CONTRACT
BETWEEN THE STATE OF TENNESSEE,
DEPARTMENT OF TREASURY
AND
BY THE NUMBERS ACTUARIAL CONSULTING, INC.

This Contract, by and between the State of Tennessee, Department of Treasury ("State") and By the Numbers Actuarial Consulting, Inc. ("Contractor"), is for the provision of Actuarial Services for the Tennessee Advisory Council on Workers' Compensation, as further defined in the "SCOPE." State and Contractor may be referred to individually as a "Party" or collectively as the "Parties" to this Contract.

The Contractor is a For-Profit Corporation.
Contractor Place of Incorporation or Organization: Tennessee
Contractor Edison Registration ID # 143251

A. SCOPE:

A.1. The Contractor shall provide all goods or services and deliverables as required, described, and detailed below and shall meet all service and delivery timelines as specified by this Contract.

A.2. The Contractor shall review and evaluate the National Council on Compensation Insurance, Inc.'s (NCCI) 2016 annual filing of advisory prospective loss cost and rating values for the Tennessee voluntary workers’ compensation insurance market (also known as the NCCI Annual Loss Costs Filing) and all such subsequent annual filings during the term of this Contract.

A.3. The Contractor shall evaluate the data selected by the NCCI underlying its annual loss cost filing. This evaluation shall include, but not be limited, to the scope of the data in terms of cases and dollar amount of claims in the data base, possible sources of any bias in the data, the breadth of coverage of the data, and any data from insurance companies that is excluded from the data utilized by the NCCI in its filing.

A.4. The Contractor shall examine the appropriateness of the methodology used by the NCCI in its selection of estimates employed to arrive at ultimate loss cost for past and forecast periods and identify any appropriate alternate methodologies that exist and were not used by NCCI. Issues related to the selection of development and trend factors will be explicitly addressed in the written report and in any oral presentation.

A.5. The Contractor shall analyze the NCCI's methodology in arriving at its calculation of the proposed change in loss costs (including experience, trend and benefits) and the proposed change in the loss adjustment expense utilized by NCCI to arrive at the proposed change in the loss costs.

A.6. The Contractor shall analyze and evaluate the NCCI's selection of trend factors and highlight any areas of agreement or disagreement.

A.7. The Contractor shall address the data relating to both direct loss costs and loss adjusting expenses separately in the review of any filing and in any written report generated.

A.8. The Contractor shall present the results of the review, evaluation and analysis of the NCCI annual loss costs filing in a written report to the Advisory Council on Workers' Compensation (the "Advisory Council"). The report shall include analysis of any other issue(s) that emerge during the review and evaluation of the NCCI annual loss costs filing. Twenty-four (24) copies of the written report shall be delivered to, or received by, the staff of the Advisory Council no later than ten (10) days preceding the date of the oral presentation required by Section A.10 below or as otherwise directed by the staff of the Advisory Council.

A.9. The Contractor shall, at the request of the staff of the Advisory Council, attend any meeting of the Advisory Council at which NCCI makes any presentation concerning the annual loss costs filing.
A 10. The Contractor shall make an oral presentation to the Advisory Council on a date selected by the Advisory Council as to the results of the review, the evaluation and analysis of any NCCI loss costs filing and be available to respond to questions from members of the Advisory Council regarding the written or oral reports, the NCCI filing or other related matters. The oral presentation shall include handout materials or other visual methods to enhance the oral presentation.

A 11. The Contractor shall, at the request of the staff of the Advisory Council, provide other statistical data consulting actuarial services relative to the workers' compensation area as deemed needed by the Advisory Council.

a. If the Contractor intends to bill the State for any service requested by the State under this Section A.11, the Contractor shall provide the State with a proposal. In no event more than five (5) business days after receipt of a written request from the State, the Contractor shall respond with a written proposal for completing the service. Said proposal must specify:

1. the effect, if any, of implementing the requested service on all other services required under this Contract;
2. any specific effort involved in completing the service;
3. the expected schedule for completing the service;
4. the maximum number of person hours required for the service; and
5. the maximum cost for the service, PROVIDED THAT such maximum cost shall not exceed the product of the person hours required multiplied by the appropriate payment rate proposed for the service.

The Contractor shall not perform any such service until the State has approved the proposal. If approved, the State will sign the proposal, and it shall constitute a Memorandum of Understanding (MOU) between the Contract Parties pertaining to the specified service and shall be incorporated, hereby, as a part of this Contract.

b. Performance—Subsequent to State approval of an MOU, the Contractor shall complete the required service. The State will be the sole judge of the acceptable completion of work and, upon such determination, shall provide the Contractor written approval of the work.

c. Remuneration—The State will remunerate the Contractor only for acceptable work. All acceptable work performed pursuant to an approved MOU, without a formal amendment of this Contract, shall be remunerated in accordance with and further limited by Section C.3.c. below, PROVIDED THAT, the State shall be liable to the Contractor only for the cost of the actual person hours worked to complete the work required by the MOU, not to exceed the maximum cost for the service detailed in the MOU. In no instance shall the State be liable to the Contractor for the cost of any person hours worked in excess of the maximum person hours indicated in or of any amount exceeding the maximum cost specified by the approved MOU authorizing the service. Upon State approval of the work, the Contractor shall invoice the State in accordance with the relevant provisions of this Contract.

A.12. Warranty. Contractor represents and warrants that the term of the warranty ("Warranty Period") shall be the greater of the Term of this Contract or any other warranty general offered by Contractor, its suppliers, or manufacturers to customers of its goods or services. The goods or services provided under this Contract shall conform to the terms and conditions of this Contract throughout the Warranty Period. Any nonconformance of the goods or services to the terms and
conditions of this Contract shall constitute a “Defect” and shall be considered “Defective.” If Contractor receives notice of a Defect during the Warranty Period, then Contractor shall correct the Defect, at no additional charge.

Contractor represents and warrants that the State is authorized to possess and use all equipment, materials, software, and deliverables provided under this Contract.

Contractor represents and warrants that all goods or services provided under this Contract shall be provided in a timely and professional manner, by qualified and skilled individuals, and in conformity with standards generally accepted in Contractor’s industry.

If Contractor fails to provide the goods or services as warranted, then Contractor will re-provide the goods or services at no additional charge. If Contractor is unable or unwilling to re-provide the goods or services as warranted, then the State shall be entitled to recover the fees paid to Contractor for the Defective goods or services. Any exercise of the State’s rights under this Section shall not prejudice the State’s rights to seek any other remedies available under this Contract or applicable law.

A.13. **Inspection and Acceptance.** The State shall have the right to inspect all goods or services provided by Contractor under this Contract. If, upon inspection, the State determines that the goods or services are Defective, the State shall notify Contractor, and Contractor shall re-deliver the goods or provide the services at no additional cost to the State. If after a period of thirty (30) days following delivery of goods or performance of services the State does not provide a notice of any Defects, the goods or services shall be deemed to have been accepted by the State.

B. **TERM OF CONTRACT:**

This Contract shall be effective on August 25, 2016 (“Effective Date”) and extend for a period of sixty (60) months after the Effective Date (“Term”). The State shall have no obligation for goods or services provided by the Contractor prior to the Effective Date.

C. **PAYMENT TERMS AND CONDITIONS:**

C.1. **Maximum Liability.** In no event shall the maximum liability of the State under this Contract exceed forty-five thousand dollars even ($45,000.00) (“Maximum Liability”). This Contract does not grant the Contractor any exclusive rights. The State does not guarantee that it will buy any minimum quantity of goods or services under this Contract. Subject to the terms and conditions of this Contract, the Contractor will only be paid for goods or services provided under this Contract after a purchase order is issued to Contractor by the State or as otherwise specified by this Contract.

C.2. **Compensation Firm.** The payment methodology in Section C.3. of this Contract shall constitute the entire compensation due the Contractor for all goods or services provided under this Contract regardless of the difficulty, materials or equipment required. The payment methodology includes all applicable taxes, fees, overhead, and all other direct and indirect costs incurred or to be incurred by the Contractor.

C.3. **Payment Methodology.** The Contractor shall be compensated based on the payment methodology for goods or services authorized by the State in a total amount as set forth in Section C.1.

a. The Contractor’s compensation shall be contingent upon the satisfactory provision of goods or services as set forth in Section A.

b. The Contractor shall be compensated based upon the following payment methodology:
August 25, 2016 – August 24, 2017 Actuarial Services Detailed in Sections A.2 – A.10 $8,000.00
August 25, 2017 – August 24, 2018 Actuarial Services Detailed in Sections A.2 – A.10 $8,000.00
August 25, 2018 – August 24, 2019 Actuarial Services Detailed in Sections A.2 – A.10 $8,250.00
August 25, 2019 – August 24, 2020 Actuarial Services Detailed in Sections A.2 – A.10 $8,250.00
August 25, 2020 – August 24, 2021 Actuarial Services Detailed in Sections A.2 – A.10 $9,500.00

c. The Contractor shall be compensated for other actuarial services requested and performed pursuant to Contract Section A.11, without a formal amendment of this contract based upon the payment rates detailed above and as agreed pursuant to said Section A.11. PROVIDED THAT compensation to the Contractor for such service shall not exceed seven percent (7%) of the contract maximum liability specified in Section C.1 above. If, at any point during the Contract period, the State determines that the cost of such other actuarial services would exceed said maximum amount, the State may amend this Contract to address the need.

| Other actuarial services requested by the Council to be paid on an hourly basis | $150.00 Hour |

C.4. **Travel Compensation.** The Contractor shall not be compensated or reimbursed for travel time, travel expenses, meals, or lodging.

C.5. **Invoice Requirements.** The Contractor shall invoice the State only for goods delivered and accepted by the State or services satisfactorily provided at the amounts stipulated in Section C.3. above. Contractor shall submit invoices and necessary supporting documentation, no more frequently than once a month, and no later than thirty (30) days after goods or services have been provided to the following address:

Larry Scroggs  
Administrator, Advisory Council on Workers' Compensation  
State of Tennessee, Department of Treasury  
13th Floor, Andrew Jackson Building  
502 Deaderick Street  
Nashville, Tennessee 37243

a. Each invoice, on Contractor's letterhead, shall clearly and accurately detail all of the following information (calculations must be extended and totaled correctly):

1. Invoice number (assigned by the Contractor);
2. Invoice date;
3. Contract number (assigned by the State);
4. Customer account name: Tennessee Treasury Department, Advisory Council on Workers' Compensation
5. Customer account number (assigned by the Contractor to the above-referenced Customer);
6. Contractor name;
(7) Contractor Tennessee Edison registration ID number;
(8) Contractor contact for invoice questions (name, phone, or email);
(9) Contractor remittance address;
(10) Description of delivered goods or services provided and invoiced, including identifying information as applicable;
(11) Number of delivered or completed units, increments, hours, or days as applicable, of each good or service invoiced;
(12) Applicable payment methodology (as stipulated in Section C.3) of each good or service invoiced;
(13) Amount due for each compensable unit of good or service; and
(14) Total amount due for the invoice period.

b. Contractor's invoices shall:

(1) Only include charges for goods delivered or services provided as described in Section A and in accordance with payment terms and conditions set forth in Section C;
(2) Only be submitted for goods delivered or services completed and shall not include any charge for future goods to be delivered or services to be performed;
(3) Not include Contractor's taxes, which includes without limitation Contractor's sales and use tax, excise taxes, franchise taxes, real or personal property taxes, or income taxes; and
(4) Include shipping or delivery charges only as authorized in this Contract.

c. The timeframe for payment (or any discounts) begins only when the State is in receipt of an invoice that meets the minimum requirements of this Section C.5.

C.6. **Payment of Invoice.** A payment by the State shall not prejudice the State's right to object to or question any payment, invoice, or other matter. A payment by the State shall not be construed as acceptance of goods delivered, any part of the services provided, or as approval of any amount invoiced.

C.7. **Invoice Reductions.** The Contractor's invoice shall be subject to reduction for amounts included in any invoice or payment that is determined by the State, on the basis of audits conducted in accordance with the terms of this Contract, to not constitute proper compensation for goods delivered or services provided.

C.8. **Deductions.** The State reserves the right to deduct from amounts, which are or shall become due and payable to the Contractor under this or any contract between the Contractor and the State of Tennessee, any amounts that are or shall become due and payable to the State of Tennessee by the Contractor.

C.9. **Prerequisite Documentation.** The Contractor shall not invoice the State under this Contract until the State has received the following, properly completed documentation.

a. The Contractor shall complete, sign, and present to the State the “Authorization Agreement for Automatic Deposit Form” provided by the State. By doing so, the Contractor acknowledges and agrees that, once this form is received by the State, payments to the Contractor, under this or any other contract the Contractor has with the State of Tennessee, may be made by ACH; and

b. The Contractor shall complete, sign, and return to the State the State-provided W-9 form. The taxpayer identification number on the W-9 form must be the same as the Contractor’s Federal Employer Identification Number or Social Security Number referenced in the Contractor’s Edison registration information.

D. **Mandatory Terms and Conditions:**
D.1. **Required Approvals.** The State is not bound by this Contract until it is duly approved by the Parties and all appropriate State officials in accordance with applicable Tennessee laws and regulations. Depending upon the specifics of this Contract, this may include approvals by the Commissioner of Finance and Administration, the Commissioner of Human Resources, the Comptroller of the Treasury, and the Chief Procurement Officer. Approvals shall be evidenced by a signature or electronic approval.

D.2. **Communications and Contacts.** All instructions, notices, consents, demands, or other communications required or contemplated by this Contract shall be in writing and shall be made by certified, first class mail, return receipt requested and postage prepaid, by overnight courier service with an asset tracking system, or by email or facsimile transmission with recipient confirmation. All communications, regardless of method of transmission, shall be addressed to the respective Party at the appropriate mailing address, facsimile number, or email address as stated below or any other address provided in writing by a Party.

The State:
Larry Scroggs
Tennessee Treasury Department
13th Floor, Andrew Jackson Building
502 Deaderick Street
Nashville, Tennessee 37243
larry.scroggs@tn.gov
Telephone # (615) 289-4603
FAX # (615) 770-7504

The Contractor:
Lisa Dennison, President
By the Numbers Actuarial Consulting, Inc.
5213 Country Club Drive, Suite 100
Brentwood, Tennessee 37027
ldennison@bynac.com
Telephone # (615) 369-0753
FAX # (615) 369-0754

All instructions, notices, consents, demands, or other communications shall be considered effective upon receipt or recipient confirmation as may be required.

D.3. **Modification and Amendment.** This Contract may be modified only by a written amendment signed by all Parties and approved by all applicable State officials.

D.4. **Subject to Funds Availability.** The Contract is subject to the appropriation and availability of State or federal funds. In the event that the funds are not appropriated or are otherwise unavailable, the State reserves the right to terminate this Contract upon written notice to the Contractor. The State's exercise of its right to terminate this Contract shall not constitute a breach of Contract by the State. Upon receipt of the written notice, the Contractor shall cease all work associated with the Contract. If the State terminates this Contract due to lack of funds availability, the Contractor shall be entitled to compensation for all conforming goods requested and accepted by the State and for all satisfactory and authorized services completed as of the termination date. Should the State exercise its right to terminate this Contract due to unavailability of funds, the Contractor shall have no right to recover from the State any actual, general, special, incidental, consequential, or any other damages of any description or amount.

D.5. **Termination for Convenience.** The State may terminate this Contract for convenience without cause and for any reason. The State shall give the Contractor at least thirty (30) days written notice before the termination date. The Contractor shall be entitled to compensation for all conforming goods delivered and accepted by the State or for satisfactory, authorized services completed as of the termination date. In no event shall the State be liable to the Contractor for
compensation for any goods neither requested nor accepted by the State or for any services neither requested by the State nor satisfactorily performed by the Contractor. In no event shall the State’s exercise of its right to terminate this Contract for convenience relieve the Contractor of any liability to the State for any damages or claims arising under this Contract.

D.6. **Termination for Cause.** If the Contractor fails to properly perform its obligations under this Contract in a timely or proper manner, or if the Contractor materially violates any terms of this Contract ("Breach Condition"), the State shall have the right to immediately terminate the Contract and withhold payments in excess of compensation for completed services or provided goods. Notwithstanding the above, the Contractor shall not be relieved of liability to the State for damages sustained by virtue of any Breach Condition and the State may seek other remedies allowed at law or in equity for breach of this Contract.

D.7. **Assignment and Subcontracting.** The Contractor shall not assign this Contract or enter into a subcontract for any of the goods or services provided under this Contract without the prior written approval of the State. Notwithstanding any use of the approved subcontractors, the Contractor shall be the prime contractor and responsible for compliance with all terms and conditions of this Contract. The State reserves the right to request additional information or impose additional terms and conditions before approving an assignment of this Contract in whole or in part or the use of subcontractors in fulfilling the Contractor’s obligations under this Contract.

D.8. **Conflicts of Interest.** The Contractor warrants that no part of the Contractor’s compensation shall be paid directly or indirectly to an employee or official of the State of Tennessee as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Contractor in connection with any work contemplated or performed under this Contract.

The Contractor acknowledges, understands, and agrees that this Contract shall be null and void if the Contractor is, or within the past six (6) months has been, an employee of the State of Tennessee or if the Contractor is an entity in which a controlling interest is held by an individual who is, or within the past six (6) months has been, an employee of the State of Tennessee.

D.9. **Nondiscrimination.** The Contractor hereby agrees, warrants, and assures that no person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of this Contract or in the employment practices of the Contractor on the grounds of handicap or disability, age, race, creed, color, religion, sex, national origin, or any other classification protected by federal or state law. The Contractor shall, upon request, show proof of nondiscrimination and shall post in conspicuous places, available to all employees and applicants, notices of nondiscrimination.

D.10. **Prohibition of Illegal Immigrants.** The requirements of Tenn. Code Ann. § 12-3-309 addressing the use of illegal immigrants in the performance of any contract to supply goods or services to the state of Tennessee, shall be a material provision of this Contract, a breach of which shall be grounds for monetary and other penalties, up to and including termination of this Contract.

a. The Contractor agrees that the Contractor shall not knowingly utilize the services of an illegal immigrant in the performance of this Contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant in the performance of this Contract. The Contractor shall reaffirm this attestation, in writing, by submitting to the State a completed and signed copy of the document at Attachment 1, semi-annually during the Term. If the Contractor is a party to more than one contract with the State, the Contractor may submit one attestation that applies to all contracts with the State. All Contractor attestations shall be maintained by the Contractor and made available to State officials upon request.

b. Prior to the use of any subcontractor in the performance of this Contract, and semi-annually thereafter, during the Term, the Contractor shall obtain and retain a current, written attestation that the subcontractor shall not knowingly utilize the services of an illegal immigrant to perform work under this Contract and shall not knowingly utilize the
services of any subcontractor who will utilize the services of an illegal immigrant to perform work under this Contract. Attestations obtained from subcontractors shall be maintained by the Contractor and made available to State officials upon request.

c. The Contractor shall maintain records for all personnel used in the performance of this Contract. Contractor’s records shall be subject to review and random inspection at any reasonable time upon reasonable notice by the State.

d. The Contractor understands and agrees that failure to comply with this section will be subject to the sanctions of Tenn. Code Ann. § 12-3-309 for acts or omissions occurring after its effective date.

e. For purposes of this Contract, "illegal immigrant" shall be defined as any person who is not: (i) a United States citizen; (ii) a Lawful Permanent Resident; (iii) a person whose physical presence in the United States is authorized; (iv) allowed by the federal Department of Homeland Security and who, under federal immigration laws or regulations, is authorized to be employed in the U.S.; or (v) is otherwise authorized to provide services under the Contract.

D.11. **Records.** The Contractor shall maintain documentation for all charges under this Contract. The books, records, and documents of the Contractor, for work performed or money received under this Contract, shall be maintained for a period of five (5) full years from the date of the final payment and shall be subject to audit at any reasonable time and upon reasonable notice by the State, the Comptroller of the Treasury, or their duly appointed representatives. The financial statements shall be prepared in accordance with generally accepted accounting principles.

D.12. **Monitoring.** The Contractor’s activities conducted and records maintained pursuant to this Contract shall be subject to monitoring and evaluation by the State, the Comptroller of the Treasury, or their duly appointed representatives.

D.13. **Progress Reports.** The Contractor shall submit brief, periodic, progress reports to the State as requested.

D.14. **Strict Performance.** Failure by any Party to this Contract to require, in any one or more cases, the strict performance of any of the terms, covenants, conditions, or provisions of this Contract shall not be construed as a waiver or relinquishment of any term, covenant, condition, or provision. No term or condition of this Contract shall be held to be waived, modified, or deleted except by a written amendment signed by the Parties.

D.15. **Independent Contractor.** The Parties shall not act as employees, partners, joint venturers, or associates of one another. The Parties are independent contracting entities. Nothing in this Contract shall be construed to create an employer/employee relationship or to allow either Party to exercise control or direction over the manner or method by which the other transacts its business affairs or provides its usual services. The employees or agents of one Party are not employees or agents of the other Party.

D.16 **Patient Protection and Affordable Care Act.** The Contractor agrees that it will be responsible for compliance with the Patient Protection and Affordable Care Act ("PPACA") with respect to itself and its employees. Including any obligation to report health insurance coverage, provide health insurance coverage, or pay any financial assessment, tax, or penalty for not providing health insurance. The Contractor shall indemnify the State and hold it harmless for any costs to the State arising from Contractor’s failure to fulfill its PPACA responsibilities for itself or its employees.

D.17 **Limitation of State’s Liability.** The State shall have no liability except as specifically provided in this Contract. In no event will the State be liable to the Contractor or any other party for any lost revenues, lost profits, loss of business, decrease in the value of any securities or cash position, time, money, goodwill, or any indirect, special, incidental, punitive, exemplary or consequential damages of any nature, whether based on warranty, contract, statute, regulation, tort (including
but not limited to negligence), or any other legal theory that may arise under this Contract or otherwise. The State’s total liability under this Contract (including any exhibits, schedules, amendments or other attachments to the Contract) or otherwise shall under no circumstances exceed the Maximum Liability. This limitation of liability is cumulative and not per incident.

D.18. **Limitation of Contractor’s Liability.** In accordance with Tenn. Code Ann. § 12-3-701, the Contractor’s liability for all claims arising under this Contract shall be limited to an amount equal to two (2) times the Maximum Liability amount detailed in Section C.1. and as may be amended, PROVIDED THAT in no event shall this Section limit the liability of the Contractor for: (i) intellectual property or any Contractor indemnity obligations for infringement for third-party intellectual property rights; (ii) any claims covered by any specific provision in the Contract providing for liquidated damages, or (iii) any claims for intentional acts, criminal acts, fraudulent conduct, or acts or omissions that result in personal injuries or death.

D.19. **Hold Harmless.** The Contractor agrees to indemnify and hold harmless the State of Tennessee as well as its officers, agents, and employees from and against any and all claims, liabilities, losses, and causes of action which may arise, accrue, or result to any person, firm, corporation, or other entity which may be injured or damaged as a result of acts, omissions, or negligence on the part of the Contractor, its employees, or any person acting for or on its or their behalf relating to this Contract. The Contractor further agrees it shall be liable for the reasonable cost of attorneys for the State to enforce the terms of this Contract.

In the event of any suit or claim, the Parties shall give each other immediate notice and provide all necessary assistance to respond. The failure of the State to give notice shall only relieve the Contractor of its obligations under this Section to the extent that the Contractor can demonstrate actual prejudice arising from the failure to give notice. This Section shall not grant the Contractor, through its attorneys, the right to represent the State in any legal matter, as the right to represent the State is governed by Tenn. Code Ann. § 8-6-106.

D.20. **HIPAA Compliance.** The State and Contractor shall comply with obligations under the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), Health Information Technology for Economic and Clinical Health ("HITECH") Act and any other relevant laws and regulations regarding privacy (collectively the “Privacy Rules”). The obligations set forth in this Section shall survive the termination of this Contract.

a. Contractor warrants to the State that it is familiar with the requirements of the Privacy Rules, and will comply with all applicable requirements in the course of this Contract.

b. Contractor warrants that it will cooperate with the State, including cooperation and coordination with State privacy officials and other compliance officers required by the Privacy Rules, in the course of performance of the Contract so that both parties will be in compliance with the Privacy Rules.

c. The State and the Contractor will sign documents, including but not limited to business associate agreements, as required by the Privacy Rules and that are reasonably necessary to keep the State and Contractor in compliance with the Privacy Rules. This provision shall not apply if information received or delivered by the parties under this Contract is NOT “protected health information” as defined by the Privacy Rules, or if the Privacy Rules permit the parties to receive or deliver the information without entering into a business associate agreement or signing another document.

d. The Contractor will indemnify the State and hold it harmless for any violation by the Contractor or its subcontractors of the Privacy Rules. This includes the costs of responding to a breach of protected health information, the costs of responding to a government enforcement action related to the breach, and any fines, penalties, or damages paid by the State because of the violation.

System ("TCRS"), provides that if a retired member of TCRS, or of any superseded system administered by TCRS, or of any local retirement fund established under Tenn. Code Ann. §§ 8-35-101. et seq., accepts State employment, the member’s retirement allowance is suspended during the period of the employment. Accordingly and notwithstanding any provision of this Contract to the contrary, the Contractor agrees that if it is later determined that the true nature of the working relationship between the Contractor and the State under this Contract is that of "employee/employer" and not that of an independent contractor, the Contractor, if a retired member of TCRS, may be required to repay to TCRS the amount of retirement benefits the Contractor received from TCRS during the Term.

D. 22. Tennessee Department of Revenue Registration: The Contractor shall comply with all applicable registration requirements contained in Tenn. Code Ann. §§ 67-6-601 – 608. Compliance with applicable registration requirements is a material requirement of this Contract.

D. 23. Debarment and Suspension: The Contractor certifies, to the best of its knowledge and belief, that it, its current and future principals, its current and future subcontractors and their principals:

a. are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal or state department or agency;

b. have not within a three (3) year period preceding this Contract been convicted of, or had a civil judgment rendered against them from commission of fraud, or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or grant under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false statements, or receiving stolen property;

c. are not presently indicted or otherwise criminally or civilly charged by a government entity (federal, state, or local) with commission of any of the offenses detailed in section b. of this certification; and

d. have not within a three (3) year period preceding this Contract had one or more public transactions (federal, state, or local) terminated for cause or default.

The Contractor shall provide immediate written notice to the State if at any time it learns that there was an earlier failure to disclose information or that due to changed circumstances, its principals or the principals of its subcontractors are excluded or disqualified.

D. 24. Force Majeure: “Force Majeure Event” means fire, flood, earthquake, elements of nature or acts of God, wars, riots, civil disorders, rebellions or revolutions, acts of terrorism or any other similar cause beyond the reasonable control of the Party except to the extent that the non-performing Party is at fault in failing to prevent or causing the default or delay, and provided that the default or delay cannot reasonably be circumvented by the non-performing Party through the use of alternate sources, workaround plans or other means. A strike, lockout or labor dispute shall not excuse either Party from its obligations under this Contract. Except as set forth in this Section, any failure or delay by a Party in the performance of its obligations under this Contract arising from a Force Majeure Event is not a default under this Contract or grounds for termination. The non-performing Party will be excused from performing those obligations directly affected by the Force Majeure Event, and only for as long as the Force Majeure Event continues, provided that the Party continues to use diligent, good faith efforts to resume performance without delay. The occurrence of a Force Majeure Event affecting Contractor’s representatives, suppliers, subcontractors, customers or business apart from this Contract is not a Force Majeure Event under this Contract. Contractor will promptly notify the State of any delay caused by a Force Majeure Event (to be confirmed in a written notice to the State within one (1) day of the inception of the delay) that a Force Majeure Event has occurred, and will describe in reasonable detail the nature of the Force Majeure Event. If any Force Majeure Event results in a delay in Contractor’s performance longer than forty-eight (48) hours, the State may, upon notice to Contractor: (a) cease payment of the fees until Contractor resumes performance of the affected obligations; or
(b) immediately terminate this Contract or any purchase order, in whole or in part, without further payment except for fees then due and payable. Contractor will not increase its charges under this Contract or charge the State any fees other than those provided for in this Contract as the result of a Force Majeure Event.

D.25. **State and Federal Compliance.** The Contractor shall comply with all applicable state and federal laws and regulations in the performance of this Contract.

D.26. **Governing Law.** This Contract shall be governed by and construed in accordance with the laws of the State of Tennessee. The Tennessee Claims Commission or the state or federal courts in Tennessee shall be the venue for all claims, disputes, or disagreements arising under this Contract. The Contractor acknowledges and agrees that any rights, claims, or remedies against the State of Tennessee or its employees arising under this Contract shall be subject to and limited to those rights and remedies available under Tenn. Code Ann. §§ 9-8-101 - 407.

D.27. **Entire Agreement.** This Contract is complete and contains the entire understanding between the Parties relating to its subject matter; including all the terms and conditions of the Parties’ agreement. This Contract supersedes any and all prior understandings, representations, negotiations, and agreements between the Parties, whether written or oral.

D.28. **Severability.** If any terms and conditions of this Contract are held to be invalid or unenforceable as a matter of law, the other terms and conditions of this Contract shall not be affected and shall remain in full force and effect. The terms and conditions of this Contract are severable.

D.29. **Headings.** Section headings of this Contract are for reference purposes only and shall not be construed as part of this Contract.

D.30. **Incorporation of Additional Documents.** Each of the following documents is included as a part of this Contract by reference. In the event of a discrepancy or ambiguity regarding the Contractor’s duties, responsibilities, and performance under this Contract, these items shall govern in order of precedence below:

   a. any amendment to this Contract, with the latter in time controlling over any earlier amendments;

   b. this Contract with any attachments or exhibits (excluding the items listed at subsections c. through f., below), which includes Attachments 1 and 2;

   c. any clarifications of or addenda to the Contractor’s proposal seeking this Contract;

   d. the State solicitation, as may be amended, requesting responses in competition for this Contract;

   e. any technical specifications provided to proposers during the procurement process to award this Contract; and

   f. the Contractor’s response seeking this Contract.

E. **SPECIAL TERMS AND CONDITIONS:**

E.1. **Conflicting Terms and Conditions.** Should any of these special terms and conditions conflict with any other terms and conditions of this Contract, the special terms and conditions shall be subordinate to the Contract’s other terms and conditions.

E.2. **Applicable Gifts and Solicitations Policy.** The Contractor shall not offer to give, or give, any gift to any employee of the State or to any member of a Board, Commission or Committee administratively attached to the State that would violate the State’s Gifts and Solicitations Policy, included as Attachment 2 to this Contract.
IN WITNESS WHEREOF,

BY THE NUMBERS ACTUARIAL CONSULTING, INC.:  

Lisa Dennison  

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<thead>
<tr>
<th>CONTRACTOR SIGNATURE</th>
<th>DATE</th>
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<tr>
<td>Lisa Dennison President and Consulting Actuary</td>
<td></td>
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</table>

PRINTED NAME AND TITLE OF CONTRACTOR SIGNATORY (above)

STATE OF TENNESSEE, DEPARTMENT OF TREASURY:

[Signature]

DAVID H. LILLARD, JR., STATE TREASURER  

<table>
<thead>
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<td>August 17, 2016</td>
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[Signature]

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<th>DATE</th>
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<td>8/10/14</td>
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# ATTESTATION RE PERSONNEL USED IN CONTRACT PERFORMANCE

<table>
<thead>
<tr>
<th>SUBJECT CONTRACT NUMBER:</th>
<th>51496</th>
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<tbody>
<tr>
<td>CONTRACTOR LEGAL ENTITY NAME:</td>
<td>By the Numbers Actuarial Consulting, Inc.</td>
</tr>
<tr>
<td>EDISON VENDOR IDENTIFICATION NUMBER:</td>
<td>143251</td>
</tr>
</tbody>
</table>

The Contractor, identified above, does hereby attest, certify, warrant, and assure that the Contractor shall not knowingly utilize the services of an illegal immigrant in the performance of this Contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant in the performance of this Contract.

Lisa Dennison

**CONTRACTOR SIGNATURE**

**NOTICE** This attestation MUST be signed by an individual empowered to contractually bind the Contractor. Attach evidence documenting the individual's authority to contractually bind the Contractor, unless the signatory is the Contractor's chief executive or president.

Lisa Dennison President and Consulting Actuary

**PRINTED NAME AND TITLE OF SIGNATORY**

8/15/16

**DATE OF ATTESTATION**
TREASURY DEPARTMENT GIFTS AND SOLICITATION POLICY

No employee or any member of a Board, Commission or Committee administratively attached to the Department shall solicit, accept or agree to accept, directly or indirectly, on behalf themselves or their immediate family, any gift in violation of state law including, but not limited to, any gratuity, service, favor, entertainment, lodging, transportation, loan, loan guarantee rebate, money, any promise, obligation or contract for future awards or compensation or any other thing of monetary value, from any individual or entity that:

- Has, or is seeking to obtain, contractual or other business or financial relations with the Treasury Department or the Tennessee Consolidated Retirement System;
- Conducts operations or activities that are regulated by the Treasury Department;
- May bid on future procurement from the Department or a Board, Commission, or Committee administratively attached to the Department based on the employee's reasonable belief that the person or entity intends to submit a bid; or
- Has an interest that may be substantially affected by the performance or nonperformance of the employee's official duties.

Generally, gifts from a lobbyist or an employer of a lobbyist are prohibited; however, the following are exceptions to the general gift prohibition:

- A gift given for nonbusiness purpose and motivated by a close personal friendship and not by the position of the employee, and specifically authorized and defined by the Ethics Commission;
- Informational materials in the form of books, articles, periodicals, other written materials, audiotapes, videotapes, or other forms of communication;
- Sample merchandise, promotional items, and appreciation tokens if they are routinely given to customers, suppliers or potential customers or suppliers in the ordinary course of business;
- Unsolicited tokens or awards of appreciation, honorary degrees, or bona fide awards in recognition of public service in the form of a plaque, trophy, desk item, wall memento, and similar items, provided that any such item shall not be in a form which can readily be converted to cash;
- Benefits resulting from business, employment, or other outside activities of the employee or the employee's immediate family, if such benefits are
customarily provided to others in similar circumstances and are not enhanced due to the status of the employee;

- Opportunities and benefits made available to all members of an appropriate class of the general public, including but not limited to, discounts afforded to the general public or prizes and awards given out in public contests;

- Expenses of out-of-state travel, if such expenses are paid for or reimbursed by a governmental entity or an established and recognized organization of elected or appointed state government officials;

- Food, refreshments, amenities, goody bags, entertainment, or beverages provided as part of a meal, reception or similar event including trade shows and professional meetings; and

- Food, refreshments, meals, foodstuffs, entertainment, beverages that are provided in connection with the following: an event where the employee is a speaker or part of a panel discussion at a scheduled meeting of an established or recognized membership organization which regularly meets at in-state events in which invitations are extended to legislative or executive branch employees. The value of the items shall not exceed fifty dollars ($50.00) per person, per day.*

* The amount may be increased to reflect the percentage of change in the average consumer price index. The Ethics Commission publishes the increased amount on its website.

For other gifts offered which are not included in the exceptions above, the employee must obtain the written approval of the Assistant Treasurer for Legal, Compliance, and Audit.