City of Greenville Firemen's Pension Fund

Report as of July 1, 2006 for the Plan Year Ending June 30, 2007 And for the Fiscal Year Ending June 30, 2007



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Funding Report as of July 1, 2006 For the Plan Year Ending June 30, 2007 And For The Fiscal Year Ending June 30, 2007

Actuarial Valuation

August 25, 2006

Board of Trustees Greenville Fire Department 22 West Broad 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, 2006. The financial information presented in this valuation is applicable to the twelve months ending June 30, 2007. 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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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 the actuarial cost method, or funding method, which has been adopted to guide the sponsor in funding the plan in a reasonable and acceptable manner, 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;
- 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. <u>Disability Rate</u>: 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	Percentag	
25	0.068%	
40	0.230%	
55	1.180%	

c. <u>Withdrawal Rate</u>: 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	0.90%

d. <u>Salary Scale</u>: 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. <u>Rate of Retirement</u>: 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. <u>Marriage</u>: 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

An additional option was added to the Plan. Retirees may elect a 100% Joint and Survivor benefit as the form of payment. Their monthly benefit is reduced to reflect the cost of the additional spousal coverage.

2. Actuarial Cost Method

No Changes.

3. Actuarial Assumptions

No Changes.

Summary of Plan Participants

	June 30, 2005	June 30, 2006
1. ACTIVES		
a. Number	140	142
b. Total Annual Earnings	\$ 5,826,831	\$ 5,523,988
c. Average Earnings	\$ 41,620	\$ 38,901
d. Average Current Age	39.8	39.4
e. Average Past Service	16.7	16.2
2. <u>DEFERRED VESTED</u>		
a. Number	4	3
b. Average Annual Deferred Pension	\$ 8,060	\$ 9,415
3. PARTICIPANTS IN PAY STATUS		
a. Retirees	55	57
b. Surviving Widows	31	32
c. Average Annual Retiree Pension	\$ 23,666	\$ 24,780
d. Average Annual Widow Pension	\$ 11,808	\$ 12,401

Statement of Assets

	Marko	Market Value	
	6/30/2005	6/30/2006	
<u>Assets</u>			
Cash Equivalents	\$ 1,476,347	\$ 1,171,487	
Accounts Receivable: Accrued Income	127,626	117,773	
Investments: Fixed Income Funds Equity Funds Mutual Funds Total Assets	5,862,900 18,334,308 4,157,459 \$ 29,958,640	8,385,970 17,280,589 4,068,148 \$ 31,023,967	
<u>Liabilities</u>			
Payment to Sheehan Expenses	0	3,022 <u>88</u>	
Total Liabilities	0	3,110	
Net Assets	<u>\$ 29,958,640</u>	\$ 31,020,857	

Statement of Income and Expenses

Net Assets at 7/1/2005

\$ 29,958,640

Income

Employer Contribution	\$ 1,183,090
Employee Contribution	108,108
Other Contributions	139,490
Interest Income	1,011,915
Realized Gain/(Loss)	798,276
Unrealized Gain/(Loss)	(75,391)

Total Income

\$ 3,165,488

Expenses

Pension Payments	1,811,202
Fees	292,069

Total Expenses

2,103,271

Net Income

1,062,217

Net Assets at 6/30/2006

\$31,020,857

Summary of Actuarial Valuation

1.	Present Value of Benefits a. Active Lives (1) Retirement (2) Vesting (3) Death (4) Disability (5) Total b. Deferred Vesteds c. Retirees d. Widows e. Total	\$ 17,828,011 3,414,114 800,873 1,481,084	23,524,082 162,116 13,590,897 3,441,448 40,718,543
2.	Present Value of Future Normal Cost		6,717,857
3.	Accrued Liability a. Active Lives b. Deferred Vesteds c. Retirees d. Widows e. Total		16,806,225 162,116 13,590,897 3,441,448 34,000,686
4.	Actuarial Value of Assets		31,020,857
5.	Actual Unfunded Liability = [(3)-(4)]		2,979,829
6. 7. 8. 9.	Increase in (3) Due to Method Change Increase in (3) Due to Benefit Changes Increase in (3) Due to Assumption Change Expected Unfunded Liability	0 0 0 2,818,161	
10.	Gain or Loss = (9) - $[(5)$ - (6) - (7) - (8)]		(161,668)
11.	Funding Requirements a. Normal Cost (1) Retirement (2) Vesting (3) Death (4) Disability (5) Total b. Less Expected Employee Contributions c. Net Employer Normal Cost = (a)-(b) d. Ten Year Amortization of Unfunded Liability e. Minimum Employer Funding Requirement	499,676 130,912 25,087 44,602	700,277 (92,975) 607,302 396,505 1,003,807

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

\$ 29,853,945

3. Market Value of Assets

31,020,857

4. Excess Assets/(Shortfall) = (3)-(2)

\$ 1,166,912

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
1986	9.9%
1987	3.5%
1988	6.8%
1989	10.8%
1990	8.9%
Five Year Average	7.9%
1991	12.9%
1992	6.9%
1993	7.9%
1994	-2.6%
1995	16.3%
Five Year Average	8.1%
6/30/1997	7.7%
6/30/1998	8.4%
6/30/1999	3.4%
6/30/2000	2.4%
6/30/2001	10.3%
Five Year Average	6.4%
6/30/2002	6.5%
6/30/2003	3.3%
6/30/2004	7.7%
6/30/2005	7.2%
6/30/2006	4.8%
Five Year Average	5.9%
Twenty Year Average	7.1%

Analysis of Results (continued)

Actual Salary Increases

Salaries increased over the past year an average of -2.9% (4.0% was assumed), reflecting both merit and cost of living components for some participants. The decrease in compensation was primarily due to overtime being included in the previous year's compensation.

Retirement

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

Death

There was one death among active participants, two deaths were reported among retired plan participants, and two deaths were 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

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

Actuarial Gain/Loss Analysis

\$ (161,668)

Components of Loss:

· Loss on assets

Expected assets at 7/1/2006 \$ 31,662,138

Gain/(Loss) \$ (641,281)

· Gain on liabilities

Expected accrued liability at 7/1/2006 \$ 34,480,299

Actual accrued liability at 7/1/2006 34,000,686

Gain/(Loss) \$ 479,613

Aggregate Loss <u>\$ (161,668)</u>

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

A. Development of Pension Cost for fiscal year ending 6/30/2006

	1. Annual Required Contribution	\$ 1,064,396
	2. Interest on Net Pension Obligation	(257,470)
	3. Amortization of Net Pension Obligation	489,426
	4. Pension Cost = $(1)+(2)+(3)$	\$ 1,296,352
B.	. Net Pension Obligation as of 6/30/2006	
	1. Net Pension Obligation at Beginning of Year	\$ (3,678,148)
	2. Actual Employer Contribution	1,322,580
	3. Pension Cost	1,296,352
	4. Net Pension Obligation $6/30/2006 = (1)-(2)+(3)$	\$ (3,704,376)

C. Basic Information

1. Amortization Method: Level Dollar

5. Increase/(Decrease) in NPO from Beginning of Period

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) requiring an employer contribution of 19.425% of participating payroll. Employee contributions are mandatory at 1.775% of compensation.
- 5. See contents of 7/1/2006 Actuarial Report for other required disclosures.

\$

(26,228)

GASB Statement No. 27 (continued)

D. Trend Data

		6/30/2006	6/30/2005	6/30/2004
1.	Valuation Date	7/1/2006	7/1/2005	7/1/2004
2.	Actuarial Value of Assets	\$ 31,020,857	\$ 29,958,640	\$ 28,295,766
3.	Actuarial Accrued Liability	34,000,686	33,251,695	30,919,527
4.	Unfunded Actuarial Accrued Liability	2,979,829	3,293,055	2,623,761
5.	Assets as % of Actuarial Accrued Liability	91.2%	90.1%	91.5%
6.	Annual Covered Payroll	5,523,988	5,826,831	5,781,490
7.	Unfunded Actuarial Liability as % of Payroll	53.9%	56.5%	45.4%
E. De	evelopment of Pension Cost for fiscal year ending	6/30/2007		
1.	Annual Required Contribution			\$ 1,074,073
2.	Interest on Net Pension Obligation			(259,306)
3.	Amortization of Net Pension Obligation			492,916
4.	Pension Cost = $(1)+(2)+(3)$			\$ 1,307,683

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	s 1.	Avg.		Avg.		Avg.		Avg.		Avg.		Avg.
Group	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.
0-24	5	21,752	9	26,936	2	31,565	0	0	0	0	0	0
25-29	2	27,925	9	29,297	4	31,574	0	0	0	0	0	0
30-34	1	33,815	3	27,761	5	31,955	3	37,184	1	36,128	0	0
35-39	0	0	1	29,162	2	32,266	7	33,554	13	38,576	1	43,332
40-44	0	0	0	0	1	34,315	3	40,203	11	40,798	12	45,739
45-49	0	0	0	0	0	0	2	35,705	2	38,175	12	48,742
50-54	0	0	0	0	0	0	0	0	0	0	3	46,416
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	8	24,803	22	28,115	14	32,003	15	35,897	27	39,361	28	47,013

	Completed Years of Service										
	25-29 Yrs.		30-34 Yrs.		35-39 Yrs.		40 Yrs. +		Total		
Age	·	Avg.		Avg.		Avg.		Avg.		Avg.	
Group	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	
0-24	0	0	0	0	0	0	0	0	16	25,894	
25-29	0	0	0	0	0	0	0	0	15	29,721	
30-34	0	0	0	0	0	0	0	0	13	32,658	
35-39	0	0	0	0	0	0	0	0	24	36,392	
40-44	1	51,698	0	0	0	0	0	0	28	43,010	
45-49	7	50,063	2	57,340	0	0	0	0	25	47,911	
50-54	6	55,791	8	55,041	0	0	0	0	17	53,783	
55-59	0	0	3	66,936	1	69,692	0	0	4	67,625	
60-64	0	0	0	0	0	0	0	0	0	0	
65-69	0	0	0	0	0	0	0	0	0	0	
70+	0	0	0	0	0	0	0	0	0	0	
Total	14	52,635	13	58,139	1	69,692	0	0	142	40,457	

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

1. Accrued Liability

	a. Active Livesb. Deferred Vestedsc. Retireesd. Widows	\$ 20,415,396 195,316 16,002,958 4,047,831
	e. Total	\$ 40,661,501
2.	Actuarial Value of Assets	\$ 31,020,857
3.	Unfunded Liability = [(1)-(2)]	\$ 9,640,644
4.	Funding Requirements	
	a. Normal Cost	850,033
	b. Less Expected Employee Contributions	(92,975)
	c. Net Employer Normal Cost	\$ 757,058
	Option 1: d. Ten Year Amortization of Unfunded Liability	1,282,814
	e. Suggested Employer Funding for a 2% annual increase = (c)+(d)	\$ 2,039,872
	Option 2: f. Twenty Year Amortization of Unfunded Liability	<u>850,475</u>
	g. Suggested Employer Funding for a 2% annual increase = (c)+(f)	\$ 1,607,533

Cost of a One-Time COLA for Retirees and Widows

	One-Time 1% COLA	One-Time 2% COLA
1. Accrued Liability (Total)	\$ 34,171,009	\$ 34,341,333
2. Actuarial Value of Assets	\$ 31,020,857	\$ 31,020,857
3. Unfunded Liability = [(1)-(2)]	\$ 3,150,152	\$ 3,320,476
4. Funding Requirements		
a. Net Employer Normal Cost	\$ 607,302	\$ 607,302
Option 1: b. Ten Year Amortization of Unfunded Liability	419,169	441,833
c. Suggested Employer Funding for a One-Time COLA (a)+(b)	\$ 1,026,471	\$ 1,049,135
Option 2: d. Twenty Year Amortization of Unfunded Liability	277,899	292,925
e. Suggested Employer Funding for a One-Time COLA (a)+(d)	\$ 885,201	\$ 900,227

Cost of Adding Special Retirement Age

	35 & Out ¹
1. Accrued Liability (Total)	\$ 34,148,281
2. Actuarial Value of Assets	\$ 31,020,857
3. Unfunded Liability = [(1)-(2)]	\$ 3,127,424
4. Funding Requirements	
a. Net Employer Normal Cost	\$ 612,766
Option 1: b. Ten Year Amortization of Unfunded Liability	416,145
c. Suggested Employer Funding for Adding Special Retirement Ages = (a)+(b)	\$ 1,028,911
Option 2: d. Twenty Year Amortization of Unfunded Liability	275,894
e. Suggested Employer Funding for Adding Special Retirement Ages = (a)+(d)	\$ 888,660

^{35 &}amp; Out – Members could retire at the earlier of age 55 with 25 years of service, or any age with 35 years of service.

Cost of Adding Special Retirement Age and a One-Time COLA for Retirees and Widows

		35 & Out and One-Time 1% COLA	35 & Out and One-Time 2% COLA
1.	Accrued Liability (Total)	\$ 34,318,604	\$ 34,488,928
2.	Actuarial Value of Assets	\$ 31,020,857	\$ 31,020,857
3.	Unfunded Liability = [(1)-(2)]	\$ 3,297,747	\$ 3,468,071
4.	Funding Requirements		
	a. Net Employer Normal Cost	\$ 612,766	\$ 612,766
	Option 1: b. Ten Year Amortization of Unfunded Liability	438,808	461,472
	c. Suggested Employer Funding for Adding Special Retirement Ages and a One-Time COLA = (a)+(b)	\$ 1,051,574	\$ 1,074,238
	Option 2: d. Twenty Year Amortization of Unfunded Liability	290,920	305,945
	e. Suggested Employer Funding for Adding Special Retirement Ages and a One-Time COLA = (a)+(d)	\$ 903,686	\$ 918,711