects so as to contain the cost with the current \$150,000 funding the town has voted in recent history.

### Road Projects Detail

PROJECT SUBMISSION	Cost
Plains Road -- Shim & Overlay/Fix two culverts	\$145k
Chase Hill Road – Top Coat	\$75k
Emery Road – Top Coat	\$120k
Dyers Crossing Road – Shim & Overlay	\$55k
Maple Street – Ditch, Underdrain, Culverts, Grind & Pave ½, Shim & Overlay ½	\$350k
Flaghole Road – Complete ‘Overhaul’	\$500k
<del>General Ditching and Drainage</del>	<del>\$150k</del>
<del>Crushing</del>	<del>\$75k – \$100k</del>

Source: John Thompson, road agent

Table 6

Anticipated Road Projects as of 2016											
Projects	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	
\$105,090 Plains Rd	-\$105,090										
\$75,000 Chase Hill Rd		-\$75,000									
\$120,000 Emery Rd							-\$120,000				
\$55,000 Dyers Crossing Rd		-\$55,000									
\$350,000 Maple St			-\$175,000			-\$175,000					
\$500,000 Flaghole Rd					-\$250,000				-\$250,000		
Other/Unplanned											
\$1,205,090 <-----Total											
Special Projects											
Capital Reserve ->	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
Yearly Expenditure	-\$105,090	-\$130,000	-\$175,000	\$0	-\$250,000	-\$175,000	-\$120,000	\$0	-\$250,000	\$0	
Balance	\$44,910	\$64,910	\$39,910	\$189,910	\$89,910	\$64,910	\$94,910	\$244,910	\$144,910	\$294,910	

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## ***Recommendations***

Project costs were derived from budgetary estimates only. Actual bids for each project will be obtained prior starting the project. Road projects are currently funded through a 'Special Projects' fund of \$150,000 per year. The committee recommends no increased spending. Table 6, above, depicts the proposed spending stream through the 10 year CIP horizon.

As depicted in Table 7, above, at the end of several of the fiscal cycles residual funds will be left in the reserve fund. These are intended to roll over into the subsequent years to enable the town to complete projects that exceed the \$150,000 proposed yearly appropriation. Fiscal discipline will be required, but this approach will hold the tax rate, as related to road projects, flat over time.

## ***Tax Impact***

No increase in spending is recommended. As a result, no increase to the tax rate will be incurred due to road projects.

## ***Road Equipment – Grader Replacement***

### ***Analysis***

The town grader is 9 years old and has an expected useful life of 30 years. Several years ago a capital reserve fund for replacement of the grader was set up with a yearly appropriation of \$10,000. The estimated cost of replacing the grader is \$350,000.

### ***Recommendations***

The committee recommends continuing the \$10,000 appropriation into the foreseeable future which should position the town to purchase the replacement grader. It is hoped that the lifetime of the current grader can be extended beyond the planned 30years.

### ***Tax Impact***

No increase in spending is recommended. As a result, no increase to the tax rate will be incurred related to the town grader.

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## **Town Office / Buildings**

### **Overview**

The town administration offices have two projects to consider for this planning cycle.

1. Computer Server \$11,000
2. Heating & Ventilation upgrade/modifications

### **Computer Server**

#### ***Analysis***

Due to the rising demands of the office environment, the existing computer server, which the town clerk, book keeper, town administrator and general staff use, has shown a performance degrade. There currently is a capital reserve of \$5000 for the purchase.

#### ***Tax Impact***

Based on the 2016 tax rate, the tax increase associated with this purchase in 2017 would be approximately 0.02 / \$1000.00 assessed property value.

#### ***Recommendations***

The committee recommends pursuing a warrant article for the remaining \$6.000 for the purchase of the new computer and related software.

## ***Heating Ventilation (HVAC) Upgrade / Modifications***

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## Overview

Based on a Level II Energy Audit conducted in 2012, the Heating and Ventilation systems in the town hall are in need of upgrades. Analysis of the air circulation in the offices have shown improvement is needed (high CO2). Temperature control in the Library portion of the building needs improvement as well.

Analysis and planning is underway to upgrade the heating and electrical systems under a proposed project consisting of the following four phases.

1. Building Envelope Upgrade - Insulation and Basement work.  
Estimated cost \$8,600.00 to be secured from existing funds.
2. Lighting and appliance replacement – lower electrical load.
3. Heating / Air Conditioning Installation  
Air Based Heat Pumps – To provide Lower Operating Cost.  
100% Efficiency down to 5 degrees Fahrenheit
4. Roof top Solar Power Generation

Phase 1 is currently underway and will not be considered in this plan.

Phase 2 and 3 estimated combined costs (2 bids) are roughly estimated at \$46,000.00.

Phase 4 costs are unknown and not considered in this plan.

## Key Benefits of Phases 1, 2 &3

- New HVAC system will provide Room-by-Room Temperature Control.
- Improved Fresh Air Circulation - Healthier Air.
- Remove the Town's exposure Oil Price Fluctuations–Electricity is Highly Regulated.

## Analysis

This project is eligible for a \$5,000.00 rebate from the N.H. Electric Co-op which provides rebates for Heat Pump projects.

### Project Cost Breakdown

Initial Project Cost (2 bids)	\$46,000.00
*Heat Pump Rebate from NHEC	-\$5,000.00
<b>Final Cost</b>	<b>\$41,000.00</b>

Projects that reduce the ongoing energy costs can be looked at as providing a 'return on investment' (ROI). For this project, the ROI for the upgrades are largely dependent on the cost of heating oil. Based on the 10 year average price of heating oil (\$3.18/gal) the ROI is estimated to be 12.4 years, at \$2.00/gal the ROI estimate is 20 years, at \$4.00/gal the ROI estimate is 10 years.

## Recommendations

The Committee recommends going ahead with this project as it does lower operating costs and does address the ventilation deficiency.

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With Select Board approval and successful Warrant Article for a Town Vote, the \$46,000 project cost can be derived from:

1. Existing \$10,000 capital reserve allocated for Town Hall Improvements.
2. Reallocated \$36,000 from the Unexpended Reserve fund (UFB).

The committee further recommends the \$5,000 rebate for NHEC be deposited into the Unexpended Reserve fund.

## ***Tax Impact***

The Town Hall Improvements reserve fund and the Unexpended Reserve fund are previously allocated funds. Using these fund to complete this project results in no tax increase.



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## Andover Elementary / Middle School

### ***School population projection***

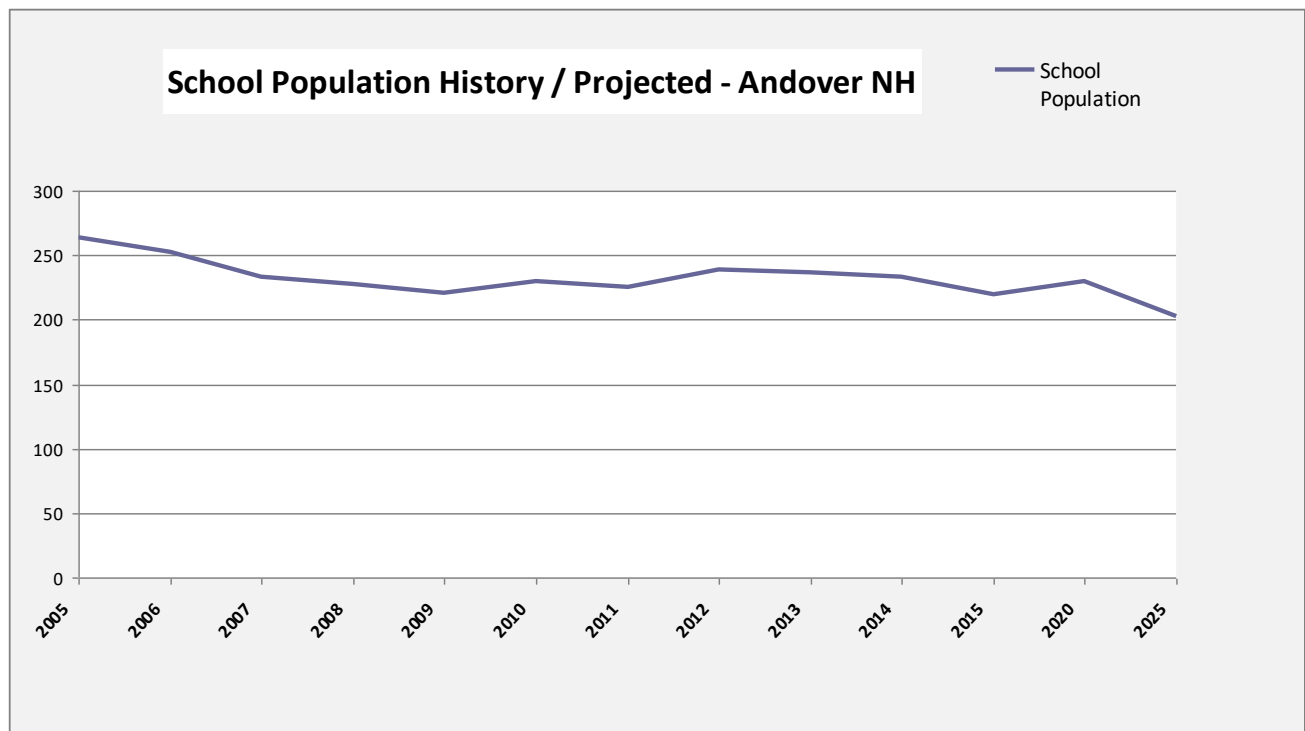
Based on State of New Hampshire population information and information supplied by the school administration, the graph and tables below have been assembled to depict the historical and projected school population through the CIP horizon.

Although the projections show a drop in school aged population, historical empirical experience has shown a steady school population for the last 10 years.

### **Andover School Population**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2016
<b>K – 8<sup>TH</sup> Grade Population</b>	264	252	233	228	221	230	225	239	237	233

Source: Jane Slayton (October 2005-2016 enrollment data)



Source: Population Projections for New Hampshire Counties  
Age and Sex Detail, 2010 to 2040

State of NH Office of Energy and Planning

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## Overview

An architectural study of the Andover Elementary and Middle school facility was completed in 2015. A Task Force was formed to review the study and make a recommendation for structural changes to the building such as Access and Security features, a Cafeteria, additional Classroom space, Kitchen upgrades and Code Compliance upgrades. The Task Force worked to bring the scope of the project and associated cost (from \$5.47M to \$3.6M) as close as possible to Andover's budgetary realities while attempting to bring the building to current standards.

## Analysis

In June, the Task Force completed the work to develop the final project scope with the resulting estimated cost arriving at \$3,600,000.00. This current proposal would be paid for with a bond for the total amount. Terms for the bond ranging from 10 years to 20 years were analyzed. The table below depicts the tax rate increase associated with each term at current interest rates.

<b>Term</b> Based on \$3,600,000 bond amount	<b>Beginning Tax Rate</b>	<b>Ending Tax Rate</b>	<b>Projected Interest Paid</b>	<b>Interest Rate</b>
10 years	\$1.69	\$1.46	\$344,616	1.73%
15 years	\$1.27	\$0.97	\$624,672	2.16%
20 years	\$1.09	\$0.73	\$948,000	2.5%

Source: NH Municipal Bond Bank

Table 8

## Recommendations

The committee indicated that breaking the overall project into smaller prioritized modules could be a way to satisfy urgent requirements/needs and reduce the tax burden.

A town vote will decide whether this project is implemented as presented. In the event the town does vote favorably, the CIP Committee recommends the 10 year term option. This option would save the town \$280,056 or \$603,384 in interest costs compared to either the 15 or 20 year options. The 10 year term would also retire the debt as quickly as possible.

## Tax Impact

The tax impact for three terms is depicted in table 8, above. Each Tax Rate is expressed as per \$1,000 assessed property value.

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## **Library**

### ***Overview***

No submission has been received from the Library Trustees.

### ***Recommendation***

It is recommended that the Library Trustees meet with the CIP Committee when capital improvements have been identified.

## **Village Water District**

### ***Overview***

No submission has been received from the Village Water District.

### ***Recommendations***

It is recommended that the Water Department meet with the CIP Committee when capital improvements have been identified.

## **Cemetery**

### ***Overview***

The Cemetery Trustees have withdrawn a previously submitted projected. There are no other projects to be considered at this time.

### ***Recommendations***

It is recommended that the Cemetery Trustees meet with the CIP Committee when capital improvements have been identified.

## **Recreation Committee**

### ***Overview***

Recreation Committee has not submitted a projected capital plan for this cycle.

### ***Recommendations***

It is recommended that the Recreation Committee meet with the CIP Committee when capital improvements have been identified.

## **Emergency Management Department**

### ***Overview***

The Emergency Management Team has not submitted a projected capital plan for this cycle.

### ***Recommendations***

It is recommended that the Emergency Management Department meet with the CIP Committee when capital improvements have been identified.

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## Grants

Grants can reduce yearly and long-term costs significantly and allow the town to build more capital reserves for future capital improvements.

**As an example**, the town is applying for grants for fire engines and sidewalks. The initial cost of a new fire engine is \$375,000; however, the cost with a 20% matching grant would be \$300,000, a savings of \$80,834 on a 5-year lease.

A \$300,000 sidewalk project would cost the town \$60,000 with an 80% matching grant.

The CIP committee recommends that the town aggressively pursue grants to help reduce the cost of necessary capital improvements, including grants for planning and engineering. To be successful the town needs to take the following steps:

- ☐ Develop a coordinated grant writing effort employing the skills of town employees and volunteers
- ☐ Develop contacts and supporters at the State and Federal level
- ☐ Establish priorities and apply for grants in key areas to establish a track record with funding agencies

Develop shovel-ready projects to improve infrastructure

- ☐ Perform well on grants that have been awarded
- ☐ Establish a capital reserve for matching grants.

## Cost of Delaying Capital Expenditures

### Overview

Inflation causes the cost of delaying capital expenditures to compound over time.

Therefore, when developing a budget, both the cost of a capital improvement and the cost of not funding a capital improvement must be taken into consideration by decision makers and voters. Factors that increase costs:

- ☐ Inflation
- ☐ Interest rates
- ☐ Maintenance costs
- ☐ Credit rating
- ☐ Borrowing options
- ☐ Ability to obtain grants

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## Appendix A

### Historical and Projected School Age Population

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2020	2025
School Population	264	252	233	228	221	230	225	239	237	233	220	230	203
Merrimack Co. Projected Population Age 5-14						18,047					17,078	17,872	15,759
Merrimack Co. Projected Population Change											-969	794	-2,113
Merrimack Co. Projected % Population Change											-5%	5%	-12%
Projected Andover School Population Change											-13	10	-27
Values derived by extrapolating Merrimack County projections for children 5-14 year old applied to Andover base population													
Source: Population Projections for New Hampshire Counties Age and Sex Detail, 2010 to 2040													
State of NH Office of Energy and Planning													

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## **The Capital Improvement Committee**

Chairman: Doug Phelps  
Vice Chairman: Chuck Keyser

Committee Members 2015 – 2016

Bill Leber  
Dennis Fenton  
Jeff Newcomb  
Marj Roy  
Jim Delaney  
Duncan Coolidge