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November 16, 2015

Mr. Mitchell R. Goldblatt  
Director of Human Resources  
Town of Guilford  
31 Park Street  
Guilford, CT 06437

**Re: Salary Increase Experience Study**

Dear Mitch:

This letter provides details regarding our review of salary increases from 2004 through 2014 for the three defined benefit pension plans sponsored by the Town of Guilford. Based upon our findings, we recommend changing this assumption in the July 1, 2015 valuation from that used in prior valuations.

**Purpose of Reviewing Assumptions**

The purpose of this review is to determine if the salary increase assumption used in our annual actuarial valuations of the three Pension Plans sponsored by the Town of Guilford is reasonably estimating expected future compensation levels of active Plan participants.

Although plan experience is analyzed each year by observing the liability gains and losses over the twelve months ending with the valuation date, it is important to periodically examine the performance of key individual assumptions relative to the Plan's actual experience based on guidelines from the American Academy of Actuaries. In addition, auditors are taking a greater interest in the assumptions used to value pension plans, by critically examining the basis for the assumptions.

Actuarial Standards of Practice No. 27 (ASOP 27) and No. 35 (ASOP 35), as well as IRS requirements call for each individual assumption to be reasonable. ASOP 27 and ASOP 35 describe a reasonable assumption as an assumption that is appropriate for the purpose of the measurement, reflects the actuary's professional judgement, takes into account historical and current data, reflects the actuary's estimate of future experience, and has no significant bias.

Actuarial assumptions are usually divided into two groups, economic and demographic. The major economic assumptions are those with respect to investment return, general wage increases and growth in the Consumer Price Index. The non-economic (demographic) actuarial assumptions required for valuation purposes generally include retirement, mortality, disability and withdrawal rates.

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We performed an experience study in 2011 with regard to all the assumptions mentioned above except for the salary increase assumption. This study examines the salary increase experience from 2004 to 2014 for the active participants under the Town Employees' Pension Plan (Town), Police Retirement Fund (Police), and the Employees (Non-Certified) Public School Pension Plan (School). As part of this process, we also reviewed the most recent union contracts for the IAFF, NAGE, GEA, and Police unions with regard to the salary increases provided in those contracts for the next few years.

### **Observations**

Our key observations for each plan are as follows. Please refer to Exhibit I (Town and Police) and Exhibit II (School) for more details.

#### **Town Employees' Pension Plan**

The plan has six cost centers:

- Confidential Supervisors (CSU)
- Firefighters (IAFF)
- Guilford Employees Association (GEA)
- Confidential Non-Supervisors (CNSU)
- Guilford Supervisors Association (GSA)
- Communications (as of 7/1/15, represented by UPSEU; formerly represented by NAGE)

CSU has four participants, each of whom has an individual employment contract, three of which specify a salary increase of no less than 3% each year and one of which specifies annual salary amounts consistent with an increase of 2% each year. The actual experience (i.e., salary information reported with each year's valuation data) is consistent with these contracts from 2011 through 2014.

The IAFF contract is currently under negotiation, but prior to 2013, included wage increases that averaged about 3.2% per year over the prior 9 year period, although the negotiated wage increases were only 3% per year from 2011 to 2013. Actual wage increases over that period averaged 3.7%, but all of the increases in excess of the contractual amounts occurred prior to 2008.

GEA increases have generally matched the amounts negotiated in their contract since 2009. Prior to that, there were increases in excess of negotiated amounts. The average of negotiated increases since 2005 is 2.99%.

CNSU, GSA and NAGE increases since 2005 have averaged 2.93%, 2.81% and 2.79% respectively, very slightly higher than the negotiated wage increases over that period. Negotiated increases have been slightly lower in the later years of the study period than in earlier years.

Police Retirement Fund

From 2008 to 2013, the negotiated wage increase rate averaged 2.5% per year. (The three wage increases from 2009 to 2011 were 0%, 3.75%, 3.75% which is roughly equivalent to 2.5% per year.) For the last two years, it was 2.75%. The accumulation of actual wage increases over the study period exactly matches the contract with the average wage increase being 2.85% over that time.

Employees (Non-Certified) Public School Pension Plan

Salary increases over the study period vary significantly by position. However, since more than three-quarters of the plan’s participants fall into one of three job categories, Custodian, Para-educator or Secretary, we assigned the greatest weight to the information for these participants in doing our analysis.

Larger than average increases occurred in the 2006-07 year and the 2009-10 year, but these were not repeated in the last 5 years. Weighting the pay increases by head count, the average salary increase over the last 10 years is 2.89%. Over the last 7 years, it has been 2.56%, indicating that average wage increases in the first three years of the study period were greater than in the rest of the study period.

**Recommendations**

The current salary increase assumption uses rates which vary by age and range from 6.00% at the youngest ages down to 2.50% at the older ages.

Based upon these key findings, we recommend using a flat salary increase rates which are not age-dependent but vary by Plan and Cost Center. Below are our recommended salary increase assumptions for each plan, and each cost center under the Town plan, respectively:

Plan	Cost Center	Salary Increase Assumption (per year)
Town	CSU	3.25%
	IAFF	3.25%
	GEA	3.00%
	CNSU	2.75%
	GSA	2.75%
	NAGE	2.75%
Police	Police	2.75%
School	School	2.75%

Our review of the most recent union contracts indicates that increases over the next few years appear to be consistent with the salary increase patterns established in the last few years of the study period. More specifically, these contracts do not provide any evidence that would cause us to alter our recommendations from that suggested by recent history. Salary scales used in the actuarial funding valuation are selected to reflect the actuary's best estimate for the future and we believe the most recent contracts are consistent with and support the above recommendations.

### **Overall Impact on Actuarial Valuation**

The overall impact on the actuarial valuation will be analyzed based on the July 1, 2015 census. We will present the results in the next Town's pension committee meeting.

### **Reliance**

In preparing the letter, we relied, without audit, on information (some oral and some in writing) supplied by the Town of Guilford. This information includes, but is not limited to, plan documents and provisions and participant data. We found this information to be reasonably consistent and comparable with information used for other purposes. Since the results are dependent on the integrity of the data supplied, the results can be expected to differ if the underlying data is incomplete or inaccurate.

The results in this report are based on the valuation data from July 1, 2004 to July 1, 2014 and negotiated salary increase rates from 2005 to 2015 provided by the Town.

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**Certification**

I am a Consulting Actuary for Milliman, am a member of the American Academy of Actuaries and meet the Qualification Standards of the Academy to render the actuarial opinion contained herein. To the best of my knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

Sincerely,



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Kenneth L. Friedman, F.S.A., E.A., M.A.A.A.  
Consulting Actuary

cc: Sheila Villano

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