RESOLUTION FOR THE MINUTES

A Resolution for the Minutes to authorize replacement of the chiller component of the heating, ventilating and air conditioning (HVAC) system at the Commission's headquarters building on a "sole supplier" and "public exigency" basis.

WHEREAS, the Commission's headquarters building is served by a roof-mounted HVAC system, multiple components of which were constructed along with the building in 1970; the boiler unit was replaced in 2017, but the chiller, replaced in 1992, is now 30 years old; and

WHEREAS, because of its age, the system has become increasingly unreliable and costly to keep in service, as replacement parts are scarce or unavailable and few technicians are capable of servicing the antiquated equipment; and

WHEREAS, Section 14.9 of the *Delaware River Basin Compact*, on purchasing, provides in part that a contract for "the construction, reconstruction or improvement of any facility when the expenditure required exceeds ten thousand dollars . . . shall be advertised and let upon sealed bids to the lowest responsible bidder"; and

WHEREAS, in accordance with the process set forth in the Compact, during the fourth quarter of 2021, the Commission staff developed a Request for Proposal and Quotation (RFP) for replacement of the chiller and related equipment; the RFP was published on the Commission's website and in the *Bucks County Courier Times* on November 4, 2021, and in the *Trenton Times* on November 5, 2021, and the staff also sent it to five prospective bidders; and

WHEREAS, by the deadline for submittal of bids on December 20, 2021, the staff had received no inquiries or proposals, and the bid process was terminated; and

WHEREAS, a representative of Sander Mechanical Services of Branchburg, New Jersey ("Sander"), which had performed competently in replacement of the Commission's boiler unit in 2017, advised the staff that although Sander was willing to perform the work, the company would under no circumstances participate in a competitive bidding process; and

WHEREAS, because Section 14.9 of the Compact provides for waiver of the competitive bid requirement when a contract is to be made pursuant to an open end bulk purchase contract of the federal government or a state or local government, the staff investigated the possibility of hiring a qualified contractor through the National Cooperative Purchasing Alliance (NCPA), in which both New Jersey and New York participate; however, due to limitations on the scope of New Jersey's program and eligibility for use of New York's, the HVAC equipment and services the Commission requires could not be procured through either; and

WHEREAS, staff investigated state vendors more broadly and invited several contractors to provide quotes, to no avail; one New Jersey vendor visited the building for a walk-through but afterward declined to provide a quote; and

WHEREAS, during May of 2022, the chiller unit ceased to function and remained inoperable for several days while replacement parts were located to repair it; upon completion of a partial repair, the Commission's HVAC service provider, Honeywell, informed the staff in writing that because a key replacement part could not be found, the cooling system is currently operable at only 50 percent of its capacity and is not capable of cooling the building on a hot and humid summer day; and

WHEREAS, Honeywell further advised that the required part may be custom fabricated at significant expense for installation during the fall of 2022 at the earliest, but that the chiller and four air handling units (AHUs) that comprise the cooling system have exceeded their useful life and should be replaced; and

WHEREAS, if staff is to have use of the Commission's headquarters building, including the fish laboratory, library, office, and conference facilities, to perform its critical work during the summer months, the chiller must be repaired or replaced; and

WHEREAS, based on staff's conversations with the representative of Sander and others, current long lead times for equipment orders, a tight labor market, and high demand for contractors have combined to deter qualified firms from participating in competitive bidding processes such as that the Commission attempted to use; and

WHEREAS, at staff's request, on June 1, 2022 Sander sent a team to walk through the West Trenton building, and on June 7, 2022, Sander submitted a proposal (provided as Attachment 2 of attached staff memo), including detailed cost estimates effective for 30 days, for replacement of the chiller, AHUs and controls system; Commission staff reviewed the Sander proposal and found it reasonable; and

WHEREAS, Sander subsequently confirmed that the project could be undertaken in two phases, with the chiller replacement (at a cost of $278,000) comprising an initial phase, and the AHUs and controls system (at a combined cost of $855,820) comprising a later phase; and

WHEREAS, the Commission's fiscal year 2022 financial statement includes "assigned funds" in the amount of $200,000 for the purchase and installation of a replacement chiller; and as detailed in the attached memorandum dated June 14, 2022, the Commission's approved and "management scenario" expense budgets for fiscal year 2023 include sufficient funds to make up the balance of the cost of the chiller replacement as set forth in the June 7 proposal by Sander, even allowing for contingent costs equal to ten percent of the quoted amount; now therefore,

BE IT RESOLVED by the Delaware River Basin Commission:

1. The executive director is hereby authorized and directed to enter into an agreement with Sander Mechanical Service of Branchburg, New Jersey in accordance with Sander's proposal dated June 7, 2022 for replacement of the HVAC components described in that proposal and listed below, and subject to the timing and limitations set forth below:

a. the roof-mounted chiller unit, subject to contingency costs of up to ten percent of the quoted sum, with all due speed; and

b. the four air handling units (AHUs) and accompanying controls system, subject to a reasonable cost update, at such time as the necessary funds become available.

2. This authorization is retroactive to June 1, 2022.

ADOPTED: September 8, 2022

ATTACHMENT

DRBC Staff Memo dated June 14, 2022,
"Chiller Replacement/ Procurement and Authorization Process," including as
Attachment 2, Sander Mechanical Service Proposal of June 7, 2021
for HVAC System Upgrade to the Commission's
West Trenton Headquarters Building

Delaware River Basin Commission

MEMORANDUM

DATE: June 14, 2022

TO: Steve Tambini, Executive Director, DRBC

CC: DRBC Commissioners

FROM: Elba Deck, Director of Finance and Administration; Kristen Bowman Kavanagh, P.E., Deputy Executive Director; Chad Pindar, P.E., Manager, Water Resource Planning; Pam Bush, Assistant General Counsel

RE: Chiller Replacement/ Procurement and Authorization Process

The heating, ventilating and air conditioning (HVAC) system that serves the Commission's headquarters building in West Trenton, New Jersey consists of a chiller, boiler, four air handling units (AHUs), AHU system controls, and more than 60 ceiling-based terminal reheat boxes. With the exception of the boiler, which was replaced in 2017, the equipment and technology are outdated. The components have exceeded their useful life, no longer function properly, and cannot be reliably maintained. Despite extraordinary efforts, the staff has been unable to obtain bids from qualified contractors for replacement of the major system components through a competitive process, as Section 14.9 of the Compact would ordinarily require. National Cooperative Purchasing Alliance (NCPA) programs and existing DRBC member state contracts are not available for the combination of equipment and services required to replace the antiquated system. Although it declined to participate in a competitive bid process, Sander Mechanical Service of Branchburg, New Jersey, which performed competent HVAC work for the Commission in connection with the boiler replacement, submitted a proposal for the project in June at the staff's request. Staff has reviewed the proposal carefully and finds it thorough and reasonable. Although the combined cost to replace the chiller, AHUs and control panel exceeds the funds currently available for this project, staff has determined that the chiller may be replaced independently of the other components and that sufficient funds are available to complete this urgent, first phase of the replacement work. The AHUs and controls may be replaced at a later date, when the necessary funds become available.

This memo documents the staff's efforts to find a vendor through a competitive bidding process and other means; provides details on the condition of the existing equipment; sets forth the legal basis for proceeding in the absence of competitive bids; presents a cost summary and budget analysis; and enumerates our recommended next steps.

Emergent Need: Replacement of Chiller at DRBC Headquarters Building

The roof-mounted HVAC system that serves the Commission's headquarters building was constructed along with the building in 1970. It is now more than 50 years old. The system has been regularly serviced, maintained, and monitored by a major service company, Honeywell. However, because of its age, the system has become increasingly unreliable and costly to keep in service. Because it relies on outmoded technology, replacement parts are scarce or unavailable, and few technicians are capable of servicing the antiquated equipment.

During the second quarter of 2022, the chiller became unreliable and on May 9, 2022, it ceased to function. Honeywell was called out for service, and the chiller remained inoperable for several days as parts were located to repair the unit. A partial repair was completed on May 12, 2022; however, since that date, the cooling system has operated at 50 percent of its capacity because a critical replacement part cannot be found. Honeywell has advised that at best, the part may be custom fabricated at great expense, for installation during the fall of 2022 at the earliest. Staff was unofficially advised that upon the conclusion of the Commission's current service agreement with Honeywell on March 31, 2023, the latter will no longer enter into an agreement that includes the provision of replacement parts for the current system.

On May 19, 2022, Honeywell Senior Service Manager Ed Mogk provided the DRBC with the attached letter recommending full replacement of not only the chiller but also the AHUs. Mr. Mogk's letter reiterates that the chiller currently can be operated at only 50 percent of its capacity because of the noted lack of a replacement part. Mr. Mogk opines that at 50 percent of capacity, the chiller is not capable of keeping the office building cool on a hot and humid summer day.

The Commission's office building windows do not open. With the onset of the summer months and warm temperatures, replacement of the cooling system is essential if staff is to have use of the building.

Procurement Process to Date

Section 14.9 of the *Delaware River Basin Compact* provides in part that a contract for "the construction, reconstruction or improvement of any facility when the expenditure required exceeds ten thousand dollars . . . shall be advertised and let upon sealed bids to the lowest responsible bidder." Accordingly, during the fourth quarter of 2021, staff developed a Request for Proposal and Quotation (RFP) for replacement of the chiller and related HVAC components. The RFP was posted on the Commission's website on November 4, 2021, and advertised in the *Bucks County Courier Times* on November 4, 2021, and the *Trenton Times* on November 5, 2021. The RFP was also sent to five prospective bidders. The deadline to submit bids was December 20, 2021, and a site walk was required. DRBC received no inquiries or proposals, and the bid process was terminated.

Subsequently, Director of Finance and Administration Elba Deck and Deputy Executive Director Kristen Bowman Kavanagh, P.E., both spoke at length with a representative of Sander Mechanical Service of Branchburg, New Jersey (Sander). Sander performed well on a job involving the installation of a new boiler on the roof of the Commission's office building in 2017 and is thus familiar with the Commission's site and existing HVAC equipment. Sander resolutely declined to participate in a competitive bid process, but through its representative said the company would be willing to perform the necessary upgrades.

At the suggestion of Sander's representative, the Director of Finance and Administration investigated the possibility of hiring Sander or another qualified contractor through the National Cooperative Purchasing Alliance (NCPA), in which New Jersey participates. During September of 2021, staff researched New Jersey's NCPA program to determine whether the work contemplated in the RFP could be performed under an existing New Jersey contract with Sander or another firm. Michele Meade, Procurement Specialist with the New Jersey Department of Community Affairs, Division of Local Government Services, met virtually with the DRBC staff in January of 2022 and explained that HVAC equipment and services are not currently available under New Jersey's NCPA program.

Staff next investigated State of New Jersey and State of New York vendors more broadly and invited several contractors to provide quotes. In response, one New Jersey vendor visited the site for a walk-through but afterward declined to provide a quote. Staff also contacted New York's Office of General Services regarding the use of an existing state contract and was directed to the Department of Design and Construction (DDC). On May 11, 2022, a DDC representative informed the staff that DDC works exclusively with sites located in the State of New York.

Based on staff's conversations with the representative of Sander and others, current long lead times for equipment orders, a tight labor market, and high demand for contractors have combined to deter qualified firms from participating in competitive bidding processes such as that the Commission would ordinarily use.

Authority to Proceed on a Sole Source Basis

The Commission staff has in good faith undertaken a competitive bidding process in accordance with Section 14.9 of the Compact to replace the failing chiller and related HVAC components at DRBC's West Trenton headquarters building. Notably, Section 14.9 includes five circumstances under which the Commission "may suspend and waive the provisions of this section requiring competitive bids." In the view of staff counsel, the Commission's HVAC system replacement may proceed under at least two of these provisions. Respectively, these provide for waiver of the competitive bid requirement whenever "only one source of supply is available" (par. 3) and when "the public exigency requires the immediate delivery of the articles or performance of the service" (par. 1). The "sole supplier" circumstance is applicable because in response to a diligent staff effort over a period of months to solicit competitive bids, Sander is the only provider willing to take on the project. The "public exigency" circumstance is applicable because absent prompt replacement of the chiller, the staff will not have use of the Commission's lab and offices to perform their vital work over the summer months.

Cost Summary Based on Sander Proposal of June 7, 2022

At staff's request, Sander sent a team to walk through the West Trenton building on June 1, 2022, and on June 7, 2022, submitted a proposal, including detailed cost estimates effective for 30 days (through approximately July 7, 2022), for replacement of the chiller, AHUs and control system. Commission staff have reviewed the Sander proposal and find it reasonable.

The pricing summary is as follows:

Trane 90-Ton Air-Cooled Chiller	$	278,200
Four (4) Trane Air Handling Units (AHUs)		699,820
New Central Plant/ AHU Digital Controls System		156,000
Total Project Price	$	1,134,020

In response to an inquiry from Ms. Kavanagh, Sander's representative confirmed that the project can be undertaken in two discrete phases: the chiller can be replaced initially, and the AHUs and controls at a later time. Phasing is subject to the logistical constraint that all four AHUs and the digital controls system must be replaced concurrently.

Budgetary Analysis as of June 30, 2022

The Commission's fiscal year 2022 financial statements include "assigned funds"[1] in the amount of $200,000 for the purchase and installation of a replacement chiller.

On June 8, 2022, the Commission approved its fiscal year 2023 current expense budget, which assumes full fair share contributions from each of the Compact's members. The approved budget includes a line item in the amount of $1,242,300 for "HVAC and office improvements." However, because shortfalls in member funding—in particular from the Commonwealth of Pennsylvania and the United States—are expected, the staff has also prepared a "Management Scenario." This more likely budget scenario includes the sum of $340,000 for the "HVAC and office improvements" line item. Although substantially less than budgeted under the "full fair share" scenario, this sum is more than enough to supply the additional $78,200 required to supplement the fiscal year 2022 assigned funds to cover the cost of the new chiller during fiscal year 2023.

Staff Recommendation

The staff recommends the following next steps:

- Circulate this memo and attachments to the DRBC commissioners, confirming the course of action presented to them informally during the commissioners' caucus with staff on June 8, 2022. Invite any questions the commissioners may have. We note that the commissioners indicated understanding of the issues, and representatives of the Corps acknowledged similar challenges in obtaining construction bids in recent months. No objections to the staff's proposed course of action were raised during the informal caucus discussion on June 8.
- Accept Sander's proposal of June 7, 2022, subject to adoption of a two-phased approach, with "Phase 1" to consist of chiller replacement immediately, and "Phase 2," to consist of replacement of the AHUs and control panel at a future date, when the necessary funds become available.
- Obtain formal Commissioner authorization at the third quarter (September), 2022 Commission meeting, retroactive to June 1, 2022 by resolution for the minutes (draft resolution to come), to engage Sander on a sole source basis to replace the chiller, AHUs and system controls.

[1] "Assigned funds" are funds set aside by management for specific, named expenses.

ATTACHMENT 1

Letter of May 19, 2022 from Ed Mogk, Senior Service Manager, Honeywell HBS to Elba Deck, Director, Finance and Administration, DRBC

Honeywell

Honeywell HBS
534 Fellowsip Road
Mount Laurel, NJ 08054
www.honeywell.com

Re: Chiller in need of replacement
Date: May 19th, 2022

Dear Elba,

This letter is to let you know that the Chiller (Flowtronic Air Cooled 30GB090) you have at Delaware River Basin Commission is out of life and some parts are no longer available for this model unit. As of today the chiller is only running at 50% capacity because of a part that we can no longer get.

Honeywell is recommending a full replacement of this unit prior to the Summer season as the unit running at 50% capacity would not be able to keep the building cool on a hot and humid day. Honeywell recommends keeping the chiller and AHU's running 24/7 on hot days so the building can try to keep cool unitil the unit is replaced.

Honeywell has been performing maintenance and repairs on the AHU's in the building. As we try to keep them maintained, they are also getting to there end of life. It is becoming hard to get parts to repair the units. Honeywell is also recommending the replacement of your AHU's before parts become obsolete.

If you have any questions about the Chiller and operations please contact me to discuss.

Thank You,
Ed Mogck
Ed Mogck
Sr. Service Manager
Honeywell
856-261-1080

ATTACHMENT 2

HVAC Systems Upgrade Proposal of June 7, 2021 by Sander Mechanical Service
With Transmittal of Robert W. Vessie, Director of Business Development

Bush, Pam [DRBC]

From: Robert Vessie <rvessie@sanmech.com>
Sent: Tuesday, June 7, 2022 9:19 AM
To: Deck, Elba [DRBC]; Kavanagh, Kristen B. [DRBC]; Pindar, Chad [DRBC]; Bush, Pam [DRBC]
Cc: Chuck East; Paul Kelly
Subject: [EXTERNAL] RE: DRBC Chiller and AHUs
Attachments: Delaware River Basin Commission (DRBC) - HVAC Upgrade Proposal (Rev.1) - 06-07-2022 .pdf

All:

Attached please find Sander Mechanical's proposal for the HVAC upgrades needed at the Delaware River Basin Commission.

Please review the proposed scope of work carefully, and don't hesitate to reach out with any questions you might have.

The proposal provides broken out firm/fixed pricing for the new air-cooled chiller, and separate budgetary pricing for the AHUs and controls. It should be noted, however, that the AHU and controls system scopes are inherently intertwined (i.e. We can't really provide the new AHUs without also including new controls).

We wish you all the best at your meeting with the commissioners. For the sake of efficient execution, we are hopeful they will authorize you to proceed with the entire scope of work. We stand ready to assist when you're ready to move forward.

Thanks very much for the opportunity to be of service!

Very best regards,

Robert W. Vessie
Director of Business Development

Sander Mechanical Service
55 Columbia Road
Branchburg, NJ 08876
Tel: 732.560.0600, x120
Cell: 551.427.5550
Email: rvessie@sanmech.com
Web: www.SanderMechanical.com

SANDER Mechanical
Building Efficiency and Sustainability
A Service Logic Company

SANDER
MECHANICAL SERVICE

HVAC Systems Upgrade Proposal

Installation of Energy-Efficient Heating, Ventilation and Air Conditioning Equipment

Prepared for

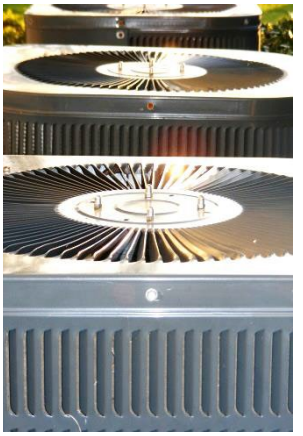
Delaware River Basin Commission
25 Cosey Road
West Trenton, NJ 08628

Presented by

Sander Mechanical Service

CONFIDENTIAL INFORMATION

BRANCHBURG, NEW JERSEY
JUNE 7, 2022



SANDER MECHANICAL SERVICE

AN ENERGY SOLUTIONS PROVIDER Powered by MSCA GreenSTAR

TO: Delaware River Basin Commission
25 Cosey Road
West Trenton, NJ 08628

DATE: June 7, 2022
QUOTE: Q-06-2022-255600

ATTN: Elba Deck; Kristen B. Kavanagh; Chad Pindar; Pam Bush

REF: HVAC Upgrades – Air Cooled Chiller, Air Handling Units, AHU & Central Plant Controls

Thank you for the opportunity to assist the Delaware River Basin Commission with the upgrade of its HVAC and controls systems. Subject to acceptance within 30 days and to all conditions as attached, we propose to furnish materials and labor at the prices and terms as stipulated below:

SCOPE OF WORK:

I. Air Cooled Chiller

Sander Mechanical will furnish labor and material needed to install a new high-efficiency 90-Ton air-cooled chiller to replace the obsolete Carrier machine currently in operation:

- Provide licensed structural engineer to evaluate the building structure and generate design and structural drawings for installing a new structural steel support frame appropriate for the new chiller to be installed on.
- Disconnect electrical power connections, make-up water piping, and chilled water piping connections to the existing chiller.
- Provide for professional crane/rigging service company to perform the following:
  - ✓ Receive the new chiller at crane yard yard, store off-site until ready for installation, and deliver to job site.
  - ✓ Provide crane service to remove existing chiller and structural frame from roof, set on truck, and haul away for recycling.
  - ✓ Lift new structural frame onto roof for assembly.
  - ✓ Deliver new chiller, lift to roof, and set chiller on the structural frame.

- Furnish and install a new 90-Ton Trane air cooled chiller (Model No. CGAM090*), having the following features:
  - ✓ **Unit Nominal Tonnage:** 90 Tons
  - ✓ **Refrigeration Capacity:** 86.22 Tons
  - ✓ **Unit Type:** High Efficiency
  - ✓ **Cooling Efficiency:** 10.06 EER

- ✓ **IPLV.IP:** 15.31 EER (Btu/W-h)
- ✓ **Unit Voltage:** 208 V / 60 Hz. / 3-Phase
- ✓ **Refrigerant Type:** R-410A
- ✓ **Number of Compressors:** (4) Four
- ✓ **Number of Circuits:** (2) Two
- ✓ **Number of Capacity Steps:** (4) Four

NOTE: This unit is AHRI certified and complies with the efficiency requirements of ASHRAE 90.1 and CSA C743 - all versions up to 2016.

- Reconfigure, furnish and install new make-up water and chilled water piping connections as needed to accommodate the new air-cooled chiller.
- Purchase and install new isolation valves, temperature devices, sensors, and devices as needed for the installation.
- Insulate new piping with 2" fiber glass insulation with PVC outer jacket; connect new chiller to existing piping.
- Provide licensed electrician to upgrade the 400-amp 208/230V / 3-phase power supply to a new 600-amp power supply. Includes outdoor disconnect switch, all the necessary wire conduits, and connectors to reconnect the power to the new chiller.
- Perform factory start-up and furnish owner with all documentation.
- 1-year warranty on chiller.
- 5-year extended limited parts only warranty on compressors.

PRICING: Our price to complete the above *Chiller* scope of work during normal business hours with unrestricted access is **$278,200.00** (Two Hundred Seventy-Eight Thousand Two Hundred Dollars and Zero Cents).

EXCLUSIONS: Premium time labor, permit fees, roofing work, pitch pockets, galvanizing, repairs, interior/exterior patching, painting, or modifications not specifically included in the scope of work.

II. Air Handling Units (Budgetary Proposal)

Sander Mechanical will furnish labor and material needed to replace the four (4) aging Trane *Climate Changer* Air Handling Units (AHUs) which are currently beyond their intended/designed operational life expectancy:

- Provide a licensed MEP engineer to evaluate existing air handling units installed. Generate new MEP drawings including air handler unit specifications and installation details if/as required by owner or for township building department review / permit issuance.
- Disconnect electrical power connections, sheet metal, drains, chilled water in/out, hot water in/out to the existing air handlers.

- Open mechanical room walls for rigging units out of the mechanical room.
- Provide for professional crane/rigging service company to perform the following:
  - ✓ Receive air handling units at crane yard, store off-site until ready for installation, and deliver to job site.
  - ✓ Provide crane service to remove existing air handler units from roof, set on truck, and haul away for recycling.
  - ✓ Lift and set new AHUs on the roof and rig into the mechanical room.
- Furnish and install four (4) new Trane replacement air handling units for those specified in the original mechanical drawings.
- Reconfigure, furnish, and install new hot water and chilled water piping as needed for new installation.
- Furnish and install new isolation valves, temperature devices, sensors and devices as needed for the installation.
- Furnish and install new piping with fiber glass insulation as needed for the installation.
- Reconfigure air handling unit's condensate drains as needed for new installation.
- Furnish and install new sheet metal duct work as needed for the new installation
- Furnish and install new sheet metal duct work with fiber glass insulation as needed for the installation.
- Provide licensed electrician to reconnect power to air handling units as needed.
- Perform start-up and testing of operation.
- Provide NEBB certified air balancing for each air handler.
- Provide NEBB certified hydronic balancing of the chilled and hot water systems to each air handler.
- Furnish owner with all documentation

PRICING: Our *budgetary* price to complete the above *AHU* scope of work during normal business hours with unrestricted access is **$699,820.00** (Six Hundred Ninety-Nine Thousand Eight Hundred Twenty Dollars and Zero Cents).

EXCLUSIONS: Premium time labor, permit fees, structural engineering, roofing work, pitch pockets, electrical power upgrades if needed, repairs, interior/exterior patching, painting, or modifications not specifically included in the scope of work.

III. Direct Digital Controls (DDC) System (Budgetary Proposal)

Sander Mechanical will furnish labor and material needed to upgrade the antiquated Honeywell controls system (much of which is based on obsolete pneumatics), with a new Direct Digital Controls (DDC) System, including new DDC field devices, new front-end operating platform, and an interactive graphical user interface (GUI). NOTE: The controls and AHU scope are inherently intertwined; we cannot deliver the AHU scope without also providing the new controls system.

A. Control System Design Review and Engineering

- Review the existing conditions and compare to the original design.
- Develop sequence of operation, point to point wiring diagrams and equipment submittals.
- Provide project management, system commissioning and end user training.

B. Building Management System Interface

- Provide and install one (1) desktop computer with keyboard, mouse, and flat screen monitor.
  - ✓ Computer to be used exclusively for hosting the new building management system (BMS) front end software.
  - ✓ Computer to be provided with sufficient memory and hard drive space to operate the BMS software as per the manufacturer's recommendations.
  - ✓ Computer to be located in the facilities maintenance office.
- Provide and install one (1) Siemens web-based supervisor software on the new BMS computer. The software will be customized with the following functionality:
  - ✓ A graphical user interface representing each piece HVAC equipment with real-time data and historical trending.
  - ✓ Floorplan graphics representing the areas where equipment is located.
  - ✓ Alarm and history objects for each point considered critical.
  - ✓ Equipment Scheduling.
  - ✓ User administration and security.

C. Central Heating/Cooling Plant Controls

- Provide and install one (1) Siemens TNM-8000 (JACE) web based supervisory controller in a prefabricated control enclosure located in the 2nd floor mechanical room.
  - ✓ JACE to be licensed with an 18-month Tridium software maintenance agreement (SMA).
  - ✓ JACE to be provided with a 10-device count license.
  - ✓ Panel to be provided with adequate I/O points to monitor and control the existing boiler, chiller, and associated circulating pumps.

- Panel to be provided with a 15" touch screen BACnet display mounted on the front of the main control panel for local operator interface.
- Provide and install two (2) chilled water temperature sensors.
- Provide and install two (2) hot water temperature sensors.
- Provide and install one (1) combination outside air temperature/humidity sensor.
- Provide and install low voltage control wiring between the new central plant control panel and the existing boiler, chiller, and pump controls.
- Integrate I/O points associated with the new 90-ton chiller via the BACnet MS/TP interface provided by the unit manufacturer.

D. Central Station AHU Controls *(Typical for each AHU -- 1 through 4)*

- Provide one (1) Siemens local control panel with dedicated BACnet DDC controller, transformers, relays, and terminal strips.
  - ✓ Panel to be mounted on or near the AHU
  - ✓ Panel to be provided with adequate I/O points to monitor and control all points associated with the AHU.
- Provide supply air, return air, and mixed air temperature sensors.
- Provide one (1) duct mounted return air CO2 transmitter.
- Provide one (1) chilled water and one (1) hot water control valve.
- Provide three (3) proportional damper actuators.
- Provide one (1) manual reset freeze stat
- Provide one (1) filter clog switch
- Provide I/O, relays and current switches for monitoring and control of the associated supply and return air fans.
- Provide low voltage control wiring in EMT where exposed to damage.
- Provide all programming and commissioning to operate the equipment based on the sequences of operation developed during the design review.

CLARIFICATIONS:

1. The system will be I/P based and can be accessed through a standard web browser. Any integration into the building's existing local area network will be the responsibility of the owner's I/T administrator. Any network wiring, hardware or software required for network integration is not included.

2. No repairs to any existing mechanical or control equipment is included.

3. Due to the proprietary nature of BMS systems, monitoring and control of any existing device discovered via BACnet will be limited to what the manufacturer exposes to the BACnet network. Any modifications that require third party software to re-program control logic or expose read/write properties will not be included in this proposal.

4. This scope covers the controls necessary to operate your new central mechanical systems. It does not cover any of the individual room controls we touched upon during our meeting. We can provide a budget number for the individual room controls in the future, if desired, but there was not enough time or information to accurately quote that work.

PRICING: Our *budgetary* price to complete the above *Controls* scope of work during normal business hours with unrestricted access is **$156,000.00** (One Hundred Fifty-Six Thousand Dollars & Zero Cents).

EXCLUSIONS: Premium time labor, permit fees, power wiring, repairs to any existing controls or controlled devices, or modifications not specifically included in the scope of work above.

PRICING SUMMARY

1. Trane 90-Ton Air-Cooled Chiller	$ 278,200.00
2. (4) Trane Air Handling Units	$ 699,820.00
3. New Central Plant / AHU Digital Controls System	$ 156,000.00
TOTAL PROJECT PRICE	$ 1,134,020.00

TERMS:

- Pricing above does not include NJ state sales tax (if applicable). All pricing herein shall be deemed to be subject to New Jersey sales tax unless excluded by the purchaser. If sales tax is excluded by the purchaser, appropriate tax-exempt documentation must be provided.
- 30% Deposit with Contract Signing / Balance Due NET 30 after Completion.
- Sander Mechanical's standard terms and conditions apply (see attached).
- Buyer and Seller will enter into a Standard AIA agreement to govern this construction project

CONDITIONS OF PROPOSAL

Acceptance of this proposal by buyer shall be acceptance of all terms and conditions recited herein which shall supersede any conflicting term in any other contract document. Any of the Buyer's terms and conditions in addition or different from this proposal are objected to and shall have no effect. Buyer's agreement herewith shall be evidenced by Buyer's signature hereon or by permitting Seller to commence work for project.

1. Unless otherwise stipulated herein, seller shall be paid monthly progress payments on or before the 15th of each month for the value of work completed plus the amount of materials and equipment suitably stored off site. Final payment shall be due 30 days after the work described on the proposal is substantially completed. No provision of this agreement shall serve void the Seller's entitlement to payment for the properly performed work or suitably stored materials.

2. The Buyer will withhold no more retention from the Seller than is being withheld by the Owner from the Buyer with respect to the Seller's work.

3. All sums not paid when due shall bear interest at a rate of 1.5% per month or maximum legal rate permitted by law, whichever is less; and all costs of collection, including reasonable attorneys' fees shall be paid by Buyer.

4. Nothing in this subcontract agreement shall require Seller to continue performance if timely payments are not made to the Seller for suitably performed work or stored materials.

5. No back charges or claim of the Buyer for services shall be valid except by an agreement in writing by the Seller before the work is executed, except in the case of the Seller's failure to meet any requirement of the agreement. In such event, the buyer shall notify the Seller of such default, in writing, and allow the Seller reasonable time to correct any deficiency before incurring any cost chargeable to the Seller.

6. Buyer is to prepare all work areas so as to be acceptable for Seller under contract. Seller will not be called upon to start any work until sufficient areas are ready to insure continued work.

7. Seller shall be given a reasonable time in which to make delivery of materials and/or labor to commence and complete the performance of the contract. Seller shall not be responsible for delays or defaults where occasioned by any causes of any kind and extent beyond its control, including but not limited to: delays caused by the owner, general contractor, architect and/or engineers, delays in transportation, shortages in raw materials, civil disorders, labor difficulties, vendor allocations, fires, floods, accidents and acts of God. Seller shall be entitled to equitable adjustment in the subcontract amount for additional costs due to unanticipated project delays or accelerations.

8. All workmanship on new work is guaranteed against defects in workmanship for a period of one year from the date or installation, 90 days for repair or component replacement. This warranty is in lieu of all other warranties, expressed or implied, including any warranties of merchantability or fitness for a particular purpose. The exclusive remedy shall be that the Seller will replace or repair any part of its work which is found to be defective. Seller will not be responsible for special, incidental, or consequential damages. Seller shall not be responsible for damage to its work by other parties or for improper use of equipment by others.

9. Work called for herein is to be performed during the Seller's regular working hours. All work performed outside of such hours shall be charged for at rates or amounts agreed upon by the parties at the time overtime is authorized.

10. Any notice or written claim required by the contract documents to be submitted by the Buyer, on account of changes, extras, delays, acceleration, or otherwise, shall be furnished within a time period, and in a manner to permit the Buyer to satisfy the requirements of the contract documents and its contract with the Owner, notwithstanding any shorter time period otherwise provided.

11. The subcontract form used between the Seller and Buyer will be the AIA Standard Form Subcontract Document A401. Where there is a conflict between provisions of either the AIA Subcontract Form, or the contract documents between the Owner and Buyer and this Proposal, then this Proposal shall govern. Any other orders for the proposed work shall be bound by the terms herein.

12. Nothing in this agreement shall serve to void Seller's rights to file a lien or claim on its behalf in the event that any payment to the Seller is not timely made.

13. The Buyer shall furnish all temporary site facilities including suitable storage space, hoisting, temporary electrical and water at no cost to the Seller.

14. The Buyer shall make no demand for liquidated damages for delays or actual delays in any sum in excess of such amount as may be specifically named in this Proposal and no liquidated damages may be assessed against the Seller for more than the amount paid by the Buyer for unexcused delays to the extent caused by the Seller.

15. Buyer shall, if the Owner does not, purchase and maintain all risk insurance upon the full value of the entire work and/or materials delivered to the jobsite which shall include the interest of the Seller.

16. All permits and fees are responsibility of the Owner unless specified otherwise.

17. Asbestos – The Seller's scope of work shall not include the identification, detection, abatement, encapsulation or removal of asbestos or products or materials containing asbestos or similar hazardous substances. In the event the Seller encounters any such material in performing its work, the Seller has the right to discontinue work and remove its employees until the hazard is corrected or it is determined no hazard exists.

NOTICE, DISCLAIMER, AND CONTACT INFORMATION

This is a confidential proposal prepared by the management and technical team of Sander Mechanical Service (SMS), and is intended solely for internal use by organizations and parties approved by SMS.

This document embodies the proprietary information of SMS as of this date hereof to carry out the installation or maintenance of various HVAC and building automation systems, which may comprise any of boilers, chillers, cooling towers, unit heaters, AHUs, RTUs, fans, pumps, ductwork, piping, variable speed drives, building automation systems, controls, programming, and/or other systems. The concept, background, technical information, financial data, and all other aspects of the information contained herein are deemed proprietary information of Sander Mechanical Service.

Prospective customers/clients are not to construe the contents of this document, or any prior or subsequent communications from SMS or any of its officers, employees or representatives as a guarantee of project or equipment performance.

No portion of this document, nor any of the information it contains, shall be published, reproduced, copied, disclosed or used, in whole or in part, for any purpose without the express written permission of duly authorized representatives of Sander Mechanical Service.

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Company Profile & Qualifications

For three generations, Sander Mechanical Service (SMS) has been an industry leader in commercial heating, ventilation, air conditioning (HVAC) service, mechanical construction, building automation and controls, and energy management. Founded in 1965 by Norm Sander, our family-owned and operated business has proudly grown from modest beginnings to become one of the most trusted and recognized leaders in the mechanical construction and HVAC service industry.

Headquartered in Branchburg, NJ, and serving all of New Jersey, southern New York (NY), and eastern Pennsylvania (PA), Sander Mechanical currently has over 55 employees, consisting of highly-trained service technicians, installers, sales engineers, and support staff. Now celebrating its 54th year in business, the company has an unmatched reputation in delivering high-quality design-build, commercial construction, preventative maintenance, retrofit, and repair services to meet all of a building's mechanical, environmental, and energy management needs.

As an MSCA GreenSTAR Contractor and an active participant in the USGBC's Leadership in Energy & Environmental Design (LEED) program, SMS is keenly focused on assisting clients with the implementation of the latest, cutting-edge technologies, with an emphasis on deploying only the most energy-efficient solutions.

Leveraging a wealth of field experience and in-house mechanical engineering capabilities, the company designs, installs, retrofits, and services all manner of HVAC equipment, including boilers, furnaces, chillers, cooling towers, air handlers, split systems, packaged rooftop units, VAV systems, VRF systems, compressors, exhaust systems, pumps, and motors. Sander is also one of the few contractors in the region certified to perform service and retrofits with Danfoss' oil-free, magnetic-bearing TURBOCOR centrifugal compressors.

Unlike the competition, our open-technology approach means that the company has no "equipment agenda" beyond selecting the right solution to match a customer's specific needs. As such, SMS is constantly searching for and evaluating innovative and emerging technologies. We believe that this constant vigilance, to stay on the forefront of technology advancements, will ensure the best outcomes for our clients.

Other specialized services we offer include: building commissioning; sheet metal and duct work; backflow prevention certification; testing, adjusting and balancing (TAB) of air and hydronic systems; heat, steam, and process piping; temperature and humidity controls; laser pump alignment; infrared thermal imaging; mechanical system evaluation and consulting; 24/7 rapid response emergency repairs; sound and vibration measurement; fume hood installation, testing, and calibration; energy management and curtailment; energy monitoring; commodity procurement; and automated demand response.

The company's direct digital controls (DDC) division possesses over 30 years of experience and has a proven track record of excellence. We are certified on Honeywell, Tridium, and Siemens-TALON building automation & management systems, and have a UL-listed panel fabrication shop located on premise to

ensure quality hardware production. The company is not only a Tridium/Niagara Certified Integrator, but also a Certified Tridium AX and N4 Framework Developer, meaning that we have the resources to custom tailor unique BAS/BMS solutions that don't exist "out of the box." In addition to having multiple technicians that are intimately familiar with this platform, we also have an in-house graphics design team proficient at custom-tailoring the web-based user interface and monitoring dashboard to clients' specific preferences. Sander is therefore capable of completing every phase of building automation design, fabrication, installation, wiring, programming, and commissioning.

Sander's services extend to a diverse clientele, including industrial complexes, laboratories, hospitals, food processing, data centers, clean rooms, warehouses, cold storage, schools, colleges, corporate office facilities, and retail centers.

The company's average technician has over 17 years of field experience with SMS, and is factory trained and certified on all major equipment manufacturers. Our lead technicians easily have over 25 years in the field. With unparalleled employee loyalty, we seek out the best, and the best stay with us. We use the right people for each unique project. Employees continually receive advanced training and education, allowing the company's specialized services to be vast and distinct, with a true convergence of education and experience.

Sander has a clean OSHA record, low experience modification rating (EMR), and in-depth safety program, which entails routine safety audits, job hazard analysis, site surveys and interviews, "near miss" investigation, and ongoing training and education. The company's Safety Coordinator is an OSHA Safety Trainer. Most technicians (as well as the entire management team at SMS) have their OSHA 30 Hour Safety Certification. Our robust safety program allows clients to rest easy knowing that their projects and equipment aren't just in capable hands, but safe ones as well.

Sander is respected for its ability to design and build large-scale, complex projects, on time and on budget. Satisfied clients include Johnson and Johnson, Verizon, Alcatel Lucent, Bristol Meyers Squibb, Rutgers University, Citigroup, CB Richard Ellis, Exxon Mobil Global Services Company, Robert Wood Johnson University Hospital, Met Life, Merrill Lynch, Merck & Company, Schindler Elevator, VEECO, Phillips Van Heusen, and others.

Industry Affiliations & Professional Organization Membership

Mechanical Contractors Association MCAA of America

NEBB FHT-Certified

U.S. Green Building Council Member

ASHRAE

Mechanical Service Contractors of America MSCA

MSCA GreenSTAR

MSCA STAR Qualified

NJBIA

Energy Star Partner

SMS is proud to be a member of the Mechanical Contractors Association of America, the Mechanical Services Contractors of America, the American Society of Heating, Refrigerating and Air-Conditioning Engineers, the New Jersey Business & Industry Association, and the U.S. Green Building Council. The company additionally has the distinction of being one of the few firms in the nation that is certified by the National Environmental Balancing Bureau (NEBB) for Fume Hood Testing, as well as Sound & Vibration Measurement Testing. Sander has also attained the esteemed recognition of being an MSCA *GreenSTAR Contractor* for its leadership and expertise in delivering energy-efficient, cost-effective indoor environmental solutions to its clients, and its stewardship of sustainable practices in the HVACR industry.

In order to qualify for the MSCA's STAR and GreenSTAR programs, SMS successfully satisfied each of the following noteworthy criteria:

- Technicians are certified to ensure the contractor employs the best trained and qualified workforce. This certification means these technicians have completed a stringent five-year training program and passed a comprehensive exam.

- Employees participate in ongoing energy-specific training programs to ensure they are on leading edge of energy-saving technology and processes so you can rest assured that the technicians working on your building will implement state-of-the-art solutions that meet government standards, both federal and local.

- The contractor is a recognized leader in energy conservation solutions and measures including energy benchmarking services, energy audits, retrofits, building operations and retro-commissioning.

- The contractor employs LEED certified, energy or sustainability specialists, or recognized experts in low environmental impact and energy conservation measures who play a vital role in assessing your building's specific needs.

- The contractor is an ENERGY STAR Partner with the Environmental Protection Agency (EPA), the government agency on the forefront of supporting energy saving products and services.

- A companywide service safety and health program is in place and the contractor has an outstanding safety record, ensuring each and every job is done utilizing exemplary safety procedures.

- The contractor has an established inventory control system, ensuring technicians have the right tools at all times for the job at hand.

- The highest level of customer service standards is met at all times with an active customer service program and procedures in place to deal immediately with customer concerns or issues.

To learn more about the partnerships that we create with our customers, and to see a complete list of the services we provide, please visit us on our website at www.SanderMechanical.com.

THANK YOU FOR ALLOWING US TO SERVE YOU!