PARK EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

ACTUARIAL VALUATION AS OF JUNE 30, 2010

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December 27, 2010

The Trustees of the Retirement
Board of the Park Employees'
Annuity and Benefit Fund of Chicago
55 East Monroe Street
Suite 2880
Chicago, Illinois 60603

Re: **Actuarial Valuation as of June 30, 2010**

Dear Board Members:

I am pleased to submit our actuarial report on the financial position and funding requirements of the Park Employees' Annuity and Benefit Fund of Chicago as of June 30, 2010.

The report consists of 10 sections and 3 appendices as follows:

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I would be pleased to discuss any aspects of this report with you at your convenience.

Respectfully submitted,

Sandor Goldstein

Sandor Goldstein, F.S.A.
Consulting Actuary

A. PURPOSE AND SUMMARY

We have carried out an actuarial valuation of the Park Employees' Annuity and Benefit Fund as of June 30, 2010. The purpose of the valuation was to determine the financial position and funding requirements of the pension fund. This report is intended to present the results of the valuation. The results of the valuation are summarized below:

1.	Total actuarial liability	$ 833,025,948
2.	Actuarial value of assets	518,582,601
3.	Unfunded actuarial liability	314,443,347
4.	Funded ratio	62.3%
5.	Actuarially determined contribution requirement for fiscal year beginning July 1, 2010	$ 25,319,145
6.	Estimated employer contributions for fiscal year beginning July 1, 2010	$ 10,323,562
7.	Annual required contribution for fiscal year beginning July 1, 2010 under GASB Statement No. 25	$ 25,319,145

B. DATA USED FOR THE VALUATION

Participant Data. The participant data required to carry out the valuation was supplied by the fund. The membership of the fund as of June 30, 2010, on which the valuation was based, is summarized in Exhibit 1. It can be seen that there were 2,816 active members, 2,125 pensioners, 817 surviving spouses, and 14 children receiving benefits included in the valuation. The total active payroll as of June 30, 2010 was $107,361,021.

Exhibit 1

Summary of Membership Data

1. Number of Members	
(a) Active Members	
(i) Vested	1,295
(ii) Non-vested	1,521
(b) Members Receiving	
(i) Retirement Pensions	2,125
(ii) Surviving Spouse's Pensions	817
(iii) Children's Annuities	14
(c) Vested Terminated Members Entitled to Benefits	160
2. Annual Salaries	
(a) Total Salary	$ 107,361,021
(b) Average Salary	38,125
3. Annual Pension Payments	
(a) Retirement Pensions	$ 50,992,746
(b) Surviving Spouse's Pensions	10,196,844
(c) Children's Annuities	16,800

Assets. In November of 1994, the Governmental Accounting Standards Board (GASB) issued GASB Statement No. 25 which establishes standards of financial reporting for governmental pension plans. The statement is effective for periods beginning after June 15, 1996

Under GASB Statement No. 25, the actuarial value of assets to be used for determining a plan's funded status and annual required contributions needs to be **market related**. However, GASB has indicated that current market values should not be used if those values would result in unnecessary fluctuation in the funded status and the annual required contribution. Thus, in determining the actuarial value of assets, smoothing changes in the market value of assets over a period of three to five years is considered appropriate.

The asset values used for the valuation were based on the asset information contained in the statement of assets as of June 30, 2010 prepared by the fund. The actuarial value of assets was determined by smoothing unexpected gains or losses over a period of 5 years. The resulting actuarial value of assets is $518,582,601. The development of this value is outlined in Exhibit 2. In comparison, the market value of assets as of June 30, 2010 was $412,373,355.

Exhibit 2

Actuarial Value of Assets

A. Development of Investment Gain

1. Actuarial Value of Assets as of June 30, 2009	$ 553,754,517
2. Employer and Employee Contributions	20,659,337
3. Benefits and Expenses	64,025,804
4. Expected Investment Income	42,599,074
5. Total Investment Income, Including Income from Securities Lending	41,419,975
6. Investment Gain/(Loss) for the Year Ended June 30, 2010 (5 – 4)	(1,179,099)

B. Development of Actuarial Value of Assets as of June 30, 2010

7. Expected Actuarial Value of Assets (1 + 2 – 3 + 4)	$ 552,987,124
8. Investment Gain/(Loss) as of June 30, 2010 Recognized in Current Year (20% of 6)	(235,820)
9. Investment Gain/(Loss) as of June 30, 2009 Recognized in Current Year	(29,735,644)
10. Investment Gain/(Loss) as of June 30, 2008 Recognized in Current Year	(12,481,796)
11. Investment Gain/(Loss) as of June 30, 2007 Recognized in Current Year	8,903,463
12. Investment Gain/(Loss) as of June 30, 2006 Recognized in Current Year	(854,726)
13. Actuarial Value of Assets as of June 30, 2010 (7 + 8 + 9 + 10 + 11 + 12)	$ 518,582,601

C. FUND PROVISIONS

Our valuation was based on the provisions of the fund in effect as of June 30, 2010 as provided in Article 12 of the Illinois Pension Code. A summary of the principal provisions of the fund is provided in Appendix 2.

D. ACTUARIAL ASSUMPTIONS AND COST METHOD

The actuarial assumptions used for the June 30, 2010 valuation are the same as the assumptions used for the June 30, 2009 valuation. The actuarial assumptions used for the June 30, 2010 actuarial valuation are outlined in Appendix 1.

In our opinion, the actuarial assumptions used for the valuation are reasonable in the aggregate, taking into account fund experience and future expectations, and represent our best estimate of anticipated experience.

The projected unit credit actuarial cost method was used for the valuation. This is the same actuarial cost method that was used for the June 30, 2009 actuarial valuation.

E. ACTUARIAL LIABILITY AND FUNDED STATUS

The actuarial liability as determined under the valuation for the various classes of members is summarized in Exhibit 3. The total actuarial liability is then compared with the actuarial value of assets in order to arrive at the unfunded actuarial liability. (The actuarial terms used in this report are defined in Appendix 3.)

As of June 30, 2010, the total actuarial liability is $833,025,948, the actuarial value of assets is $518,582,601, and the unfunded actuarial liability is $314,443,347. The ratio of the actuarial value of assets to the actuarial liability, or funded ratio, is 62.3%.

Exhibit 3

Actuarial Liability and Funded Status

	Year Ending June 30 2010	Year Ending June 30 2009
1. Actuarial Liability For Members in Receipt of Benefits		
(a) Money purchase component of annuities to retirees	$ 257,088,340	$ 260,099,736
(b) Fixed benefit component of annuities to retirees	52,924,588	53,815,169
(c) Annual increases in retirement annuity	125,176,771	122,850,267
(d) Annual increases to employee annuitants	1,032,256	1,075,793
(e) Survivor annuities to survivors of current retirees	54,563,510	55,180,051
(f) Lump sum death benefits	2,801,686	2,856,811
(g) Survivor annuities to current survivors	84,962,307	82,896,348
(h) Total	$ 578,549,458	$ 578,774,175
2. Actuarial Liability For Active Members		
(a) Basic retirement annuity	$ 158,724,839	$ 151,900,268
(b) Annual increase in retirement annuity	32,184,004	30,743,739
(c) Pre-retirement survivor's annuity	7,804,236	7,523,462
(d) Post-retirement survivor's annuity	16,491,055	15,759,279
(e) Withdrawal benefits	14,106,018	14,309,375
(f) Pre-retirement death benefit	1,307,272	1,217,994
(g) Post-retirement death benefit	395,843	367,278
(h) Total	$ 231,013,267	$ 221,821,395
3. Actuarial Liability For Inactive Members	23,463,223	23,301,366
4. Total Actuarial Liability	$ 833,025,948	$ 823,896,936
5. Actuarial Value of Assets	518,582,601	553,754,517
6. Unfunded Actuarial Liability	$ 314,443,347	$ 270,142,419
7. Funded Ratio	62.3%	67.2%

F. EMPLOYER'S NORMAL COST

The employer's share of the normal cost for the year beginning July 1, 2010 is developed in Exhibit 4. For the year beginning July 1, 2010, the total normal cost is determined to be $16,163,894, employee contributions are estimated to be $9,662,492 resulting in the employer's share of the normal cost of $6,501,402.

Based on a payroll of $107,361,021, the employer's share of the normal cost can be expressed as 6.06% of payroll.

Exhibit 4

Employer's Normal Cost For Year Beginning July 1, 2010

	Dollar Amount	Percent of Payroll
1. Basic retirement annuity	$ 8,978,171	8.36%
2. Annual increase in retirement annuity	1,760,023	1.64
3. Pre-retirement survivor's annuity	503,842	.47
4. Post-retirement survivor's annuity	931,613	.87
5. Withdrawal benefits, including refunds	2,008,924	1.87
6. Pre-retirement death benefit	118,101	.11
7. Post-retirement death benefit	27,426	.03
8. Children's annuity	16,800	.02
9. Ordinary disability benefit	244,357	.23
10. Duty disability benefit	35,797	.03
11. Administrative expenses	1,538,840	1.43
12. Total normal cost	$ 16,163,894	15.06%
13. Employee contributions	9,662,492	9.00
14. Employer's share of normal cost	$ 6,501,402	6.06%

Note. The above figures are based on a total active payroll of $107,361,021 as of June 30, 2010.

G. ACTUARIALLY DETERMINED CONTRIBUTION REQUIREMENT

GASB Statements No. 25 and 27 provide for annual employer contribution requirements determined on an actuarial basis. According to the GASB statements, the actuarially determined contribution requirement is equal to the employer's normal cost plus an amortization of the unfunded actuarial liability. The maximum acceptable amortization period is 30 years. We have therefore calculated the actuarially determined employer contribution requirement for the fiscal year beginning July 1, 2010 as the employer's normal cost plus a 30-year level-percent-of-payroll amortization of the unfunded actuarial liability. The results of our calculation are shown in Exhibit 5.

Employer contributions to the fund come from a tax levied upon all taxable property in the City of Chicago. The amount of tax that is levied is 1.10 times the amount of employee contributions made 2 years previously. The 1.10 is known as the tax multiple.

As can be seen from Exhibit 5, for the fiscal year beginning July 1, 2010, the actuarially determined contribution requirement amounts to $25,319,145. Based on the 1.10 tax multiple, and assuming a 5% loss in collections, we have estimated the employer contribution for the year beginning July 1, 2009 to be $10,323,562. Thus, the employer contribution is expected to fall short of the actuarially determined contribution requirement by $14,995,583.

Exhibit 5

Actuarially Determined Contribution Requirement For Year Beginning July 1, 2010

1.	Employer's normal cost	$ 6,501,402
2.	Annual amount to amortize the unfunded liability over 30 years as a level percent of payroll	18,817,743
3.	Actuarially determined contribution requirement for year beginning July 1, 2010	$ 25,319,145
4.	Estimated employer contribution for the year	10,323,562
5.	Amount by which employer contribution is expected to be less than the actuarially determined contribution requirement	$ 14,995,583

H. ANNUAL REQUIRED CONTRIBUTION FOR GASB STATEMENT NO. 25

GASB Statement No. 25 requires the disclosure of the annual required employer contribution (ARC), calculated in accordance with certain parameters. Based on the results of the June 30, 2010 actuarial valuation, we have therefore calculated the annual required contribution for the fiscal year beginning July 1, 2010. In accordance with the parameters prescribed in GASB Statement No. 25, in calculating the annual required contribution, we have used adjusted market value for the actuarial value of assets and have used a 30-year level-percent-of-payroll amortization of the unfunded liability. On this basis, the annual required contribution for Fiscal Year 2011 has been determined to be as follows:

1.	Employer's normal cost	$ 6,501,402
2.	Annual amount to amortize the unfunded liability over 30 years as a level percent of payroll	18,817,743
3.	Annual required contribution	$ 25,319,145

I. ANALYSIS OF FINANCIAL EXPERIENCE

The net actuarial experience during the period July 1, 2009 to June 30, 2010 resulted in an increase in the fund's unfunded actuarial liability of $44,300,928. This increase in unfunded actuarial liability is a result of several kinds of gains and losses. The financial effect of the most significant gains and losses is illustrated in Exhibit 6.

The employer funding requirement for the year of normal cost plus interest on the unfunded actuarial liability amounted to $27,028,742, whereas the actual employer contribution for the year is estimated to be $10,829,339, resulting in an increase in the unfunded liability of $16,199,403.

The net rate of investment return earned by the assets of the fund, based on the actuarial value of assets, was 1.5% in comparison with the assumed rate of investment return of 8.0%. This resulted in an increase in the unfunded liability of $34,405,000. Salaries increases lower than assumed resulted in a decrease in the unfunded liability of $8,928,000.

The various other aspects of the fund's experience resulted in a net increase in the unfunded actuarial liability of $2,624,525. The aggregate financial experience of the fund resulted in a net increase in the unfunded actuarial liability of $44,300,928.

Exhibit 6

Analysis of Financial Experience
Over the Period July 1, 2009 to June 30, 2010

1.	Unfunded actuarial liability as of July 1, 2009	$ 270,142,419
2.	Employer contributions requirement of normal cost plus interest on unfunded liability for period 7/1/09 to 6/30/10	27,028,742
3.	Actual employer contribution for the year	10,829,339
4.	Increase in unfunded liability due to employer contribution less than normal cost plus interest on unfunded liability (2 – 3)	16,199,403
5.	Increase in unfunded liability due to investment return lower than assumed	34,405,000
6.	Decrease in unfunded liability due to salary increases lower than assumed	8,928,000
7.	Increase in unfunded liability due to other sources	2,624,525
8.	Net increase in unfunded liability for the year (4 + 5 – 6 + 7)	$ 44,300,928
9.	Unfunded actuarial liability as of June 30, 2010 (1 + 8)	$ 314,443,347

J. CERTIFICATION

This actuarial report has been prepared in accordance with generally accepted actuarial principles and practices and to the best of our knowledge, fairly represents the financial condition of the Park Employees' Annuity and Benefit Fund as of June 30, 2010.

Respectfully submitted,

Sandor Goldstein, F.S.A.
Consulting Actuary

Carl J. Smedinghoff, A.S.A.
Associate Actuary

Appendix 1

Summary of Actuarial Assumptions and Actuarial Cost Method

Actuarial Assumptions

The actuarial assumptions used for the June 30, 2010 valuation are summarized below.

Mortality Rates. The UP-1994 Mortality Table For Males, rated 1 year, for male participants, and the UP-1994 Mortality Table For Female Employees, rated up 1 year, for female participants.

Termination Rates. Termination rates based on the recent experience of the fund were used. The following is a sample of the termination rates that were used:

	Rates of Termination Per 1000 Members		
Age	0-4 Years Service	4-10 Years Service	10 or More Years Service
20	281		
25	260	162	
30	179	92	66
35	167	90	57
40	156	68	49
45	113	65	40
50	110	63	
55	107	60	

Retirement Rates. Rates of retirement for each age from 50 to 75 based on the recent experience of the fund were used. The following are samples of the rates of retirement that were used:

	Rate of Retirement Per 1000 Members	
Age	Less Than 30 Years Service	30 Or More Years of Service
50	50	400
55	55	200
60	80	80
65	120	120
70	140	140
75	1,000	1,000

Salary Progression. – 4.5% per year, compounded annually.

Interest Rate. - 8.0% per year, compounded annually.

Marital Status. 75% of participants were assumed to be married.

Spouse's Age. Male spouses are assumed to be 2 years older than female spouses.

Actuarial Value of Assets

The actuarial value of assets was determined by smoothing unexpected gains or losses over a period of 5 years.

Actuarial Cost Method.

The projected unit credit actuarial cost method was used. Actuarial gains and losses are reflected in the unfunded actuarial liability. This actuarial cost method was adopted as of June 30, 2005.

Appendix 2

Summary of Principal Provisions

1. Membership. Any person employed by the Chicago Park District in a position requiring service for 6 months or more in a calendar year is required to become a member of the fund as a condition of employment.

2. Employee Contributions. All members of the fund are required to contribute 9% of salary to the fund as follows:

- 7% for the retirement pension
- 1% for the spouse's pension
- 1% for the automatic increases in the retirement pension

In addition, employees are required to contribute $3.60 per month toward the cost of the single sum death benefit.

3. Retirement Pension-Eligibility. An employee may retire at age 50 with at least 10 years of service or at age 60 with 4 years of service.

If retirement occurs before age 60, the retirement pension is reduced 1/4 of 1% for each month that the age of the member is below 60. However, there is no reduction if the employee has at least 30 years of service.

4. Retirement Pension-Amount. The retirement pension is based on the average of the 4 highest consecutive years of salary within the last 10 years. For an employee who withdraws from service on or after December 31, 2003, the amount of the retirement pension is 2.4% of highest average salary for each year of service.

The maximum pension payable is 80% of the highest average annual salary.

An employee who was a participant before July 1, 1971 is entitled to the pension provided under the money purchase formula if it provides a greater pension than that provided under the above fixed benefit formula.

5. Post-Retirement Increase In Retirement Pension. An employee retiring at age 60 or over, or an employee with 30 or more years of service, is entitled to automatic annual increases of 3% of the originally granted pension following 1 year's receipt of pension payments. In the case of an employee with less than 30 years service who retires before age 60, the increases begin following the later of attainment of age 60 and receipt of 1 year's pension payments.

6. Surviving Spouse's Pension. A surviving spouse is entitled to a pension upon the death of an employee while in service or on retirement. If the surviving spouse is age 60 or over and the employee or pensioner had at least 20 years of service, the minimum surviving spouse's pension is 50% of the deceased employee's or retired employee's pension at the date of death. If the age of the surviving spouse is less than 60, the pension is reduced 1/2 of 1% for each month the surviving spouse is under age 60. If the employee had less than 20 years of service, the surviving spouse is entitled to a pension under the money purchase formula, taking into account employee and employer contributions toward the surviving spouse's pension.

Surviving spouse's pensions are subject to annual automatic increases of 3% per year based on the current amount of pension.

7. Children's Pension. Unmarried children of a deceased employee under the age of 18 are entitled to a children's pension. If either parent is living, the pension is $100.00 per month. If no parent survives, the pension for each child is $150.00 per month. The total amount payable to a spouse or children may not exceed 60% of the employee's final salary.

8. Single Sum Death Benefit. A death benefit is payable upon the death of an employee in service in addition to any other benefits payable to the surviving spouse or minor children. The death benefit payable is as follows:

- $3,000 benefit during the 1st year of service,
- $4,000 benefit during the 2nd year of service,
- $5,000 benefit during the 3rd year of service,
- $6,000 benefit during the 4th through 10th year of service,
- $10,000 benefit if death occurs after 10 or more years of service.

Upon the death of a retired member with 10 or more years of service, the $10,000 maximum benefit is reduced to $6,000 if death occurs during the first year of retirement. Thereafter, it is reduced by $1,500 for each year or fraction of a year while on retirement, but shall not be less than $3,000.

9. Ordinary Disability Benefit. An ordinary disability benefit is payable after 8 consecutive days of absence for illness without pay. The amount of the benefit is 45% of salary. The benefit is payable for a period not to exceed 1/4 of the length of service or 5 years, whichever is less.

10. Occupational Disability Benefit. Upon disability resulting from an injury incurred while on duty, an employee is entitled to a disability benefit of 75% of salary from the first day of absence without pay. The benefit is payable during the period of disability until the employee attains age 65, if disability is incurred before age 60, or for a period of 5 years if disability is incurred after age 60.

11. Occupational Death Benefit. Upon the death of an employee resulting from an accident incurred in the performance of duty, the surviving spouse is entitled to an occupational death

benefit of 50% of salary. Each unmarried child under the age of 18 is entitled to a benefit of $100 per month. The combined payments to a family may not exceed 75% of the employee's final salary. The total payments are reduced by Workmen's Compensation benefits.

12. Refunds. An employee who terminates employment before qualifying for a pension is entitled to a refund of employee contributions. The refund is payable to any employee who withdraws before age 55, regardless of the length of service. It is also payable to an employee who withdraws between age 55 and 60 with less than 10 years of service, and to an employee who withdraws after age 60 with less than 5 years of service.

An employee who is unmarried at date of retirement is entitled to a refund of the full amount contributed for the spouse's pension, without interest.

Appendix 3

Glossary of Terms used in Report

1. Actuarial Present Value. The value of an amount or series of amounts payable at various times, determined as of a given date by the application of a particular set of actuarial assumptions.

2. Actuarial Cost Method or Funding Method. A procedure for determining the actuarial present value of pension plan benefits and for determining an actuarially equivalent allocation of such value to time periods, usually in the form of a normal cost and an actuarial accrued liability.

3. Normal Cost. That portion of the present value of pension plan benefits which is allocated to a valuation year by the actuarial costs method.

4. Actuarial Accrued Liability or Accrued Liability. That portion, as determined by a particular actuarial cost method, of the actuarial present value of pension benefits which is not provided for by future normal costs.

5. Actuarial Value of Assets. The value assigned by the actuary to the assets of the pension plan for purposes of an actuarial valuation.

6. Unfunded Actuarial Liability. The excess of the actuarial liability over the actuarial value of assets.

7. Projected Unit Credit Actuarial Cost Method. A cost method under which the projected benefits of each individual included in an actuarial valuation are allocated by a consistent formula to valuation years. The actuarial present value of benefit allocated to a valuation year is called the normal cost. The actuarial present value of benefits allocated to all periods prior to a valuation year is called the actuarial liability.

8. Actuarial Assumptions. Assumptions as to future events affecting pension costs.

9. Actuarial Valuation. The determination, as of the valuation date, of the normal cost, actuarial liability, actuarial value of assets, and related actuarial present values for a pension plan.

10. Accrued Benefit or Accumulated Plan Benefits. The amount of an individual's benefit as of a specific date determined in accordance with the terms of a pension plan and based on compensation and service to that date.

11. Vested Benefits. Benefits that are not contingent on an employee's future service.