STATE OF MINNESOTA PROFESSIONAL AND TECHNICAL SERVICES WORK ORDER CONTRACT

This work order contract is between the [FILL IN NAME OF STAT	E INTITUION], acting through its [FILL IN THE NAME OF YOUR
AGENCY OR BOARD. EXAMPLE: "commissioner of	" OR "director of"] ("State Institution") and [GIVE
THE FULL NAME OF THE CONTRACTOR INCLUDING ITS ADDRES	S] ("Contractor"). This work order contract is issued under the
authority of Master Contract T-Number, CFMS Number	er, and is subject to all provisions of the master contract
which is incorporated by reference.	

Work Order Contract

1 Term of Contract

- 1.1 *Effective date*: [SPELL OUT FULL DATE (e.g., April 1, 2001)], or the date the State Institution obtains all required signatures under Minn. Stat. § 16C.05, subd. 2, whichever is later.
 - The Contractor must not begin work under this contract until this contract is fully executed and the Contractor has been notified by the State's Authorized Representative to begin the work.
- 1.2 *Expiration date.* [SPELL OUT FULL DATE (e.g., April 1, 2001)], or until all obligations have been satisfactorily fulfilled, whichever occurs first.

2 Contractor's Duties

The Contractor, who is not a state employee, will perform the duties specified in Exhibit A which is attached and incorporated into this work order contract.

3 Consideration and Payment

3.1 *Consideration.* The State Institution will pay for all services performed by the Contractor using the Fee Schedule specified in Exhibit B, which is attached and incorporated into this work order contract.

The Contractor will be paid for actual eligible costs, not to exceed (Written Amount) dollars (\$x.xx). consistent with the breakdown of costs contained in Exhibit B which is attached and incorporated into this work order, at rates not to exceed the hourly rates listed below:

Travel Expenses. Reimbursement for travel and subsistence expenses actually and necessarily incurred by the Contractor as a result of this work order contract will not exceed (**Written Amount**) dollars (\$x.xx).

Total Obligation. The total obligation of the State Institution for all compensation and reimbursements to the Contractor under this work order contract will not exceed **(Written Amount)** dollars (\$x.xx).

3.2. *Invoices.* The State Institution will promptly pay the Contractor after the Contractor presents an itemized invoice for the services actually performed and the State Institution's Authorized Representative accepts the invoiced services. Invoices must be submitted timely and according to the following schedule outlined in Exhibit A.

4 Project Managers

The State Institution's Project Manager is [NAME, TITLE, ADDRESS, TELEPHONE NUMBER]. The State Institution's Authorized Representative will certify acceptance on each invoice submitted for payment.

The Contractor's Project Manager is [NAME, TITLE, ADDRESS, TELEPHONE NUMBER]. If the Contractor's Project Manager changes at any time during this work order contract, the Contractor must immediately notify the State Institution.

5 E-Verify Certification (In accordance with Minn. Stat. §16C.075)

For services valued in excess of \$50,000, Contractor certifies that as of the date of services performed on behalf of the State, Contractor and all its subcontractors will have implemented or be in the process of implementing the federal E-Verify program for all newly hired employees in the United States who will perform work on behalf of the State. Contractor is responsible for collecting all subcontractor certifications and may do so utilizing the E-Verify Subcontractor Certification Form available at http://www.mmd.admin.state.mn.us/doc/EverifySubCertForm.doc. All subcontractor certifications must be kept on file with Contractor and made available to the State upon request.



Exhibit A

Contractor's Duties for Investment Grade Audit

The Contractor shall do all things necessary to complete an Investment Grade Audit (IGA) for the following facilities (the Facilities):

- List facilities from SSRFP
- Facility X
- Facility Y

In the performance of its duties, the Contractor shall provide all services necessary and reasonable to complete the following tasks. When these duties permit the Contractor to determine if an action is necessary, the Contractor will make such determination as would a reasonable and prudent person possessing knowledge and expertise of the subject matter. Upon reasonable and timely request, to the extent permitted by the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, the State Institution agrees to provide to the Contractor relevant information, data, drawings and plans held by or accessible to the State Institution, and to provide access to the Facilities and its staff and occupants at reasonable, mutually agreed times.

Task 1 - Preliminary Assessment of Needs and Opportunities

- 1.1 Meet with State Institution representative(s) to establish work plans, schedules and milestones, communication procedures, and meet and confer requirements.
- 1.2 Collect data and background information from the State Institution concerning facilities operation and energy use for the most recent three years from the effective date of this Work Order Contract. The State Institution shall provide to the Contractor, upon reasonable request, accurate and complete data and information held by or accessible to the State Institution. Where information is not available from the State Institution, Contractor will make a diligent effort to collect such information through the other means such as facility inspection, staff interviews and utility -providers' records. The State Institution shall provide data release authorization(s) to the Contractor for relevant data held by other entities, including but not limited to utility, fuel, material and service providers. Contractor shall assess the validity and accuracy of information provided and to confirm or correct as needed.

Data and background information to be collected includes but is not limited to:

- 1.2.1 Building square footage;
- 1.2.2 Construction data of buildings and major additions including building envelope:
- 1.2.3 Utility provider invoices;
- 1.2.4 Occupancy and usage information:
- 1.2.5 Descriptions of all energy-consuming or energy-saving equipment used energy management procedures practiced at or by the Facilities;
- 1.2.6 Description of any energy or water use related improvements completed or currently being implemented;
- 1.2.7 Description of any changes made to the structure of the Facilities or its energy-using or water-using equipment during the baseline period;
- 1.2.8 Description of future plans regarding building modifications or equipment modifications and replacements;
- 1.2.9 Drawings, as available including mechanical, plumbing, electrical, building automation and temperature controls, structural, architectural, modifications and remodels;
- 1.2.10 Original construction submittals and factory data such as specifications and pump curves as available.
- 1.2.11 Operating engineer logs, maintenance work orders and like materials, as available.
- 1.2.12 Records of maintenance expenditures for energy-using or related equipment, including service contracts.
- 1.2.13 Prior completed energy audits or studies, if any.
- 1.3 Perform a preliminary walk-through of the Facilities and interview staff and occupants to identify potential energy and water saving measures.
 - 1.3.1 Interview the Facilities management, maintenance staff, subcontractors and occupants of each building regarding:
 - a) Facilities operation, including energy management procedures.
 - b) Equipment maintenance problems:
 - c) Comfort problems and requirements;
 - d) Equipment reliability;

- e) Projected equipment needs;
- f) Occupancy and use schedules for the Facilities and specific equipment therein; and
- g) Completed, current, planned and anticipated Facility improvements.
- 1.3.2 Survey major energy-using equipment, including but not limited to:
 - a) Lighting (indoor and outdoor);
 - b) Heating and heat distribution systems;
 - c) Cooling systems and related equipment;
 - d) Automatic temperature control systems and equipment;
 - e) Air distribution systems and equipment, outdoor air ventilation systems and equipment, exhaust systems and equipment;
 - f) Hot water systems;
 - g) Electric motors, transmission and drive systems;
 - h) Special systems such as kitchen/dining equipment;
 - Water consuming systems such as restroom fixtures, water fountains, irrigation systems;
 - j) Renewable energy systems; and
 - k) Any other major energy using systems,
- 1.3.3 Perform surveys outside of normal business hours and/or on weekends when necessary, and subject to prior approval of the State Institution, to verify Facilities systems and occupancy schedules.
- 1.3.4 Develop a preliminary list of potential energy and water saving measures, with consideration given to the following for each system:
 - a) Comfort and maintenance problems;
 - b) Energy use, loads, proper sizing, efficiencies and hours of operation;
 - c) Current operating condition;
 - d) Remaining useful life;
 - e) Feasibility of system replacement;
 - f) Hazardous materials or other environmental concerns that may be present;
 - g) Future plans for equipment replacement or building renovations and use;
 - h) Facilities operation and maintenance procedures that could be affected; and
 - i) Capability to effectively monitor performance and verify savings.

Contractor shall assess the validity and accuracy of information provided and shall verify or correct the information as needed.

1.4 Meet with State Institution representative(s) to present preliminary findings and negotiate agreement on energy and water saving measures to be analyzed.

List of Deliverables for Task 1:

- Report of site information and details to be verified by State Institution
- Preliminary Findings and Recommendations to be negotiated

2.Task 2 - Preliminary Analysis of Measures

- 2.1 Establish base year consumption and reconcile with end-use consumption estimates.
 - 2.1.1 Establish base year consumption by examining relevant utility and fuel provider bills for the past three years, including but not limited to electricity, building heating fuels, steam and water. Establish base year consumption as appropriate in:
 - a) energy units such as kilowatt-hours of usage, kilowatts of demand;
 - b) physical units of fuel, such as "hundred cubic feet" (ccf) or gallon;
 - c) energy content, such as therms or British thermal units (Btus);
 - d) cost structure, such as firm or interruptible;
 - e) cost per unit and cost per billing period; and
 - f) cost per square foot of conditioned space.

The Contractor shall consult with facility personnel or other parties as needed to identify and account for any anomalous schedule or operating conditions that could affect an accurate base year representation, such as significant occupancy or use changes or periods of time when relevant equipment was malfunctioning, repaired or replaced.

2.1.2 Estimate loading, usage and/or hours of operation for all major end uses of total facility energy and water

consumption, including but not limited to:

- a) lighting,
- b) heating,
- c) cooling,
- d) motors (fans and pumps),
- e) plug loads, and
- f) other major energy and water using equipment.

Where loading or usage is highly variable (such as cooling loads), the Contractor may use its best judgment to determine if direct measurement or monitoring is appropriate. However, the Contractor may not assume that equipment run hours equal the operating hours of the building(s) or facility staff estimates.

- 2.1.3 Reconcile actual annual end-use loads and consumption with the calculated base year loads and consumption and modify calculated base year values as needed to conform actual loads and consumption.
- 2.1.4 Propose adjustments to the baseline for energy and water saving measures that will be implemented in the future.
- 2.1.5 Provide a detailed description of the process(es), calculations, variables and adjustment factors used to establish the base year consumption .
- 2.2 Within ninety (90) days of the effective date of this Work Order Contract, develop and submit to the State Institution a preliminary analysis of potential energy and water saving measures.
 - 2.2.1 Provide a comprehensive list of all potential energy and water saving measures including but not limited to: lighting systems, heating/ventilating/air conditioning equipment and distribution systems, controls systems, building envelope, motors, kitchen equipment, pools, renewable energy systems, other special equipment, irrigation systems, water saving devices, and retro-commissioning.
 - 2.2.2 For each measure, prepare a preliminary estimate of energy or water cost savings including description of analysis methodology, supporting calculations and assumptions used to estimate savings.
 - 2.2.3 Identify those measures which are reasonably likely to be cost effective and therefore warrant detailed analyses. For each measure, include equipment purchase, installation, and retro-commissioning cost estimates as well as an estimate for engineering design work required to obtain construction or other bids.
- 2.3 Meet with State Institution representative(s) to present preliminary findings and recommendations, and to establish agreement on measures, if any, to include in the detailed analysis and audit report. Provide information on potential project economics, including but not limited to an assessment of energy use, savings potential, project opportunities, recommended measures for further analysis, and the Contractor's assessment of its potential to develop an energy savings contract proposal that conforms to the requirements of this Work Order Contract. The State Institution may accept in whole or in part, or may reject the Contractor's analysis or recommendations if the Contractor's analysis or recommendations do not meet the requirements of the State's Work Order Contract.

List of Deliverables for Task 2:

- Report detailing Base Year Consumption and Methodology
- Preliminary Analysis and Recommendations Report

Exhibit B

Contractor's Fee Schedule

1. Contractor's Fees for Investment Grade Audit

As specified in this Work Order Contract, the Contractor shall provide an Investment Grade Audit as part of a three-stage process including the Preliminary Assessment of Needs and Opportunities, the Preliminary Analysis of Measures, and the Detailed Analysis and Investment Grade Audit.

1.1 Preliminary Assessment & Analysis

In the table below provide the maximum fee to conduct the Preliminary Assessment & Analysis portion of the Investment Grade Audit, on a cost per square foot basis. The Contractor agrees that the proposed maximum fee shall incorporate its responsibility to adhere to and complete the full scope of work as presented in Exhibit A of this Work Order Contract, including any subcontracted work not performed by the Contractor.

	Proposed Maximum Cost per sq.ft.
Investment Grade Audit Preliminary Assessment & Analysis	\$/sq.ft.

The total square footage of all facilities to be evaluated in the Preliminary Assessment & Analysis is XXXX square feet.

This gives a maximum fee to conduct the Preliminary Assessment & Analysis of \$XX,XXX.XX

2. Open Book Pricing

The Contractor shall fully disclose all costs of materials and labor purchased and subcontracted by the Contractor and a list of hourly rates and position descriptions for labor or services provided by the Contractor. Estimates for number of hours required for the project and deviations of these budgeted hours shall require prior written approval by the State or shall not be paid. Contractor shall maintain cost accounting records on authorized work performed under actual costs for labor and material, or other basis requiring accounting records. Contractor shall retain these records and afford the State access thereto pursuant to Master Contract, Section 9: State Audits. Costs will be evaluated through price analysis to compare costs with reasonable criteria such as established catalog and market prices or historical prices. The pricing methodology and individual cost markups disclosed during preliminary contract negotiations will be expected to be applied, providing the scope and size of the project remain the same as assumed when markups were disclosed.

