



State of Wisconsin
 Department of Employee Trust Funds
 4822 Madison Yards Way
 Madison, WI 53705-9100

P. O. Box 7931
 Madison, WI 53707-7931

Contract by Authorized Board

Commodity or Service:

Consulting Actuary for Wisconsin
 Retirement System and Related Programs

Contract No.:

ETD0011 – Amendment #9 dated May 21, 2020


Authorized Board: Employee Trust Funds Board

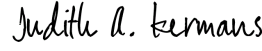
Contract Period: January 1, 2020 through December 31, 2020

1. This Contract Amendment #9 is entered into by the State of Wisconsin Department of Employee Trust Funds (ETF), hereinafter referred to as the "Department," on behalf of the State of Wisconsin Employee Trust Funds Board, hereinafter referred to as the "Board," and Gabriel, Roeder, Smith & Company (GRS), hereinafter referred to as the "Contractor," whose address and principal officer appear on page 3 below. The Department is the sole point of contact for this Contract.
2. Whereby the Department agrees to direct the purchase and the Contractor agrees to supply the Contract requirements cited herein in accordance with the State of Wisconsin standard terms and conditions and in accordance with the Contractor's proposal date February 17, 2014 hereby made a part of this contract by reference.
3. In connection with the performance of work under this Contract, the Contractor agrees not to discriminate against any employees or applicants for employment because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in s.51.01(5), Wis. Stats., sexual orientation as defined in s.111.32(13m), Wis. Stats., or national origin. This provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor further agrees to take affirmative action to ensure equal employment opportunities. The Contractor agrees to post in conspicuous places, available for employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of the nondiscrimination clause.
4. Contracts estimated to be over fifty thousand dollars (\$50,000) require the submission of a written affirmative action plan. Contractors with an annual work force of less than fifty (50) employees are exempted from this requirement. Within fifteen (15) business days after the award of the Contract, the plan shall be submitted for approval to the Department. Technical assistance regarding this clause is provided by the Department of Employee Trust Funds, P.O. Box 7931, Madison, WI 53707-7931, 608.266.2586, or via e-mail at ETFSMBProcurement@etf.wi.gov.
5. This initial contract period is for fifteen (15) months. Each contract period annually will be for twelve (12) months and extend unless and until either party gives the other 180 days' notice of their intent to cancel the contract.
6. The Contract Amendment #1 is dated January 7, 2016 and the costs are not to exceed \$231,750.
7. The Contract Amendment #2 is dated February 23, 2017 and the costs are not to exceed \$236,176.
8. The Contract Amendment #2 dated February 23, 2017 is to also add GRS additional services requested by ETF for: 1). Initial reduced retirement study, delivered on March 22, 2016 for \$5,000 from February 12, 2016 email; 2). Supplemental valuation, report dated August 9, 2016 for \$10,000 from June 2, 2016 fee letter; 3). Investigation of Cost Method, report dated September 1, 2016 for \$6,000 from August 19, 2016 fee letter; and 4). Dividend Reserve supplemental valuation, dated November 9 and December 14, 2016 for \$15,000 from August 19, 2016 fee letter. The total cost for these services are not to exceed \$36,000 and are not included in Section 7 above costs.
9. The Contract Amendment #3 is dated May 19, 2017 to add the April 19, 2017 fee letter for the Contemplated Cost Method Change for the Wisconsin Retirement System and the costs are not to exceed \$5,000.
10. The Contract Amendment #4 is dated December 21, 2017 for the consulting actuary related services, with the costs not to exceed \$241,301.

11. The Contract Amendment #5 dated January 19, 2018 adds additional GRS services requested by ETF for GASB Statement No.68 Employer Cost-sharing Allocations as described in the attached Scope of Work for this Amendment #5. Costs for this work are not to exceed \$25,000 for 2018. For 2019 and subsequent years, the costs associated with this work are not to exceed \$15,000 per year.
12. The Contract Amendment #6 dated September 12, 2018 adds additional GRS services requested by the Department regarding the impacts of implementing rollovers from the Wisconsin Deferred Compensation program into the Wisconsin Retirement System (at separation from service or retirement), treated and annuitized as additional contributions, per statutory authority under Section 40.05 of the Wisconsin Statutes as described in the attached Scope of Work for this Amendment #6. Costs for this work are not to exceed \$10,000 payable upon satisfactory receipt of report by the Department.
13. The Contract Amendment #7 dated January 16, 2019 for the consulting actuary related retainer services, with the costs not to exceed \$246,561 for calendar year 2019.
14. The Contract Amendment #8 dated January 14, 2020 is for:
 - consulting actuary related retainer services described in RFP ETD0011 with costs not to exceed \$251,615 for calendar year 2020;
 - adds the scope of work described in the attached January 7, 2020 letter Re: Update/Review and Testing of OGS Software Program with costs not to exceed \$5,000; and
 - adds additional GRS services for the MagVal Plus software update for calendar year 2020 and subsequent years, with costs not exceed \$12,000 per year.
15. This Contract Amendment #9 dated May 21, 2020 is for the statement of work described in the attached GRS letter dated May 14, 2020 with costs for this work not to exceed \$40,000.
16. For purposes of administering this Contract, the order of precedence is:
 - A). The Contract with Gabriel, Roeder, Smith & Company (GRS);
 - B). This Contract Amendment #9 dated May 21, 2020;
 - C). The Contract Amendment #8 dated January 14, 2020;
 - C). The Contract Amendment #7 dated January 16, 2019;
 - D). The Contract Amendment #6 dated September 12, 2018
 - E). The Contract Amendment #5 dated January 19, 2018;
 - F). The Contract Amendment #4 dated December 21, 2017;
 - G). The Contract Amendment #3 dated May 19, 2017;
 - H). The Contract Amendment #2 dated February 23, 2017;
 - I). The Contract Amendment #1 dated January 7, 2016;
 - J). Questions from vendors and ETF Answers dated January 28, 2014;
 - K). The RFP dated January 6, 2014, and;
 - L). Contractor's proposal dated February 17, 2014.

Contract Number & Service: ETD0011-Amendment #9
 Consulting Actuary for Wisconsin Retirement System and Related Programs

State of Wisconsin	
Department of Employee Trust Funds	
Signature	DocuSigned by:  <small>249598FF085F431...</small>
Name/Title	Robert J. Conlin Secretary Department of Employee Trust Funds
Phone	608.266.0301
Date (MM/DD/CCYY)	5/22/2020

Contractor	
Legal Company Name	Gabriel Roeder Smith & Company
Trade Name	
Taxpayer Identification Number	38-1691268
Company Address (City, State, Zip)	One Towne Square, Suite 800 Southfield, MI 48076
By (print Name)/ Title	Judith A. Kermans, President
Signature	DocuSigned by:  <small>CD0B0DB0C9064BB...</small>
Phone	248.799.9000
Date (MM/DD/CCYY)	5/21/2020



May 14, 2020

Ms. Cindy Klimke-Armatoski, CPA
Chief Trust Finance Officer
Wisconsin D.E.T.F.
4822 Madison Yards Way
Madison, Wisconsin 53705

Re: Stress Testing the Potential Impact of COVID-19 on the Wisconsin Retirement System

Dear Cindy:

Outlined below is our suggested approach for project deliverables in advance of the September and December 2020 Board meetings. Where applicable, we would endeavor to explain the pros and cons as well as any adverse consequences of implementing changes. The various items are broken into three categories: Deterministic Projections, Stochastic Projections, and Commentary.

Deterministic Stress Testing, Including Projections

Deterministic Projections:

1. Consistent with SWIB expectations shared at the March 26, 2020 Board Meeting, test the effect of market returns of -10%, -20%, and -30% on contribution rates.
2. Impact of contributions made reduced by 25%, 50%, 75% for up to 2 years.
3. Extend Years in the Market Recognition Account: Spread asset losses over 7 or 10 years instead of 5 years, for example. We recognize that changing that MRA may be difficult.
4. Modify EAR Amortization Period (currently 20 years): increase the Experience Amortization Reserve to its maximum amortization period of 30 years.
5. Impact of Possible Furloughs in 2020: Such action will cause a reduction in covered payroll, as such we will model the impact of a reduction of 10% in payroll.

Ms. Cindy Klimke-Armatoski, CPA
Wisconsin D.E.T.F.
May 14, 2020
Page 2

Stochastic Projection Stress Testing

Produce Base Projections using regular actuarial valuation assumptions and December 31, 2019 data. Information produced would: (i) provide insight into expected emerging demographic and cash flow patterns as WRS matures; and (ii) form the basis for measuring the effect of various changes in the financial environment.

Measure Potential Effect of Various Dividend Changes on WRS. WRS has a unique structure in which the operation of the Market Recognition Account, determination of benefit changes for retirees and adjustments in participant and employer contribution rates interact. The following changes in the dividend structure would be modeled, reflecting the initial -10% to -30% first year return, without positive bounce back in the markets (a conservative estimate since to date there has been a bounce back from a March low). Future years would show 7% expected return and volatility of 14.7% (year-by-year market returns fluctuate based upon the standard deviation of the Trust Fund) derived by NEPC for use in the most recent SWIB stochastic study:

- Increase the Core dividend threshold to 1% or 2%.
- Cap positive dividends at 3% and create reserve.
- Dividend reductions limited to 2% or 3% per year (or some range).

For each of the scenarios requested, we will perform Monte Carlo (stochastic) simulations showing:

- Probability of depleting the dividend reserve;
- Probable range of contribution rates; and
- Probable range of funded status.

Commentary

1. Measure one-year impact of 10% death rate increase on WRS.
2. Lower the assumed benefit rate (5%) used for calculating reserve transfers.
3. Ideal retirement “buyout” payment best practices to encourage retirement.
4. Individual Cap and Reserve (annuitant elects amount/percentage).



Ms. Cindy Klimke-Armatoski, CPA
Wisconsin D.E.T.F.
May 14, 2020
Page 3

As previously noted, the projections would be based upon the December 31, 2019 census and financial data. The study would commence upon acceptance of our proposal, after completion of GASB Statement Nos. 67 and 68 reports (including allocation to Employers), and the Active Lives and Sick Leave valuations in late June. Delivery of results is anticipated by August 15th with presentation to the ETF Board in September and/or December.

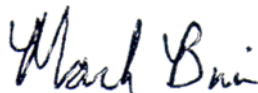
The cost of the project includes one meeting to present the results in September and will be \$40,000.

We look forward to working with ETF on this project, your comments and questions are welcome.

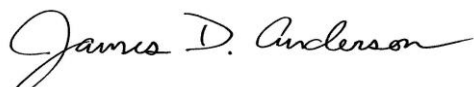
Sincerely,



Brian B. Murphy, FSA, EA, FCA, MAAA, PhD



Mark Buis, FSA, EA, FCA, MAAA



James D. Anderson, FSA, EA, FCA, MAAA

BBM/MB/JDA:ah

cc: Rich Koch, GRS

