City of Greenville
Firemen's Pension Fund

Funding Report as of July 1, 2008
For the Plan Year Ending June 30, 2009
And For The Fiscal Year Ending June 30, 2009

Actuarial Valuation

November 5, 2008

Board of Trustees
Greenville Fire Department
City Hall
206 South Main Street
Greenville, SC 29601

Gentlemen:

Stanley, Hunt, DuPree & Rhine, Inc. has prepared an actuarial review for The City of Greenville Firemen's Pension Fund as of July 1, 2008. The financial information presented in this valuation is applicable to the twelve months ending June 30, 2009. The purpose of the review is to:

- determine the existing and projected plan liabilities for benefits earned by active, retiree, and widowed participants.

- determine the sufficiency of current funding levels and investment returns.

- provide disclosures which can be utilized to meet all of the requirements of the Government Accounting Standards Board Statements relating to the Pension Fund.

The Table of Contents following this letter outlines the text and tables included in this report.

The information contained herein is not intended or written to be used, and cannot be used, for the purpose of avoiding tax-related penalties.

Sincerely,
Stanley, Hunt, DuPree & Rhine, Inc.

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TBP: PBB
Attachments

Table of Contents

Introduction

In this section, the basis of the valuation is presented and described. This information - the provisions of the plan and census of participants - is the foundation of the valuation, since these are the present facts upon which benefit payments will depend.

The valuation is based upon the premise that the plan will continue in existence, so that future events must also be considered. These future events are assumed to occur in accordance with the actuarial assumptions and concern such events as the earnings of the fund, the number of participants who will remain to retirement, their ages at retirement and expected benefits.

The actuarial assumptions and methods that have been adopted by the Plan sponsor are described in this section.

Summary of Plan Provisions

Effective Date

June 25, 1946

Eligibility Requirements

All regular employees of the Fire Department hired prior to the attainment of age 35 are eligible for benefits provided by this plan.

Contributions by Participating Employees

Participating employees contributed initially at the rate of 1% of salary. Salary deductions were increased, effective July 1, 1952, to 3% of salary. Deductions remained at this level until June 24, 1975 when they were raised to the current level of 5.775% of salary. Beginning in the 1997 plan year, the City offered to pay 4% of the State-directed contribution level, so that the net rate is now 1.775%.

Contributions from Other Sources

The following sums are also paid into the Fund:

1. Any money, real estate, personal property or other assets made available by gift, devise or bequest;
2. All forfeitures and fines imposed upon any member of the Department by way of discipline;
3. All proceeds from sales of condemned or discarded personal property and equipment in use by the Department;
4. The income from any tax levy imposed by the City Council in order to supplement or support this fund.

The City currently contributes 19.425% of participating payroll.

Summary of Plan Provisions (continued)

Service Retirement Benefits

A member who has attained age 55 and completed at least 25 years of service may retire with a monthly benefit equal to 50% of his monthly compensation at the time of his retirement. For each year of service in excess of 25 years, an additional 2% of final compensation will be provided. In no event will more than 35 years of service be considered for the purpose of benefit determination. An adjustment of up to 6% of the percentage of benefit will be added to the benefit calculation to reflect accrued general leave time.

Disability Retirement Benefits

1. Line of Duty Disability

   A member who incurs a disability while engaged in the performance of his duty will be retired with a monthly benefit equal to 50% of his monthly compensation at the time of his disability.

2. Disability Other Than in Line of Duty

   a. A member who becomes disabled other than in the line of duty after the completion of 10 years of service will be retired with a monthly benefit equal to one-third of his monthly compensation at the time of disability.

   b. A member who becomes disabled other than in the line of duty after the completion of 20 years of service will be retired with a monthly benefit equal to one-half of his monthly compensation at the time of disability.

Summary of Plan Provisions (continued)

Death Benefits

1. Upon the death of a retired member, the lawful widow will receive a monthly benefit equal to one-half of the benefit which the member was receiving, plus a lump sum of $200. Such monthly benefit shall continue during her lifetime regardless of whether she remarries.

2. Upon death of an active member, the lawful widow will receive a monthly benefit equal to one-half of the member's monthly salary at the time of his death, plus a lump sum of $200. Such monthly benefit shall continue during her lifetime regardless of whether she remarries.

3. If in the case of (1) or (2) above there is no lawful widow, the monthly benefits shall be paid to the surviving children until the youngest child attains age 18.

4. In the case of (2) above, the designated beneficiary may elect to take a refund of the member's contributions with 4% interest thereon in lieu of any monthly pension.

5. The minimum widow's benefit is $750 per month.

Withdrawal Benefits

A member who leaves the service of the Fire Department prior to becoming eligible for retirement benefits shall be entitled to a refund of his contributions plus four percent interest.

Members have a vested interest in their accrued benefits from the retirement plan of fifty percent after ten years of service. For each year of service beyond ten years, a member shall be entitled to an additional ten percent. A member becomes one hundred percent vested in his accrued retirement benefit after the completion of fifteen years of service.

A member's accrued retirement benefit will be based on earnings at the time of termination and will be prorated based on the number of years of actual service at date of termination to the total number of years of service anticipated at retirement age. For this purpose, retirement age is the later of age 55 and completion of 25 years of service. In lieu of a monthly pension, a vested participant may elect upon termination to take a refund of his contributions with 4% interest.

Actuarial Assumptions

Development of Actuarial Assumptions

In determining costs for a retirement program, it is necessary to make certain assumptions as to the expected future experience that will take place within the program. These assumptions include the rates of mortality to be experienced by both the active, retired and widowed plan participants, the rates of termination of employment prior to retirement, the rates at which plan participants can be expected to take disability retirement, the age at which retirement will actually occur, the rates at which salaries will increase, the rate of investment return to be earned by the fund and the expenses to be incurred. The ultimate cost of any given retirement plan will depend upon actual plan experience.

It is possible to derive actuarial assumptions from the experience of the group under consideration. This is most often the case in very large groups. For plans of this size, the assumptions are best determined from the experience of similar groups, and standard published tables are available which can be used. Changes to assumptions will be considered when actual experience differs substantially and when estimates for the future suggest these changes.

Actuarial Assumptions (continued)

1. Actuarial Assumptions for Valuation of Liabilities

   a. Mortality Rate: GAM 83 - Sex Distinct

   b. Disability Rate: The following are examples of the probability that a participant will become disabled within one year. A disabled mortality assumption is also utilized. Duty-related disabilities are assumed to be 50% of all disabilities.

Age	Percentage
25	0.068%
40	0.230%
55	1.176%

   c. Withdrawal Rate: The following are examples of the probability that a participant will terminate within one year for reasons other than death.

Age	Percentage
25	7.72%
40	5.15%
55	0.94%

   d. Salary Scale: Assumes salaries increase at 4% per year. Below is the ratio of salary at normal retirement to salary at the following ages:

Age	Percentage
25	324%
40	180%

   e. Rate of Retirement: Assumed 50% retire each year following attainment of age 55 or the completion of 35 years of service, if later, but not beyond age 62.

   f. Interest Rate:
      Pre-Retirement: 7.0%
      Post-Retirement: 7.0%

   g. Marriage: It is assumed that 75% of the actives are married at death or retirement with spouses that are three years younger.

   h. Other: The inclusion of accrued general leave in the benefit calculation is assumed to increase retirement benefits by 4%.

2. Actuarial Assumptions for Valuation of Assets
   Assets are carried at Market Value for valuation purposes.

Actuarial Cost Method

Description of Valuation Method

The valuation method used is known as the Projected Unit Credit Method. The method divides the cost of funding benefits into two parts: normal cost and past service liability. Normal cost is the present value of the projected normal retirement benefit divided by a participant's total service. Past service liability is the present value of the projected retirement benefit multiplied by the ratio of past service over total service. If the past liability were fully funded, the total annual cost would be normal cost.

Because liabilities under a pension plan are based on actuarial assumptions (mortality, investment return, etc.) which will never precisely coincide with actual experience, variations known as actuarial gains and losses will occur, determined each time an actuarial valuation of the plan is made. Such gains or losses are a component of the unfunded liability and are amortized to determine the recommended contribution.

Changes from Prior Report

1. Plan Provisions

   The monthly benefits for retirees and widows were increased by 2% effective January 1, 2008. This change increased the Plan's Unfunded Liability at July 1, 2008 by $320,820 and increased the Annual Required Contribution and Annual Pension Expense by $44,158.

2. Actuarial Cost Method

   No Changes.

3. Actuarial Assumptions

   No Changes.

Summary of Plan Participants

	June 30, 2007	June 30, 2008
1. ACTIVES		
a. Number	142	140
b. Total Annual Earnings	$ 5,772,974	$ 5,858,246
c. Average Earnings	$ 40,655	$ 41,845
d. Average Current Age	39.7	40.5
e. Average Past Service	16.7	17.3
2. DEFERRED VESTED		
a. Number	3	6
b. Average Annual Deferred Pension	$ 9,415	$ 10,070[1]
3. PARTICIPANTS IN PAY STATUS		
a. Retirees[2]	55	53
b. Surviving Widows	27	28
c. Average Annual Retiree Pension	$ 24,122	$ 25,351
d. Average Annual Widow Pension	$ 13,553	$ 14,510

[1] Excludes benefits for 2 Deferred Vested who will receive lump sums during next year.
[2] Includes 2 Disabled Retirees.

Statement of Assets

	Market Value	
	6/30/2007	6/30/2008
Assets		
Cash & Cash Equivalents	$ 7,091	$ 6,252
Net Accounts Receivable	164,420	195,432
Investments Held by Agent	34,331,973	33,281,975
Total Assets	$ 34,503,484	$ 33,483,659
Liabilities		
Accounts Payables	87	87
Total Liabilities	87	87
Net Assets	$ 34,503,397	$ 33,483,572

Statement of Income and Expenses

Net Assets at 7/1/2007			$ 34,503,397
Income			
Employer Contribution	$ 1,208,454		
Employee Contribution	110,425		
Other Contributions	141,685		
Investment Earnings	1,902,298		
Investment Expenses	(250,073)		
Net Appreciation of Investments	(2,367,210)		
Total Income		$ 745,579	
Expenses			
Pension Payments	1,750,711		
Other Expenses	14,693		
Total Expenses		1,765,404	
Net Income			(1,019,825)
Net Assets at 6/30/2008			$ 33,483,572

Summary of Actuarial Valuation results as of July 1, 2008

1.	Present Value of Benefits		
	a. Active Lives		
	(1) Retirement	$ 20,972,511	
	(2) Vesting	3,288,084	
	(3) Death	831,646	
	(4) Disability	1,551,928	
	(5) Total		26,644,169
	b. Deferred Vesteds		285,953
	c. Retirees		12,733,449
	d. Widows		3,628,359
	e. Total		43,291,930
2.	Present Value of Future Employee Contributions		814,983
3.	Accrued Liability		
	a. Active Lives		19,973,735
	b. Deferred Vesteds		285,953
	c. Retirees		12,733,449
	d. Widows		3,628,359
	e. Total		36,621,496
4.	Actuarial Value of Assets		33,483,572
5.	Actual Unfunded Liability / (Surplus) = [(3)-(4)]		3,137,924
6.	Increase in (3) Due to Method Change	0	
7.	Increase in (3) Due to Benefit Changes	320,820	
8.	Increase in (3) Due to Assumption Change	0	
9.	Expected Unfunded Liability	(850,154)	
10.	Gain or (Loss) = (9)-[(5)-(6)-(7)-(8)]		(3,667,258)
11.	Funding Requirements		
	a. Normal Cost		
	(1) Retirement	528,994	
	(2) Vesting	123,764	
	(3) Death	26,647	
	(4) Disability	48,370	
	(5) Total		727,775
	b. Less Expected Employee Contributions		(95,888)
	c. Net Employer Normal Cost = (a)-(b)		631,887
	d. Ten Year Amortization of Unfunded Liability / (Surplus)		417,542
	e. Minimum Employer Funding Requirement at beginning of Fiscal Year		1,049,429

Plan Termination Liability

1. Assumptions

   a. Discount Rate: 7%

   b. Mortality Table:

      (1) 1983 GAM Sex Distinct

      (2) Females assumed to be 3 years younger than their spouses

      (3) All Active Participants are 100% vested

2. Present Value of Accrued Benefits	$ 32,598,800
3. Market Value of Assets	33,483,572
4. Excess Assets/(Shortfall) = (3)-(2)	$ 884,772

Analysis of Results

Investment Return

During our compilation of the plan's accounting over the prior year, we determined the approximate investment return over each period. We have summarized our results below and included results for the past 20 years.

Year	Estimated Annual Rate of Return	
1988	6.8%	
1989	10.8%	
1990	8.9%	
1991	12.9%	
1992	6.9%	
Five Year Average		9.2%
1993	7.9%	
1994	(2.6)%	
1995	16.3%	
6/30/1997	7.7%	
6/30/1998	8.4%	
Five Year Average		7.4%
6/30/1999	3.4%	
6/30/2000	2.4%	
6/30/2001	10.3%	
6/30/2002	6.5%	
6/30/2003	3.3%	
Five Year Average		5.1%
6/30/2004	7.7%	
6/30/2005	7.2%	
6/30/2006	4.8%	
6/30/2007	12.6%	
6/30/2008	(2.1)%	
Five Year Average		5.9%
Twenty Year Average		6.9%

Analysis of Results (continued)

Actual Salary Increases

Salaries increased over the past year an average of 3.9% (4.0% was assumed), reflecting both merit and cost of living components for some participants.

Retirement

Over the prior year, one participant retired and began receiving payments from the plan. From the retirement rate assumption, one participant was expected to retire.

Death

There were no deaths among active participants, three deaths were reported among retired plan participants, and one death was reported among surviving spouses. Based on the mortality assumption, there were zero deaths assumed for active participants, two deaths for the retired plan participants and one death among the surviving spouses.

Disabilities

There were no disabilities during the period. Based on the disability assumption, we expect about one disability every three years.

Terminations

Six active participants terminated or transferred before the earliest retirement age. Three were paid the amount of their vested benefit. Based on the termination assumption, we expected about seven terminations.

New Participants

During the year ended June 30, 2008, five new participants entered the Plan. Under closed group valuation methodology, no new participants are expected.

Actuarial Gain/Loss Analysis

Total Actuarial Gain/(Loss) from 7/1/2007 through 6/30/2008		$ (3,677,258)
Components of Gain:		
· Gain on assets		
Expected assets at 7/1/2008	$ 36,618,504	
Actual assets at 7/1/2008	33,483,572	
Gain/(Loss)		$ (3,134,932)
· Gain on liabilities		
Expected accrued liability at 7/1/2008	$ 35,768,350	
Actual accrued liability at 7/1/2008 before Plan change	36,300,676	
Gain/(Loss)		$ (532,326)
Aggregate Gain /(Loss)		$ (3,667,258)

Government Accounting Standards Board's (GASB) Statement No. 27

A. Annual Pension Cost for Fiscal Year ending 6/30/2008

1.	Annual Required Contribution	$ 632,088
2.	Interest on Net Pension Obligation (Asset)	(259,261)
3.	Amortization of Net Pension Obligation (Asset)	(509,787)
4.	Annual Pension Cost = (1)+(2)-(3)	$ 882,614

B. Net Pension Obligation (Asset) as of 6/30/2008

1.	Net Pension Obligation (Asset) at Beginning of Year	$ (3,703,730)
2.	Actual Employer Contribution (including other contributions)	1,350,139
3.	Annual Pension Cost	882,614
4.	Net Pension Obligation 6/30/2008 = (1)-(2)+(3)	$ (4,171,255)
5.	Increase/(Decrease) in NPO from Beginning of Period	$ (467,525)

C. Basic Information

1. Amortization Method: Level Dollar
2. Amortization Period: 10 years
3. Amortization Period: Closed Method
4. The employer funding policy is based upon a 1974 City Ordinance (as subsequently modified) that requires an employer contribution of 19.425% of participating payroll. Employee contributions are mandatory at 1.775% of compensation. Contributions are assumed to be made uniformly throughout the year.
5. See contents of 7/1/2008 Actuarial Report for other required disclosures.

GASB Statement No. 27 (continued)

D. Trend Data [3]

	6/30/2008	6/30/2007	6/30/2006
1. Valuation Date	7/1/2008	7/1/2007	7/1/2006
2. Actuarial Value of Assets	$ 33,483,572	$ 34,503,397	$ 31,020,857
3. Actuarial Accrued Liability	36,621,496	34,400,161	34,000,686
4. Unfunded Actuarial Accrued Liability / (Surplus)	3,137,924	(103,236)	2,979,829
5. Assets as % of Actuarial Accrued Liability	91.4%	100.3%	91.2%
6. Annual Covered Payroll	5,858,246	5,772,974	5,523,988
7. Unfunded Actuarial Liability as % of Payroll	53.6%	(1.8)%	53.9%

E. Development of Pension Cost for fiscal year ending 6/30/2009

1. Annual Required Contribution	$ 1,085,538
2. Interest on Net Pension Obligation	(291,988)
3. Amortization of Net Pension Obligation	(574,138)
4. Pension Cost = (1)+(2)-(3)	$ 1,367,688

[3] See July 1, 2007 valuation report for information related to Fiscal Year ending June 30, 2005

Age and Service Distribution

Schedule of Active Participant Data

	Completed Years of Service											
	< 1 Yr.		1-4 Yrs.		5-9 Yrs.		10-14 Yrs.		15-19 Yrs.		20-24 Yrs.	
Age Group	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.
0-24	1	26,460	10	30,052	2	31,305	0	0	0	0	0	0
25-29	2	22,810	9	30,069	5	34,143	0	0	0	0	0	0
30-34	1	29,056	1	30,905	8	33,450	4	36,764	0	0	0	0
35-39	0	0	1	31,880	2	33,081	6	36,952	5	42,174	0	0
40-44	0	0	0	0	0	0	1	36,921	12	41,858	15	44,426
45-49	0	0	0	0	0	0	1	37,094	4	41,173	4	46,937
50-54	0	0	0	0	0	0	0	0	1	44,322	2	47,563
55-59	0	0	0	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0	0	0	0
70+	0	0	0	0	0	0	0	0	0	0	0	0
Total	4	25,284	21	30,187	17	33,358	12	36,899	22	41,917	21	45,203

	Completed Years of Service									
	25-29 Yrs.		30-34 Yrs.		35-39 Yrs.		40 Yrs. +		Total	
Age Group	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.
0-24	0	0	0	0	0	0	0	0	13	29,968
25-29	0	0	0	0	0	0	0	0	16	30,435
30-34	0	0	0	0	0	0	0	0	14	33,901
35-39	0	0	0	0	0	0	0	0	14	37,902
40-44	2	49,582	0	0	0	0	0	0	30	43,493
45-49	16	53,919	0	0	0	0	0	0	25	50,089
50-54	4	53,074	15	60,135	2	54,502	0	0	24	56,782
55-59	0	0	1	48,985	1	59,163	0	0	2	54,074
60-64	0	0	0	0	2	91,431	0	0	2	91,431
65-69	0	0	0	0	0	0	0	0	0	0
70+	0	0	0	0	0	0	0	0	0	0
Total	22	53,371	16	59,438	5	70,206	0	0	140	43,518

Cost of Living Adjustment Projections
Based Upon an Assumed 2% Annual Cost of Living Adjustment

1. Accrued Liability	
a. Active Lives	$ 24,248,230
b. Deferred Vesteds	332,082
c. Retirees	14,979,846
d. Widows	4,271,462
e. Total	$ 43,831,620
2. Actuarial Value of Assets	$ 33,483,572
3. Unfunded Liability = [(1)-(2)]	$ 10,348,048
4. Funding Requirements	
a. Normal Cost	883,517
b. Less Expected Employee Contributions	(95,888)
c. Net Employer Normal Cost	$ 787,629
Option 1:	
d. Ten Year Amortization of Unfunded Liability	1,376,943
e. Minimum Employer Funding for a 2% annual increase = (c)+(d)	$ 2,164,572
Option 2:	
f. Twenty Year Amortization of Unfunded Liability	912,881
g. Minimum Employer Funding for a 2% annual increase = (c)+(f)	$ 1,700,510
5. Current Minimum Employer Funding (see page 12)	$ 1,049,429

Cost of a One-Time COLA for Retirees and Widows

	One-Time 1% COLA	One-Time 2% COLA
1. Accrued Liability (Total)	$ 36,785,114	$ 36,948,732
2. Actuarial Value of Assets	$ 33,483,572	$ 33,483,572
3. Unfunded Liability = [(1)-(2)]	$ 3,301,542	$ 3,465,160
4. Funding Requirements		
a. Net Employer Normal Cost	$ 631,887	$ 631,887
Option 1:		
b. Ten Year Amortization of Unfunded Liability	439,313	461,085
c. Minimum Employer Funding for a One-Time COLA (a)+(b)	$ 1,071,200	$ 1,092,972
Option 2:		
d. Twenty Year Amortization of Unfunded Liability	291,254	305,688
e. Minimum Employer Funding for a One-Time COLA (a)+(d)	$ 923,141	$ 937,575
5. Current Minimum Employer Funding (see page 12)	$ 1,049,429	$ 1,049,429