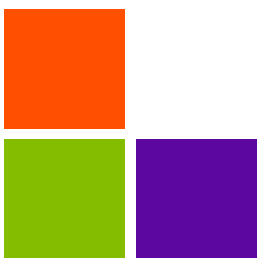




WESTERLY POLICE PENSION FUND

ACTUARIAL VALUATION REPORT

REPORTING AS OF JULY 1, 2015





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December 28, 2015

Derrick M. Kennedy, Town Manager  
Town of Westerly  
45 Broad Street  
Westerly, RI 02891

Dear Mr. Kennedy:

We are pleased to present our review of the Town of Westerly Police Pension Fund for the fiscal year beginning July 1, 2015. The valuation was made as of July 1, 2015 and includes budgetary recommendation for the fiscal years beginning July 1, 2016. The recommended Town contribution level is detailed below:

**Town's 2015-2016 Contribution:**

	<b>Pension</b>
(a) Normal Cost	\$ 564,000
(b) Amortization of Unfunded Actuarial Liability	<u>1,149,800</u>
<b>Total</b>	<b>\$1,713,800</b>

**Town's 2016-2017 Contribution:**

	<b>Pension</b>
(a) Normal Cost	\$ 635,300
(b) Amortization of Unfunded Actuarial Liability	<u>1,032,400</u>
<b>Total</b>	<b>\$1,667,700</b>

The total Town contribution decreased by about 2.8% due to the impact of prior asset gains offsetting current year asset losses and changes in the actuarial assumptions. The valuation recognizes the changes in retirement rates and salary scale from the 2014 experience study. These changes decreased liabilities about 1.4%. The mortality assumption was also changed to reflect the most recently published tables. This change further decreased actuarial liabilities by approximately 0.6%.

Please let me know if you have any questions or need additional information.

Sincerely,

Timothy A. Ryor, FSPA, FCA, MAAA, EA  
Senior Vice President and Consulting Actuary

/aps

Enclosure

c: Deb Bridgham, Finance Director

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## Section I

### Valuation Balance Sheet

The results of the valuation are presented in the following table:

	June 30, 2015	June 30, 2014
<b>Source of Funds</b>		
Actuarial Value of Assets	\$ 29,123,313	\$ 26,469,240
Present Value of Future Amortization Payments	12,844,013	14,457,019
Present Value of Future Contributions	<u>8,422,638</u>	<u>7,703,455</u>
Total Sources of Funds	50,389,964	48,629,714
<b>Actuarial Liabilities</b>		
Present Value of Future Pensions (Active Members)	\$ 24,703,551	\$ 22,876,906
Reserve for Retired Members, Widows and Terminated Vesteds	<u>25,686,413</u>	<u>25,752,808</u>
Total Actuarial Liabilities	\$ 50,389,964	\$ 48,629,714

The value of the fund (cash and securities) as of June 30, 2015 was determined as of that date from the Town's Audited Financial Statements.

The actuarial liability item "Present Value of Future Pensions (Active Members)" takes into account all such pensions which currently active members are expected to receive at normal retirement date, not merely the portions thereof accrued to date. The item "Reserve for Retired Members and Widows" represents the Plan's actuarial liability for pension benefits which are expected to be paid to presently retired members and their beneficiaries.

The "Present Value of Future Contributions" is the balancing item and represents the actuarial present value of future service (Normal Cost) contributions (employer and employee) anticipated with respect to presently active members.



## Section II

### Development of Asset Values

Summary of Fund Activity		
	Market Value	Actuarial Value**
<b>1. Beginning value 7/1/2014</b>		
a. Trust assets	\$ 30,812,954	\$ 29,656,954
b. Accrued contribution	0	0
c. Benefits payable	0	0
d. Administrative expenses payable	0	0
e. Net: (a)+(b)-(c)-(d)	30,812,954	29,656,954
<b>2. Contributions</b>		
a. Contributions during year	2,530,672	2,530,672
b. Change in accrued contribution	0	0
c. Total for plan year	2,530,672	2,530,672
<b>3. Disbursements *</b>		
a. Benefit payments during year	2,595,398	2,595,398
b. Administrative expenses during year	0	0
c. Change in benefits payable	0	0
d. Change in administrative expenses payable	0	0
e. Total for plan year	2,595,398	2,595,398
<b>4. Net investment return</b>		
a. Interest and dividends	938,691	N/A
b. Change in accrued income	4,343	N/A
c. Realized gain (loss)	(90,018)	N/A
d. Unrealized gain (loss)	590,389	N/A
e. Expected return	N/A	2,351,777
f. Recognized gain (loss)	N/A	244,267
g. Required adjustment due to corridor	N/A	0
h. Reversal of prior year required adjustment	N/A	0
i. Investment-related expenses	(70,801)	N/A
j. Total	1,372,604	2,596,044
<b>5. Ending value 7/1/2015 **</b>		
a. Trust assets: (1a)+(2a)-(3a)-(3b)+(4j)	32,120,832	32,188,272
b. Accrued contribution	0	0
c. Benefits payable	0	0
d. Administrative expenses payable	0	0
e. Net: (a)+(b)-(c)-(d)	32,120,832	32,188,272
<b>6. Approximate rate of return 2014-2015</b>	4.4%	8.6%

\*Includes \$799,683 in net retiree medical costs.

\*\*Asset split as of July 1, 2015:

	Market Value	Actuarial Value
<b>Pension</b>	\$29,062,295	\$29,123,313
<b>OPEB</b>	\$3,058,537	\$3,064,959



## Section II

### Development of Asset Values (continued)

Relationship of Actuarial Value to Market Value		
1. Market value 7/1/2015	\$	32,120,832
2. Gain / (loss) not recognized in actuarial value 7/1/2015		(67,440)
3. Preliminary actuarial value 7/1/2015: (1)-(2)		32,188,272
4. Preliminary actuarial value as a percentage of market value: (3)÷(1)		100.2%
5. Gain / (loss) recognized for corridor min/max		N/A
6. Actuarial value 7/1/2015 after corridor min/max: (3)+(5)		32,188,272
7. Actuarial value as a percentage of market value: (6)÷(1)		100.2%

Development of Market Value Gain / (Loss) for 2014-2015 Plan Year		
1. Market value 7/1/2014	\$	30,812,954
2. Contributions		2,530,672
3. Benefit payments		2,595,398
4. Administrative expenses		0
5. Expected return at 7.50%		2,351,777
6. Expected value 7/1/2015: (1)+(2)-(3)-(4)+(5)		33,100,005
7. Market value 7/1/2015		32,120,832
8. Market value gain / (loss) for -1 Plan Year: (7)-(6)		(979,173)

Recognition of Gain / (Loss) in Actuarial Value					
Year	(a) Gain / (loss)	(b) Recognized as of 7/1/2014	(c) Recognized in current year: 20% of (a)	(d) Total recognized as of 7/1/2015: (b)+(c)	(e) Not recognized as of 7/1/2015: (a)-(d)
2010-2011	\$ 1,600,841	\$ 1,280,672	\$ 320,169	\$ 1,600,841	\$ 0
2011-2012	(1,109,460)	(665,676)	(221,892)	(887,568)	(221,892)
2012-2013	438,415	175,366	87,683	263,049	175,366
2013-2014	1,270,708	254,142	254,142	508,284	762,424
2014-2015	(979,173)	0	<u>(195,835)</u>	(195,835)	<u>(783,338)</u>
Total			244,267		(67,440)



### Section III

#### Normal Cost for Plan Year

The Normal Cost is the portion of the Actuarial Present Value of Future Benefits that a cost method allocates to the current plan year.

Under the Entry Age Actuarial Cost Method, the Normal Cost for plan benefits is the total of the individual Normal Costs for active participants. The cost method derives the Normal Cost for each active participant by distributing the individual's Actuarial Present Value of Future Benefits over expected salary-weighted service from Entry Age. Each year of expected service is weighted by the expected salary in that year in order to produce an individual annual Normal Cost that will remain level as a percentage of salary.

Normal Cost		
	July 1, 2015	July 1, 2014
	Pension	Pension
1. Total normal cost for benefits	\$ 994,412	\$ 893,899
2. Administrative expenses	14,000	14,000
3. Total normal cost	1,008,412	907,899
4. Employee contributions	406,371	373,152
5. Employer Normal Cost: (3) - (4) (rounded to nearest \$100)	602,000	534,700
6. Total salary	3,864,806	3,604,585
7. Total employer cost as a percentage of plan salaries: (5) / (6)	15.58%	14.83%
8. Expected ADEC Year* Payroll: (6) x 1.055	4,077,370	3,802,837
9. ADEC Year* Normal Cost: (7) x (8) (rounded to nearest \$100)	635,300	564,000

*\*ADEC = GASB 68 Actuarial Determined Employer Contribution, 2015 valuation is used to determine the 2016-2017 ADEC for pension.*



**Section III  
(continued)**

**Unfunded Actuarial Accrued Liability  
(Entry Age Normal Method)**

<b>Actuarial Balance Sheet</b>	
	<b>Pension</b>
<b>1. Liabilities -- Present Value of Future Benefits</b>	
a. Actuarial accrued liability	
i. Active participants	\$ 16,280,913
ii. Terminated Vested	221,601
iii. Retired participants	<u>25,464,812</u>
iv. Total	41,967,326
<b>2. Actuarial Value of Assets</b>	\$ 29,123,313
<b>3. Funded Ratio: [2 / 1(iv)]</b>	69.4%
<b>4. Unfunded actuarial accrued liability     [1(iv) - 2]</b>	12,844,013
<b>5. 28-year amortization (rounded to nearest \$100)</b>	1,032,400





## Section IV

### Town Contribution for 2015-2016 and 2016-2017

The Town's rate of contribution for future service (Normal Cost) for the fiscal year 2015-2016 was calculated as 14.83% of valuation payroll. For the fiscal year 2016-2017 it is 15.58% of valuation payroll. The term "payroll" is intended to mean the same basis as that on which members' employee deductions are computed. The percentage of contribution by the Town is, of course, in addition to contributions from members.

In addition to the Normal Cost the Town should also contribute a specified amount of amortization of the so-called "unfunded actuarial liability" (Present Value of Future Amortization Payments), as indicated below.

Based on the payroll figures furnished, the Town's contribution on this basis should be as follows:

#### Town's 2015 - 2016 Contribution:

		<u>Amortiation Period</u>
		<u>29 Years</u>
		<b>Pension</b>
Normal Cost (14.83% of \$3,802,837)	\$	564,000
Amortization Payment		<u>1,149,800</u>
Total Town Contribution	\$	<b>1,713,800</b>

#### Town's 2016 - 2017 Contribution:

		<u>Amortiation Period</u>
		<u>28 Years</u>
		<b>Pension</b>
Normal Cost (15.58% of \$4,077,370)	\$	635,300
Amortization Payment		<u>1,032,400</u>
Total Town Contribution	\$	<b>1,667,700</b>



## Section V

### Description of Actuarial Methods

#### Actuarial Cost Method

- A. Changes in Actuarial Cost Method as of July 1, 2015: None.
- B. Description of Current Actuarial Cost Method.

In calculating recommended contributions and valuing your Plan, the actuarial valuation method used is the Entry Age Normal method (level percentage of salary). Under this method, the normal cost is the sum of the individual normal costs for all active participants. The normal cost is the normal cost accrual rate (equal to the present value of future benefits of the participant at entry age divided by the present value of compensation expected to be paid each year) multiplied by the participant's current compensation.

A participant's accrued liability equals the present value of future benefits less the present value of the individual normal costs payable in the future.

The entry age used for each active participant is the participant's age at the time they would have commenced participation in the plan had the plan always been in existence or the age which they first earn credited service for benefit accrual.

The unfunded accrued liability equals the total accrued liability less the actuarial value of assets. This unfunded liability is amortized over 30 years on a closed basis as of July 1, 2013.

All of the above calculations are based on the assumptions shown on the following page.

#### Asset Valuation Method

The Actuarial Value of assets used in development of plan contributions phases in recognition of the difference between the actual return on Market Value and the expected return on Market Value over a five-year period at 20% per year. It was first being used with the 2009 valuation.



## Section VI

### Outline of Actuarial Assumptions

The actuarial assumptions used in computing costs and liabilities under the Plan are as follows:

#### **Interest**

7.5% net of expenses (bank fees) compounded annually.

#### **Mortality**

Current: RP-2014 Total Dataset Mortality Table projected to valuation date with Scale MP-2015.

Prior: RP-2014 Total Dataset Mortality Table projected to valuation date with Scale MP-2014.

#### **Mortality Improvement**

Current: Projected to date of decrement using Scale MP-2015 (generational mortality).

Prior: Projected to date of decrement using Scale MP-2014 (generational mortality).

#### **Mortality (Disabled lives)**

Current: RP-2014 Total Dataset Mortality Table for Disabled Retirees projected to valuation with Scale MP-2015.

Prior: RP-2000 Disabled Mortality table unprojected.

#### **Mortality Improvement (Disabled lives)**

Current: Projected to date of decrement using Scale MP-2015 (generational)

Prior: None.

We have selected this mortality assumption and mortality improvement scale because it is based on the latest published pension mortality study released by the Society of Actuaries.

The change in assumption decreased liabilities by about 0.6%.

#### **Inflation**

3.0%.

This assumption is based on long term historical inflation numbers. While near term averages have been lower, we do not believe this trend will continue indefinitely and expect that there will be a reversion to the long term average.



**Turnover**

Based on Years of Service

Service	Rate
0	7.00%
1	5.50%
2	5.00%
3	4.50%
4	4.00%
5	3.50%
6	3.00%
7	2.50%
8	2.25%
9	2.00%
10	1.75%
11	1.50%
12	1.25%
13	1.00%
14	0.75%
15	0.50%
16+	0.00%

The plan does not have statistically credible data on which to form this assumption. The assumption is based on the RI MERS assumption for similar populations (see 2004-2011 Experience Study for more details).

**Retirement Age**

Based on Years of Service. For those hired on or before July 1, 2010:

Current:	
Service	Rate
20-22	30.00%
23	20.00%
24-27	30.00%
28	100.00%

Prior:	
Service	Rate
20	25.00%
21	40.00%
22	30.00%
23	20.00%
24	50.00%
25	100.00%

For those hired after July 1, 2010:

Current:	
Service	Rate
25-27	30.00%
28	20.00%
29	30.00%
30	40.00%
31	100.00%

Prior:	
Service	Rate
25	25.00%
26	40.00%
27	30.00%
28	20.00%
29	50.00%
30	100.00%



**Salary increases (including inflation)**

Current:		Prior:	
Service	Rate	Service	Rate
0	14.50%	0	14.50%
1	12.50%	1	12.50%
2	11.00%	2	11.00%
3	9.50%	3	9.50%
4	8.00%	4	8.00%
5	7.00%	5	7.00%
6	6.50%	6	6.50%
7	6.00%	7	6.00%
8-9	5.50%	8-9	5.50%
10	5.25%	10-11	5.25%
11-12	5.00%	12-13	5.00%
13	4.75%	14-15	4.75%
14	4.50%	16	4.50%
15	4.25%	17	4.25%
16+	4.00%	18	4.00%
		19	3.75%
		20+	3.50%

The actuarial assumptions with respect to rates of retirement and salary scale were updated based on the actuarial experience study from July 1, 2011 through June 30, 2014 and the prior study from July 1, 2004 to June 30, 2011.

The changes decreased liabilities by about 1.4%.

**Expense Loading**

Estimated annual administrative fees.

**Disability Benefits**

Costed directly. 75% of disabilities considered occupational.

**Rate of Disablement**

33% of the 1985 Pension Disability Table Class 4 rates for males and females.

**Line of Duty Death**

Costed directly. 75% of deaths considered “in-line of duty”.

**COLA**

Valued explicitly.

**Normal Form**

Valued explicitly. 70% of males and 60% of females assumed married with wives 3 years younger. 100% of those assumed married expected to select the 67.5% Joint & Survivor form.

**Severance**

Valued explicitly.



## Section VII

### Certification

This report presents the results of the July 1, 2015 Actuarial Valuation for the Town of Westerly Police Pension Fund (the Plan) for the purpose of estimating the funded status of the Plan and determining the Actuarially Determined Employer Contribution (ADEC) related to pension liabilities for the fiscal year ending June 30, 2017. It is intended to satisfy the requirements of §45-65-6 of the Rhode Island Retirement Security Act. This report may not be appropriate for any other purpose.

The valuation results present in this report have been calculated in accordance with generally accepted actuarial principles and practices. I certify that the actuarial assumptions and methods were selected by me and represent my best estimate of anticipated actuarial experience under the plan.


In preparing all related valuation results, I have relied on employee data provided by the Town, and on asset and contribution information also provided by the Town & its financial advisors. I have not audited the employee data or the financial information, although I have reviewed them for reasonableness.

The results in this report are based on the Plan as summarized in the *Plan Provisions* section of this report and actuarial assumptions and methods detailed in the *Description of Actuarial Methods and Assumptions* section of this report.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic 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 or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

I am a member of the American Academy of Actuaries and meet its Qualification Standards to render the actuarial opinion contained herein.

I am independent of the Town of Westerly, Rhode Island in accordance with *Government Auditing Standards*.



Timothy A. Ryor, FSPA, FCA, MAAA,  
Enrolled Actuary: 14-05126

December 28, 2015



## **Exhibit I**

### **Outline of Principal Plan Provisions**

#### **Effective Date**

March 1, 1949.  
Arbitration Award dated July 8, 1985.  
Master Agreement dated July 1, 1990.  
Arbitration Award dated August 26, 1993.  
Rhode Island Supreme Court dated June 22, 1995.  
Master Agreement dated April 25, 1997 (effective 7/1/95).  
Master Agreement effective July 1, 1998 to June 30, 2001.  
Master Agreement effective July 1, 2001 to June 30, 2004.  
Master Agreement effective July 1, 2004 to June 30, 2007.  
Master Agreement effective July 1, 2007 to June 30, 2010.  
Master Agreement effective July 1, 2010 to June 30, 2013.

#### **Eligibility**

All regular police officers are eligible to participate.

#### **Credited Service**

Period of employment as police officer of Town.

#### **Normal Retirement**

Effective July 1, 1987, a policeman may retire upon completion of 20 years of service.

Effective July 1, 2010, hired after July 1, 2010, a policeman may retire upon completion of 25 years of service.

#### **Normal Retirement Benefit**

A pension for life computed as 50% of annual pay for 20 years service plus 2% times annual pay for each year of service over 20 years (maximum service equals 25 years). For those hired after July 1, 2010, a pension for life computed as 50% of annual pay for 25 years service plus 2% times annual pay for each year of service over 25 years (maximum service equals 30 years). "Annual Pay at Retirement" shall mean a sum equal to the base salary received by the individual retiree for the twelve (12) months immediately preceding his retirement date.

#### **Normal Form of Benefit**

67.5% Joint & Survivor



**Disability Retirement**

Non Occupational Causes - A pension computed as follows:

Years of Service	Percent of Final Annual Pay
10 or less	10%
10 to 15	18%
15 to 20	27%%

Occupational Causes - A monthly income equal to 50% of annual rate of pay at time of disability.

**Vesting**

Effective June 30, 1985, 100% vested after 10 years of service a deferred monthly income equal to accrued benefit commencing at normal retirement. Terminating police with less than 10 years receive a return of employee contributions with interest.

**Death Benefits**

Pre-Retirement: Return of member's contributions with interest.

Post-Retirement: Continuation of 67 1/2% of deceased retired member's pension to spouse until death or remarriage. If no eligible spouse, then benefit payable to dependent children under age 18. Insurance continuation until death or remarriage or failure to qualify as a dependent child.

**Death in Line of Duty (Effective July 1, 1990)**

In the event a member of bargaining unit is killed in the line of duty, their heirs shall receive whatever benefits the member would have been entitled to as though they had been members of the bargaining unit for 20 years.

**Automatic Cost Of Living**

Any Policeman retiring on or after June 30, 1990 shall be entitled to a 2½% cost of living escalator, not compounded, as of July 1, 1994, and each succeeding year.

All members who retired prior to June 30, 1990 receive a 2½% non-compounded annual pension adjustment retroactive to July 1, 1993. Members retiring on or after July 1, 1998 receive a 3% non compounded annual pension adjustment.

All members hired after July 1, 2010 shall be entitled to a 3% non-compounded adjustment after 5 years on pension or age 52, whichever comes first.

**Member Contributions**

11% of pay (10% prior to July 1, 2005). Returnable on termination of employment, or to estate on death prior to 10 years of service. 9% of pay for the Fiscal Year beginning July 1, 2003.

**Severance Pay**

Payment to retirees in accordance with terms of arbitrators award May 23, 1979.

Members who retire with 25 or more years of service shall receive severance pay based on 1 ½ days for each year of service at retirement.



**Exhibit II****Employee Participation: July 1, 2014 - June 30, 2015****Active Members**

	<b>Number</b>	<b>Payroll</b>	<b>Average Pay</b>
Active Members, July 1, 2014	47	\$3,307,201	\$70,366
New Members During Year	+3		
Terminations During Year	-1		
Military Leave of Absence	0		
Deaths During Year	0		
Retirements During Year	<u>0</u>		
Active Members, June 30, 2015	49	<u>\$3,645,356</u>	\$74,395

**Retired Members**

	<b>Number</b>	<b>Annual Pension</b>
Retirees, July 1, 2014	39	\$1,670,390
Adjustment	0	
Retirements During Year	0	
Deaths During Year	<u>-1</u>	
Retirees, June 30, 2015	38	<u>\$1,686,338</u>

**Widows**

	<b>Number</b>	<b>Annual Pension</b>
Widows, July 1, 2014	7	\$ 129,185
Adjustment	0	
Additions During Year	+1	
Deaths During Year	<u>0</u>	
Widows, June 30, 2015	8	<u>\$ 145,466</u>

**Terminated Vested**

	<b>Number</b>
Terminated Vesteds, July 1, 2014	1
Terminations During Year	0
Leave of Absence (military)	<u>0</u>
Terminated Vesteds, June 30, 2015	1



## Exhibit II

### Age/Service Chart

Age, Service, Salary Information for 2015																						
Westerly Police Pension Fund																						
Completed Years of Credited Service																						
Attained Age	Under 1		1 to 4		5 to 9		10 to 14		15 to 19		20 to 24		25 to 29		30 to 34		35 to 39		40 and over		All years	
	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.
Under 25			2	51,312																	2	51,312
25 to 29			6	60,314	1	96,099															7	65,426
30 to 34	1	23,812	2	62,454	6	73,848	1	80,181													10	67,199
35 to 39					2	78,785	2	84,738	2	91,932											6	85,152
40 to 44							6	82,121	2	83,509											8	82,468
45 to 49							2	89,455	8	85,740	2	104,939	1	104,972							13	90,745
50 to 54												1	112,553								1	112,553
55 to 59									1	85,735											1	85,735
60 to 64									1	83,588											1	83,588
65 to 69																						
70 & over																						
All ages	1	23,812	10	58,941	9	77,418	11	83,754	14	86,152	2	104,939	2	108,762							49	78,874