RECOMMEND <u>that the District Board of Trustees for North Florida College</u> <u>reviews the attached item as an informational item only.</u>

ATTORNEY REVIEW STATUS: <u>N/A - Informational Item</u>

THIS RECOMMENDATION: <u>NA</u>

North Florida Board of Trustees

Facility Automation Solutions, Building Management System (BMS) Upgrade Phase III-
Buildings 6, 7, 8, 10, 11, 34, & 35

Furnish all equipment and services to be done as per NFC-CTL-1C incorporated herewith for controls infrastructure, HVAC and controls related work in buildings 6, 7, 8, 10, 11, 34, and 35 for **$438,753.00**. The work is to be consistent with the piggyback of competitively solicited and awarded contract R220703 by Omnia. Notice to proceed is the date of purchase order issuance; however, no on campus work to be begin prior to receipt by NFC of the Payment and Performance Bonds, Certificate of Insurance with College as additionally insured, and required permits are in place and a list of successful background checks for proposed on campus workers has been provided. All invoices submitted will be on a work completed basis and payments will be net 30 via check after review and acceptance by NFC.

June 25, 2024

North Florida College
325 NW Turner Davis Dr.
Madison, Fl. 32340

Attn: Glenn Strickland

Re: Building Management System (BMS) Upgrade Phase III – Buildings 6, 7, 8, 10, 11, 34 & 35

Facility Automation Solutions, Inc. is pleased to offer a proposal to provide the necessary BMS equipment, labor, and materials to install a Schneider Electric Ecostruxure Building Management System for **Buildings 6, 7, 8, 10, 11, 34 & 35** to replace the existing BMS which includes HVAC Controls and Lighting circuits currently connected to the existing BMS. The system being installed will be in coordination with owner input in the development of an overall Standard BMS/Monitoring plan moving forward with the following clarifications:

This proposal specifically includes

Common to All Buildings:

- **The Proposed System will be Open** (BacNet IP)
- The Communication to the BMS Controllers will be CAT6. Communication Bus will be rerun to new IP based controllers.
- Sampling of the End of Duct Static Pressure for the AHUs will be relocated to 2/3 down the duct. Currently some of them are mounted at the discharge of the AHU's.
- All work will be done in a neat and workmanship-like manner. The existing wiring will be either cleaned up or rerun as necessary. (All new Communications Bus will be re-run)
- Control Panels will be added where necessary.
- Relays will be labeled with their function.
- Control Panels will have phenolic tags.
- Control Drawings will be placed in Panels.

Retrofit Work Common to all Buildings listed in this proposal:

- Provide and install all DDC controllers required to replace existing controls in all buildings listed.
- Provide any Bacnet Routers required to communicate with existing equipment that is currently communicating with the existing BMS.
- Provide any transformers, switches, terminal strips, or any other panel materials required to support the control modifications.
- Run any field communications and Ethernet communication bus wiring and terminations required to support the system upgrades.
- Provide and install new space temperature sensors to replace existing wall sensors.
- Replace all new temperature sensors on Air handling units, and Fan coil units as necessary.

- Add discharge air temperature sensors on any VAV boxes with reheat coils.
- Provide testing of all actuators. Replace as necessary. Replace damper actuators on as necessary.
- Provide testing of all other existing field devices that shall be reused and repair and/or replace as necessary. (Relays, low limit switches, Static pressure limit switches, current sensors)

- Provide testing of Fan Coil Unit Damper Actuators and replace as necessary.
- Connect any existing miscellaneous points that are presently connected to the existing BMS System (Ex: exterior lighting, exhaust, etc.)
- All new wiring in electrical and mechanical rooms shall be run in conduit. Low voltage wiring above concealed accessible ceilings will be run in plenum cable.
- Provide all terminations on devices.
- All new points shall be added to the Struxureware Database.
- Provide all control programming to meet the sequence of operations on all equipment. (Coordinate sequences with customer to insure proper method of control for each building)
- Provide a graphical representation of all controlled equipment including floor plans and individual graphical displays of each AHU, FCU and VAV on the Schneider BMS.
- Provide checkout on all systems controlled.
- Provide a list to the owner of any building equipment deficiencies such as inoperable control valves, bound dampers, or any equipment in need of mechanical repairs. **(Mechanical repairs performed by others)**
- Customer to provide IP addresses for use on the BMS.
- Customer to provide remote access for service to the Campus BMS. (Coordinate with IT Personnel)
- Asbuilt drawings will be provided.
- Provide an update to the Campus Network personnel on IP Addresses utilized.

Miscellaneous:

- Coordinate all alarming and delivery methods and locations with owner.
- Perform Owner Training.
- Provide Submittals and Record drawings.
- Provide 1-year warranty on Labor and Materials.

Additional Project Notes:

- ClassTime Schedule Interface software and setup is included as part of the proposal.
  - A description of the feature and link to a short video is listed below on the ClassTime description page within this proposal.

- SentryLogic Monitoring and Alarming is a Monthly Subscription based Service which is Free through the warranty period. Upon owner approval to continue the service there will be a negotiated rate for the service based on the point count. Trending and archival information is stored indefinitely and can be easily retrieved by selected owner personnel.

Exclusions Common to all Buildings listed in this proposal:

- Repair of any existing Mechanical problems.
- Any existing electrical problems associated with the electrical service and/or wiring.
- Any starters, VFDs, duct heaters, or any other existing equipment repairs.
- Replacement of any water flow meters found to be bad during verification phase of project.
- Test and balance of equipment.
- Any field modifications related to high voltage wiring for lighting and other controlled equipment.
- Any work associated with the fire alarm system and/or fire alarm shutdown on equipment.

Below is the 3rd Phase of the project which includes System Infrastructure/Computer/Software Setup, Buildings **6, 7, 8, 10, 11, 34 & 35.**

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Building 6 – College Prep Education / Math Building

- Provide and install new control panel for Automation Server complete with power protection and transformer.

- Provide and install new Schneider Electric Automation Server with Power Supply.
- Run any conduit and communications bus wiring necessary to connect the Schneider Electric System Controllers back to Automation Server(s) (AS-P). System to reside on NFC Network.
- Run all new communications bus wiring (CAT6) to new IP based field controllers.
- Provide new DDC Controls for the following:
    - 13 - Air Handling Units
    - 2 - FCUs
    - 1 – MAU (Make Up Air Unit
    - 1 – Electric Reheat System/Unit
    - 1 – Chilled Water System
    - Exterior Lighting

    - Add Fan Status switches on all Fans.
- New Temperature Sensors, relays, and CT's. shall be installed on the HW and CHW Systems.
- The primary equipment shall have a relay with local override installed.
- All other work shall be performed based on the "Work Common to all Buildings" above.

   Total Cost for upgrade of Building 6 BMS…………………………………….………$ 128,929.00

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Building 7 – Business Education Building

- Provide and install new BAcnet Router .
- Run any conduit and communications bus wiring necessary to connect the network to the Router and from the router the filed devices.
- Run all new communications bus wiring (CAT6) to new IP based field controllers.
- Provide new DDC Controls for the following:
    - 1 – Heat Pump
    - Exterior Lighting
- All other work shall be performed based on the "Work Common to all Buildings" above.

   Total Cost for upgrade of Building 7 BMS……………………………………….………$ 15,895.00

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Building 8 – General Classes Building

- Provide and install new control panel for Automation Server complete with power protection and transformer.
- Provide and install new Schneider Electric Automation Server with Power Supply.
- Run any conduit and communications bus wiring necessary to connect the Schneider Electric System Controllers back to Automation Server(s) (AS-P). System to reside on NFC Network.
- Run all new communications bus wiring (CAT6) to new IP based field controllers.
- Provide new DDC Controls for the following:
    - 17 – FCUs
    - 1 – Hot Water System
    - 1 – Chilled Water System
    - Exterior Lighting

    - Add Fan Status switches on all Fans.

- New Temperature Sensors, relays, and CT's. shall be installed on the HW and CHW Systems.
- The primary equipment shall have a relay with local override installed.
- All other work shall be performed based on the "Work Common to all Buildings" above.

   Total Cost for upgrade of Building 8 BMS………………………………………….………$ 78,959.00

Building 10 – Fine Arts Building

- Provide and install new control panel for Automation Server complete with power protection and transformer.
- Provide and install new Schneider Electric Automation Server with Power Supply.
- Run any conduit and communications bus wiring necessary to connect the Schneider Electric System Controllers back to Automation Server(s) (AS-P). System to reside on NFC Network.
- Run all new communications bus wiring (CAT6) to new IP based field controllers.
- Provide new DDC Controls for the following:
    - 3 - Air Handling Units
    - 13 - FCUs
    - 1 – Hot Water System
    - 1 – Chilled Water System
    - Exterior Lighting
    - Add Fan Status switches on all Fans.
- New Temperature Sensors, relays, and CT's. shall be installed on the HW and CHW Systems.
- The primary equipment shall have a relay with local override installed.
- All other work shall be performed based on the "Work Common to all Buildings" above.

   Total Cost for upgrade of Building 10 BMS……………………………………..………$ 79,450.00

Building 11 – Hardee Center

- Provide and install new control panel for Automation Server complete with power protection and transformer.
- Provide and install new Schneider ECenterlectric Automation Server with Power Supply.
- Run any conduit and communications bus wiring necessary to connect the Schneider Electric System Controllers back to Automation Server(s) (AS-P). System to reside on NFC Network.
- Run all new communications bus wiring (CAT6) to new IP based field controllers.
- Provide new DDC Controls for the following:
    - 1 - Heat Pump
    - Exterior Lighting
    - Add Fan Status switches on all Fans.
- New Temperature Sensors, relays, and CT's. shall be installed on the HW and CHW Systems.
- The primary equipment shall have a relay with local override installed.
- All other work shall be performed based on the "Work Common to all Buildings" above.

   Total Cost for upgrade of Building 11 BMS……………………………………..……..………$ 14,092.00

Building 34 – Science Building

- Provide and install new control panel(s) as necessary for Automation Server complete with power protection and transformer.
- Provide and install new Schneider Electric Automation Server with Power Supply.
- Run any conduit and communications bus wiring necessary to connect the Schneider Electric System

  Controllers back to Automation Server(s) (AS-P). System to reside on NFC Network.
- Run all new communications bus wiring (CAT6) to new IP based field controllers.
- Provide new DDC Controls for the following:
    - 1 - Air Handling Unit
    - 16 – VAV's
    - Exterior Lighting

- o   1 – Hot Water System
- o   1 – Chilled Water System
- o   Add Space Temp sensor with Humidity.
- o   Add Fan Status switches on all Fans.
- New Temperature Sensors, relays, and CT's. shall be installed on the HW and CHW Systems.
- The primary equipment shall have a relay with local override installed.
- All other work shall be performed based on the "Work Common to all Buildings" above.

Total Cost for upgrade of Building 34 BMS...……..…..…$ 67,897.00

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Building 35 – Firing Range

- Provide and install new control panel for Automation Server complete with power protection and transformer.
- Provide and install new Schneider Electric Automation Server with Power Supply.
- Run any conduit and communications bus wiring necessary to connect the Schneider Electric System Controllers back to Automation Server(s) (AS-P). System to reside on NFC Network.
- Run all new communications bus wiring (CAT6) to new IP based field controllers.
- Provide new DDC Controls for the following:
    - o   1- Air Handling Unit
    - o   5 – Wall mounted DX units
    - o   Exterior Lighting
    - o   1 – Supply Fan VFD
    - o   1 – Exhaust Fan VFD
    - o   Add Space Temp sensor with Humidity for IT Vault Bldg.35A
    - o   Add Fan Status switches on all Fans.
- New Temperature Sensors, relays, and CT's. shall be installed on the HW and CHW Systems.
- The primary equipment shall have a relay with local override installed.
- All other work shall be performed based on the "Work Common to all Buildings" above.

Total Cost for upgrade of Building 35 BMS..…….........$ 48,153.00

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Subtotal of Phase 3...…....$ 433,375.00

Phase 3 Payment and Performance Bond Cost.......................................…..…$ 5,378.00

Total for Phase 3 (Including Bond Cost) ....…......$ 438,753.00

If you have any questions, I can be reached at (Cell) 904-591-3196

Thank You,

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