City of Greenville Firemen's Pension Fund

Report as of July 1, 2007 for the Plan Year Ending June 30, 2008 And for the Fiscal Year Ending June 30, 2008



A subsidiary of BB&T

City of Greenville Firemen's Pension Fund

Funding Report as of July 1, 2007 For the Plan Year Ending June 30, 2008 And For The Fiscal Year Ending June 30, 2008

Actuarial Valuation

September 10, 2007

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, 2007. The financial information presented in this valuation is applicable to the twelve months ending June 30, 2008. 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.

Traci B. Pennell, QKA, QPA Vice President and Consultant (864) 527-0651

Paul B. Burdulis, ASA, FCA, MAAA Vice President and Actuary (864) 527-0630

TBP: PBB Attachments

Table of Contents

BASIS OF VALUATION

INTRODUCTION	. 1
SUMMARY OF PLAN PROVISIONS	. 2
ACTUARIAL ASSUMPTIONS	. 5
ACTUARIAL COST METHOD	.7
CHANGES FROM PRIOR REPORT	. 8
SUMMARY OF PLAN PARTICIPANTS	.9
PLAN ASSETS	
STATEMENT OF ASSETS	10
STATEMENT OF INCOME AND EXPENSES	11
SUMMARY OF VALUATION RESULTS	
SUMMARY OF ACTUARIAL VALUATION	12
TERMINATION LIABILITY	13
ANALYSIS OF RESULTS 1	14
ACTUARIAL GAIN/LOSS ANALYSIS	16
GOVERNMENT ACCOUNTING STANDARDS BOARD'S (GASB) STATEMENT No. 27 1	17

STUDIES

COST OF LIVING ADJUSTMENT PROJECTIONS	20
COST OF A ONE-TIME COLA FOR RETIREES AND WIDOWS	21

Summary of Plan Provisions (continued)

Death Benefits

- 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.
- 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.

Percentage
0.068%
0.230%
1.176%

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	0.94%		

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. <u>Other</u>: 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.

Statement of Assets

	Market Value		
	6/30/2006	6/30/2007	
Assets			
Cash & Cash Equivalents	\$ 1,171,487	\$ 7,091	
Net Accounts Receivable	117,773	164,420	
Investments Held by Agent	29,734,707	34,331,973	
Total Assets	\$ 31,023,967	\$ 34,503,484	
Liabilities			
Payment to Sheehan Expenses	3,022	0 87	
Total Liabilities	3,110	87	
Net Assets	<u>\$ 31,020,857</u>	<u>\$ 34,503,397</u>	

Statement of Income and Expenses

Net Assets at 7/1/2006

\$ 31,020,857

Income

Employer Contribution Employee Contribution Other Contributions Investment Earnings	\$ 1,174,912 107,360 132,125 3,041,636		
Investment Expenses	(280,271)		
Net Appreciation of Investments	1,149,956		
Total Income		\$ 5,325,718	
Expenses			
Pension Payments	1,829,190		
Other Expenses	13,988		
Total Expenses			
Net Income			3,482,540
Net Assets at 6/30/2007			<u>\$ 34,503,397</u>

Summary of Actuarial Valuation results as of July 1, 2007

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 	\$ 19,440,858 3,410,170 821,777 <u>1,525,019</u>	25,197,824 174,012 12,587,088 <u>3,214,342</u> 41,173,266
2.	Present Value of Future Employee Contributions		830,823
3.	 Accrued Liability a. Active Lives b. Deferred Vesteds c. Retirees d. Widows e. Total 		18,424,720 174,012 12,587,088 <u>3,214,341</u> 34,400,161
4.	Actuarial Value of Assets		34,503,397
5.	Actual Unfunded Liability / (Surplus) = [(3)-(4)]		(103,236)
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 2,474,650	
10.	Gain or Loss = (9)-[(5)-(6)-(7)-(8)]		2,577,886
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 at be 	517,783 129,530 26,348 <u>47,019</u> (Surplus) ginning of Fiscal Year	720,680 (95,880) 624,800 (13,737) 611,063

Plan Termination Liability

1. Assumptions

- a. Discount Rate: 7%
- b. Mortality Table:
 - (1) 1983 GAM Sex Distinct

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

- (2) Females assumed to be 3 years younger than their spouses
- (3) All Active Participants are 100% vested

2.	Present Value of Accrued Benefits	\$ 30,296,356
3.	Market Value of Assets	34,503,397

SHDR. Inc. 13

\$ 4,207,041

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
1987	3.5%
1988	6.8%
1989	10.8%
1990	8.9%
1991	12.9%
Five Year Average	8.5%
1992	6.9%
1993	7.9%
1994	-2.6%
1995	16.3%
6/30/1997	7.7%
Five Year Average	7.1%
6/30/1998	8.4%
6/30/1999	3.4%
6/30/2000	2.4%
6/30/2001	10.3%
6/30/2002	6.5%
Five Year Average	6.2%
6/30/2003	3.3%
6/30/2004	7.7%
6/30/2005	7.2%
6/30/2006	4.8%
6/30/2007	12.6%
Five Year Average	7.1%
Twenty Year Average	7.2%

Analysis of Results (continued)

Actual Salary Increases

Salaries increased over the past year an average of 5.3% (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 seven 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

Five 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.

New Participants

During the year ended June 30, 2007, five new participants and one prior participant entered the Plan. Under closed group valuation methodology, no new participants are expected. The new participant demographic characteristics helped keep active participant average age and service consistent with the prior year values.

SHDR, Inc. 15

Actuarial Gain/Loss Analysis

Total Actuarial Gain/(Loss) from 7/1/2006 through 7/1/2007		\$	2,577,886
Components of Gain:			
· Gain on assets			
Expected assets at 7/1/2007	\$ 32,763,252		
Actual assets at 7/1/2007	34,503,397		
Gain/(Loss)		\$	1,740,145
· Gain on liabilities			
Expected accrued liability at 7/1/2007	\$ 35,237,902		
Actual accrued liability at 7/1/2007	34,400,161		
Gain/(Loss)		\$	837,741
Aggregate Gain		<u>\$</u>	2,577,886

\$ 1,074,073

A. Development of Annual Pension Cost for Fiscal Year ending 6/30/2007 1. Annual Required Contribution 2. Inte 3. An 4. An B. Net Pe 1. Ne 2. Ac 3. An 4. Ne 5. Inc C. Basic Information 2. Amortization Period: 10 years throughout the year.

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

erest on Net Pension Obligation	(259	9,306)
nortization of Net Pension Obligation	492	2,916
nual Pension Cost = $(1)+(2)+(3)$	\$ 1,307	7,683
nsion Obligation as of 6/30/2007		
t Pension Obligation at Beginning of Year	\$ (3,704	1,376)
tual Employer Contribution (including other contributions)	1,307	7,037
nual Pension Cost	1,307	7,683
t Pension Obligation $\frac{6}{30}/2007 = (1)-(2)+(3)$	\$ (3,703	3,730)
crease/(Decrease) in NPO from Beginning of Period	\$	646

- 1. Amortization Method: Level Dollar
- 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
- 5. See contents of 7/1/2007 Actuarial Report for other required disclosures.

GASB Statement No. 27 (continued)

D. Trend Data¹

		[6/30/2007	6/30/2006	6/	30/2005
	1.	Valuation Date	7/1/2007	7/1/2006	7	7/1/2005
	2.	Actuarial Value of Assets	\$ 34,503,397	\$ 31,020,857	\$ 29	9,958,640
	3.	Actuarial Accrued Liability	34,400,161	34,000,686	33	3,251,695
	4.	Unfunded Actuarial Accrued Liability / (Surplus)	(103,236)	2,979,829		3,293,055
	5.	Assets as % of Actuarial Accrued Liability	100.3%	91.2%		90.1%
	6.	Annual Covered Payroll	5,772,974	5,523,988	:	5,826,831
	7.	Unfunded Actuarial Liability as % of Payroll	(1.8)%	53.9%		56.5%
E.	De	velopment of Pension Cost for fiscal year ending 6	/30/2008			
	1.	Annual Required Contribution			\$	632,088
	2.	Interest on Net Pension Obligation				(259,261)
	3.	Amortization of Net Pension Obligation				(509,787)
	4.	Pension Cost = $(1)+(2)-(3)$			\$	882,614

¹ See July 1, 2006 valuation report for information related to Fiscal Year ending June 30, 2004

Age and Service Distribution

Schedule of Active Participant Data

[Cor					apleted Years of Service						
	<1 Yr.		1-4 Yrs.		5-9 Yrs.		10-14 Yrs.		15-19 Yrs.		20-24 Yrs.	
Age		Avg.		Avg.		Avg.		Avg.		Avg.		Avg.
Group	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.	No.	Comp.
0-24	3	27,130	11	30,158	0	0	0	0	0	0	0	0
25-29	2	26,859	9	30,626	6	33,327	0	0	0	0	0	0
30-34	0	0	3	30,383	9	32,884	2	37,356	0	0	0	0
35-39	0	0	1	29,703	1	30,794	6	38,127	9	39,107	0	0
40-44	0	0	0	0	0	0	3	39,472	12	41,056	15	45,647
45-49	0	0	0	0	0	0	2	38,576	2	40,010	10	48,019
50-54	0	0	0	0	0	0	0	0	0	0	4	46,909
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	5	27,022	24	30,343	16	32,920	13	38,388	23	40,203	29	46,639

	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	14	29,509	
25-29	0	0	0	0	0	0	0	0	17	31,136	
30-34	0	0	0	0	0	0	0	0	14	32,987	
35-39	0	0	0	0	0	0	0	0	17	37,719	
40-44	1	53,340	0	0	0	0	0	0	31	43,521	
45-49	10	53,180	0	0	0	0	0	0	24	48,715	
50-54	3	51,786	15	57,604	0	0	0	0	22	54,866	
55-59	0	0	1	56,982	0	0	0	0	1	56,982	
60-64	0	0	1	104,029	1	72,037	0	0	2	88,033	
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	52,893	17	60,299	1	72,037	0	0	142	42,281	

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

1	Accrued	Liability
A. +	ricciucu	Liuomity

	a. b. c. d.	Active Lives Deferred Vesteds Retirees Widows	\$ 2 1	22,378,383 209,647 14,810,238 <u>3,767,393</u>
	e.	Total	\$ 4	41,165,661
2.	Ac	tuarial Value of Assets	\$ 3	34,503,397
3.	Un	funded Liability = $[(1)-(2)]$	\$	6,662,264
4.	Fu	nding Requirements		
	a.	Normal Cost		874,931
	b.	Less Expected Employee Contributions		(95,880)
	c.	Net Employer Normal Cost	\$	779,051
	d.	Option 1: Ten Year Amortization of Unfunded Liability		886,501
	e.	Minimum Employer Funding for a 2% annual increase = $(c)+(d)$	\$	1,665,552
	f.	Option 2: Twenty Year Amortization of Unfunded Liability		587,730
	g.	Minimum Employer Funding for a 2% annual increase = (c)+(f)	\$	1,366,781
5.	Cu	urrent Minimum Employer Funding (see page 12)	\$	611,063

Cost of a One-Time COLA for Retirees and Widows

	One-Time 1% COLA	One-Time 2% COLA
1. Accrued Liability (Total)	\$ 34,558,175	\$ 34,716,190
2. Actuarial Value of Assets	\$ 34,503,397	\$ 34,503,397
3. Unfunded Liability = $[(1)-(2)]$	\$ 54,778	\$ 212,793
4. Funding Requirements		
a. Net Employer Normal Cost	\$ 624,800	\$ 624,800
Option 1: b. Ten Year Amortization of Unfunded Liability	7,289	28,315
 c. Minimum Employer Funding for a One-Time COLA (a)+(b) 	\$ 632,089	\$ 653,115
Option 2: d. Twenty Year Amortization of Unfunded Liability	4,832	18,772
 e. Minimum Employer Funding for a One-Time COLA (a)+(d) 	\$ 629,632	\$ 643,572
5. Current Minimum Employer Funding (see page 12)	\$ 611,063	\$ 611,063