

# City of Newton Pension Funding Discussion

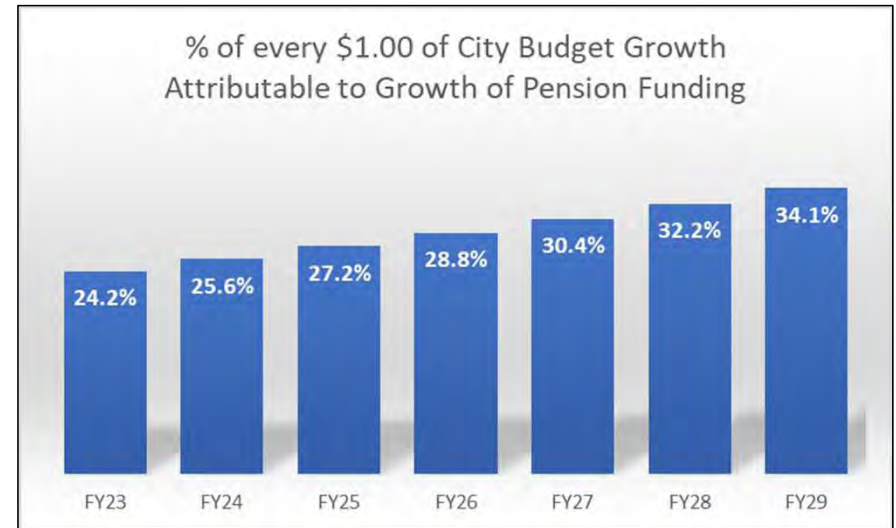


November 2022

# City of Newton Pension Funding Discussion

## *Issue:*

- Assuming the City budget grows at 3.5% per year, **pension funding will increase from 8.8% of the City budget in FY22 to 13.2% of the City budget in FY29**
- This represents a **4.4% crowding-out of the City budget**, further straining already strained services
- **~28 cents of every dollar of growth** in the City budget through FY29 will go to increased pension funding
- Increasing pension funding at 3.5% to match the growth of the City budget will **free-up 1.5x the amount of cash for City services than the proposed operating override will create** in new revenue through FY29



## *Addressing the Issue:*

- This is intended to be a discussion, not a prescription
- This is a simple analysis of the City's current pension funding growth of 9.6% per year until fully funded versus alternatives at a lower rate of growth; The City should seek to maximize the utility of dollars invested in the pension trust versus investing in current city operations and other initiatives
- There is no debate that these obligations are the City's moral and legal obligation to fulfill; this is about fulfilling that obligation and maximizing utility of limited resources

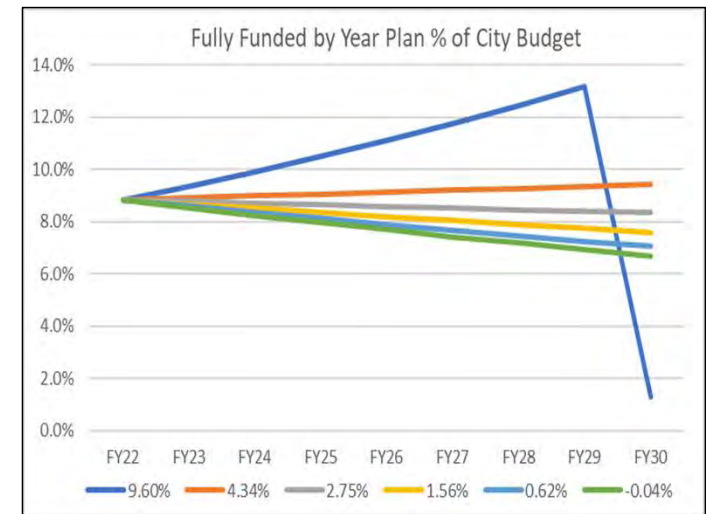
# City of Newton Pension Funding Discussion

## Impact:

- The starting point is that the rate of growth of pension funding may be more than the City is able/willing to bear in terms of crowding out other City services and investments
- The table below shows the percentage of the City budget dedicated to pension funding through 2030 under the current plan, and fully funding by every year FY31 – FY35\*\*

## Percent of City Budget Dedicated to Pension Funding Under Various Plans:

	<u>Current</u>	<u>FY31 Plan</u>	<u>3.5% Plan</u>	<u>FY32 Plan</u>	<u>FY33 Plan</u>	<u>FY34 Plan</u>	<u>FY35 Plan</u>
<i>Growth:</i>	<i>9.60%</i>	<i>4.34%</i>	<i>3.50%</i>	<i>2.75%</i>	<i>1.56%</i>	<i>0.62%</i>	<i>-0.04%</i>
FY22	8.8%	8.8%	8.8%	8.8%	8.8%	8.8%	8.8%
FY23	9.3%	8.9%	8.8%	8.8%	8.7%	8.6%	8.5%
FY24	9.9%	9.0%	8.8%	8.7%	8.5%	8.3%	8.2%
FY25	10.5%	9.0%	8.8%	8.6%	8.3%	8.1%	8.0%
FY26	11.1%	9.1%	8.8%	8.6%	8.2%	7.9%	7.7%
FY27	11.8%	9.2%	8.8%	8.5%	8.0%	7.7%	7.4%
FY28	12.4%	9.3%	8.8%	8.4%	7.9%	7.5%	7.2%
FY29	13.2%	9.3%	8.8%	8.4%	7.7%	7.2%	6.9%
FY30	1.3%	9.4%	8.8%	8.3%	7.6%	7.0%	6.7%



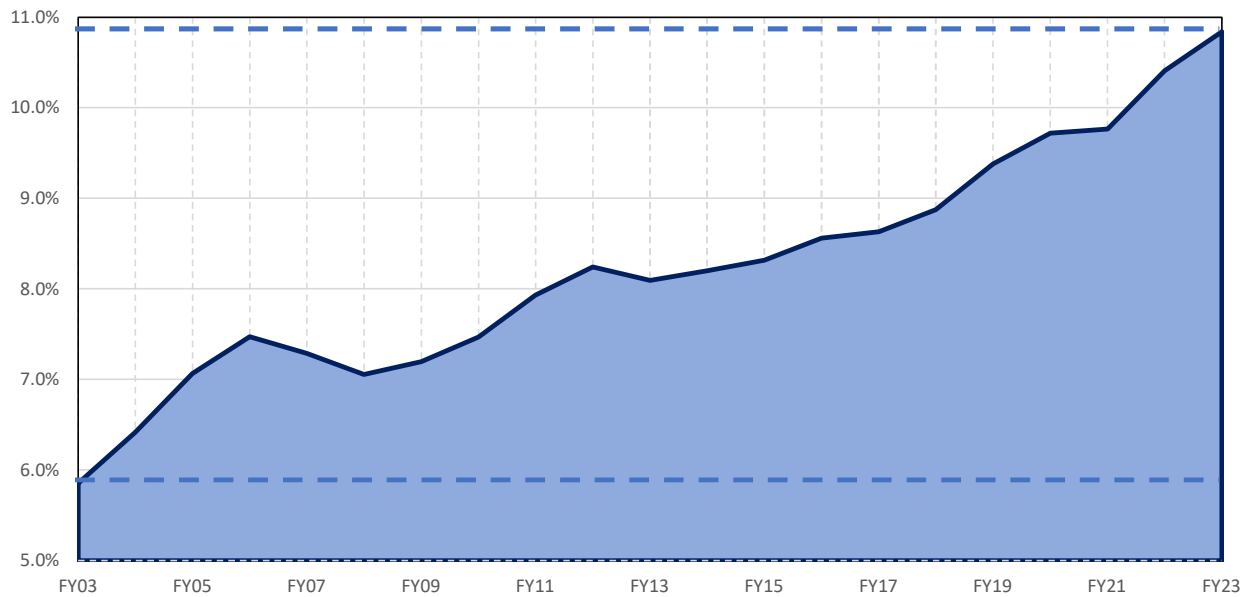
\*\*assumes City budget grows at 3.5% per year

# City of Newton Pension Funding Discussion

## ***Historical Context:***

- Total retirement expenses (pension funding and current OPEB) have consumed an incremental 5% of the City budget over the last 20 years
- It will almost double that amount over the next six years

## ***Percent of City Budget Consumed by “Retirement” Costs:***



*Source: Comptrollers Budget Analysis*

## City of Newton Pension Funding Discussion

### ***Analysis:***

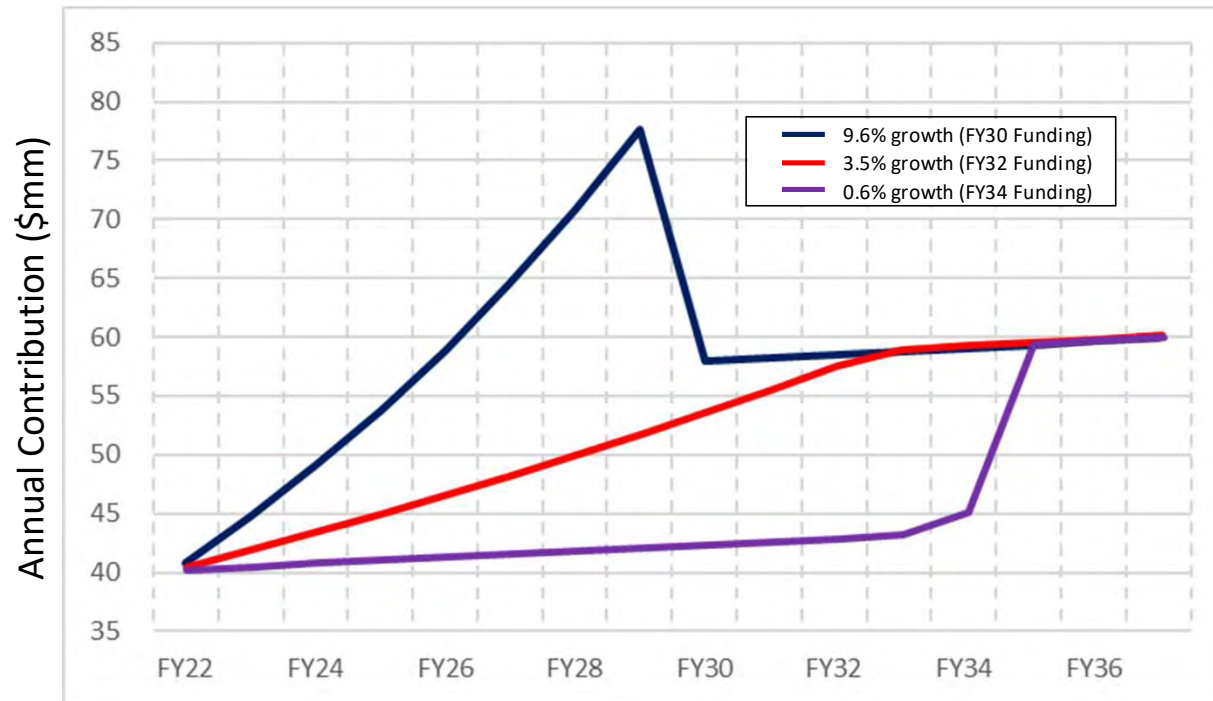
- This examines the level of funding increase (via Employer Contributions) that would be required for the City to reach fully funded status in each of the years 2031-2035
- All other assumptions remain constant from the Actuarial Valuation and Review as of January 1, 2022 prepared by The Segal Group
- The analysis calculates the constant rate of funding increase required FY23 through FY31-FY35 such that the end of year value of assets in the trust is equal to the Segal Group Cashflow Forecast, though a constant rate of funding increase may not be the strategy that maximizes the utility of those dollars
- The only change made is the rate of growth of Employer Contributions, which in turn effects the amount of investible assets

<b>Fully Funded Year</b>	<b>Required Rate of Increase</b>	<b>FY23-FY29 "Freed up" Cash</b>	<b>FY30- Incremental Funding Required</b>	<b>Foregone Investment Returns</b>	<b>End of Year Mkt Value Assets</b>
FY30	9.60%	<i>Fully Funded per City plan</i>			1,046,477,599
FY31	4.34%	79,380,485	101,059,619	21,679,134	1,075,253,252
3.5% Plan	3.50%	90,641,142	117,459,141	26,817,999	n/a
FY32	2.75%	100,402,276	131,708,881	31,306,606	1,105,784,863
FY33	1.56%	115,205,770	155,802,320	40,596,550	1,138,248,858
FY34	0.62%	126,430,176	176,356,052	49,925,876	1,172,995,622
FY35	-0.04%	134,044,585	192,234,221	58,189,636	1,210,218,327

# City of Newton Pension Funding Discussion

## **2034 Plan – Cashflow Forecast**

- The chart below shows the current “9.6% Plan” (blue line) – increasing pension funding at a constant rate of growth, then contributing \$50m/yr to the OPEB trust once fully funded
- The red and purple lines show the “3.5% Plan” and the “2034 Plan” fully funding the pension in years 2032 and 2034, respectively, then contributing \$50m/yr to the OPEB trust once fully funded



**Exhibit: Example Year – Comparing the City’s Current Plan vs Fully Funding in FY33:**

**Exhibit E: Cashflow Forecast**

Plan Year	MVA BOY	Administrative Expenses	Net 3(8)(c) Payments	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	MVA EOY
2022	\$526,328,950	\$450,000	\$145,000	\$50,181,657	\$11,357,250	\$40,847,226	\$36,345,430	\$564,102,199
2023	564,102,199	462,375	148,988	52,321,355	11,669,574	44,768,560	39,022,897	606,630,512
2024	606,630,512	475,090	153,085	54,240,416	11,990,488	49,066,342	42,049,328	654,868,079
2025	654,868,079	488,155	157,294	56,039,540	12,320,226	53,776,711	45,488,342	709,768,367
2026	709,768,367	501,580	161,620	57,729,465	12,659,032	58,939,275	49,406,732	772,380,742
2027	772,380,742	515,373	166,065	59,218,682	13,007,156	64,597,445	53,881,566	843,966,789
2028	843,966,789	529,546	170,631	60,660,362	13,364,852	70,798,800	58,996,260	925,766,162
2029	925,766,162	544,108	175,324	61,894,438	13,732,386	77,583,077	64,843,250	1,019,311,005
2030	1,019,311,005	559,071	180,145	63,053,157	14,110,027	7,980,689	68,868,249	1,046,477,596
2031	1,046,477,596	574,446	185,099	63,930,227	14,498,052	8,234,159	70,733,214	1,075,253,249
2032	1,075,253,249	590,243	190,189	64,790,675	14,896,749	8,495,587	72,710,382	1,105,784,859
2033	1,105,784,859	606,475	195,420	65,616,275	15,306,409	8,765,222	74,810,534	1,138,248,855

Plan Year	MVA BOY	Administrative Expenses	Net 3(8)(c) Payments	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	MVA EOY
FY22	526,328,950	450,000	145,000	50,181,657	11,357,250	40,847,226	36,345,430	564,102,199
FY23	564,102,199	462,375	148,988	52,321,355	11,669,574	41,483,910	39,101,427	603,424,392
FY24	603,424,392	475,090	153,085	54,240,416	11,990,488	42,130,518	41,914,969	644,591,775
FY25	644,591,775	488,155	157,294	56,039,540	12,320,226	42,787,205	44,869,812	687,884,029
FY26	687,884,029	501,580	161,620	57,729,465	12,659,032	43,454,127	47,987,044	733,591,567
FY27	733,591,567	515,373	166,065	59,218,682	13,007,156	44,131,445	51,280,642	782,110,689
FY28	782,110,689	529,546	170,631	60,660,362	13,364,852	44,819,320	54,781,219	833,715,541
FY29	833,715,541	544,108	175,324	61,894,438	13,732,386	45,517,917	56,328,764	886,680,738
FY30	886,680,738	559,071	180,145	63,053,157	14,110,027	46,227,402	59,932,270	943,158,065
FY31	943,158,065	574,446	185,099	63,930,227	14,498,052	46,947,947	63,777,890	1,003,692,181
FY32	1,003,692,181	590,243	190,189	64,790,675	14,896,749	47,679,723	67,903,577	1,068,601,124
FY33	1,068,601,124	606,475	195,420	65,616,275	15,306,409	48,422,905	72,336,591	1,138,248,858

Only Employer Contributions change (which effects assets available to produce Investment Returns)

End of Year Assets equal to City plan

# City of Newton Pension Funding Discussion

## ***Risk & Sensitivity:***

- Extending the date of fully funding increases the risk that the City will not reach its goals, but only marginally so, and certainly within reasonable scenarios to meet statutory requirements
- So long as the projected rate of investment return is greater than the rate of growth of liability (true in all our scenarios), the math says to fund upfront (if the rate of return was 0%, there would be no incentive to fund)

## ***Return Required to Meet FY40 Statutory Funding:***

	<u>Funding Growth</u>	<u>Required Return</u>	<u>FY40 Pension % of City Budget</u>
City Plan	9.60%	-1.22%	24.7%
2031 Plan	4.34%	4.15%	10.2%
3.5% Plan	3.50%	4.66%	8.8%
2032 Plan	2.75%	5.06%	7.7%
2033 Plan	1.56%	5.62%	6.3%
2034 Plan	0.62%	6.01%	5.3%
2035 Plan	-0.04%	6.26%	4.7%

## ***Fully Funded Year Given Investment Returns:***

	<u>Funding Growth</u>	<u>Fully Funded Year for Given Investment Return</u>		
		<u>4.00%</u>	<u>5.00%</u>	<u>6.00%</u>
City Plan	9.60%	FY33	FY32	FY30
3.5% Plan	3.50%	>FY40	FY38	FY34
2032 Plan	2.75%	>FY40	>FY40	FY35
2033 Plan	1.56%	>FY40	>FY40	FY37

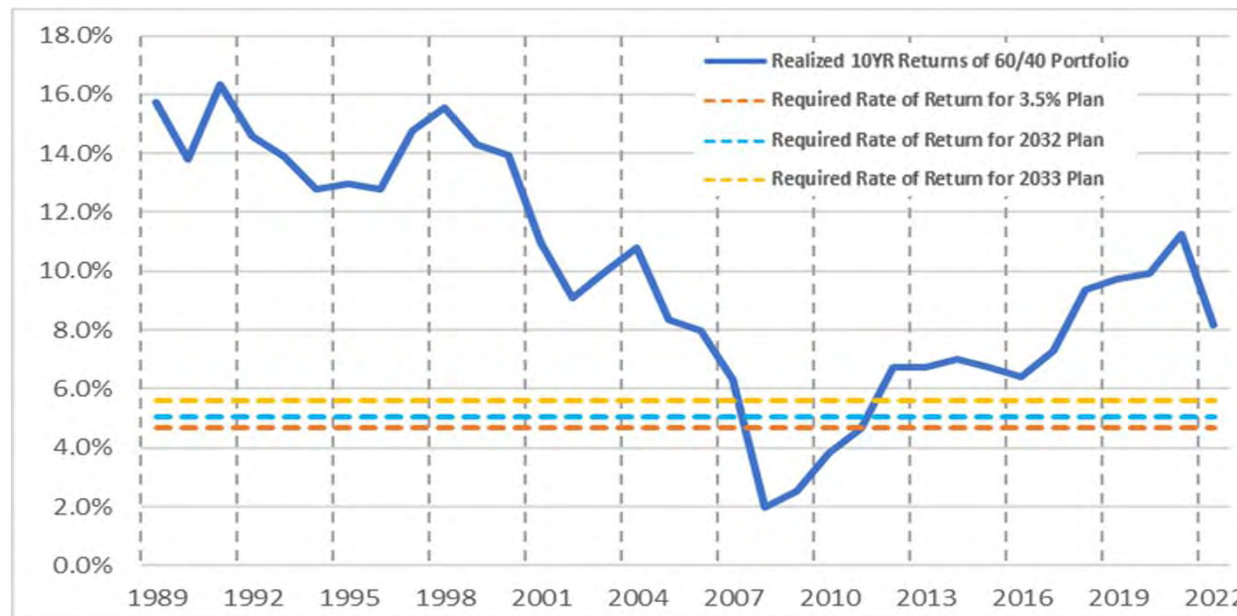


# City of Newton Pension Funding Discussion

## Reasonableness of Risk & Sensitivity:

- Looking back to 1980, a benchmark pension 60% stock / 40% bond portfolio would have produced insufficient returns to meet FY40 statutory funding in extension scenarios for only the four year period following the Global Financial Crisis (2008-2011).

## Cumulative Annual 10yr Returns of 60/40 Benchmark Portfolio & Required Rates of Return to Meet Statutory Requirement Under 3 Extension Scenarios:



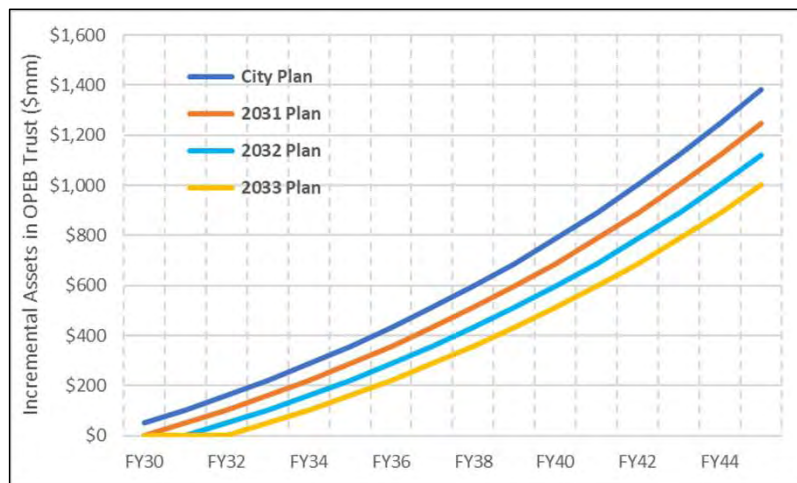
*Assuming a 16.5% decline in assets YTD (matching 60/40 benchmark portfolio), current estimated assets are still in-line with FY22 EOY assets as projected pre-pandemic*

Source: 60/40 performance calculated from JP Morgan Asset Management Data; Required rates of return under various plans as previously presented

# City of Newton Pension Funding Discussion

## ***OPEB Liabilities & Impact:***

- Understanding the City’s desire to start funding OPEB liabilities, shifting the date of meeting fully funded status in the City’s pension trust unquestionably further pushes out the date of allocating incremental resources to the OPEB trust
- While the City does not have the same statutory requirement to pre-fund OPEB, the City does have to meet these obligations
- There are contractual and legal variables that may effect OPEB obligations in the future that are not realistically possible with pension obligations



<b>Difference in FY45 OPEB Trust Assets (\$mm)</b>	
<b><i>City Plan vs Extension Plans</i></b>	
2031 Plan	\$136.1
2032 Plan	\$263.5
2033 Plan	\$382.6

*assumes constant \$50m of OPEB funding per year beginning in year when City pension obligation fully funded; Returns compound at 6.91%*

# City of Newton Pension Funding Discussion



March 2023 Update

# City of Newton Pension Funding Discussion

## *Updated for FY22 Returns*

- We updated this analysis for the ~15% decline in trust asset values that occurred FY22
- Note that we do not have any updated actuarial numbers; We can only analyze the numbers we do have
- We cannot emphasize this enough: ***The actuarial data will differ from this analysis***. This is intended to provide an order-of-magnitude update to our FY22 analysis (prior to the market declines) to provide some sense of the impact of those declines – across all scenarios
- This analysis simply holds all assumptions from the January 1, 2022 report constant – expenses, benefits paid, employee contributions, rates of investment returns – all are held constant; The same assumptions (ex-rate of funding growth) are the same for all scenarios
- This analysis, using market value of assets following a ~15% annual decline with no other change in assumptions or liability, is likely to present a more dire picture of ***all*** scenarios that will the actuarial analysis
- The pension trust had \$444.5mm market value of assets at FY22 year end; we are not including \$29.1mm of cash outside the trust in this analysis
- ***We reiterate that this analysis seeks to examine a range of scenarios that would provide much needed funding to current City services, yet still meet our obligations to City employees and future taxpayers in a fiscally prudent manner***
- ***No pensioner would be put at risk by changes of this magnitude; this is about allocating the burden between current and future Newton taxpayers***

# City of Newton Pension Funding Discussion

**Updated for FY22 Returns (holding all assumptions, ex-growth of funding, constant):**

- Holding all else constant, the current 9.6% City plan would fully fund in mid-2032 (this is likely a longer date than reality given the caveats already provided)
- The current City plan has peak funding equal to 14.8% in FY31; A full-funding FY35 plan at 4.75% rate of growth would have peak funding equal to 10.3% of the City budget

	Projected City Budget (\$000s)		"Freed-Up" Cash vs 9.6% Status Quo (\$000mm)					% of City Budget Consumed by Funding Pension Trust					
	City Budget	9.6% Funding	FY31 Plan	FY32 Plan	FY33 Plan	FY34 Plan	FY35 Plan	9.6% Funding	FY31 Plan	FY32 Plan	FY33 Plan	FY34 Plan	FY35 Plan
<i>Growth/Yr:</i>	3.50%		11.01%	8.79%	7.10%	5.72%	4.75%	9.60%	11.01%	8.79%	7.10%	5.72%	4.75%
FY22	462,670	40,847	-	-	-	-	-	8.8%	8.8%	8.8%	8.8%	8.8%	8.8%
FY23	478,863	44,769	(577)	332	1,022	1,584	1,980	9.3%	9.5%	9.3%	9.1%	9.0%	8.9%
FY24	495,623	49,066	(1,273)	725	2,214	3,410	4,244	9.9%	10.2%	9.8%	9.5%	9.2%	9.0%
FY25	512,970	53,777	(2,107)	1,187	3,598	5,507	6,824	10.5%	10.9%	10.3%	9.8%	9.4%	9.2%
FY26	530,924	58,939	(3,098)	1,728	5,199	7,907	9,755	11.1%	11.7%	10.8%	10.1%	9.6%	9.3%
FY27	549,506	64,597	(4,272)	2,359	7,042	10,645	13,076	11.8%	12.5%	11.3%	10.5%	9.8%	9.4%
FY28	568,739	70,799	(5,656)	3,091	9,158	13,758	16,828	12.4%	13.4%	11.9%	10.8%	10.0%	9.5%
FY29	588,645	77,595	(7,279)	3,938	11,579	17,290	21,060	13.2%	14.4%	12.5%	11.2%	10.2%	9.6%
FY30	609,247	85,045	(9,177)	4,915	14,341	21,288	25,822	14.0%	15.5%	13.2%	11.6%	10.5%	9.7%
FY31	630,571	93,209	(11,389)	6,037	17,486	25,804	31,172	14.8%	16.6%	13.8%	12.0%	10.7%	9.8%
FY32	652,641	62,961	(44,827)	(31,871)	(18,137)	(8,302)	(2,025)	9.6%	n/a	14.5%	12.4%	10.9%	10.0%
FY33	675,484	8,765	-	-	(78,090)	(66,576)	(59,309)	n/a	n/a	n/a	12.9%	11.2%	10.1%
FY34	699,125	9,043	-	-	-	(74,596)	(62,266)	n/a	n/a	n/a	n/a	12.0%	10.2%
FY35	723,595	9,330	-	-	-	-	(65,369)	n/a	n/a	n/a	n/a	n/a	10.3%
"Freed-Up" Cash Through 2031:			n/a	24,312	71,639	107,193	130,762						
Incremental Funding Required > 2031:			n/a	(31,871)	(96,227)	(149,474)	(188,968)						
Assumed Forgone Investment Returns:			n/a	(7,559)	(24,588)	(42,282)	(58,206)						

Assumes 3.5% annual growth in City budget

## City of Newton Pension Funding Discussion

### *Some Thoughts on COLAs:*

- The Retirement Board has clearly expressed their desire to increase the base off which 3% COLAs are calculated (currently \$12,000; COLA = \$360/yr)
- An incremental \$1,000 in COLA base equals an incremental \$30/yr per covered person; The Mayor's proposal to increase \$3,000 over 3 years culminates in \$30/yr per covered person over the status quo
- In 2018, the City's actuary estimated \$3.2m estimate in liability for a \$1,000 increase in COLA base, and \$8.7m future value cashflow impact; While we don't have enough information to calculate the current impact precisely, this is likely order-of-magnitude still accurate

### *2018 Analysis: Future Value 2030 Impact of a \$1k COLA increase*

	<u>w/ Deferred Inv Gains</u>	<u>w/o Deferred Inv Gains</u>
<b>\$12k COLA</b>	\$52.3	\$70.5
<b>\$13k COLA</b>	\$61.0	\$77.4
<b>\$1K COLA Impact FY30</b>	\$8.7	\$6.9