

May 29, 2015

Mr. Kirk Bednar  
The City of Brentwood  
City Manager  
5211 Maryland Way  
Brentwood, TN 37027


Dear Kirk:

The attached report summarizes the results of an actuarial valuation as of January 1, 2015 for the City of Brentwood. We trust this report will be helpful in the formulation of policy with respect to the operation and financing of the plan.

The opportunity to serve the City of Brentwood is appreciated, and we will be pleased to supplement this report in any way, as you request.

The actuarial valuation summarized in this report has been performed utilizing generally accepted actuarial principles and is based on actuarial assumptions, each of which is considered to be reasonable taking into account the experience of the plan and which, in combination, represent a best estimate of the anticipated experience of the plan.

Sincerely,



David L. Shaub, F.S.A.  
Principal



Leah Sardiga, A.S.A., M.A.A.A.  
Consulting Actuary

cc: Carson Swinford  
Michael Worsham  
Jay Evans

g:\6---\4--\07\gasb\2015\gasb 45 reports.docx

**CITY OF BRENTWOOD  
POST EMPLOYMENT BENEFITS  
OTHER THAN PENSIONS**

**GASB 45 VALUATION AND REPORT AS OF  
JANUARY 1, 2015**

## CONTENTS

<b>Summary of Report</b>	<b>1</b>
Annual Required Contribution .....	1
Yearly Comparison of Selected Plan Information .....	2
Net OPEB Obligation.....	3
<b>Basis of Valuation</b>	<b>4</b>
Summary of Benefits .....	4
Summary of Actuarial Assumptions and Methods.....	5
<b>Plan Assets</b>	<b>9</b>
Summary of Operations .....	9
Development of Valuation Assets.....	10
<b>Actuarial Computations</b>	<b>11</b>
Actuarial Balance Sheet as of July 1 .....	11
Determination of Annual Required Contribution.....	11
Sensitivity Testing of Actuarial Assumptions.....	12
<b>Financial Disclosure</b>	<b>13</b>
Schedule of Funding Progress.....	13
Schedule of Employer Contributions .....	13

## SUMMARY OF REPORT

An actuarial valuation of the postemployment medical and life insurance benefits provided by the City of Brentwood has been performed as of January 1, 2015. The purpose of the valuation is to determine the Annual Required Contributions of the City of Brentwood under selected actuarial cost methods and amortization methods as prescribed by Statement No. 45 of the Governmental Accounting Standards Board. The words "Annual Required Contribution" are used in this Report because the term "Annual Required Contribution" has a technical meaning under GASB 45. Whenever the term is used herein, it identifies that accounting and actuarial concept only; its use does not mean and is not intended to mean that the City of Brentwood has any actual legal obligation, on an annual or aggregate basis, to fund postemployment benefits.

On the basis of the valuation, it has been determined that the Annual Required Contributions for the fiscal years ending June 30, 2016 and June 30, 2017 for the plan, as described in the report, are as follows:

## Annual Required Contribution

Entry Age Normal, 30-Year Level Percentage Amortization

	<b>Fiscal Year 2015/2016</b>	<b>Percentage of Total Projected Payroll</b>
Annual Required Contribution	\$ 721,487	5.66 %
Projected Payouts	\$ 218,757	1.72 %
Net Cost	\$ 502,730	3.95 %
	<b>Fiscal Year 2016/2017</b>	<b>Percentage of Total Projected Payroll</b>
Annual Required Contribution	\$ 750,752	5.67 %
Projected Payouts	\$ 264,886	2.00 %
Net Cost	\$ 485,866	3.67 %

## Yearly Comparison of Selected Plan Information

	2013 - 2014	2014 - 2015	2015 - 2016	2016 - 2017
Number of Participants				
Actives	243	243	249	249
Retirees	16	16	20	20
Annual Projected Payroll	\$ 12,672,263	\$ 13,179,154	\$ 12,738,804	\$ 13,248,356
Average Projected Earnings	\$ 52,149	\$ 54,235	\$ 51,160	\$ 53,206
Present Value of Benefits	\$ 13,254,842	\$ 13,935,304	\$ 16,561,343	\$ 17,445,711
Unfunded Accrued Liability	\$ 3,715,704	\$ 3,710,909	\$ 5,126,146	\$ 5,077,636
Market Value of Assets (BOY)	\$ 5,935,600	\$ 6,757,224	\$ 7,908,350	\$ 8,947,112
Actuarial Value of Assets (BOY)	\$ 5,853,881	\$ 6,699,395	\$ 7,675,196	\$ 8,781,184
Annual Funding Levels				
Normal Cost	\$ 364,484	\$ 382,708	\$ 399,916	\$ 419,912
% of Payroll	2.88 %	2.90 %	3.14 %	3.17 %
Annual Required Contribution	\$ 585,990	\$ 612,438	\$ 721,487	\$ 750,752
% of Payroll	4.62 %	4.65 %	5.66 %	5.67 %
Projected Payouts	\$ 126,906	\$ 165,521	\$ 218,757	\$ 264,886
% of Payroll	1.00 %	1.26 %	1.72 %	2.00 %
Net Cost	\$ 459,084	\$ 446,917	\$ 502,730	\$ 485,866
% of Payroll	3.62 %	3.39 %	3.95 %	3.67 %

## Net OPEB Obligation

	2013 - 2014	2014 - 2015	2015 - 2016	2016 - 2017
Net OPEB Obligation – July 1	\$ (1,749,078)	\$ (1,749,078)	\$ (1,749,078)	\$ (1,749,078)
Annual Required Contribution	\$ 585,990	\$ 612,438	\$ 721,487	\$ 750,752
Interest on Net OPEB Obligation	(107,568)	(107,568)	(118,063)	(118,063)
Adjustment on Annual Required Contribution	91,645	94,714	104,056	107,701
Annual OPEB Cost	\$ 570,067	\$ 599,584	\$ 707,480	\$ 740,390
Annual Employer Trust Contribution	\$ (443,161)	\$ (434,063)	\$ (488,723)	\$ (475,504)
Employer Payments for Retiree Benefits	(126,906)	(165,521)	(218,757)	(264,886)
Total Contribution	\$ (570,067)	\$ (599,584)	\$ (707,480)	\$ (740,390)
Increase in Net OPEB Obligation	\$ 0	\$ 0	\$ 0	\$ 0
Net OPEB Obligation – June 30	\$ (1,749,078)	\$ (1,749,078)	\$ (1,749,078)	\$ (1,749,078)

**BASIS OF VALUATION**

**Summary of Benefits**

	Employees Hired Before July 1, 2005	Employees Hired On or After July 1, 2005						
Eligibility	20 years or service & minimum age 55 at retirement	Same						
Pre-65 Plan Coverage	Covered under same group plan as active employees	Same						
Pre-65 Cost (Retiree Only)	City pays 100%	Percent City pays depends upon years of service as shown below: <table><tr><th>Yrs.</th><th>% City Pays</th></tr><tr><td>20-25</td><td>75%</td></tr><tr><td>25+</td><td>90%</td></tr></table>	Yrs.	% City Pays	20-25	75%	25+	90%
Yrs.	% City Pays							
20-25	75%							
25+	90%							
Pre-65 Cost (Dependents)	Retiree pays 50% - City pays 50%	Retiree pays 100%						
Post-65 Plan Coverage	Direct reimbursement to retiree towards cost of private Medicare supplement policy	None						
Retiree Life Insurance	City pays 100% for \$50K policy value reduces at age 70 & 75	City pays 100% for \$50K policy to age 65						

**BASIS OF VALUATION****Summary of Actuarial Assumptions and Methods****Current Assumptions**  
(Sample Values per 1,000 Lives)**Mortality Rates\***

	ATTAINED AGE			
	20	35	50	60
RP 2000 Table (Fully Generational) – Male	.259	.717	1.628	3.830
RP 2000 Table (Fully Generational) – Female	.150	.402	1.296	3.646

\*With projected mortality improvements after year 2000 under Projection Scale AA. Projections for 2015 are shown here.

**Withdrawal Rates**

Estimated Experience	160	47	7	0
----------------------	-----	----	---	---

**Disability Rates\***

General Government – Male	.41	1.26	5.27	14.39
General Government – Female	.35	1.60	5.42	11.39
Fire/Police – Male	1.12	3.23	8.60	14.53
Fire/Police – Female	.66	2.90	8.43	13.46

\* Once an employee has met the retirement eligibility requirements, the disability decrement is no longer applied to that individual.

**Post-Disability Mortality Rates**

75% of Pension Benefit Guaranty Corporation – Male	36.20	20.90	28.70	45.20
Pension Benefit Guaranty Corporation – Female	26.30	21.40	25.70	33.10

**Retirement Rates**

<u>General Government</u>		<u>Fire/Police</u>	
<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
55-59	10%	55-59	50%
60-64	25%	60	100%
65	100%		
<u>Fire/Police Chief</u>		<u>Fire/Police Supervisor</u>	
<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
65	100%	62	100%

**Date of Valuation**

January 1, 2015



**Discount Rate**

6.75% per annum

**Long-Term Rate of Return**

6.75% based on the following investment allocation:

Core Bond Index	14%
Milestone Retirement Portfolio	14%
Conservation Growth Portfolio	40%
Traditional Growth Portfolio	32%

<u>Portfolio Name</u>	<u>Investment Mix</u>		
Core Bond Index	96% bonds,	0% stocks,	4% other
Milestone Retirement	69% bonds,	26% stocks,	5% other
Conservative Growth	60% bonds,	40% stocks,	0% other
Traditional Growth	40% bonds,	60% stocks,	0% other

The combined distribution is 59.90% bonds, 38.84% stocks, and 1.26% other.

**Salary Scale**

Salaries increase at 4% per year.

**Actuarial Valuation Method**

Entry Age Normal Method. A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit age(s).

**Asset Valuation Method**

The actuarial value of plan assets is developed by adjusting expected assets on the valuation date toward market value assets by an amount equal to one-third of the difference between expected and market asset values. Expected assets are developed by crediting investment earnings at the assumed valuation investment return rate to the prior year valuation asset value and by deducting expenses and benefit payments and crediting contributions adjusted for investment earnings thereon.

**Health Care Cost Trend Rate**

8% graded uniformly to 5% over 6 years

**Full Eligibility Date**

Employees are fully eligible for postretirement medical and life insurance once they reach age 55 with 20 years of service. For General Government valuation purposes, eligibility is set at reaching the earlier of age 55 with 30 years of service, or age 60 with 20 years of service, which is the first date an employee is eligible for postretirement medical and life insurance benefits as well as an unreduced TCRS retirement benefit. Fire and Police employees are eligible at age 55 with 20 years of service. Officials who retire at age 55 with 10 years of service are eligible for medical coverage, but the retiree pays 100% of the cost.

**Disability Eligibility**

It is assumed that employees are eligible for medical benefits upon disability, as defined and approved by TCRS, if they have at least 5 years of service. Health insurance coverage terminates at age 65.

**Medical Benefits - Coordination with Medicare**

Benefits for retirees are deemed to be similar to those benefits provided for actives. The retiree medical plan is assumed to be the primary plan of benefits prior to age 65. Once the retiree reaches age 65, the City of Brentwood reimburses a portion of a Medicare Supplemental Plan purchased by the retiree, discussed in the cost sharing section below. Medicare benefits are assumed to be those statutory benefits effective as of the valuation date for all future periods.

**Legislative Changes**

The valuation results provided in this report reflect a best estimate of the potential impact of the Patient Protection and Affordable Care Act (PPACA). Consideration has been made for provisions of the law that are effective as of the valuation date as well as those provisions that will take effect in the future.

**Retiree Cost Sharing Provisions for Medical Coverage**

No retiree contributions are required for pre-65 retiree coverage for participants hired prior to July 1, 2005. Participants hired on or after July 1, 2005 will pay 25% of the premium if they have less than 25 years of service, and 10% of the premium if they have 25 years of service or more. For those employees who retired prior to July 1, 2002, the City reimburses the retiree for 100% of the cost of the post-65 Medicare Supplemental Plan which the retiree chooses to purchase independently. Employees hired before July 1, 2005 that retire after July 1, 2002 also receive a reimbursement from the City for a post-65 Medicare Supplemental Plan. However, there is an annual cap of 50% of the lowest priced employee-only group health insurance coverage. The current reimbursement maximum is \$2,576. Employees hired on or after July 1, 2005 do not receive a reimbursement from the City for a post-65 Medicare Supplemental Plan.

**Annual Per Capita Medical Claim Costs – Age 65**

For employees retiring after July 1, 2002, the post-65 claims are equal to the cap, which increases with trend. For those who retired prior to July 1, 2002, the post-65 claims are actual amounts provided by the City of Brentwood.

Pre-65	\$	7,391
Post-65 Cap	\$	3,696

Annual claims costs are assumed to decrease 3% per year until age 45. Administration expenses are included. In addition to the claims listed above, the city also provides an annual HRA account balance to each retiree. Single employees are allocated \$5,500 per year and families are allocated \$11,000. The HRA account balances do not accumulate and any outstanding account balance reverts to the employer if unused at the end of any given plan year. Based on actual plan experience, it is assumed that the City of Brentwood will spend \$1,054 per annum from the Health Reimbursement Account of each eligible pre-65 retiree.

**Administrative and Stop Loss Costs for Medical Benefits**

It is assumed that administration expenses for medical benefits will be \$642 per employee in the first year of the valuation, increasing 3% annually.

It is assumed that stop loss reinsurance expenses will be \$1,018 per employee in the first year of the valuation, increasing 3% annually.

**Election of Future Postretirement Coverage**

Participants hired before July 1, 2005 - Assume 100% of eligible retirees elect coverage and 75% of spouses elect coverage.

Participants hired on or after July 1, 2005 - Assume 90% of eligible retirees elect coverage and 50% of spouses elect coverage.

**Investment of Plan Funds**

The Plan assets are held in custody and invested in accordance with the investment policy authorized by the City of Brentwood OPEB Investment Committee.

**Dependents**

Participants hired before July 1, 2005 - The City of Brentwood contributes 50% of the cost of premiums for the spouses of retirees until the earlier of the spouse reaching age 65, or the retiree reaching age 65, at which time spouses no longer receive medical coverage.

Participants hired on or after July 1, 2005 - The City of Brentwood does not contribute toward the cost of premiums for the spouses of retirees. However, coverage is offered until the earlier of the spouse reaching age 65, or the retiree reaching age 65, at which time spouses no longer receive medical coverage.

**Death of Retiree**

Upon the death of a retiree, the surviving spouse is no longer eligible for coverage.

**Life Insurance Benefit**

Participants hired before July 1, 2005 - Retirees are eligible for a \$50,000 life insurance policy, which reduces to \$32,500 at age 70, and reduces to \$22,500 at age 75.

Participants hired on or after July 1, 2005 - Retirees are eligible for a \$50,000 life insurance policy to age 65.

It is assumed that administration expenses for life insurance benefits will be \$675 in the first year of the valuation, increasing 3.0% annually.

**Amortization Period**

30 years (closed)

**PLAN ASSETS**

## Summary of Operations

	2013 - 2014	2014- 2015*
Trust Fund, July 1	\$ 5,935,600	\$ 7,028,864
Increases		
Employer Contributions	\$ 443,161	\$ 434,063
Net Investment Gains	650,103	445,423
Total increases	\$ 1,093,264	\$ 879,486
Decreases		
Benefit payments	\$ 0	\$ 0
Other Expenses	0	0
Total decreases	\$ 0	\$ 0
Trust Fund, June 30	\$ 7,028,864	\$ 7,908,350

\*Actual asset value as of June 30, 2014 was projected forward to June 30, 2015.

## PLAN ASSETS

## Development of Valuation Assets

The development of valuation assets for the plan as of July 1, 2015 and July 1, 2016 is presented below:

	FYE 2015	FYE 2016
(1) Valuation assets, beginning of period	\$ 6,699,395	\$ 7,675,196
(2) Expected interest on prior year assets	412,013	518,076
(3) Contribution for the fiscal year	434,063	488,723
(4) Expected interest on contributions	13,148	16,225
(5) Benefit payments*	0	0
(6) Expected interest on benefit payments	0	0
(7) Expected assets, end of period	\$ 7,558,619	\$ 8,698,220
(8) Market value of assets, end of period**	\$ 7,908,350	\$ 8,947,112
(9) Adjustment to expected assets, ((8) – (7)) / 3	116,577	82,964
(10) Value of assets, End of Period, (7) + (9), but within 20% of market value	\$ 7,675,196	\$ 8,781,184
Market value assets, end of period	\$ 7,908,350	\$ 8,947,112
Receivable contribution	0	0
Total	\$ 7,908,350	\$ 8,947,112

\*No benefit payments were made from the Trust Fund.

\*\*Estimated based on actual market value of assets as of June 30, 2014.

## ACTUARIAL COMPUTATIONS

### Actuarial Balance Sheet as of July 1

		July 1, 2015	July 1, 2016
Assets			
	Actuarial Asset Value	\$ 7,675,196	\$ 8,781,184
	Unfunded Accrued Liability	5,126,146	5,077,636
	Present Value of Future Normal Costs	3,760,001	3,586,891
	Total	\$ 16,561,343	\$ 17,445,711
Liabilities			
	Present Value of Benefits		
	Active Participants	\$ 14,566,690	\$ 15,500,007
	Inactive Participants	1,994,653	1,945,704
	Total	\$ 16,561,343	\$ 17,445,711

### Determination of Annual Required Contribution

The funding requirements for the plan are equal to the normal cost plus the amortization bases of annual outstanding balances. An interest adjustment has been added to reflect payment at the midpoint of the fiscal year.

	2015 - 2016	2016 - 2017
Normal Cost	\$ 399,916	\$ 419,912
Sum of Amortized Bases	298,388	306,717
Interest	23,183	24,123
Annual Required Contribution	\$ 721,487	\$ 750,752

## Sensitivity Testing of Actuarial Assumptions

The results of this valuation must be viewed as estimates of the actual results that will occur in the future. It is important to realize that actual results will likely be either higher or lower than these estimates. In addition, certain assumptions are more critical to the valuation results. The impact caused by change or volatility in these key assumptions can be illustrated by providing valuation results after varying these assumptions. In particular, sensitivity results are shown below for the revision of one key assumption: increasing the health care cost trend assumption from “8% grading to 5% over 6 years” to “9% grading to 6% over 6 years.”

### 2014 – 2015 Plan Year Comparison

	<u>Base Results</u>	<u>Revisions</u>
Normal Cost	\$ 399,916	\$ 484,388
Sum of Amortized Bases	298,388	415,218
Interest	23,183	29,866
Annual Required Contribution	<u>\$ 721,487</u>	<u>\$ 929,472</u>
ARC as a percentage of projected pay	5.66 %	7.30 %

**Schedule of Funding Progress**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) – Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
07/01/2010	\$ 3,406,762	\$ 8,405,507	\$ 4,998,745	39.0 %	\$ 13,095,851	38.2 %
07/01/2011	\$ 4,179,023	\$ 8,260,634	\$ 4,081,611	50.6 %	\$ 12,472,750	32.7 %
07/01/2012	\$ 4,963,204	\$ 9,112,628	\$ 4,149,424	54.5 %	\$ 12,971,660	32.0 %
07/01/2013	\$ 5,853,881	\$ 9,569,585	\$ 3,715,704	61.2 %	\$ 12,672,263	29.3 %
07/01/2014	\$ 6,699,395	\$ 10,410,304	\$ 3,710,909	64.4 %	\$ 13,179,154	28.2 %
07/01/2015	\$ 7,675,196	\$ 12,801,342	\$ 5,126,146	60.0 %	\$ 12,738,804	40.2 %
07/01/2016	\$ 8,781,184	\$ 13,858,820	\$ 5,077,636	63.4 %	\$ 13,248,356	38.3 %

**Schedule of Employer Contributions**

Plan Year	Annual OPEB Cost	Total Contribution	Percentage Contributed
2010-2011	\$ 613,541	\$ 613,541	100.0 %
2011-2012	\$ 582,210	\$ 582,210	100.0 %
2012-2013	\$ 632,582	\$ 635,575	100.5 %
2013-2014	\$ 570,067	\$ 570,067	100.0 %
2014-2015	\$ 599,584	TBD	TBD
2015-2016	\$ 707,480	TBD	TBD
2016-2017	\$ 740,390	TBD	TBD