ACTUARIAL AND CONSULTING SERVICES AGREEMENT

THIS AGREEMENT is effective as of the 1st day of July, 2013 by and between the BOARD OF TRUSTEES (the "Board") of the Delaware Public Employees' Retirement System ("DPERS"), with offices at Office of Pensions, 860 Silver Lake Boulevard, Suite 1, Dover, DE 19904, and Cheiron, Inc. ("Cheiron") with offices at 1750 Tysons Boulevard, Suite 1100, McLean, VA 22102.

WHEREAS, Cheiron is a financial and actuarial consulting corporation organized under the laws of the State of Delaware.

WHEREAS, the Board has selected Cheiron to provide independent financial and actuarial consulting services to DPERS.

WHEREAS, DPERS and Cheiron represents and warrants that each party has full right, power and authority to enter into and perform under this Agreement;

FOR AND IN CONSIDERATION OF the premises and mutual agreements herein, DPERS and Cheiron agree as follows:

1. Term.

a. DPERS will retain Cheiron, and Cheiron will accept such retention, commencing as of the 1st day of July, 2013, for a period of three (3) years and continuing for two (2) additional one year terms at the mutual written consent of both parties.

2. Services and Compensation.

- a. DPERS will pay Cheiron a monthly retainer for actuarial and financial consulting services as set forth in the Statement of Work and Fees at Attachment Λ to this Agreement. These fees described in Exhibit A are expected to increase by inflation each year thereafter. Fee increases will only be effective upon the written agreement of both parties.
- b. With respect to special consulting projects, Cheiron will bill such requests, on a fixed-fee basis pursuant to this Agreement, or for additional services requested, based on rates as mutually agreed in writing by the parties.
- c. Any conflict or inconsistency between the provisions of the following documents shall be resolved by giving precedence to such documents in the following order: (a) this Agreement (including any amendments or modifications thereto); (b) DPERS Request for Proposal, attached hereto as Exhibit B; and (c) Cheiron's response to the Request for Proposal, attached hereto as Exhibit C. The aforementioned documents are specifically incorporated into this Agreement and made a part hereof.
- d. All of the services specified by this Agreement shall be performed by Fiona Liston

and Margaret Tempkin, ("Principal Consulting Actuaries"), or by Cheiron's associates and employees under the personal supervision of Fiona Liston. The positions and billing rate rates for Cheiron's staff for calendar year 2013 are as follows:

Category	2013
	Hourly Rate
Principal Consulting Actuaries	\$380-470
Consulting Actuaries	\$255-385
Associate Actuaries	\$195-260
Senior Actuarial Analysts	\$170-195
Actuarial Analysts	\$140-175
Administrative staff	\$80-140

e. In addition, Cheiron will bill DPERS for reasonable travel expenses (coach class airfare, lodging, food and ground transportation) for site visits made beyond the three (3) visits per year contemplated by this agreement, and reasonable miscellaneous out-of-pocket expenses incurred by Cheiron on DPERS's behalf. Time spent in travel will not be compensable, except upon written agreement of the parties. For miscellaneous out-of-pocket expenses exceeding \$500.00, notice will be provided to DPERS in advance.

3. Cheiron Responsibilities.

- a. Cheiron shall be responsible for the professional quality, technical accuracy, timely completion, and coordination of all services furnished by Cheiron, its subcontractors and its and their principals, officers, employees and agents under this Agreement. In performing the specified services, Cheiron shall follow practices consistent with generally accepted professional and technical standards, including, but not limited to, the professional actuarial standards established by the Actuarial Standard Board. Cheiron shall be responsible for ensuring that all services, products and deliverables furnished pursuant to this Agreement comply with the standards promulgated by the Department of Technology and Information ("DTI") published http://dti.delaware.gov/, and as modified from time to time by DTI during the term of this Agreement. If any service, product or deliverable furnished pursuant to this Agreement does not conform with DTI standards, the Consultant shall, at its expense and option either (1) replace it with a conforming equivalent or (2) modify it to conform with DTI standards. Cheiron shall be and remain liable in accordance with the terms of this Agreement and applicable law for all damages to DPERS caused by Cheiron failure to ensure compliance with DTI standards.
- b. It shall be the duty of Cheiron to assure that all products of its effort are technically sound and in conformance with all pertinent Federal, State and Local statutes, codes, ordinances, resolutions and other regulations. Cheiron will not produce a work

product that violates or infringes on any copyright or patent rights. Cheiron shall, without additional compensation, correct or revise any errors or omissions in its work products.

- c. Permitted or required approval by DPERS of any products or services furnished by Cheiron shall not in any way relieve Cheiron of responsibility for the professional and technical accuracy and adequacy of its work. DPERS's review, approval, acceptance, or payment for any of Cheiron services herein shall not be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement, and Cheiron shall be and remain liable in accordance with the terms of this Agreement and applicable law for all damages to DPERS caused by Cheiron's failure to perform under this Agreement.
- d. Cheiron shall furnish to DPERS's designated representative copies of all correspondence to regulatory agencies for review prior to mailing such correspondence.
- e. Cheiron agrees that its officers and employees will cooperate with DPERS in the performance of services under this Agreement and will be available for consultation with DPERS at such reasonable times with advance notice as to not conflict with their other responsibilities.
- f. Cheiron has or will retain such employees as it may need to perform the services required by this Agreement. Such employees shall not be employed by DPERS or any other political subdivision of DPERS.
- g. Any delay of services or change in sequence of tasks must be approved in writing by DPERS.
- h. Cheiron will not use DPERS's name, either express or implied, in any of its advertising or sales materials without DPERS's express written consent.
- i. The rights and remedies of DPERS provided for in this Agreement are in addition to any other rights and remedies provided by law.

4. Work Product and Intellectual Property Rights.

- a. All materials, information, documents, and reports, whether finished, unfinished, or draft, developed, prepared, completed, or acquired by Cheiron for DPERS relating to the services to be performed hereunder shall become the property of DPERS and shall be delivered to DPERS's designated representative upon completion or termination of this Agreement, whichever comes first. DPERS shall have the right to reproduce all documentation supplied pursuant to this Agreement.
- b. Any software developed by Cheiron or used under this Agreement contains

proprietary information, ideas, techniques, and trade secrets, and may be covered by copyright and other intellectual property rights. All such software shall remain the proprietary information, ideas, techniques and trade secrets of Cheiron. In addition, all such software shall remain the property of Cheiron and will not be provided to DPERS for use by DPERS unless Cheiron licenses DPERS to use it. If the services required pursuant to this Agreement include the use of Cheiron's software products, said products will be leased to DPERS with the cost and term of such lease mutually agreed upon in writing. DPERS agrees not to attempt to circumvent the devices employed by Cheiron to prevent access by any person, including but not limited to, DPERS"s employees and agents, to the programmed content of the provided software. Furthermore, DPERS shall use its best efforts to keep the programmed contents secret and confidential in the case that inadvertent direct access is obtained. DPERS shall not use or disclose to anyone other than the employees or agents of the parties hereto any confidential information concerning Cheiron, except as may be required by 29 Del. C. § 10001, et. seq. and applicable laws or regulations. Confidential information relates to research, development, software, trade secrets or business affairs, but does not include information in the public domain. Cheiron shall keep DPERS's data and reports confidential, and shall not disclose any DPERS information to any third parties without express written consent of DPERS, unless required by 29 Del. C. § 10001, et seq or other applicable laws or regulations.

5. Confidentiality.

- a. To the extent permissible under 29 Del. C. § 10001, et seq., the parties to this Agreement shall preserve in strict confidence any information, reports or documents obtained, assembled or prepared in connection with the performance of this Agreement.
- b. Cheiron will not disclose confidential information to others without the prior written consent of DPERS, except Cheiron will not be prevented from disclosing information that (i) can be shown by contemporaneous documentation to have been in Cheiron's possession prior to its disclosure by Cheiron; (ii) at the time of the disclosure is, or thereafter becomes, through no fault of Cheiron, part of public domain; or (iii) is furnished to Cheiron by a third party after the time of the disclosure without the breach of any duty to DPERS.

6. Indemnification; Limitation of Liability.

a. Cheiron shall indemnify and hold harmless DPERS, the Board of Trustees, the State, its agents and employees, from any and all liability, suits, actions or claims, together with all reasonable costs and expenses (including attorneys' fees) directly arising out of (A) the negligence or other wrongful conduct of Cheiron its agents or employees, regardless of whether such suits, actions claims or liabilities assert acts or failures to act which are attributable, in whole or in part, to DPERS, the Board of Trustees, the State, its employees or agents, or (B) Cheiron's breach of any material provision of

this Agreement not cured after due notice and opportunity to cure, provided as to (A) or (B) that (i) Cheiron shall have been notified promptly in writing by DPERS of any notice of such claim; and (ii) Cheiron shall have the sole control of the defense of any action on such claim and all negotiations for its settlement or compromise. The obligations set forth in this paragraph 10 shall survive termination of the Agreement.

7. Notice.

a. Any notice required or permitted by the terms of this Agreement shall be given in writing by first class mail and properly addressed as follows:

If to DPERS:

Mr. David Craik Pension Administrator Office of Pensions 860 Silver Lake Boulevard, Suite 1 Dover, DE 19904

If to Cheiron:

Mr. Gene M. Kalwarski Cheiron, Inc. 8200 Greensboro Drive, Suite 1125 McLean, VA 22102

Any such notice shall be deemed to have been given when received.

8. Independent Contractor.

- a. It is understood that in the performance of the services herein provided for, Cheiron shall be, and is, an independent contractor, and is not an agent or employee of DPERS and shall furnish such services in its own manner and method except as required by this Agreement. Cheiron shall be solely responsible for, and shall indemnify, defend and save DPERS harmless from all matters relating to the payment of its employees, including compliance with social security, withholding and all other wages, salaries, benefits, taxes, exactions, and regulations of any nature whatsoever.
- b. Cheiron acknowledges that Cheiron and any subcontractors, agents or employees employed by Cheiron shall not, under any circumstances, be considered employees of DPERS, and that it shall not be entitled to any of the benefits or rights afforded employees of DPERS, including, but not limited to, sick leave, vacation leave, holiday pay, Public Employees Retirement System benefits, or health, life, dental, long-term disability or workers' compensation insurance benefits. DPERS will not provide or pay for any liability or medical insurance, retirement contributions or any

- other benefits for or on behalf of DPERS or any of its officers, employees or other agents.
- c. Cheiron shall be responsible for providing liability insurance for its personnel.
- d. As an independent contractor, Cheiron has no authority to bind or commit DPERS. Nothing herein shall be deemed or construed to create a joint venture, partnership, fiduciary or agency relationship between the parties for any purpose.

9. Termination.

- a. This Agreement may be terminated in whole or in part by DPERS upon not less than 30 calendar days written notice of intent to terminate; and after an opportunity for consultation with DPERS prior to termination. If termination for default is effected by DPERS, DPERS will pay Cheiron that portion of the compensation which has been earned as of the effective date of termination except that no amount shall be allowed for anticipated profit on performed or unperformed services or other work.
- b. The rights and remedies of DPERS and Cheiron provided in this section are in addition to any other rights and remedies provided by law or under this Agreement.

10. State of Delaware Business License.

a. Cheiron and all subcontractors represent that they are properly licensed and authorized to transact business in the State of DPERS as provided in 30 Del. C. § 2301.

11. Government Funding Certification.

a. All reports and invoices submitted to DPERS by Cheiron shall include the following certification from an authorized representative of Cheiron: "We certify that that the information reported herein is true, accurate and fully completed as required by this Agreement. We understand that these reports are made in support of claims for government funds."

12. Insurance.

a. During the term of this contract, the vendor shall, at its own expense, carry insurance minimum limits as follows:

i.	Comprehensive General Liability	\$1,000,000 per person and
	·	\$3,000,000 per occurrence
ii	Professional Liability	\$4,000,000 per person /\$4,000,000
		per occurrence.
iii.	Misc. Errors and Omissions and	\$1,000,000 per person/\$3,000,000
	Product Liability	per occurrence.
d	Product Liability	\$1,000,000/\$3,000,000

b. If the contractual service requires the transportation of departmental clients or staff, the vendor shall, in addition to the above coverage's, secure at its own expense the following coverage:

i.	Automotive Liability (Bodily Injury)	\$100,000 per person/\$300,000 each accident
ii.	Automotive Property Damage (to others)	\$ 25,000

c. Cheiron shall provide forty-five (45) days written notice of cancellation or material change of any policies. In no event shall the State or DPERS be named as an additional insured on any policy required under this agreement.

13. Assignment of Antitrust Claims.

a. As consideration for the award and execution of this contract by the State, Cheiron hereby grants, conveys, sells, assigns, and transfers to DPERS all of its right, title and interest in and to all known or unknown causes of action it presently has or may now or hereafter acquire under the antitrust laws of the United States and the State of Delaware, relating to the particular goods or services purchased or acquired by the DPERS pursuant to this contract.

14. Miscellaneous Provisions.

- a. In performance of this Agreement, Cheiron shall comply with all applicable federal, state and local laws, ordinances, codes and regulations. Cheiron shall solely bear the costs of permits and other relevant costs required in the performance of this Agreement.
- b. The delay or failure by either party to exercise or enforce any of its rights under this Agreement shall not constitute or be deemed a waiver of that party's right thereafter to enforce those rights, nor shall any single or partial exercise of any such right preclude any other or further exercise thereof or the exercise of any other right.
- c. Cheiron covenants that it presently has no interest and that it will not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Agreement. Cheiron

- further covenants, to its knowledge and ability, that in the performance of said services no person having any such interest shall be employed.
- d. Cheiron acknowledges that DPERS has an obligation to ensure that public funds are not used to subsidize private discrimination. Cheiron recognizes that if it refuses to hire or do business with an individual or company due to reasons of race, color, gender, ethnicity, disability, national origin, age, or any other protected status, DPERS may declare Cheiron in breach of the Agreement, terminate the Agreement, and designate Cheiron as non-responsible.
- e. Cheiron warrants that no person or selling agency has been employed or retained to solicit or secure this Agreement upon an agreement or understanding for a commission, or a percentage, brokerage or contingent fee. For breach or violation of this warranty, DPERS shall have the right to annul this contract without liability or at its discretion deduct from the contract price or otherwise recover the full amount of such commission, percentage, brokerage or contingent fee.

15. Amendments.

a. This Agreement may be amended at any time but only in writing executed by DPERS and Cheiron. If for some reason Cheiron must perform additional work not anticipated within the scope of either the Regular Services or Special Services, Cheiron will not proceed further without obtaining Client's written approval. No waiver of any provision of this Agreement shall be effective unless it is in writing and signed by the party against which it is sought to be enforced.

16. Governing Law.

a. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware. Cheiron consents to jurisdiction and venue in the State of Delaware.

17. Entire Agreement.

a. This Agreement is the entire agreement of the parties relating to the subject matter hereof, and supersedes all prior and contemporaneous negotiations, correspondence, understandings, and agreements of the parties relating to the subject matter hereof. It may be amended only by an agreement in writing, signed by both parties.

18. Assignment.

a. This Agreement may not be assigned without the prior written consent of the other party, and it shall terminate automatically on the occurrence of such assignment without consent. Approval by DPERS of Cheiron's request to subcontract or acceptance of or payment for subcontracted work by DPERS shall not in any way

relieve Cheiron of responsibility for the professional and technical accuracy and adequacy of the work. All subcontractors shall adhere to all applicable provisions of this Agreement.

19. Severability.

a. If any term or provision of this Agreement is found by a court of competent jurisdiction to be invalid, illegal or otherwise unenforceable, the same shall not affect the other terms or provisions hereof or the whole of this Agreement, but such term or provision shall be deemed modified to the extent necessary in the court's opinion to render such term or provision enforceable, and the rights and obligations of the parties shall be construed and enforced accordingly, preserving to the fullest permissible extent the intent and agreements of the parties herein set forth.

20. Waiver.

a. The failure of DPERS or Cheiron to insist, in any one or more instances, upon performance of any of the terms or conditions of this Agreement, shall not be construed as a waiver or relinquishment of any rights granted hereunder or the future performance of any such term, covenant or condition.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

For the Delaware Public Employees':	For Cheiron, Inc:	
Retirement System Original on File	Original on File	
Suzanne B. Grant Title: Chair, Board of Delaware Board of Pension Trustees.	Title: Consulting Actuary	
Date: 7/30//3	Date: 7/19/2013	

Exhibit A

STATEMENT OF WORK AND FEE

Regular Services – (For the plan years ending June, 30th 2013, 2014 and 2015)

- Attendance by Cheiron at meetings of the Board of Trustees to present the annual actuarial report and upon request for special reports (total visits not to exceed 3 per year).
- Meetings with the Pension Administrator upon request (not to exceed 3 per year).
- Routine consultations with the Pension Administrator by telephone.
- Preparation and presentation of the annual actuarial report for 9 plans.
- Preparation of information required by the System's auditors for preparation of the System's annual report by the last day of August.
- Advising the Board with regard to proposed or actual changes that might impact
 the System arising from legislation (State and Federal) or changes in accounting
 rules.

Special Services

- A) Services which do not occur on an annual basis, such as, cost studies of proposed legislation, appearances at legislative committee hearings, in-depth analysis of actuarial assumptions as needed, and attendance at meetings in exceeding three per year (as specified in Regular Services).
- B) Post-retirement Health Care Benefits calculation of actuarial liabilities and associated normal costs for post-retirement health care benefits as requested by the Board.

Fees Regular Services: \$112, 200, for the 2013 Plan Year \$9,350 per month.

Special Services A) Billed monthly at hours rates listed on page 2

Special Services B) \$63,000, 2013 Plan Year. In years in which the full valuation is not required, the anticipated fee is \$30,000.

Note: the fixed fee projects noted above are for the 2013 Plan Year. These fees will increase with cost of living adjustment over the remaining two years of the contract (Plan Year 2014 and 2015).

Exhibit B

REQUEST FOR PROPOSAL FOR PROFESSIONAL SERVICES OF THE BOARD OF PENSION TRUSTEES OF THE DELAWARE PUBLIC EMPLOYEES' RETIREMENT SYSTEM AND OFFICE OF PENSIONS DATED APRIL 26, 2013.

Exhibit C

RESPONSE OF CHEIRON TO THE REQUEST FOR PROPOSAL FOR PROFESSIONAL SERVICES OF THE BOARD OF PENSION TRUSTEES OF THE DELAWARE PUBLIC EMPLOYEES' RETIREMENT SYSTEM AND OFFICE OF PENSIONS DATED APRIL 25, 2013.