JUNE 30, 2015

ACTUARIAL VALUATION OF

THE POST RETIREMENT BENEFITS PLAN

OF

THE TOWN OF MIDDLETOWN

November 2015

buckconsultants

xerox

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SECTION I - OVERVIEW

The Town of Middletown ("The town") has engaged Buck Consultants, LLC (Buck) to prepare an actuarial valuation of their post-retirement benefits program as of June 30, 2015. This valuation was performed using employee census data, enrollment data, premiums, participant contributions and plan provision information provided by personnel of the Town of Middletown and by personnel at the Employees' Retirement System of Rhode Island ("ERSRI"). Buck did not audit these data, although they were reviewed for reasonability. The results of the valuation are dependent on the accuracy of the data.

The purposes of the valuation are to analyze the current funded position of the Town's post-retirement benefits program, determine the level of contributions necessary to assure sound funding and provide reporting and disclosure information for financial statements, governmental agencies and other interested parties.

Use of this report for any other purposes or by anyone other than the employer, the plan and their auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask Buck to review any statement you wish to make on the results contained in this report. Buck will not accept any liability for any such statement made without review by Buck. The attached pages should not be provided without a copy of this report in its entirety.

This valuation report contains information required by the Governmental Accounting Standards Board's ("GASB") Statements No.'s 43 and 45, respectively entitled "Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans" and "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions."

GASB has since published revisions to these requirements under GASB Statement No. 74 and 75. GASB 74 is effective for fiscal years beginning after June 15, 2016, and GASB 75 is effective for fiscal years beginning after June 15, 2017. Therefore, the plan will need to adopt the new standard for its financial statements for the year starting July 1, 2016, and the town will need to adopt the new standard for its financial statements for the year starting July 1, 2017 valuation (earlier adoption is permitted). We have not evaluated the impact of the new rules on the values presented in this valuation.

According to the rules set out in GASB No.'s 43 and 45, if the benefits are not prefunded, the rate earned by the General Asset Account must be used to select the discount rate used to measure the plan. However, if the benefits are pre-funded, the valuation should reflect the estimated long-term investment yield of the plan assets. The Town officially set up an OPEB trust fund in June 2011 through its trustee, Citizens Bank. The Town's trust fund is segregated and dedicated to providing OPEB benefits. Under the investment policy that was adopted for the Trust, the Town's personnel have informed us that the assets are invested in an asset mix that is ultimately expected to generate a 7.5% return on assets. We have not evaluated whether the 7.5% rate is consistent with the asset mix. Since the Town currently funds the Annual Required Contribution, the measurement is based on the 7.5% expected return for the Trust, rather than a rate based on expected return of the Town's General Asset Account.

We understand that the Town is currently in collective bargaining negotiations with the Teachers group. This valuation reflects the benefit design in effect as of the valuation date and does not reflect any anticipated plan changes as a result of collective bargaining negotiations. A summary of the benefit design reflected in this valuation is presented in Schedule B.

Section II provides a summary of the principal valuation results. Section VII provides a projection of funding amounts.

Assumption Changes from the Prior valuation

This valuation reflects a number of different actuarial assumptions from the final version of the June 30, 2013 valuation, released in July 2014. In particular:

- We modified our health care trend assumption to reflect lower rate increases for plans coordinating with Medicare (as opposed to those that do not). We also increased the ultimate trend level from 4.50% to 5.00% to reflect higher long-term inflation expectations. We have also seen an increase in trend in the market in some sectors, and based on that, do not expect that the cost trends will moderate to an ultimate level as quickly as we previously expected.

	Prior Assumption		Revised Assumption	
Fiscal Year Ending	Pre-Medicare	Post-Medicare	**Pre-Medicare**	**Post-Medicare**
FY2016 → FY2017	7.50%	6.00%	**7.50%**	**6.00%**
FY2017 → FY2018	7.00%	5.75%	**7.25%**	**5.90%**
FY2018 → FY2019	6.50%	5.50%	**7.00%**	**5.80%**
FY2019 → FY2020	6.00%	5.25%	**6.75%**	**5.70%**
FY2020 → FY2021	5.50%	5.00%	**6.50%**	**5.60%**
FY2021 → FY2022	5.00%	4.75%	**6.25%**	**5.50%**
FY2022 → FY2023	4.50%	4.50%	**6.00%**	**5.40%**
FY2023 → FY2024	4.50%	4.50%	**5.75%**	**5.30%**
FY2024 → FY2025	4.50%	4.50%	**5.50%**	**5.20%**
FY2025 → FY2026	4.50%	4.50%	**5.25%**	**5.10%**
FY2026 and later	4.50%	4.50%	**5.00%**	**5.00%**

- We revised our aging assumption based on data from the study, "Health Care Costs - From Birth to Death" prepared by Dale H. Yamamoto and sponsored by the Society of Actuaries. The data behind this assumption is significantly more up to date than data behind our previous age related morbidity assumption. The new aging assumption also reflects difference in cost by gender, which better models varying costs of covering individuals.
- We revised our retirement, termination, disability, and mortality rates to be consistent with those presented in the 2014 ERSRI Actuarial Experience Study[1] for both those participating the state pension plan and the Municipal Employees' Retirement System (MERS). The decrement rates summarized in Schedule B (e.g. retirement rates, termination rates) were modified to reflect the most recent experience study commissioned by ERSRI. We also reflected updated decrement rates based on an actuarial analysis provided by ERSRI's actuary, Gabriel Roeder & Smith, on June 10, 2015, which suggested modifications to the retirement decrement rates as a result of the revised pension eligibility criteria outlined in the 2015 Settlement Agreement between the State of Rhode Island and most groups representing ERSRI's pensioners.

[1] ERSRI Actuarial Experience Investigation for the Six-Year Period Ending June 30, 2013. May 18, 2014. https://d10k7k7mywg42z.cloudfront.net/assets/53b31b93f002ff2dde000019/ExpStudyRpt2014.pdf

We also updated the plan provisions for Town Hall employees retiring after June 30, 2014 and Custodial employees retiring after June 30, 2015. Details of the revised plan provisions are provided in Schedule B.

The economic and demographic assumptions used for financial accounting purposes were chosen by the plan sponsor with our advice. We believe these assumptions are reasonable for financial accounting purposes. The demographic assumptions used represent a reasonable estimate of future demographic experience of the plan participants. Given the assumptions selected, the costs and actuarial exhibits presented in this report have been prepared in accordance with the requirements of GASB 43 and 45.

While the actuary believes that the assumptions are reasonable for financial reporting purposes, it should be understood that there is a range of assumptions that could be deemed reasonable that would yield different results. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. In particular, given that the majority of individuals receive more costly benefits prior to Medicare eligibility, variations in assumed and actual retirement ages can have a dramatic impact on results. An analysis of the potential range of such future differences is beyond the scope of this report.

Our valuation was prepared in accordance with generally accepted actuarial principles and practices, and, to the best of our knowledge, fairly reflects the value of the benefits under the Plan as of June 30, 2015. The report was prepared under the supervision of Scott Bush, an Associate of the Society of Actuaries and a Member of the American Academy of Actuaries, who takes responsibility for the overall appropriateness of the analysis, assumptions and results. Mr. Bush has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Based on the assumptions used in the preparation of this report, and on the data furnished us, we certify that the costs and actuarial exhibits presented in this report have been prepared in accordance with Generally Accepted Accounting Practices and the requirements of GASB 43 and 45. I am available to answer questions about this report.

Respectfully Submitted,

BUCK CONSULTANTS, LLC

Scott Bush, *ASA, MAAA*
Director, Health & Productivity

November 20, 2015
Date

SECTION II - REQUIRED INFORMATION

		Full Prefunding 7.5%	Full Prefunding 7.5%
a)	Actuarial valuation date	June 30, 2013	June 30, 2015
b)	Actuarial Value of Assets	$ 4,018,150	$ 5,035,873
c)	Actuarial Accrued Liability		
	Active participants	$ 8,047,232	$ 6,813,203
	Retired participants	21,610,540	21,860,973
	Total AAL	$ 29,657,772	$ 28,674,176
d)	Unfunded Actuarial Liability "UAL" [c - b]	$ 25,639,622	$ 23,638,303
e)	Funded ratio [b / c]	13.5%	17.6%
f)	Annual covered payroll	$ 30,047,295	$ 25,239,094
g)	UAL as percentage of covered payroll	85.3%	93.7%
h)	Normal Cost for fiscal year beginning on valuation date (with interest)	$ 416,279	$ 486,586
i)	Amortization of UAL for fiscal year beginning on valuation date	$ 1,522,909	$ 1,487,985
j)	Interest to end of fiscal year	$ 114,218	$ 111,599
k)	Annual Required Contribution "ARC" for fiscal year beginning on valuation date [h + i + j]	$ 2,053,406	$ 2,086,170
l)	Expected benefit payments for fiscal year beginning on valuation date	$ 2,030,034	$ 2,020,430

SECTION III - MEDICAL PREMIUMS

Monthly Premiums effective July 1, 2015

Health and dental benefits are available to employees and retirees through a number of plans. We understand that the Town obtains health insurance coverage through the Rhode Island Interlocal Risk Management Trust, who administers the health risk sharing pool of dozens of municipalities and schools, with the rates provided to each participating entity based in part on the entity's demographic characteristics. The next pages indicate gross monthly rates per subscriber for popular plans in which current Town employees and/or retirees are enrolled. Note that the same basic plan name can refer to multiple plans/rates, each of which may represent different plan features that are offered to various cohorts of retirees.

Retired and disabled employees contribute a variable percentage of stated premiums, depending on the division they were employed under. In addition, the Town offers a Medicare Part B premium refund for members in the Fire division who retired between 1997 and 2007.

Department	Non-Medicare Plan	Covered Population	Individual	Family
Town Hall	HealthMate	Effective for all Town Hall retirees who retired prior to 7/1/2008	$593.61	$1,555.38
	HealthMate	Effective if retiring after 7/1/2008 (Hired prior to 7/1/2008)	$573.85	$1,504.11
	BCHP	Effective if retiring after 7/1/2008 (Hired on or after 7/1/2008)	$542.14	$1,420.81
	HealthMate Co-Ins	Effective if retiring on or after 7/1/2014	$542.02	$1,420.67
Police	Classic	Effective for Police retirees retiring prior to 7/1/2004	$653.76	$1,671.46
	HealthMate	Effective for Police retirees retiring prior to 7/1/2004	$593.61	$1,555.38
	HealthMate	Effective for Police retirees retiring after 7/1/2004 but prior to 7/1/07	$619.12	$1,623.33
	HealthMate	Effective for Police retirees retiring after 7/1/2007 (hired before 7/1/08)	$598.98	$1,570.35
	Blue Solutions HDHP**	Effective for Police retirees retiring after 7/1/2014	$479.00	$1,255.81
Fire	Classic	Effective for Fire retirees retiring before 7/1/1997 for life*	$653.76	$1,671.46
	HealthMate	Optional for Fire retirees retiring before 7/1/1997 for life*	$593.61	$1,555.38
	Classic	Effective for Fire retirees retiring 7/1/1997 – 7/1/2007	$653.76	$1,711.46
	HealthMate	Optional for Fire retirees retiring 7/1/1997 – 7/1/2007	$593.61	$1,555.38
	HealthMate	Effective for Fire retirees retiring 7/1/2007 – 2/1/2011 (Hired before 7/1/2007)	$581.56	$1,523.69
	BCHP	Effective for Fire retirees retiring 7/1/2007 – 2/1/2011 (Hired after 7/1/2007)	$550.43	$1,441.91
	HealthMate Co-Ins	Effective for Fire retirees retiring 2/1/2011 – 7/1/2014	$497.02	$1,301.65
	Blue Solutions HDHP**	Effective for Fire retirees retiring after 7/1/2014	$420.53	$1,101.32
	HealthMate	Optional for Fire retirees retiring after 7/1/2014	$506.96	$1,327.68
Public Works	Classic	Effective for PW retirees retiring prior to 7/1/2001	$815.78	$2,129.75
	HealthMate	Effective for PW retirees retiring after 7/1/2001	$599.36	$1,572.56
Teachers	Classic	Available only to Teachers retiring on prior to 7/1/2009	$634.28	$1,661.81
	HealthMate	Available to all current and future Teacher retirees	$545.95	$1,430,39
Administrators	Classic	Available to Administrators retiring on prior to 7/1/2009	$641.41	$1,680.49
	HealthMate	Available to all current and future Administrator retirees	$590.50	$1,547.11
Custodial	HealthMate		$590.52	$1,547.16
Clerical	HealthMate		$590.52	$1,547.16

* Firefighters who retired prior to 7/1/1997 are not required to enroll in Medicare, and may continue in the non-Medicare plan for the remainder of their lifetime.
** The Blue Solutions HDHP Plan is a Health Savings Account ("HSA") qualified plan. The Town is not making any contributions to HSA accounts for its retirees under the new arrangement.

Department	Medicare Plan	Covered Population	Individual
Police	Plan 65	Effective for **all** Police retirees at age 65	$169.31
Fire	Plan 65 w/ Major Med	Effective for Fire retirees retiring 7/1/97 – 7/1/07	$438.39
	Plan 65/skilled nursing	Effective for Fire retirees retiring after 7/1/07	No Data
	BlueChip for Medicare	Optional for Fire retirees retiring after 7/1/07	$293.00
Public Works	Plan 65	Effective for PW retirees retiring after 7/1/01; coverage to age 70 only	$169.31
Teachers	Plan 65	Effective for **all** Teacher retirees at age 65 (who are still entitled to coverage)	$426.28

SECTION IV - MEMBERSHIP DATA AND BREAKDOWN OF RESULTS

Number of Employees	Fire	Police	Public Works	Town Hall	Clerical & Custodial	Teachers & Admin	Total
Actives	27	39	17	31	36	163	313
Retirees and Spouses	82	96	5	1	7	66	257
Total	109	135	22	32	43	229	570
6/30/2015 Accrued Liability @ 7.5%							
Active	1,157,338	1,218,187	226,533	202,045	549,859	3,459,241	6,813,203
Retirees and Spouses	11,341,354	8,805,028	48,383	-	95,498	1,570,710	21,860,973
Total	12,498,692	10,023,215	274,916	202,045	645,357	5,029,951	28,674,176
FY 2016 Annual Required Contribution @ 7.5%							
Normal Cost	110,156	198,402	12,358	4,850	8,925	151,895	486,586
Amortization of UAL	648,593	520,133	14,266	10,485	33,489	261,019	1,487,985
Interest	48,645	39,010	1,070	786	2,512	19,576	111,599
Total	807,394	757,545	27,694	16,121	44,926	432,490	2,086,170
Expected Pay-as-you-go Costs	853,080	654,997	19,054	2,169	73,771	417,359	2,020,430

SECTION IV - MEMBERSHIP DATA AND BREAKDOWN OF RESULTS

Census data effective June 30, 2015

Number of Employees	Fire	Police	Public Works	Town Hall	Clerical & Custodial	Teachers & Admin	Total
Actives							
Count	27	39	17	31	36	163	313
Average Age	38.4	32.6	46.5	52.8	49.1	46.6	45.1
Average Service	8.0	5.6	15.5	15.1	15.3	14.0	12.8
Retirees							
Count	46	69	4	1	6	66	192
Average Age	63.1	62.5	69.8	64.0	59.2	64.0	63.2
Spouses							
Count	36	27	1	-	1	-	65
Average Age	59.2	50.5	54.0	-	64.0	-	55.6
Total							
Count	109	135	22	32	43	229	570

SECTION V - REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Funding Progress - 7.5%

Actuarial Valuation Date	(a) Actuarial Value of Assets	(b) Actuarial Accrued Liability (AAL)	(b) - (a) Unfunded AAL (UAL)	(a) / (b) Funded Ratio	Covered Payroll	[(b)-(a)] / (c) UAL as Percentage of Covered Payroll
July 1, 2007	1,583,115	23,136,012	21,552,897	6.84%	28,710,668	75.1%
June 30, 2009	2,500,343	32,387,961	29,887,618	7.72%	28,675,833	104.2%
June 30, 2011	3,338,311	29,463,119	26,124,808	11.33%	30,052,962	86.9%
June 30, 2013	4,018,150	29,657,772	25,639,622	13.55%	30,047,295	85.3%
June 30, 2015	5,035,873	28,674,176	23,638,303	17.56%	25,239,094	93.7%

SECTION VI - NET OPEB OBLIGATION

GASB Statement No. 45 requires the development of Annual OPEB Cost and Net OPEB Obligation (NOO). If the employer always makes contributions equal to the Annual Required Contribution, the Annual OPEB Cost is equal to the Annual Required Contribution and the Net OPEB Obligation is zero. If the employer contributes in excess of the Annual Required Contribution, the amounts will be reflected in a Net OPEB Asset (NOA). In June 2011, the Town officially set up an OPEB trust fund, into which it deposited amounts that it had budgeted and set aside previously in a special revenue fund. Those amounts are treated as contributions below. The development of the NOO is shown in the following table.

Development of OPEB Cost and Net OPEB Obligation (NOO)

Year Ending June 30	Annual Required Contribution	Interest on NOO	Amortization of NOO	Annual OPEB Cost (1) + (2) - (3)	Contribution	Change in NOO (4) - (5)	NOO Balance
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
2011	2,120,292	49,434	52,307	2,117,419	2,147,161	(29,742)	629,383
2012	2,034,497	(13,659)	(11,046)	2,031,884	2,216,771	(184,887)	444,496
2013	2,120,378	33,337	27,640	2,126,075	2,164,258	(38,183)	406,313
2014	2,053,406	30,473	25,944	2,057,935	2,387,492	(329,557)	76,756
2015	2,137,625	5,757	5,041	2,138,341	2,374,875	(236,534)	(159,778)
2016	2,086,170	(11,983)	(10,812)	2,084,999			

Note: Fiscal Year Ending 6/30/2010 - 6/30/2014 values are as published in audited financial statements.

SECTION VII - SCHEDULE OF EMPLOYER CONTRIBUTIONS

The Governmental Accounting Standards Board's Statement No. 45 "Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions" outlines various requirements of a funding schedule that will amortize the unfunded actuarial liability and cover normal costs. Amortization of the unfunded actuarial liability is to be based on a schedule that extends no longer than 30 years. The contribution towards the amortization of the unfunded actuarial liability may be made in level payments or in payments increasing at the same rate as salary increases. There is no requirement to actually fund the Annual Required Contribution, but the Town has elected to do so.

In the amortization schedules shown on the following page, the projections, based on standard roll forward techniques, assume that the Town's funding policy will continue to be based on the current Actuarial Cost Method, the Projected Unit Credit Method, rather than the actuarial cost method, the Entry Age Method, that will be required for calculations under GASB No.'s 74 and 75. The projections also assume that the amortization of the unfunded accrued liability is increasing from today's amount at 4.0% for 22 years starting with the valuation date. The contributions were computed assuming that the contribution is paid at the end of the fiscal year. The amounts shown assume that contributions in the amount of the Annual Required Contribution as defined under GASB No.'s 43 and 45 are made each year. The normal cost is expected to increase at the same rate as the assumed ultimate health care trend rate. Projected benefit payments reflect only the benefit for those individuals now employed or retired, not any future entrants.

Paragraph 12 of GASB 45 stipulates that valuations must be performed at least biennially. Thus, this valuation may be used for employer accounting purposes for fiscal year 2015 and 2016 only. The following projection amounts for Fiscal Years after 2017 are shown for long-term illustrative purposes only. Different calculations will be required for plan accounting purposes for fiscal year 2016 under GASB 74.

SECTION VII - SCHEDULE OF EMPLOYER CONTRIBUTIONS

Full Prefunding Basis at 7.5%

Fiscal Year Ending In		Normal Cost	Amortization of UAL*	Interest	ARC**	Estimated Benefit Payments
2015	***	435,012	1,583,826	118,787	2,137,625	2,374,875
2016		486,586	1,487,985	111,599	2,086,170	2,020,430
2017		510,915	1,547,505	116,063	2,174,483	2,078,317
2018		536,461	1,609,405	120,705	2,266,571	2,160,258
2019		563,284	1,673,781	125,534	2,362,599	2,228,592
2020		591,448	1,740,732	130,555	2,462,735	2,297,696
2021		621,020	1,810,361	135,777	2,567,158	2,368,507
2022		652,071	1,882,775	141,208	2,676,054	2,348,579
2023		684,675	1,958,086	146,856	2,789,617	2,448,078
2024		718,909	2,036,409	152,731	2,908,049	2,566,379
2025		754,854	2,117,865	158,840	3,031,559	2,569,634
2026		792,597	2,202,580	165,194	3,160,371	2,598,263
2027		832,227	2,290,683	171,801	3,294,711	2,607,378
2028		873,838	2,382,310	178,673	3,434,821	2,526,456
2029		917,530	2,477,602	185,820	3,580,952	2,524,261
2030		963,407	2,576,706	193,253	3,733,366	2,483,862
2031		1,011,577	2,679,774	200,983	3,892,334	2,520,320
2032		1,062,156	2,786,965	209,022	4,058,143	2,483,846
2033		1,115,264	2,898,444	217,383	4,231,091	2,476,073
2034		1,171,027	3,014,382	226,079	4,411,488	2,455,704
2035		1,229,578	3,134,957	235,122	4,599,657	2,512,942
2036		1,291,057	3,260,355	244,527	4,795,939	2,455,274
2037		1,355,610	3,390,769	254,308	5,000,687	2,545,174
2038		1,423,391	-	-	1,423,391	2,619,477
2039		1,494,561	-	-	1,494,561	2,821,737
2040		1,569,289	-	-	1,569,289	2,987,070
2041		1,647,753	-	-	1,647,753	3,169,374
2042		1,730,141	-	-	1,730,141	3,335,347
2043		1,816,648	-	-	1,816,648	3,505,678
2044		1,907,480	-	-	1,907,480	3,513,053
2045		2,002,854	-	-	2,002,854	3,578,119
2046		2,102,997	-	-	2,102,997	3,599,845
2047		2,208,147	-	-	2,208,147	3,675,026

* 30-year closed amortization basis, starting with fiscal year 2008 (22 years for FY 2016), increasing 4.0% per year.

** Assumes payment is made at the end of the fiscal year.

*** Results based on June 30, 2013 valuation; FY 2015 benefit payments are actual benefit payments.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS

TOWN OF MIDDLETOWN, ALL GROUPS

Interest: 7.50% per year, net of investment expenses

***Actuarial Cost Method*:** Projected Unit Credit. Benefits are attributed ratably to service from date of hire until the benefit eligibility date; the first eligibility for retiree medical.

Funding Method: Middletown is pre-funding the UAAL by contributing the annual required contribution annually for over the 22 year amortization period. The UAAL is not sufficient to cover the estimated cost of settling the plan's benefit obligations, but is appropriate to use to estimate the ARC for the purpose of prefunding the benefit.

Asset Valuation Method: Market value.

Healthcare Cost Trend Rate: Applies to stated medical plan premiums, per capita medical costs, and Medicare Part B premium.

Year	Pre-Medicare	Post-Medicare/ Medicare Part B Premium
FY2016 → FY2017	7.50%	6.00%
FY2017 → FY2018	7.25%	5.90%
FY2018 → FY2019	7.00%	5.80%
FY2019 → FY2020	6.75%	5.70%
FY2020 → FY2021	6.50%	5.60%
FY2021 → FY2022	6.25%	5.50%
FY2022 → FY2023	6.00%	5.40%
FY2023 → FY2024	5.75%	5.30%
FY2024 → FY2025	5.50%	5.20%
FY2025 → FY2026	5.25%	5.10%
FY2026 and later	5.00%	5.00%

Dental costs are assumed to increase by 5.0% per year.

The initial trend rates are developed using Buck's National Health Care Trend Survey. The survey gathers information of trend expectations for the coming year from various insurers and PBMs. These trends are broken out by drug and medical, as well type of coverage (e.g. PPO, HMO, POS). We selected plans that most closely match Middletown's benefits and blended the drug trend to the corresponding medical trend to create the composite initial trends. The ultimate trend is developed based on a building block approach which considers CPI, GDP, and Technology growth. We looked at projections published by CMS as well as considering the latest Getzen model as published by the Society of Actuaries to come up with these expectations.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS

TOWN OF MIDDLETOWN, ALL GROUPS

Administrative Costs:	All administrative costs are reflected in the premium information provided in Section III.
***Amortization Period*:**	22-year level percent of pay assuming 4.0% increase on a closed basis. The amortization period is a specific number of years that is counted from one date, declining to zero with the passage of time.
Valuation Cycle:	Valuation is performed every other year, and is used to determine Annual Required Contribution amount for 2 years beginning with the valuation date.
Employee Contributions:	Fire employees' contributions to the trust are not directly reflected in the valuation. The Annual Required Contribution amount is assumed to reflect overall contribution amount for the fiscal year, with the Town's required Normal Cost contribution to be directly reduced by any contribution made by the employees. This treatment is consistent with the unit credit actuarial cost method.
Pre-Age 65 Retirees:	Current retirees who are under age 65 are assumed to remain in their current medical plan until age 65. Current active employees who are assumed to retire prior to age 65 are valued based on the premium applicable to future retiree coverage. For future Fire retirees, we assumed 100% would participate in the Blue Solutions HDHP plan, since it is the lower cost plan. Spouses are assumed to cost the same as a retiree at the same age and gender. The cost for dependent children is assumed to be 20% of the individual cost. Dependent children as assumed to be covered as long as the spouse is covered.
Post-Age 65 Retirees:	Current retirees over age 65 remain in their current medical plan until death or termination of coverage for purposes of measuring their costs and contributions. It is assumed that current retirees under age 65 and future retirees will become eligible for Medicare when they reach age 65, except as noted.
Medical Plan Costs:	We understand that the Town accesses health benefits through the Rhode Island Interlocal Risk Management Trust. For valuation purposes, the cost of coverage for non-Medicare plans was based on the stated premium for individual coverage adjusted for the age of the participant, based on the actual age distribution of active employees and non-Medicare eligible retirees covered for medical care. The cost of coverage for Medicare plans was based on the stated premium adjusted for the age of the participant, based on the actual age distribution of Medicare retirees. Employee cost sharing is based on current individual and family rates.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS

TOWN OF MIDDLETOWN, ALL GROUPS

Morbidity Factors:

Per capita costs are adjusted to reflect the relative cost of health coverage based on a retiree's age and sex. Representative relative values, relative to a male aged 65 are presented in the table below:

Age	Male	Female
25	0.1450	0.2984
30	0.1800	0.4251
35	0.2253	0.4631
40	0.2843	0.4639
45	0.3524	0.4911
50	0.4602	0.5723
55	0.6038	0.6667
60	0.7779	0.7776
65	1.0000	0.9107
70	1.0894	1.0178
75	1.1700	1.1024
80	1.2283	1.1652
85	1.2372	1.2087
90	1.2143	1.2208
95	1.1975	1.1718
100	1.1816	1.0742

The age/sex health care cost relativities implemented in this valuation reflect associated differences in medical costs are based on data from the recent study, "Health Care Costs - From Birth to Death" prepared by Dale H. Yamamoto and sponsored by the Society of Actuaries.

Medicare Part B Premium:

Premium amount for fiscal year 2015-2016 is assumed to be $104.90 per month; this is the Medicare Part B premium in effect for most Medicare beneficiaries in 2015 and 2016[2].

Dental Plan Costs:

Dental plan costs are based on the stated premium individual premium of $30.63 per month. The premiums are assumed to be self-supporting, with costs that do not vary by age.

Spouses are assumed to cost the same as the retiree. The cost for dependent children is assumed to be 20% of the individual cost. Dependent children as assumed to be covered as long as the spouse is covered.

[2] Other Medicare beneficiaries who will pay a higher Medicare Part B premium in 2016 include those who do not have their Medicare Part B premium deducted from their Social Security checks, those who have taxable income of $85,000 or more ($170,000 or more if filing jointly with spouse) and new enrollees in 2016. The valuation does not reflect the higher Medicare Part B premium for calendar year 2016 as recently announced, even for individuals who are newly turned age 65 during 2016.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS

TOWN OF MIDDLETOWN, ALL GROUPS

Marital Status:

80% of employees are assumed to have a covered spouse at retirement, except as noted. Teachers and Administrators are not assumed to cover their spouses as retirees must pay 100% of the stated premium for dependent coverage. Wives are assumed to be three years younger than their husbands. These assumptions were developed using actuarial judgment based on observations of dependent coverage over a variety of plans.

***Participation*:**

100% of police retirees are assumed to elect coverage since their coverage is very inexpensive (only 2.5% of premium for future retirees). For fire retirees, see below. 80% of other town employees (Town Hall and Public Works) are assumed to participate in the retiree medical plan, except as noted.

For Fire retirees, we modified our participation assumption for Pre-Medicare retirees to be a function of the Single Blue Solutions HDHP Plan premium paid by Middletown. Representative rates are shown in the table below:

Fiscal Year	Individual Initial Premium Threshold	Projected HDHP Plan Individual Annual Premium	Portion of Premium Paid by Middletown	Percentage of Retirees Covered pre-Medicare
FY 2015	$5,034	$5,034	$5,034	100%
FY 2020	$5,558	$6,646	$6,102	97%
FY 2025	$6,136	$8,893	$7,515	95%
FY 2030	$6,775	$11,377	$9,076	93%
FY 2035	$7,480	$14,520	$11,000	91%
FY 2040	$8,259	$18,532	$13,396	90%
FY 2045	$9,118	$23,652	$16,385	88%
FY 2050	$10,067	$30,186	$20,127	87%

90% of Teachers are assumed to elect medical coverage, while 10% are assumed to take the $2,500 buyback option. 90% of future Clerical & Custodial School retirees are assumed to elect medical coverage, of whom 100% are expected to also elect dental insurance.

Teaching Assistants and Library Employees are not eligible for postretirement medical coverage and are therefore assumed to not elect coverage.

The various participation assumptions described above were derived using actuarial judgment based on observations of participation levels given contribution levels over a variety of plans.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS

TOWN OF MIDDLETOWN, TOWN HALL, PUBLIC WORKS AND CLERICAL/CUSTODIAL EMPLOYEES

SEPARATIONS FROM ACTIVE SERVICE: All employees are assumed to become disabled or withdraw from active service based on the MERS General Employees' rate tables published in the 2014 ERSRI Experience Study.

Employees are assumed to retire at a flat rate of 25% each year once eligible for an unreduced ERSRI pension benefit as determined by the earlier of:

- 65 years of age and 30 years of service;
- 64 years of age and 31 years of service;
- 63 years of age and 32 years of service;
- 62 years of age and 33 years of service;
- The employee's RIRSA date

The 25% becomes 50% in the first year of eligibility if eligibility for an unreduced pension benefit occurs at age 65 or at 25 years of service.

In some cases, the first eligibility date was furnished by ERSRI. In other cases, the RIRSA date was calculated by Buck based on the employee's RIRSA retirement schedule (1-4 for General employees). Employees who are Middletown pension plan participants are also assumed to follow the same decrement schedule as outlined in the 2015 Pension Settlement Agreement; the RIRSA date for these employees was calculated by Buck for the purpose of assigning retirement decrement rates consistent with the Town pension plan.

Retirement rates are assumed to apply when the employee becomes eligible for both retiree medical coverage and for an unreduced pension. Otherwise, withdrawal rates are assumed to apply.

PRE-RETIREMENT MORTALITY: 75% of the RP-2000 Combined tables with white-collar adjustment for males and females, consistent with the pre-retirement mortality assumption recommended in the 2014 ERSRI Experience Study. We believe it is reasonable to not apply an explicit mortality improvement scale to the base tables, since doing so would not have a significant effect on the valuation results.

POST-RETIREMENT MORTALITY: 115% (95%) of RP-2000 Combined Healthy for Males (Females) with White Collar adjustments, projected with Scale AA from 2000; consistent with the post-retirement mortality assumption recommended in the 2014 ERSRI Experience Study.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS

TOWN OF MIDDLETOWN, POLICE AND FIRE

SEPARATIONS FROM ACTIVE SERVICE: All employees are assumed to become disabled or withdraw from active service based on the MERS General Employees' rate tables published in the 2014 ERSRI Experience Study.

Employees participating in the Town pension plan are assumed to retire using the following decrement rates, consistent with Middletown's pension valuation.

Years of Service	Rates of Retirement
Less than 20	0%
20	25%
21-24	50%
25 or more	100%

In addition to the table above, 100% of employees are assumed to retire at age 58.

Employees participating in the state pension plans are assumed to retire become disabled or withdraw from active service based on the MERS Police & Fire rate tables published in the 2014 ERSRI Experience Study.

Retirement rates are assumed to apply when the employee becomes eligible for both retiree medical coverage and for an unreduced pension. Otherwise, withdrawal rates are assumed to apply.

PRE-RETIREMENT MORTALITY: 75% of the RP-2000 Combined tables with white-collar adjustment for males and females, consistent with the pre-retirement mortality assumption recommended in the 2014 ERSRI Experience Study. We believe it is reasonable to not apply an explicit mortality improvement scale to the base tables, since doing so would not have a significant effect on the valuation results.

POST-RETIREMENT MORTALITY: 115% (95%) of RP-2000 Combined Healthy for Males (Females) with White Collar adjustments, projected with Scale AA from 2000; consistent with the post-retirement mortality assumption recommended in the 2014 ERSRI Experience Study.

SCHEDULE A - ACTUARIAL ASSUMPTIONS AND METHODS

TOWN OF MIDDLETOWN, TEACHERS AND ADMINISTRATORS

SEPARATIONS FROM ACTIVE SERVICE: All employees are assumed to become disabled or withdraw from active service based on the ERS General Employees' rate tables published in the 2014 ERSRI Experience Study.

Employees are assumed to retire at a flat rate of 25% each year once eligible for an unreduced ERSRI pension benefit as determined by the earlier of:

- 65 years of age and 30 years of service;
- 64 years of age and 31 years of service;
- 63 years of age and 32 years of service;
- 62 years of age and 33 years of service;
- The employee's RIRSA date

The 25% becomes 60% in the first year of eligibility if eligibility for an unreduced pension benefit occurs at age 65 or at 25 years of service.

In some cases, the first eligibility date was furnished by ERSRI. In other cases, the RIRSA date was calculated by Buck based on the employee's RIRSA retirement schedule (1-4 for General employees).

Retirement rates are assumed to apply when the employee becomes eligible for both retiree medical coverage and for an unreduced pension. Otherwise, withdrawal rates are assumed to apply.

PRE-RETIREMENT MORTALITY: 50% of the RP-2000 Combined tables with white-collar adjustment for males and females, consistent with the pre-retirement mortality assumption recommended in the 2014 ERSRI Experience Study. We believe it is reasonable to not apply an explicit mortality improvement scale to the base tables, since doing so would not have a significant effect on the valuation results.

POST-RETIREMENT MORTALITY: 97% of rates contained in a Gabriel Roeder Smith & Company ("GRS") Table based on male teacher experience, projected with Scale AA from 2000, consistent with the post-retirement mortality assumption recommended 2014 ERSRI Experience Study. 92% of rates contained in a Gabriel Roeder Smith & Company ("GRS") Table based on female teacher experience, projected with Scale AA from 2000, consistent with the post-retirement mortality assumption recommended 2014 ERSRI Experience Study.

SCHEDULE B - SUMMARY OF PROGRAM PROVISIONS

Retiree Health Insurance:	Retired and disabled employees pay a variable portion of their post-retirement medical costs, which varies by division:
Division	*Retiree Medical Coverage Provided by Town*
Town Hall	For retirements prior to July 1, 2007, retirees pay 80% of the stated premium for individual or family coverage to age 65. For retirements on or after July 1, 2007, retirees pay 50% of the premium for individual or family coverage to age 65. For retirements after July 1 2014, retiree coverage is available only through the HealthMate Coinsurance plan. Dental coverage is available with the retiree paying full cost. There is no coverage after age 65.
Police	Prior to age 65, Medical benefits are non-contributory for retired Police who retired prior to July 1, 2014. Police who retire after July 1, 2014 will pay 2.5% of the Pre-Medicare premium. The retiree retains the Pre-Medicare medical benefit coverage the retiree had as an active employee, except that work-related injury coverage is eliminated. After age 65, all retirees (and spouses if applicable) will transfer to coverage under Plan 65. Coverage for post-65 retirees is non-contributory. Retirees have an option to purchase an optional Blue Medicare Rx benefit in addition to the Plan 65 medical coverage. The additional amount the retiree pays for this coverage is assumed to fully cover the additional cost of the coverage. Dental coverage is available with the retiree paying full cost.
Fire	For retirements after February 1, 2011, but prior to July 1, 2014, retirees pay 20% of the stated premium for coverage of the medical benefit the retiree had as an active employee, except that work related injury coverage is eliminated. For retirements after July 1, 2014, the retiree may choose to elect coverage under either the HealthMate Coinsurance Plan or the HDHP Plan. Retirees pay 50% of the cost of coverage above the premium threshold ($5,035 for Single coverage and $13,185 for Family coverage in FY2015, increasing by 2% per year thereafter). After age 65, the retiree (and spouse, if applicable) will transfer to coverage under Plan 65. Certain retired fire fighters are grandfathered either in continuing in the non-Medicare coverage for life, or for reimbursement of their Medicare Part B premiums once they enroll in Medicare Part B. Dental coverage is available with the retiree paying full cost.
	In addition to contributions during retirement, effective February 2011, all fire fighters will contribute 1.5% of their base pay to the OPEB trust.

SCHEDULE B - SUMMARY OF PROGRAM PROVISIONS

Public Works	The retiree receives only individual coverage. Retirees pay 35% of the stated premiums to age 65, followed by 50% of Plan 65 premiums until age 70. Dental coverage is available with the retiree paying full cost. There are 2 special cases where coverage until age 65 is covered by the town for both the employee and spouse. In addition, there is one current Medicare eligible who receives Town-subsidized coverage for life.
Clerical	If the retirement date is on or after July 1, 2003, the retiree receives the medical and dental coverage in effect at the date of retirement for 5 years or to age 65, whichever is first (the last two years of this coverage is individual only). Clerical retirees pay the contribution percentage applicable when they retired. All future retirees will pay 20% of stated premium in retirement. No rebate was reflected for clerical retirees who waive subsidized coverage.
Custodial	If the retirement date is on or after July 1, 2015, the retiree receives the medical and coverage in effect at the date of retirement for 3 years, or to age 65, whichever is first (the last two years of this coverage is individual only). Custodial retirees pay the contribution percentage applicable when they retired. All future retirees will pay 20% of stated premium in retirement. No rebate was reflected for custodial retirees who waive subsidized coverage.
Teachers	Teachers (including Administrators) receive Town-paid medical coverage to the latter of the 10th anniversary of their retirement and attainment of age 65, subject to the following required contributions: o 3% of premium for individual coverage for the first 7 years of retirement o 20% of premium for individual coverage for the next 3 years of retirement o 50% of premiums for individual coverage until age 65, death or Medicare eligibility. Dependent coverage is available at 100% of stated premium.
Teaching Assistants	Eligible for COBRA coverage only upon retirement. The COBRA rate is assumed to be self-supporting.
Other	Grandfather provisions apply in certain groups.

SCHEDULE B - SUMMARY OF PROGRAM PROVISIONS

Dependent Coverage:	Town subsidized coverage ceases upon the death of the retiree.
Administrative Costs:	All administrative costs are reflected in the premiums disclosed in Section III.
Retirement Eligibility:	Police and Fire employees - 20 years of service.
	Town Hall employees - 25 years of continuous service, effective July 1, 2014. Previously, required 20 years of service.
	Public Works employees - age 60 with 10 years of service or 30 years of service. In addition, in order to qualify for health coverage, must have 10 years of continuous service and be age 60.
	Library employees – No retiree medical coverage other than COBRA.
	Teachers and Administrators - In order to qualify for a pension, based on the individual's RIRSA date. In order to qualify for medical, must either terminate with a pension or after age 55 with 15 years of service.
	Teaching assistants – No retiree medical coverage other than COBRA.
	Other School employees - 15 years of service.
Ordinary Disability Eligibility:	10 years of service.

SCHEDULE C - CONSIDERATIONS OF HEALTH CARE REFORM

We have not identified any specific provisions of the Affordable Care Act ("ACA") that would be expected to have a significant impact on the measured obligation. As additional guidance on the legislation is issued, we will continue to monitor any potential impacts. We estimated the impact of the High Cost Employer Health Plans on the Town sponsored coverage and included it in the liabilities. The estimate was based on the stated premiums, and reflected a 3.0% assumed CPI rate. The 3.0% CPI rate is based on the Buck 2015 Capital Market Assumptions for inflation over a 30-year time horizon.