CITY OF GREENVILLE

FIREMEN'S PENSION FUND

ACTUARIAL REVIEW

July 1, 2004

Prepared By:

STANLEY, HUNT, DuPREE & RHINE, INC.

Employee Benefit Consultants
Consulting Actuarial Services

September 8, 2004

Board of Trustees
Greenville Fire Department
22 West Broad Street
Greenville, South Carolina 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, 2004. The financial information presented in this valuation is applicable to the twelve months ending June 30, 2005. 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.

Sincerely,
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CONTENTS OF REPORT

SECTION I

BASIS OF VALUATION

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.

SECTION I.A 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.

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 compensation 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.

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.

SECTION I.B 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.

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	1.180%

   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	0.90%

   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%

   In addition, the inclusion of accrued general leave in the benefit calculation is assumed to increase retirement benefits by 4%.

   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.

   Interest Rate:
   Funding Purposes -
   Pre-Retirement: 7.0%
   Post-Retirement: 7.0%

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

2. **Actuarial Assumptions for Valuation of Assets**

   Assets are carried at Market Value for valuation purposes.

SECTION I.C 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.

SECTION I.D Changes From Prior Report

1. Plan Provisions

   No Changes.

2. Actuarial Cost Method

   No Changes.

3. Actuarial Assumptions

   No Changes.

SECTION I.E Summary of Plan Participants

	June 30, 2003	June 30, 2004
1. ACTIVES		
a. Number	144	145
b. Total Annual Earnings	$ 5,227,829	$ 5,559,125
c. Average Earnings	$ 36,304	$ 38,339
d. Average Current Age	38.1	39.0
e. Average Past Service	15.1	15.9
2. DEFERRED VESTED		
a. Number	3	3
b. Average Annual Deferred Pension	$ 9,571	$ 9,571
3. PARTICIPANTS IN PAY STATUS		
a. Retirees	58	56
b. Surviving Widows	28	30
c. Average Annual Retiree Pension	$ 23,085	$ 23,557
d. Average Annual Widow Pension	$ 10,856	$ 10,732

SECTION II

ACCOUNTING INFORMATION

We received bank statements from Prudential Securities for the appropriate periods within the Plan Year ending June 30, 2004. This section provides a comparative summary statement of assets and liabilities as of each June 30, as well as a statement of income and expenses for the plan year.

SECTION II

FINANCIAL STATEMENTS

Section II.A Statement of Assets and Liabilities

	06-30-03 Market Value	06-30-04 Market Value
Assets		
Cash Equivalents:		
Cash	$ 4,551,236	$ 1,145,911
Accounts Receivable:		
Accrued Income	54,412	142,207
Investments:		
Government Securities	5,220,686	6,920,946
Corporate Debt and Equity Instruments	8,808,110	15,516,822
Mutual Funds	7,943,301	4,569,880
Total Assets	$ 26,577,745	$ 28,295,766
Liabilities	0	0
Total Liabilities	0	0
Net Assets	$ 26,577,745	$ 28,295,766

Statement of Income and Expenses
For Plan Year 07-01-03 To 06-30-04

Net Assets at Beginning of Year			$ 26,577,745
Income			
Employer Contribution	$ 1,098,718		
Employee Contribution	100,398		
Other Contributions	156,139		
Interest Income	1,063,214		
Realized Gain/(Loss)	497,848		
Unrealized Gain/(Loss)	665,075		
Total Income		$ 3,581,392	
Expenses			
Pension Payments	1,662,781		
Fees	200,282		
Foreign Tax	308		
Total Expenses		1,863,371	
Net Income			1,718,021
Net Assets at End of Year			$ 28,295,766

SECTION III

SUMMARY OF VALUATION RESULTS

Section III.A Summary of Actuarial Valuation

1.	Present Value of Benefits		
	a. Active Lives		
	(1) Retirement	$ 16,868,079	
	(2) Vesting	3,561,826	
	(3) Death	808,764	
	(4) Disability	1,489,647	
	(5) Total		22,728,316
	b. Deferred Vesteds		167,533
	c. Retirees		12,444,805
	d. Widows		2,671,802
	e. Total		38,012,456
2.	Present Value of Future Normal Cost		7,092,929
3.	Accrued Liability		
	a. Active Lives		15,635,387
	b. Deferred Vesteds		167,533
	c. Retirees		12,444,805
	d. Widows		2,671,802
	e. Total		30,919,527
4.	Actuarial Value of Assets		28,295,766
5.	Actual Unfunded Liability = [(3)-(4)]		2,623,761
6.	Increase in (3) Due to Method Change	0	
7.	Increase in (3) Due to Benefit Changes	0	
8.	Increase in (3) Due to Assumption Change	0	
9.	Expected Unfunded Liability	2,214,032	
10.	Gain or Loss = (9)-[(5)-(6)-(7)-(8)]		(409,729)
11.	Funding Requirements		
	a. Normal Cost		
	(1) Retirement	473,466	
	(2) Vesting	141,787	
	(3) Death	21,372	
	(4) Disability	39,403	
	(5) Total		676,028
	b. Less Expected Employee Contributions		(93,459)
	c. Net Employer Normal Cost = (a)-(b)		582,569
	d. Ten Year Amortization of Unfunded Liability		349,126
	e. Minimum Employer Funding Requirement		931,695

Section III.B 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	$ 28,716,753
3. Market Value of Assets	28,295,766
4. Excess Assets/(Shortfall) = (3)-(2)	$ (420,987)

Section III.C 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	
1984	12.9%	
1985	15.1%	
1986	9.9%	
1987	3.5%	
1988	6.8%	
Five Year Average		9.6%
1989	10.8%	
1990	8.9%	
1991	12.9%	
1992	6.9%	
1993	7.9%	
Five Year Average		9.5%
1994	-2.6%	
1995	16.3%	
6-30-97	7.7%	
6-30-98	8.4%	
6-30-99	3.4%	
Five Year Average		6.5%
6-30-00	2.4%	
6-30-01	10.3%	
6-30-02	6.5%	
6-30-03	3.3%	
6-30-04	7.7%	
Five Year Average		6.0%
Twenty Year Average		7.9%

Actual Salary Increases

Salaries increased over the past year an average of 5.6% (4.0% was assumed), reflecting both merit and cost of living components for some participants.

Retirement

Over the prior year, no participants retired and began receiving payments from the plan. From the retirement rate assumption, zero participants were expected to retire.

Death

There were no deaths among active participants, two deaths were reported among retired plan participants, and no deaths were reported among surviving spouses receiving benefits. Based on the mortality assumption, this was the expected deaths for the retired plan participants and the active participants. It was expected that there would be 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 before the earliest retirement age. They were all paid the amount of their contributions plus interest. Based on the termination assumption, we expected about eight terminations.

Total Actuarial Gain/(Loss) from 7-1-03 through 7-1-04		$ (409,729)
Components of Total Loss:		
· Loss on assets		
Expected assets at 7-1-04	$ 28,120,080	
Actual assets at 7-1-04	28,295,766	
Gain/(Loss)		$ 175,686
· Loss on liabilities		
Expected accrued liability at 7-1-04	$ 30,334,112	
Actual accrued liability at 7-1-04	30,919,527	
Gain/(Loss)		$ (585,415)*
Aggregate Loss		$ (409,729)

* Primarily losses from salary increases in excess of assumed rate of 4% and less terminations than assumed.

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

1. Accrued Liability			
a. Active Lives			$ 19,009,972
b. Deferred Vesteds			201,842
c. Retirees			14,541,836
d. Widows			3,109,133
e. Total			$ 36,862,783
2. Actuarial Value of Assets			$ 28,295,766
3. Unfunded Liability = [(1)-(2)]			$ 8,567,017
4. Funding Requirements			
a. Normal Cost			
(1) Retirement		$ 573,422	
(2) Vesting		172,974	
(3) Death		26,960	
(4) Disability		47,505	
(5) Total Normal Cost			$ 820,861
b. Less Expected Employee Contributions			(93,459)
c. Net Employer Normal Cost			$ 727,402
Option 1:			
d. Ten Year Amortization of Unfunded Liability			1,139,954
e. Suggested Employer Funding for a 2% annual increase = (c)+(d)			$ 1,867,356
Option 2:			
f. Twenty Year Amortization of Unfunded Liability			755,762
g. Suggested Employer Funding for a 2% annual increase = (c)+(f)			$ 1,483,164

Section III.F Cost of a One-Time COLA for Retirees and Widows

	One-Time 1% COLA	One-Time 2% COLA
1. Accrued Liability (Total)	$ 31,070,693	$ 31,221,859
2. Actuarial Value of Assets	$ 28,295,766	$ 28,295,766
3. Unfunded Liability = [(1)-(2)]	$ 2,774,927	$ 2,926,093
4. Funding Requirements		
a. Net Employer Normal Cost	$ 582,569	$ 582,569
Option 1: b. Ten Year Amortization of Unfunded Liability	369,240	389,355
c. Suggested Employer Funding for a One-Time COLA (a)+(b)	$ 951,809	$ 971,924
Option 2: d. Twenty Year Amortization of Unfunded Liability	244,798	258,133
e. Suggested Employer Funding for a One-Time COLA (a)+(d)	$ 827,367	$ 840,702

Section III.G Cost of Adding Special Retirement Age

		35 & Out*
1.	Accrued Liability (Total)	$ 31,051,038
2.	Actuarial Value of Assets	$ 28,295,766
3.	Unfunded Liability = [(1)-(2)]	$ 2,755,272
4.	Funding Requirements	
a.	Net Employer Normal Cost	$ 587,707
	Option 1:	
b.	Ten Year Amortization of Unfunded Liability	366,625
c.	Suggested Employer Funding for Adding Special Retirement Ages = (a)+(b)	$ 954,332
	Option 2:	
d.	Twenty Year Amortization of Unfunded Liability	243,064
e.	Suggested Employer Funding for Adding Special Retirement Ages = (a)+(d)	$ 830,771

* 35 & Out – Members could retire at the earlier of age 55 with 25 years of service, or any age with 35 years of service.

Section III.H Cost of Adding Special Retirement Age and a One-Time COLA

	35 & Out and One-Time 1% COLA	35 & Out and One-Time 2% COLA
1. Accrued Liability (Total)	$ 31,202,204	$ 31,353,370
2. Actuarial Value of Assets	$ 28,295,766	$ 28,295,766
3. Unfunded Liability = [(1)-(2)]	$ 2,906,438	$ 3,057,604
4. Funding Requirements		
a. Net Employer Normal Cost	$ 587,707	$ 587,707
Option 1:		
b. Ten Year Amortization of Unfunded Liability	386,740	406,854
c. Suggested Employer Funding for Adding Special Retirement Ages and a One-Time COLA = (a)+(b)	$ 974,447	$ 994,561
Option 2:		
d. Twenty Year Amortization of Unfunded Liability	256,399	269,735
e. Suggested Employer Funding for Adding Special Retirement Agesand a One-Time COLA = (a)+(d)	$ 844,106	$ 857,442

SECTION IV

INFORMATION FOR ACCOUNTANTS PURSUANT TO GOVERNMENT ACCOUNTING STANDARDS BOARD'S (GASB) STATEMENT NO. 27

A. Development of Pension Cost for fiscal year ending 6-30-04

1. Annual Required Contribution	$ 904,187
2. Interest on Net Pension Obligation	(236,500)
3. Amortization of Net Pension Obligation	449,563
4. Pension Cost = (1)+(2)+(3)	$ 1,117,250

B. Net Pension Obligation as of 6-30-04

1. Net Pension Obligation at Beginning of Year	$ (3,378,573)
2. Actual Employer Contribution	1,254,857
3. Pension Cost	1,117,250
4. Net Pension Obligation 6-30-04 = (1)-(2)+(3)	$ (3,516,180)
5. Increase/(Decrease) in NPO from Beginning of Period	$ (137,607)

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) requiring an employer contribution of 19.425% of participating payroll. Employee contributions are mandatory at 1.775% of compensation.
5. See contents of 7-1-04 Actuarial Report for other required disclosures.

D. Trend Data

	06-30-04	06-30-03	06-30-02
1. Valuation Date	7-1-04	7-1-03	7-1-02
2. Actuarial Value of Assets	$ 28,295,766	$ 26,577,745	$ 25,943,229
3. Actuarial Accrued Liability	30,919,527	29,330,983	27,537,181
4. Unfunded Actuarial Accrued Liability	2,623,761	2,753,238	1,593,952
5. Assets as % of Actuarial Accrued Liability	91.5%	90.6%	94.2%
6. Annual Covered Payroll	5,781,490	5,436,942	5,305,381
7. Unfunded Actuarial Liability as % of Payroll	45.4%	50.6%	30.0%

E. Development of Pension Cost for fiscal year ending 6-30-05

1. Annual Required Contribution	$ 931,695
2. Interest on Net Pension Obligation	(246,133)
3. Amortization of Net Pension Obligation	467,874
4. Pension Cost = (1)+(2)+(3)	$ 1,153,436

CITY OF GREENVILLE FIREMEN'S PENSION FUND

VALUATION AS OF 07/01/2004

AGE - SERVICE DISTRIBUTION FOR ACTIVE PARTICIPANTS

- COMPLETED YEARS OF SERVICE -

	< 1 Yr		1-4 Yrs		5-9 Yrs		10-14 Yrs		15-19 Yrs		20-24 Yrs		25-29 Yrs		30-34 Yrs		35-39 Yrs		40 Yrs & >	
Age Group	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.	No.	Avg. Comp.
0-24	5	18,530	7	26,988	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	0	0	10	28,036	5	32,341	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-34	0	0	4	26,771	9	32,629	7	34,935	0	0	0	0	0	0	0	0	0	0	0	0
35-39	0	0	1	28,804	0	0	14	35,899	13	39,205	3	43,483	0	0	0	0	0	0	0	0
40-44	0	0	0	0	2	33,359	5	35,956	9	42,346	12	46,978	1	55,155	0	0	0	0	0	0
45-49	0	0	0	0	0	0	1	38,111	2	44,362	7	47,407	14	53,905	1	52,335	0	0	0	0
50-54	0	0	0	0	0	0	0	0	0	0	0	0	3	49,171	6	53,845	0	0	0	0
55-59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	63,795	1	66,923	0	0
60-64	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0
70&up	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0