



Kent County Levy Court

Actuarial Valuation of the Pension Plan of Kent County, Delaware As of January 1, 2009

March 16, 2009

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March 16, 2009

Pension Review Committee
Kent County Levy Court
Kent County Administrative Complex
555 Bay Road
Dover, DE 19901

SMART Business Advisory and Consulting, LLC is pleased to present the results of this January 1, 2009 actuarial valuation of the Pension Plan of Kent County, Delaware (“Plan”). This report should be used to determine costs for the fiscal year ending June 30, 2009.

The purposes of this valuation are:

- to review and report the funded status of the plan under Chapter 83 Section 17 of the Kent County Code; and
- serve as a guideline for contributions to be made for the fiscal year.

The information presented in this report is based on our understanding of the provisions of the Plan and a reasonable interpretation of applicable federal and state statutes and regulations. If you have any questions or would like to discuss the results contained in the report further, please let us know.

Respectfully submitted,

Mark W. Ohnsted, ASA, EA, MAAA
Actuary

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Kent County Levy Court (“County”) provides pension benefits to employees who meet certain criteria. These pension benefits are described under Chapter 83 of the Kent County Code (“Code”) and are commonly referred to as the Pension Plan of Kent County, Delaware (“Plan”). This report presents the results of the actuarial valuation of the Plan for purposes of determining the contribution requirements for the year and the accounting cost for the County’s financial reporting.

Contribution Requirements

Under section 17 of Chapter 83 of the Code, an actuary shall at least biennially review the pension fund and shall report to the County government whether any additional sums of money are needed to keep the pension found actuarially sound so that sufficient funds will always be available to pay the benefits provided.

The Plan’s funded status has worsened since the previous valuation as the table below indicates. The major reasons for the decline in the financial strength of the Plan are:

- asset losses during 2008;
- an increase in plan participants from 477 to 525; and
- an increase in pension benefit granted to certain participants in payment status.

	<u>January 1, 2009</u>	<u>January 1, 2007</u>
Present Value of Benefits	\$ 39,068,538	\$ 32,337,697
Market Value of Assets	\$ 19,615,805	\$ 22,321,878
Unfunded Amount	\$ 19,452,733	\$ 10,015,819

Historically, the County has adopted a funding policy that amortizes any unfunded liability over a 30 year period. Based on the actuarial methods and assumptions used in this valuation and the Code in effect on January 1, 2009, the recommended contribution is determined to be:

	<u>Fiscal Year Ending</u>	
	<u>2010 and 2011</u>	<u>2008 and 2009</u>
Normal Cost (end of year)	\$ 2,022,142	\$ 1,138,905
Amortization Amount	\$ 111,356	\$ 82,098
Recommended Contribution	\$ 2,133,498	\$ 1,221,003

Plan Assets

Pursuant to Section 17 of Chapter 83 of the Code, the County shall establish and maintain a pension fund which shall be used for the purpose of paying the benefits provided. Each year the company makes contributions to the trust, and the trust pays related expenses and benefit payments to participants. The trust also generates income from its investments that are used to help pay for the benefit payments and plan expenses in future years.

The trustee reports the market value of assets that includes the net changes in the appreciation or depreciation of the investments held. In order to smooth any

temporary fluctuations in these asset values, we have employed an actuarial value of assets in determining plan costs.

Plan assets used for this valuation are:

	<u>January 1, 2009</u>	<u>January 1, 2007</u>
Actuarial Value of Assets	\$ 21,577,386	\$ 21,511,292
Market Value of Assets	\$ 19,615,805	\$ 22,321,878

Plan Participants

A file of employee data was provided to us by the County which contained basic indicative, compensation and employment information for each employee. An audit of the data was not made. However, a thorough check of data was done, reconciling last year’s data with the new data. This data was checked for internal consistency and for consistency with last year’s data. Information regarding plan participants is shown below.

	<u>January 1, 2009</u>	<u>January 1, 2007</u>
Active	279	250
Retired	145	129
Disabled Receiving	0	3
Disabled Deferred	1	1
Deferred	100	94
Total	525	477

Actuarial Certification

This report presents the results of the actuarial valuation of the Pension Plan of Kent County, Delaware.

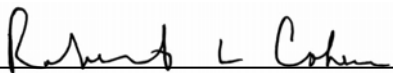
The purpose of this valuation is to provide:

- to review and report the funded status of the plan under Chapter 83 Section 17 of the Kent County Code; and
- serve as a guideline for contributions to be made for the fiscal year.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the Kent County Levy Court. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of the review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results.

In our opinion, all calculations and procedures are in conformity with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board. In addition, the results comply with the requirements of the applicable Statements of Financial Accounting Standards and the Internal Revenue Code including the economic and demographic assumptions used which are based on plan experience and reflect the economic market conditions as appropriate.

We are available to answer any questions regarding this material or to provide explanations and further details, as may be appropriate. The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this report.



Robert L. Cohen, FSA, EA, MAAA



Mark W. Ohnsted, ASA, EA, MAAA

Under section 17 of Chapter 83 of the Code, an actuary shall at least biennially review the pension fund and shall report to the County government whether any additional sums of money are needed to keep the pension fund actuarially sound so that sufficient funds will always be available to pay the benefits provided.

In this section we determine the contribution requirements to the trust based on the results of the actuarial valuation.

The cost method used to determine the funded status of the Plan and the annual contribution requirements is the Frozen Entry Age Actuarial Cost Method. Under this cost method, an initial actuarial liability is determined and funded as an amortized amount. Each year the unfunded frozen actuarial liability is reconciled since the previous valuation as shown in the following table.

Calculation of Unfunded Frozen Actuarial Liability as of January 1, 2009		
		<u>2008</u>
1. Unfunded Frozen Actuarial Liability on December 31, 2007	\$	924,245
2. Normal Cost		1,054,542
3. Contribution		1,221,003
4. Interest at 8.0% per annum on:		
A. Unfunded Actuarial Liability		73,940
B. Normal Cost		84,363
C. Contribution		48,840
D. Total		109,463
5. A. Unfunded Frozen Actuarial Liability Before Changes		867,247
B. Increase Due to Plan Amendment		386,373
C. Increase Due to Assumption Change		0
D. Unfunded Frozen Actuarial Liability After Changes	\$	1,253,620

The unfunded frozen actuarial liability is funded as a level dollar amount over a fixed period. The current funding policy is to fund over a 30-year period.

The amount of the present value of total benefits in excess of the assets is funded as a level percentage of compensation for all current active employees. This allows for the allocation of the expected cost of the Plan to current and future years. The amount allocated to the current year is the *normal cost* and is determined as follows:

Normal Cost Calculation			
		<u>2009</u>	<u>2007</u>
1. Actuarial Present Value of Future Benefits			
Non-Actives	\$	12,316,143	\$ 9,438,529
Active		26,752,395	22,899,168
Total		39,068,538	32,337,697
2. Actuarial Value of Assets		21,577,386	21,511,292
3. Unfunded Frozen Actuarial Liability		1,253,620	924,245
3. Actuarial Present Value of Future Normal Costs		16,237,533	9,902,160

Normal Cost Calculation		
	<u>2009</u>	<u>2007</u>
4. Actuarial Present Value of Future Compensation	109,667,189	94,075,149
5. Normal Cost as a Percent of Compensation	14.81%	10.53%
6. Annual Compensation Under Assumed Retirement Age	12,645,748	10,018,638
7. Expenses	0	0
8. Normal Cost	\$ 1,872,354	\$ 1,054,542

Historically, the County has adopted a funding policy that amortizes any unfunded liability over a 30 year period. Based on the actuarial methods and assumptions used in this valuation and the Code in effect on January 1, 2009, the recommended contribution is determined to be:

	Range of Contributions	
	Contribution for Fiscal Year Ending	
	<u>2010 and 2011</u>	<u>2008 and 2009</u>
Immediate Funding of Unfunded Liability	\$ 3,376,051	\$ 2,137,090
5-Year Amortization of Unfunded Liability	\$ 2,336,119	\$ 1,370,388
20-Year Amortization of Unfunded Liability	\$ 2,149,826	\$ 1,233,041
30-Year Amortization of Unfunded Liability	\$ 2,133,498	\$ 1,221,003

The benefits under the Plan are funded by contributions regularly made to the Trustee. The Trustee holds and invests the accumulated monies and disburses from the fund any benefits that become payable upon retirement, death or termination of employment.

The market value of assets is presented below.

Market Value of Assets		
	<u>12/31/2008</u>	<u>12/31/2007</u>
Market Value of Assets	\$ 19,615,805	\$ 24,657,580

Since the prior valuation the fund has changed as indicated below.

Trust Receipts and Disbursements		
	<u>2008</u>	<u>2007</u>
Assets at Beginning of Year	\$ 24,657,580	\$ 22,321,878
Additions:		
Contributions	1,221,003	1,221,003
Income from Dividends and Interest on Investments	332,238	
Realized and Unrealized Gains on Investments	(5,379,128)	2,221,693 ¹
Total Additions	\$ (3,825,887)	\$ 3,442,696
Deductions:		
Benefit Payments	1,062,264	964,933
Administrative Expenses	153,624	142,061
Total Deductions	\$ 1,215,888	\$ 1,106,994
Net Additions	\$ (5,041,775)	\$ 2,335,702
Assets at End of Year	\$ 19,615,805	\$ 24,657,580

An actuarial value of assets is used in determining Plan costs. This method was developed to smooth the effect of temporary fluctuations in asset market values to reduce volatility in the contribution requirements.

The expected actuarial value of assets is calculated by assuming the previous year's value (including receipts and disbursements) earned the valuation interest rate of 8%. This expected value is restricted to within 10% of the actual market value. The Plan realizes an actuarial gain if the expected value is less than 90% of the market value or an actuarial loss if more than 110%. No gain or loss from investments is realized as long as the expected actuarial value of assets is within 10% of the market value. Any long term difference between the actual and assumed earnings of the fund will ultimately be reflected in the costs of the Plan.

¹ Includes dividends and interest income.

The actuarial value of assets is determined in the table below.

Actuarial Value of Assets			
		<u>2008</u>	<u>2007</u>
1. Actuarial Value of Assets at Beginning of Year	\$	23,350,764	\$ 21,511,292
2. Contributions		1,221,003	1,221,003
3. Benefit Payments		1,062,264	964,933
4. Expenses		153,624	142,061
5. Interest at 8% per annum on:			
A. Actuarial Value of Assets		1,868,061	1,720,903
B. Contributions		48,840	48,840
C. Benefit Payment and Expenses		48,636	44,280
D. Net Interest	\$	1,868,265	\$ 1,725,463
6. Expected Actuarial Value of Assets		25,224,144	23,350,764
7. Market Value of Assets		19,615,805	24,657,580
8. Market Value Floor		17,654,225	22,191,822
9. Market Value Ceiling		21,577,386	27,123,338
10. Actuarial Value of Assets at End of Year	\$	21,577,386	\$ 23,350,764

This actuarial valuation is based on participation data provided by the County. Participation in the Plan is based on Section 3 Chapter 83 of the Code and includes current employees of the County who satisfy eligibility requirements for participation in the Plan and former employees who are receiving or are entitled to receive a benefit under the Plan.

The Plan participants included in this valuation is described below.

Plan Participants		
	<u>January 1, 2009</u>	<u>January 1, 2007</u>
1. Active Employees	279	250
2. Retired	132	116
3. Survivors	13	12
4. Disabled	1	4
5. Deferred	<u>100</u>	<u>95</u>
6. Total Participants	525	477

Data reconciliation between the current and prior valuation dates is shown below.

	Active Non Ppts	Active Ppts	Term Vested	Disabled	Retired	Survivors	Total
At 1/1/2007	27	250	95	4	116	12	504
Change Due to:	0	0	0	0	0	0	0
Active Non Participants	18	0	0	0	0	0	18
Active Participants	(22)	62	(1)	0	0	0	39
Terminated Not Vested	(5)	(8)	0	0	0	0	(13)
Terminated Vested	0	(8)	8	0	0	0	0
Disabled	0	0	0	0	0	0	0
Retired	0	(19)	0	(3)	22	0	0
Died	0	0	(2)	0	(8)	(1)	(11)
Survivors	0	0	0	0	0	1	1
Data Change	<u>0</u>	<u>2</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>1</u>	<u>5</u>
Total Change	(9)	29	5	(3)	16	1	39
At 1/1/2009	18	279	100	1	132	13	543

The assumptions and methods displayed in this section were selected from the complete set of assumptions used to calculate liabilities for the plan. Kent County Levy Court has reviewed the assumptions and recommended to the actuary that they be used.

A. DISCOUNT RATE

The rate used to discount liabilities is 8.0%.

B. MORTALITY

Mortality assumptions use the RP-2000 Combined Healthy table.

C. SALARY SCALE

Compensation was assumed to increase 5% per annum.

D. COST METHOD

The Frozen Entry Age Normal Cost Method.

E. ASSET VALUATION METHOD

An actuarial value of assets is used. On each valuation date, the expected assets are determined by increasing the previous actuarial value of assets and the net receipts and disbursements at the valuation interest rate. This expected value is used, but it is limited to be within 10% of the market value.

F. MORTALITY RATES

Mortality for the valuation is the RP-2000 Combined Healthy Table. Disabled participants set rates forward 10 years. Select mortality rates are listed below.

Mortality Assumptions		
Age	Base Rates	
	Male	Female
20	0.00035	0.00019
25	0.00038	0.00021
30	0.00044	0.00026
35	0.00077	0.00048
40	0.00108	0.00071
45	0.00151	0.00112
50	0.00214	0.00168
55	0.00362	0.00272
60	0.00675	0.00506
65	0.01274	0.00971
70	0.02221	0.01674
75	0.03783	0.02811
80	0.06437	0.04588
85	0.11076	0.07745
90	0.18341	0.13168
95	0.26749	0.19451
100	0.34456	0.23747

Mortality Assumptions		
Age	Base Rates	
	Male	Female
105	0.39789	0.29312
110	0.40000	0.36462
115	0.40000	0.40000
>=120	1.00000	1.00000

G. DISABILITY RATES

Disability for the valuation is based on the 1977 Reports of the Society of Actuaries. Select disability rates are listed below.

Disability Assumptions		
Age	Base Rates	
	Male	Female
20	0.00077	0.00077
25	0.00077	0.00077
30	0.00091	0.00091
35	0.00116	0.00116
40	0.00203	0.00203
45	0.00358	0.00358
50	0.00617	0.00617
55	0.01075	0.01075
60	0.01397	0.01397
65	0	0

I. RETIREMENT RATES

Select retirement rates per 100 are listed below.

Retirement Assumptions		
Age	Base Rates	
	Male	Female
55	10	10
56	0	0
57	0	0
58	0	0
59	0	0
60	10	10
61	10	10
62	20	20
63	10	10
64	10	10
65	100	100

J. TERMINATION RATES

Termination rates for the valuation are based on Table T-5 as set forth by the Actuaries Pension Handbook. Select termination rates per 100 are listed below:

Termination Assumptions		
Age	Base Rates	
	Male	Female
20	7.94	7.94
25	7.72	7.72
30	7.22	7.22
35	6.28	6.28
40	5.15	5.15
45	3.98	3.98
50	2.56	2.56
55	0.94	0.94
60	0.09	0.09
65	0.00	0.00

The following summary of plan provisions represents our understanding of Article 1 Section 83 of the Code of Kent County referred to as the Kent County Employee Retirement Program.

Employees who retire from the County may be eligible for pension benefits pursuant to the provisions below.

Effective Date	June 18, 1957
Covered Employee	An employee with Kent County who receives a regular salary directly from Kent County and receives or is eligible to receive County paid benefits including the following: <ul style="list-style-type: none">➤ Elected officials of Kent County;➤ Board of Assessment members; and➤ Part-time employees working more than 1,000 hours per calendar year.
Average Monthly Base Salary	The highest 36 consecutive months of Salary.
Salary	Annual compensation approved and paid by the County government for the position(s) held, excluding overtime or special pay for any calendar year where the covered employee worked at least 1,000 hours. Payroll deductions shall not reduce the annual compensation (salary) amount.
Service	Regular employment as a covered employee with Kent County for more than 1,000 hours in any calendar year. If a covered employee had similar employment with New Castle County, Sussex County of the State of Delaware prior to June 27, 1986, such years of service shall be recognized and included for pension benefits, provided that such covered employee by Kent County on or before June 27, 1986.
Retirement Pension Benefit	The monthly pension payable shall be 2% of the Average Monthly Base Salary multiplied by the number of years of Service.
Vested Benefit	A Covered Employee is vested in their Retirement Pension Benefits as follows: <ul style="list-style-type: none">➤ 100% after 5 years of Service; or➤ For those hired before April 5, 1988, 50% when an employee's age plus Service equals 50, increased by 10% for each additional year up to a maximum of 100%.
Normal Retirement	Age 62 with 5 years of Service.

Early Retirement

A Covered Employee may retire prior to age 62 upon satisfying:

- Any age and 30 years of Service, or
- Age 55 and 20 years of Service, or
- Age 60 and 15 years of Service.

Amount is Vested Benefit payable at actual retirement date.

Disability

A Covered Employee who shall become disabled while in Covered Employment and covered under County-provided long-term disability insurance shall be considered as remaining in Covered Employment until they retire or the cessation of disability insurance if earlier.

Death Benefit

Upon the death of a Vested Covered Employee who has not commenced receipt of a Retirement Pension Benefit the beneficiary shall be entitled to receive a death benefit as follows:

- 50% of the Retirement Pension Benefit the Covered Employee would have received had they terminated employment on the date of death, survived to the earliest retirement age and elected to retire with a single life annuity if the beneficiary is a surviving spouse; or
- 50% of the Retirement Pension Benefit the Covered Employee would have received had they terminated employment on the date of death, survived to the earliest retirement age and elected to retire with a 50% Joint and Survivor Annuity if the beneficiary is not a surviving spouse.

Form of Payment

The Retirement Pension Benefit payable at retirement can be paid in any of the actuarially equivalent optional forms of payment:

- Lump Sum - a single lump sum (not available if the lump sum amount exceeds \$3,500);
- Life Only - Equal monthly payments for life;
- 100% Joint & Survivor - Equal monthly payments for life with 100% of the monthly payment continuing to a surviving beneficiary upon the Covered Employees death;
- 75% Joint & Survivor Equal monthly payments for life with 75% of the monthly payment continuing to a surviving beneficiary upon the Covered Employees death;
- 50% Joint & Survivor Equal monthly payments for life with 50% of the monthly payment continuing

Section VI – Plan Provisions

to a surviving beneficiary upon the Covered Employees death;

- 10 Year Certain & Life - Equal monthly payments for life with the first 120 monthly payments guaranteed; or
- 5 Year Certain & Life Equal monthly payments for life with the first 60 monthly payments guaranteed.

Member Contributions

Voluntary up to 10% of annual salary.