



Finance and Administration Committee
March 22, 2022

Information Item

FAC-8 Bestway Refrigeration and Humidity Study - Approval of Designer Selection Report on Board of Trustees Delegation to the Chancellor for Appointment of Architects and Engineers

Background Information

At the December 6, 2013, meeting of the Board of Trustees, the Board authorized the Chancellor, ex-officio, to appoint architects and engineers for projects with authorized funding of \$2,000,000 or less, and authorized the Chancellor to report all such appointments to the Board at its next meeting.

After July 1, 2007, in keeping with legislation under Session Law 2007-446 (HB 73), the appointment of architects and engineers for projects under \$500,000 may be made without public advertising and interviews. All such appointments shall be by the Chancellor and reported to the Board at its next meeting.

The Bestway Refrigeration and Humidity project will consist of reviewing recommendations from the equipment vendor and preparing an engineering study to determine the cause and recommendation of compressor failure issues and space humidity issues resulting in condensation within the space.

The request for qualifications and letters of interest for design services for this project was advertised on the University of North Carolina System website. One (1) firm submitted a letter of interest; that firm was not from Guilford County. The Designer Pre-Selection Committee reviewed the letter of interest and invited the firm SESCO & Coolsys Energy Design to an interview on February 9, 2022.

Attachments (see below)

8.1 SESCO & Coolsys Energy Design Letter of Interest and Proposal

8.2 Signed Memorandum from Vice-Chancellor Shea to Chancellor Franklin D. Gilliam, Jr., regarding Bestway Refrigeration and Humidity Study.

A handwritten signature in black ink, reading "Robert J. Shea, Jr." in a cursive style.

Robert J. Shea, Jr.
Vice Chancellor for
Finance *and* Administration



Information Sheet

Firm Name

HUB Certified
 If HUB, Specify Type
 Female
 American Indian
 Hispanic
 Socially & Economically Disadvantaged
 Disabled
 Asian-American
 Black

Point of Contact E-mail Address

Street Address

City
 State
 Zip Code
 County

Phone # Fax #

Type of Firm (e.g. Architectural, Civil Engineering, Surveying, Etc)

Consulting Firms

Architectural:	<input type="text"/>	<input type="checkbox"/> Check If HUB	Mechanical:	<input type="text" value="SESCO & Coolsys Energy Design"/>	<input type="checkbox"/> Check If HUB
Electrical:	<input type="text" value="Coolsys Energy Design"/>	<input type="checkbox"/> Check If HUB	Plumbing:	<input type="text"/>	<input type="checkbox"/> Check If HUB
Structural:	<input type="text"/>	<input type="checkbox"/> Check If HUB	Civil:	<input type="text"/>	<input type="checkbox"/> Check If HUB
Landscape:	<input type="text"/>	<input type="checkbox"/> Check If HUB	Interior Design:	<input type="text"/>	<input type="checkbox"/> Check If HUB
Other (specify type):	<input type="text" value="Refrigeration Design- Coolsys Energy Design"/>			<input type="checkbox"/> Check If HUB	
Other (specify type):	<input type="text"/>			<input type="checkbox"/> Check If HUB	



721 Park Centre Drive, Suite A, Kernersville, NC 27284
Phone 888-996-2220

Letter Of Interest

Jeff Ollis, PE, Director of National Accounts
Supermarket Environment Services Company- A CoolSys Company

January 17, 2022

Jeff Manter
UNC Greensboro Facilities Design & Construction
Gray Home Management House
105 Gray Drive
Greensboro, NC 27412

Dear Mr. Manter,

Supermarket Environment Services Co.- a CoolSys Company (SESCO) is interested in providing a solution for the refrigeration and humidity problems described at the UNCG Bestway grocery.

SESCO is a national accounts HVAC, refrigeration, and energy services company specializing in supermarkets for over 20 years. We are experts at understanding the unique demands of the supermarket environment. We understand the critical interaction between the refrigeration, cooking, and HVAC systems in supermarkets and design systems for lowest life cycle cost. Our approach to store design is industry proven to deliver lower energy and maintenance costs while providing the proper environment for refrigeration systems, food safety, and store comfort.

SESCO's program readily adapts prototypical design criteria into new store designs, remodel programs, facilities maintenance replacement programs, and corrective actions for "sick stores" like the UNCG Bestway.

We are the preferred HVAC and/or energy management system provider several regional and national chains. Our clients include: Food Lion, Lowes Foods, Harris Teeter, Hannaford, Weis Markets, Sprouts, KVAT Food City, South Carolina IGA, and Whole Foods.

I look forward to the opportunity to work with you, and to resolve the refrigeration and humidity issues being experienced at your store. Feel free to reach out if there are items you would like to discuss directly with me. You can reach me at 336-899-6099.

Sincerely,

Jeff Ollis

Tab 3: Organization Chart

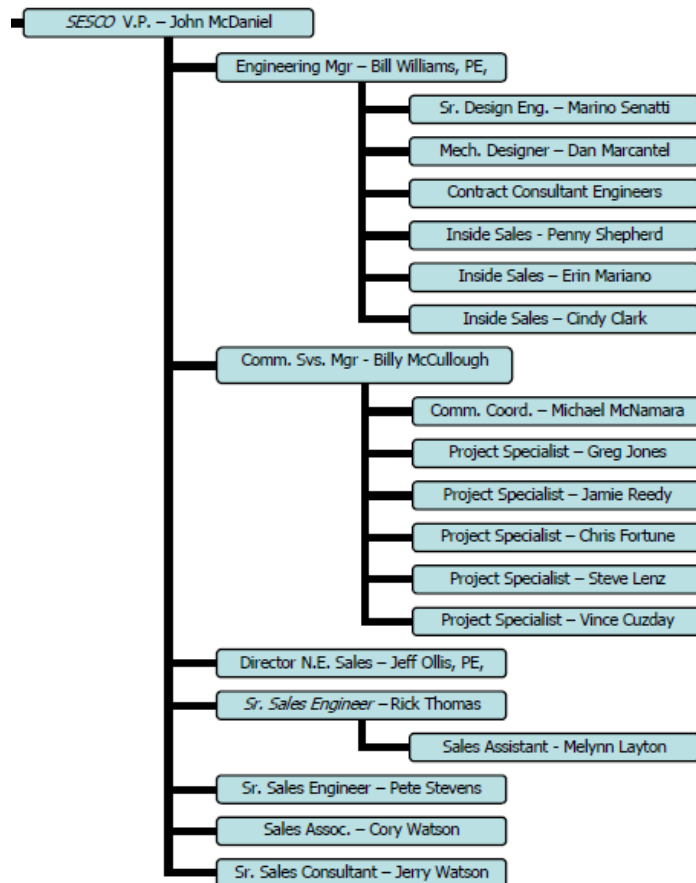
3.1 Project Team Experience: The SESCO team has focused on the unique needs of the supermarket industry for over 20 years. We have completed more than 3000 supermarket projects.

Jeff Ollis, PE will be the project lead for the design study phase. Jeff has been a professional engineer for over 20 years with experience in mechanical, controls, energy, and refrigeration projects.

Bill Williams, PE will be the lead design engineer for the design study phase. Bill has been a professional engineer for over 25 years. He is experienced in mechanical, refrigeration, controls, and energy projects. Bill has served on several ASHREA committees.

Allen Samuels, PE will be the primary refrigeration design consultant for design study phase. For over 35 years Allan Samuels, president of CoolSys Energy Design, has distinguished himself as an expert in supermarket engineering. His passion for energy efficiency, sustainability and energy conservation has made CoolSys Energy Design/Energy Squared the “go-to” firm for grocery stores, distribution centers and mixed-use store design.

Org Chart:



Tab 4: Relevant Experience

4.1 Specialized Experience: SESCO has focused on the unique needs of the supermarket industry for over 20 years. We have completed more than 3000 supermarket projects.

4.2 Past Performance:

Case Study 1: SESCO often gets started with a new client thru a “sick store”, like the UNCG Bestway. A recent project that we were given the opportunity to demonstrate our expertise was a new construction project in Lafayette, Louisiana. The construction was complete and the store had opened. The interior the humidity in the store was so high water was condensing on the windows and walls. Refrigeration cases were icing and requiring additional defrost cycles to maintain target case temperatures for food safety. The HVAC systems were operating at full capacity, yet the store environment remained out of control.

The original design and construction team had reviewed the project and installation and worked with the service team for several months trying to get the store within design parameters. After several months, their recommendations were to add an additional 80-tons of HVAC equipment to the facility. This recommendation would have cost the owner more than \$250, 000 dollars in first cost, as the newly constructed building was not built anticipating the additional structural, electrical, equipment, and gas load. The additional operational costs would have been a recurring expense to the owner for the life of the system, dramatically impacting the owner’s business forecast for the new facility.

SESCO surveyed the site and reviewed the documentation. We performed our own analysis based on our experience and developed a plan that corrected the problem for about \$50,000 dollars first cost. Our approach reduced the operational costs by improving the operational parameters of the cooking exhaust systems, reduced the amount of outside air introduced to the facility, and improved the controls sequence to allow more efficient operation of the energy systems. SESCO’s approach did not add any new equipment.

Case Study 2: SESCO collaborated with a client to review their current LEED Silver prototype design. SESCO reviewed the project and offered an alternative approach that yield life cycle cost savings. Thru our design approach and experience with supermarket equipment we delivered a new prototype that:

- A. Reduced the connect horsepower of the HVAC system by 124 hp.
- B. Reduce fan power consumption by 41%
- C. Reduced labor and electrical demand for the facility
- D. Delivered over \$200,000 in first cost savings
- E. Provide more than \$22,000 annual operational costs
- F. Yielded a \$500,000 NPV savings to the owner.

SESCO's design is the prototype design for all new construction projects. We have successfully completed 5 new stores with this client in the past 3 year and are currently in design for their next new store in Maryland.

4.3 Current Workload: SESCO processes approximately 200 major supermarket projects per year. Which include initial site surveys, scope preparations, budgets, design documentation, equipment procurement, scheduling, delivery coordination, and final commissioning. Our staff is readily available to address the needs of UNCG's Bestway project.

We do not have any NC state awarded projects.

4.4 Proposed Design approach: Our approach will include the following:

1. Onsite survey of the existing conditions.
2. Review available documentation for the project including construction drawings and equipment cutsheets.
3. Determine primary issues related to the refrigeration system equipment failures and humidity issues present.
4. Perform engineering analysis of conditions.
5. Determine action plan for corrective action, which will include making equipment selections and presenting a budget.

4.5 Recent Experience with project cost and schedules: SESCO processes approximately 200 major supermarket projects per year. Which include scope preparations, budgets, equipment procurement, scheduling, and delivery coordination. We are constantly quoting and scheduling equipment with various manufacturers and coordinating with construction teams across the country to ensure projects come in as bid and on time.

4.6 Construction Administration experience: SESCO provide construction project administration few several of clients per their request. We are actively administering 3 major efforts with our clients:

1. One of our southeast based clients recently acquired 72 stores. SESCO has had two project administration opportunities: to oversee the controls conversion to incorporate these stores into the existing fleet, and to upgrade the mechanical systems to meet the existing buyer's standards.
2. One of our national clients utilizes SESCO to oversee the maintenance replacement program for HVAC systems. SESCO acts as the owner's representative and oversees the entire project managing the prime contractors and all subs.
3. One of our national clients is involved the end-of-life replacement of the main sales HVAC systems in approximately 30 stores, SESCO is the project administrator for the 12 projects on

the east coast. We act as the owner’s representative and oversee the entire process from receiving the equipment from overseas, procuring the required professional services, and overseeing the installation, while minimizing store disruption.

4.7 Proximity to the project: SESCO’s corporate office is in Kernersville, NC, within 30 minutes of the project site.

4.8 Record of successful projects with legal or technical problems: SESCO completes approximately 200 major project per year. We have not had any projects that have involved legal counsel.

Regarding technical issues, occasionally issues with manufacturers and installers arise. SESCO generally works directly with the owner and acts as their advocate. Our process of design specification, equipment procurement, and commissioning ensures that the system is installed as designed and operates within expectations. SESCO owns the process and works directly with manufacturers and installers to correct the issues. We have developed our program such that lines of responsibility are clear which helps to avoid confusion and conflict when working out solution to unexpected issues.

4.9 Energy Conservations experience: SESCO understand the critical nature of supermarket operations. Most supermarket operate on approximately 2% profitability. One of the only things that they can control is energy consumption. SESCO has worked diligently with our clients and their partner firm to develop energy efficient strategies that can be maintained throughout the chain and the life of the system to ensure lower operating costs. We analyze the refrigeration system and look for opportunities to harvest the waste heat of compressor before it goes thru the condensers. Our strategies help our clients avoid using auxiliary heating such as gas or electric until outside air temps drop below 32F. This is a dramatic savings especially for our clients in the northeast. Additionally, our outside air treatment and air distribution strategies allow our clients stores to operate most of the year without having to utilize their sensible cooling systems.

As mentions above when we consider and existing prototype, our approach offers significant first cost and operations savings. We find that we can effectively meet the design requirements while utilizing approximately 25% less energy. See the graphic below for a basic summary of how our approach has reduced energy consumption.

	BEFORE DESIGN	AFTER DESIGN	RESULTS
NUMBER OF SYSTEMS	16 UNITS	7 UNITS	9 FEWER SYSTEMS
FAN HORSEPOWER	57.3 HP	33.9 HP	41% LESS
COOLING CAPACITY	163.6 TONS	101.3 TONS	38% LESS

Additionally, we are the largest provider of Energy Star certifications in the supermarket industry and are recognized by the EPA as an Energy Star partner.

Tab 5: Minority Business Participation

SESCO and Coolsys are not MWBE businesses. We regularly work with preferred vendors and suppliers to meet our clients' goals and expectations. We will gladly work with UNCG and the North Carolina Office of State Construction to meet MWBE goals for this project.



Finance and Administration

254 Mossman Building
 PO Box 26170, Greensboro, NC 27402-6170
 336.334.5200 Phone 336.334.4754 Fax

MEMORANDUM

TO: Chancellor Gilliam

FROM: Robert J. Shea, Jr. *RJS*

DATE: February 22, 2022

RE: Bestway Refrigeration & Humidity Study

At the December 6, 2013, meeting of the Board of Trustees, the Board authorized the Chancellor, ex-officio, to appoint architects and engineers for projects with authorized budgets of \$2,000,000 or less and authorized the Chancellor to report all such appointments to the Board at its next meeting.

The total project authorization of \$20,000 for the Bestway Refrigeration & Humidity Study project is within the \$2,000,000 threshold. A solicitation for professional services was posted on the UNC System webpage. One firm submitted Letters of Interest for the above referenced project, zero of which are from Guilford County. The Designer Selection Committee interviewed one designer on February 9, 2022, and recommends the following ranking order:

Supermarket Environment Services Co. (SESCO), Kernersville, NC

The Designer Selection Committee recommends SESCO, Kernersville, NC as the designer for this project for the following reasons:

SESCO is recommended for the following reasons:

1. Specialization is in supermarkets.
2. Experience in the interaction between the refrigeration, cooking, and mechanical systems within supermarkets.
3. Experience in lowering energy and maintenance cost of the refrigeration system and store comfort.

If agreeable terms cannot be reached with the recommended designer, the Chancellor authorizes the Facilities Department to negotiate terms with the other firms in ranking order.

A formal reporting of our procedures and your selection will be made at the next meeting of the Board of Trustees. Please acknowledge your approval of the firm of SESCO, Kernersville, NC by your signature below.

Approved: _____



Chancellor

Date: _____

3/9/22