JEFFREY A. BROWN, J.D., L.L.M., Q.P.A.
PRESIDENT

COMPENSATION PLANNING INC.

December 29, 2015

Mr. Matt Wojcik
Town Administrator
343 Highland Road
Tiverton, Rhode Island 02878

Dear Matt:

An actuarial valuation of the Town of Tiverton Police Department Pension Plan (Plan) was performed as of July 1, 2015. The purpose of the valuation is to:

- Compare the current value of Trust assets with accrued liabilities to assess the funded condition of the Pension Plan,
- Compute the Town's recommended contribution rate for the Fiscal Year ending June 30, 2016, and
- Provide information which may be required by the Town's auditors under GASB 67/68.

This report contains additional pages (pp. 16-18) that did not appear in the original report prepared in August. These new pages set forth information required by GASB Statement 68, as requested by the auditor. This valuation has been conducted in accordance with generally accepted actuarial principles and practices. The employee data and Plan asset data was provided by the plan administrator. This data has been reviewed for reasonableness, but no attempt has been made to audit such information. Employee data is snapshot data as of the valuation date.

The valuation was based on the provisions of the Plan as amended through the beginning of the Plan Year. Each actuarial assumption used in this valuation is reasonably related to the past experience of the Plan and represents reasonable expectations of future experience under the Plan. The Plan trustees with advice and approval of the actuary set the assumptions and methods for the valuation.

This report is only valid when presented in its entirety and is intended for use by the Trustees. It must not be reproduced without permission or used for any purpose other than as stated herein. This report is only valid when presented in its entirety. It must not be reproduced without permission.

Neither the signing actuary nor the firm of McCloud & Associates has a conflict of interest that would impair the objectivity of our work. The undersigned meets the Qualification Standards for Prescribed Statements of Actuarial Opinion promulgated by the American Academy of Actuaries.

Respectfully submitted,

Traci M. Christian, EA, MAAA
Enrollment Number: 14-06694
McCloud & Associates, Inc.

Jeffrey A. Brown
JD, LLM, QPA, ERPA
Compensation Planning

Benefit Provision Changes

There were no changes to the Plan provisions.

Assumption and Method Changes

There were no changes to the assumptions or methods.

Participant Data

	July 1, 2014	July 1, 2015
Active Members	29	30
Active Member Payroll	$1,454,719	$1,716,424
Average Member Payroll	50,163	57,214
Retirees and Beneficiaries	26	26
Annual Pensions	$699,492	$711,723

Financial Data

Market Value of Assets	$8,848,568	$9,778,266

Conclusion and Comments

The unfunded accrued liabilities are amortized over a closed amortization period scheduled to end June 30, 2037.

The long term viability of this plan is dependent on adherence to funding the actuarial recommended contribution each year, including the Funding Improvement Plan, which stipulates that the town will contribute at least $700,000 to the Plan each year, at least through the year ended June 30, 2020. Actual contributions in the last few years have been greater than the recommended contribution rate and are expected to remain so for at least another 5 years in accordance with the Funding Improvement Plan.

Section Two:

Actuarial Calculations – Funding

Unfunded Actuarial Accrued Liability

	July 1, 2014	July 1, 2015
Actuarial Accrued Liability	$14,002,853	$14,604,337
Actuarial Value of Assets	$8,848,568	$9,778,266
Unfunded Actuarial Accrued liability	$5,154,285	$4,826,071
Funded Status of the Plan	63.2%	67.0%

Computed Contribution Rates

The contribution rates shown below are expressed as percents of active member payroll (under Normal Retirement Age.).

The normal cost can be viewed as the long-term ongoing cost of the Pension Plan.

Accrued liabilities exceeded accrued assets as of July 1, 2015. The excess was amortized as a closed amortization period of 22 years. This amortization charge was applied to the recommended contribution.

Contribution Recommendation for Fiscal Year Beginning July 1, 2015:

	Dollar Amount	As a Percent Of Current Payroll
Total Normal Cost	$322,696	18.8%
Amortization of Unfunded Liability	317,389	18.5%
Interest to End of Fiscal Year	35,133	2.0%
Total Computed Contribution	675,218	39.3%
Expected Member portion	(171,642)	(10.0)%
Town's Net Computed Contribution Rate	$503,576	29.3%

Town of Tiverton Police Department Pension Plan
Projection of Funded Status and Recommended Contributions

Year Beginning	Employer Normal Cost	Amortization of Unfunded	Recommended Contribution	Expected Contribution	Payroll	Contribution as a % of Payroll	Benefit Payments	Assets	Accrued Liability	Unfunded Liability	Funded Ratio
2015	151,054	317,389	503,576	700,000	1,716,424	40.8%	763,851	9,778,266	14,604,337	4,826,071	67.0%
2016	156,340	313,841	505,446	700,000	1,776,499	39.4%	824,460	10,623,470	15,254,065	4,630,596	69.6%
2017	161,812	309,836	507,022	700,000	1,838,676	38.1%	912,707	11,475,414	15,901,782	4,426,368	72.2%
2018	167,476	305,294	508,227	700,000	1,903,030	36.8%	935,188	12,306,149	16,519,089	4,212,939	74.5%
2019	173,337	300,116	508,963	700,000	1,969,636	35.5%	970,760	13,182,542	17,172,375	3,989,832	76.8%
2020	179,404	294,182	509,106	509,106	2,038,573	25.0%	1,041,479	14,094,669	17,851,213	3,756,544	79.0%
2021	185,683	303,542	525,918	525,918	2,109,923	24.9%	1,162,456	14,810,934	18,521,526	3,710,591	80.0%
2022	192,182	313,153	543,236	543,236	2,183,771	24.9%	1,219,465	15,480,251	19,131,019	3,650,768	80.9%
2023	198,909	323,013	561,066	561,066	2,260,203	24.8%	1,261,543	16,166,248	19,742,002	3,575,753	81.9%
2024	205,871	333,118	579,412	579,412	2,339,310	24.8%	1,293,762	16,886,468	20,370,599	3,484,131	82.9%
2025	213,076	343,458	598,274	598,274	2,421,186	24.7%	1,443,529	17,654,519	21,028,903	3,374,384	84.0%
2026	220,534	354,022	617,647	617,647	2,505,927	24.6%	1,456,950	18,352,854	21,597,744	3,244,890	85.0%
2027	228,252	364,790	637,520	637,520	2,593,635	24.6%	1,470,378	19,118,531	22,212,450	3,093,919	86.1%
2028	236,241	375,732	657,872	657,872	2,684,412	24.5%	1,494,955	19,957,420	22,877,053	2,919,633	87.2%
2029	244,510	386,806	678,665	678,665	2,778,366	24.4%	1,517,545	20,864,261	23,584,350	2,720,089	88.5%
2030	253,067	397,945	699,839	699,839	2,875,609	24.3%	1,542,268	21,846,997	24,340,245	2,493,248	89.8%
2031	261,925	409,047	721,294	721,294	2,976,255	24.2%	1,546,622	22,909,847	25,146,836	2,236,990	91.1%
2032	271,092	419,940	742,860	742,860	3,080,424	24.1%	1,586,379	24,080,594	26,029,745	1,949,151	92.5%
2033	280,580	430,327	764,226	764,226	3,188,239	24.0%	1,597,600	25,331,081	26,958,678	1,627,596	94.0%
2034	290,401	439,609	784,760	784,760	3,299,827	23.8%	1,598,065	26,697,066	27,967,428	1,270,362	95.5%
2035	300,565	446,306	802,886	802,886	3,415,321	23.5%	1,583,321	28,197,899	29,073,905	876,006	97.0%
2036	311,085	444,626	812,389	812,389	3,534,858	23.0%	1,581,273	29,857,380	30,302,006	444,626	98.5%
2037	321,972		346,120	346,120	3,658,578	9.5%	1,643,106	31,665,708	31,648,499	(17,209)	100.1%
2038	333,242		358,235	358,235	3,786,628	9.5%	1,676,287	33,074,591	33,056,832	(17,759)	100.1%
2039	344,905		370,773	370,773	3,919,160	9.5%	1,712,444	34,580,569	34,562,244	(18,325)	100.1%
2040	356,977		383,750	383,750	4,056,330	9.5%	1,731,438	36,188,741	36,169,834	(18,907)	100.1%

The results presented here are ESTIMATES. They are based on the data, assumptions, methods and plan provisions outlined in this report unless otherwise noted. These results are for **discussion purposes only** and should not be relied upon for puposes of making cash contributions to the Plan nor for any other purposes.

Recommended Town Contributions

Year Ended June 30	Computed Contribution	% of Payroll Contribution Rates
2008	597,226	44.6
2009	711,225	47.0
2010	1,023,362	59.6
2011	1,067,884	60.6
2012	682,092	43.0
2013	590,573	40.1
2014	544,334	37.6
2015	536,634	36.9
2016	**503,576**	**29.3**

History of Assets and Accrued Liabilities

Valuation Date July 1	Valuation Assets	Actuarial Accrued Liabilities	Funded Ratio	Unfunded Actuarial Accrued Liabilities
2006	6,093,822	10,704,892	56.9	4,611,070
2007	7,182,410	11,322,225	63.4	4,139,815
2008	6,925,601	12,155,294	57.0	5,229,693
2009	5,732,961	14,242,648	40.3	8,509,687
2010	5,632,552	14,529,430	38.8	8,896,878
2011	6,959,498	12,858,385	54.1	5,898,887
2012	6,694,416	13,228,181	50.6	6,533,765
2013	7,465,375	13,616,401	54.8	6,151,026
2014	8,848,568	14,002,853	63.2	5,154,285
2015	**9,778,266**	**14,604,337**	**67.0**	**4,826,071**

Section Three:

Retirement Plan Benefit Provisions

Benefit Provision Summary

Effective Date
July 1, 1978

Eligibility
All employees are eligible after completing their probationary service.

Monthly Compensation
Compensation includes regular base pay including longevity and incentive earnings.

Credited Service
Service measured from the date of employment (or one year prior to completing probationary
service, if later.)

Final Average Earnings
Average of the highest three consecutive years of total Monthly Compensation in a ten year period prior to retirement or termination of employment.

Normal Retirement Benefit
For retirements on or after June 1, 2000, a monthly benefit equal to 2.5% of Final Average Earnings multiplied by Credited Service for the first 20 years of Service, Plus 2% of Final Average Earnings multiplied by Credited Service in excess of 20 years subject to a maximum benefit of 75% of Final Average Earnings.

Normal Form
The Normal Form of payment is a Life Annuity.

Normal Retirement Date
All Members hired after June 30, 2007 must have at least 10 years of Credited Service or be at least 65 with 5 years of Credited Service in order to be able to retire
Members who satisfy the previous sentence or who were hired before July 1, 2007 may retire in accordance with the following rules:
A Member hired prior to July 1, 2012 may retire, with full benefits, on the earlier of his 55th birthday or upon completion of 20 years of Credited Service.
A Member hired on or after July 1, 2012 may retire, with full benefits, upon the earlier of his 55th birthday or upon completion of 25 years of Credited Service.

Disability Retirement
If the disability was duty-related, the benefit is 66 2/3% of Final Average Compensation. The non-duty-related Disability Benefit is 50% of final Compensation.

Pre-Retirement Death Benefit
The Beneficiary of a Participant who dies shall receive a benefit of $400 for each year of service, subject to a minimum of $2000 and a maximum of $8,000. After retirement, the benefit is reduced by 25% per year but not less than $2,000.

Vesting

100% after 10 years.

Pre-Retirement Death Benefit

50% of Accrued Benefit at time of death payable to spouse until death or remarriage with additional benefits payable to surviving children under age 18 if no spouse survives.

Employee Contributions

10% of compensation

Post-Retirement COLA

Base Benefit increased 1% of the compensation each year for the position from which they retired. These increases are cumulative, not compounded.

Section Four:

Actuarial Assumptions And Methods

Actuarial Assumptions

Economic Assumptions

(i) Interest Rate	7.5% (net of administration expenses paid by the Trust)
(ii) Salary Increases	3.5%

Demographic Assumptions

(i) Mortality	RP 2000 Mortality Table for males and females.
(ii) Disability	Sample disability rates are as follows:

Annual Rates of Disability

Age	Males	Females
25	.03%	.05%
30	.04	.06
40	.07	.10
50	.18	.26
55	.36	.49
60	.90	1.21

(iii) Turnover	None Assumed
(iv) Retirement	The rate is 50% at first eligibility, then the rate is 10% per year thereafter with 100% at age 55 (or first eligible if later.)
(v) Marital Status	80% of participants are assumed to be married with males 3 years older than their female spouses.
(vi) COLA adjustments	1.3% increase each year.
(vii) Asset Value	Assets are valued at market plus receivables.

Actuarial Method Used for the Valuation

Normal Cost

Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry age actuarial cost method having the following characteristics:

- The annual normal costs for each individual active member, payable from date of hire to date of retirement, are sufficient to accumulate the value of the member's benefit at the time of retirement;

- Each annual normal cost is a constant percentage of the member's year-by-year projected covered pay.

Financing of Unfunded Actuarial Accrued Liability

The excess of actuarial accrued liabilities over accrued assets was amortized as a level percent-of-payroll and applied as a charge to the computed normal cost.

Active member payroll was assumed to increase at the salary increase rate for the purpose of determining the level percent-of-payroll full funding credit.

Uncertainty and risks with respect to the results, assumptions, methods, etc.

The results presented in this report are based upon actuarial assumptions and methods, such as expected salary increases and expected plan asset returns that represent the expected experience for the Plan. If the actual experience of the Plan is different from what is assumed in the valuation, this can create volatility in the results including but not limited to the funded status of the Plan and the contribution recommendations.

Section Five:

Valuation Data

Summary of Asset Information Submitted for the Valuation

Statement of Assets

As of June 30, 2015, the net market value of Pension Plan assets was reported to be $9,778,266.

Market Value of Assets as of July 1, 2014		$8,848,568
a. Revenues		
	(i) Member Contributions	$179,257
	(ii) Employer Contributions	800,000
	(iii) Investment Income (Net of investment fees)	698,683
b. Expenses		
	(i) Benefits Paid	$748,242
Market Value of Assets as of July 1, 2015		$9,778,266

Actuarial Value of Assets

The market value of assets was used for the July 1, 2015 valuation.

Participant Summary

Retirees Included in the Valuation

There were 26 retirees included in the valuation, with annual pensions totaling $711,723. The breakdown by age division is as follows:

Retirees

Age	Number	Average Annual Pensions
Under 40		
40-44	1	$11,359
45-49	4	32,211
50-54	4	29,025
55-59	1	34,587
60-64	3	26,976
65-69	4	20,607
70-74	5	32,885
75-79	1	20,520
Over 80	3	24,177
Total	26	$27,374

Active Members – Age and Service Distribution

	Service							
Age	**0 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25 - 29**	**Over 30**	**Total**
20 - 24	2							2
25 - 29	3							3
30 - 34	2	2						4
35 - 39	1		2	1				4
40 - 44	1		3	2	1			7
45 - 49			2		3	1		6
50 - 54				1		1		2
55 - 59			1					1
60 - 64								
65+			1					1
Total	9	2	9	4	4	2		30

Total Active Participant Information

	2013	**2014**	**2015**
Active Members	25	29	30
Valuation Payroll	1,448,086	1,454,719	1,716,424
Average Compensation	57,923	50,163	57,214
Average Age (yrs.)	40.8	39.5	40.5
Average Service (yrs.)	12.5	11.5	12.0

Reconciliation With Prior Year

	Actives	Retirees
July 1, 2014 Participants	29	26
Corrections		
New Participants	2	
Returned to Active		
Retirements		
Deaths		
New Beneficiaries		
Benefits Expire		
Terminations		
- Vested		
- Non-Vested		
- Lump-Sums	(1)	
July 1, 2015 Participants	30	26

Section Six:

Accounting Disclosures

GASB Statement Nos. 67 and 68 Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation as well as the previous 10 years (as available) follows:

Valuation Date June 30	Total Pension Liability	Plan Assets	Net Pension Liability	Percent Funded	Annual Covered Payroll	NPL As a % Of Covered Payroll
2005	11.007	5.491	5.516	49.9	1.149	479.9
2006	10.705	6.094	4.611	56.9	1.275	361.5
2007	11.322	7.182	4.140	63.4	1.338	309.4
2008	12.155	6.926	5.230	57.0	1.512	345.9
2009	14.243	5.733	8.510	40.3	1.716	495.9
2010	14.529	5.633	8.897	38.8	1.762	504.9
2011	12.858	6.959	5.899	54.1	1.587	371.6
2012	13.228	6.694	6.534	50.6	1.473	443.5
2013	13.616	7.465	6.151	54.8	1.448	424.8
2014	14.003	8.849	5.154	63.2	1.455	354.3
2015	**14.604**	**9.778**	**4.826**	**67.0%**	**1.716**	**281.2%**

Dollar amounts in millions.

Schedule of Employer Contributions

Year Ended June 30	Annual Recommended Contribution	Percent Contributed
2006	648,059	100%
2007	647,343	100%
2008	597,226	100%
2009	711,225	100%
2010	1,023,362	0%
2011	1,067,884	42%
2012	682,092	81%
2013	590,573	119%
2014	544,334	152%
2015	536,634	149%

Schedule of Changes in Net Pension Liability

Year End June 30	Beginning of Year Net Pension Liability	Service Cost	Interest Cost	Expected Return On Assets	Employer Contrib.	Employee Contrib.	Plan Changes	Assumption Changes	(Gain)/ Loss	End of Year Net Pension Liability	Benefits Paid
2013	6,533,765	318,749	989,770	(507,331)	(700,000)	(143,389)	-	-	(340,538)	6,151,026	733,907
2014	6,151,026	285,815	1,016,416	(595,528)	(825,000)	(166,440)	-	-	(712,004)	5,154,285	765,309
2015	5,154,285	315,103	1,047,597	(699,268)	(800,000)	(179,257)	-	-	(12,389)	4,826,071	748,242

Schedule of Contributions

Year Ending June 30	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contribution	Contribution Deficiency (Excess)	Covered Employee Payroll	Contributions as a Percentage of Covered Employee Payroll
2006	$ 648,059	$ 648,059	$ --	$ 1,149,611	56.37%
2007	647,343	647,343	--	1,275,405	50.76%
2008	597,226	597,226	--	1,338,190	44.63%
2009	711,225	711,225	--	1,511,997	47.04%
2010	1,023,362	--	1,023,362	1,716,156	0.00%
2011	1,067,884	452,407	615,477	1,762,244	25.67%
2012	682,092	550,000	132,092	1,587,328	34.65%
2013	590,573	700,000	(109,427)	1,473,196	47.52%
2014	544,334	825,000	(280,666)	1,448,086	56.97%
2015	536,634	800,000	(263,366)	1,454,719	54.99%

Pension Expense for Year Ended June 30, 2015

Service cost	$ 315,103
Interest on the total pension liability	1,047,597
Employee contributions	(179,257)
Projected earnings on pension plan investments	(699,268)
Pension plan administrative expense	0*
Outflows / (inflows) of resources recognized in the current year due to	
Difference between expected and actual experience	(2,083)
Changes of assumptions	0
Difference between projected and actual earnings on plan investments	117
Pension expense	$ 482,209

*Investment-related expenses are netted out of investment returns. No other expenses were reported as paid by the plan trust, but rather by the Town.

Long-term Expected Real Rates of Return

The long-term expected rate of return on pension plan investments was determined using a method in which the best-estimate ranges of expected future real rates of return (expected returns, net of investment expenses and inflation) are developed for each major asset class. These are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage as shown in the following table, and then adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Equities	80%	9.0%
Fixed Income	17 %	3.5%
Cash and Equivalents	3%	0.0%

Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) – (b)
Balances at 6/30/14	$ 14,002,853	$ 8,848,568	$ 5,154,285
Changes for the year			
Service cost	315,103		315,103
Interest	1,047,597		1,047,597
Difference between expected and actual experience	(12,974)		(12,974)
Contributions - employer		800,000	(800,000)
Contributions - employee		179,257	(179,257)
Net investment income		698,683	(698,683)
Benefit payments, including refunds	(748,242)	(748,242)	
Administrative expense		--	--
Other changes		--	--
Net changes	601,484	929,698	(328,214)
Balances at 6/30/15	$ 14,604,337	$ 9,778,266	$ 4,826,071

Statement of Outflows and Inflows Arising During the Current Period

1. Difference between expected and actual experience of the TPL (gains) / losses	$(12,974)
2. Assumption Changes (gains) / losses	--
3. Recognition period: Average of the expected remaining service lives of all plan participants (in years)	6.23
4. Difference between expected and actual return on plan investments	$ 585
5. Outflow (Inflow) of Resources to be recognized in the current pension expense:	
a. for the difference between expected and actual experience of the TPL, (1) / (3)	$ (2,083)
b. for assumption changes, (2) / (3)	--
c. for the difference between expected and actual return on plan investments, (4) / 5	$ 117

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

	1% Decrease 6.5%	Current Single Discount Rate Assumption 7.5%	1% Increase 8.5%
Total Pension Liability	$16,295,394	$ 14,604,337	$ 13,182,989
Plan Fiduciary Net Position	9,778,266	9,778,266	9,778,266
Net Pension Liability / (Asset)	$ 6,517,128	$ 4,826,071	$ 3,404,723

Deferred Outflows and Deferred Inflows of Resources to be Recognized in Future Years

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ --	$ 10,891
Changes in Assumptions	--	--
Net difference between projected and actual earnings on pension plan investments	468	--
Total	$ 468	$ 10,891

Year Ending June 30	Net Deferred Outflows of Resources
2016	$ (1,966)
2017	(1,966)
2018	(1,966)
2019	(1,966)
2020	(2,083)
Thereafter	(476)
Total	$ (10,423)

Section Seven:

Glossary of Terms

Glossary of Terms

Accrued Benefit
The benefit earned by a participant payable in the form of a monthly benefit commencing at normal retirement age.

Actuarial Accrued Liability
The actuarial present value of benefits earned as of the valuation date.

Actuarial Gain or Loss
The difference between the plan's actual experience and expected experience based on the actuarial assumptions used in the valuation.

Actuarial Value of Assets
The value of assets as determined by the actuary for the purpose of the valuation. This may or may not include a method of smoothing investment gains and losses over time.

Amortization
The spreading of liabilities or costs over a period of years. A plan's unfunded actuarial accrued liability is amortized over a period of years.

Entry Age Normal Actuarial Cost Method
An actuarial method for determining the annual normal cost and the actuarial accrued liability of a pension plan. Under this method, the annual normal cost is the level amount that would have to be contributed each year from the time each employee entered employment so that his pension will be fully funded by his assumed retirement age.

Normal Cost
That portion of the actuarial present value of plan benefits and expenses allocated to the valuation year.

Present Value
The value of a benefit payment or series of benefit payments determined as of the valuation date by the application of a particular set of actuarial assumptions. It is the single sum which reflects the time value of money (through discounts for investment yield) and the probabilities of payment (taking into account death, disability. withdrawal and age at retirement).

Unfunded Actuarial Accrued Liability
The excess of the actuarial accrued liability over the actuarial value of assets.

Vested Benefit
A benefit that is not forfeited if the participant leaves employment.