

# PROPOSAL



## New Control System Expo/Entertainment Halls

4800 U.S. Hwy 301 North  
Tampa, Florida 33610

**OMNIA**<sup>®</sup>  
P A R T N E R S

Certified Proposal #: R150505-FL-304667 OMNIA Membership #:

### Prepared for:

MICHAEL ROGALSKY  
Chief Operating Officer  
Florida State Fair Authority  
07/26/2021

### Prepared by:

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## Scope of Services

Daikin Applied Americas, Inc. is pleased to offer the following Service & Repair proposal for your consideration. Thank you for selecting Daikin Applied Service Group to care for your building's system. Our factory-trained service personnel have the knowledge and experience to deliver the best support available. Daikin will perform all services using factory-trained technicians who specialize in HVAC, refrigeration and electronic system maintenance and repair services. Daikin is pleased to offer this proposal for your consideration.

### Scope of Work

***Project Summary: Upgrade and replace existing Honeywell and Trane Legacy BAS Control system to the latest KMC Tridium N4 Platform. Install new KMC programmable BACnet controllers in Chiller Plant, Expo Hall, Entertainment Hall, and Florida Living. Special Events Integrate existing Honeywell Unit Controllers into KMC N4 Platform. Replace communication wiring as required per Engineered Design. Create and provide graphics for each respective DDC control component in Chiller Plant and Exposition Hall, Entertainment Hall, Special Events and Florida Living, including equipment graphics for air handlers, chillers, and towers. Create floor plan layouts, identification, color coded zone representation, and links to individual equipment controller graphical pages.***

### Equipment Included:

- One (1) KMC N4 JACE 8100 Software upgrade with 1-year SMA.
- One (1) Differential Pressure Transmitter located by AHU-15, for chilled water system pump control.
- Five (5) KMC BAC-5051E BACnet/IP to MSTP Routers. Two (2) located in Expo Hall, One (1) located in Entertainment Hall, One (1) located in Florida Living and One (1) located in Special Events. All Routers will require Static IP Addresses.
- Fourteen (14) KMC BAC-9301 Controllers as needed for Expo Hall air handlers, (use existing enclosures).
- Two (2) KMC BAC-9301 Controllers and Enclosure and transformer for Entertainment Hall Air Handling Units
- Four (4) KMC BAC-9301 Controllers and Enclosures and transformer for Florida Living RTUs.
- Four (4) Trane CTI Conventional Thermostat Modules for BAC-9301 Controllers.
- One (1) KMC BAC-9301 Controller and Enclosure and transformer for Florida Living Blower Coil Unit.
- Six (6) DTK-120HW Surge Protectors for JACE and BAC-5051E Network Controllers.
- Materials and Labor required for installations and, KMC device connections to BACnet network systems.

- New BACnet 22/2 communication bus to be installed throughout for all BACnet devices as required.
- Existing control cabinets, and conduits and end devices to be reused as able.

**Scope of Work is detailed in the Sections below including Initial Operations, Engineering and Network, Water Cooled Chillers and Towers, Graphics and Miscellaneous:**

***Initial Operations:***

- Check and inspect all air handlers, chillers, and pumps for proper mechanical operation including main indoor fans, pump variable frequency drives, temperature sensors, actuators and valves. These components will remain as existing and must be functional at the time of the control's installation for complete commissioning of new control devices, programming, and sequences. Daikin Applied will report any deficiencies found to facilities or property management to discuss repair or replacement.

***Engineering and Network:***

- Create and Provide Control Drawings for Complete Job Installation per site visit and engineering evaluation. Technicians are to return marked up drawings during job progression for in-progress corrections and final as-builts upon completion. Final drawings and turnover documentation to be left onsite at job completion.
- All sequences are to be verified per the original design intent, any optimization or modifications will be documented by Daikin Applied. This would include modifications to the chiller lead/lag sequencing, pump sequencing, or temperature setpoint requirements from building management.
- This installation assumes that new or existing Internet or network connections are functional with static IP addresses for new routers. Internet connections must be dedicated for remote web viewing.
- Use existing communication or network riser as able. (new routers will require Static IP Addresses)
- For property/facilities management personnel to have remote access, an internet connection must be active with a static IP address separate from the occupants' internal network, or permission granted from the Owner to access the web login site externally via VPN.
- Install network communication switches and routers as required by engineering evaluation and control drawings. Any additional routers or network switches required to facilitate network connectivity are included.

- User parameters and permissions to be defined in coordination with property management during the changeover process and at Owner Training.
- Verify and configure settings for the import of existing mechanical equipment BACnet communicating cards.

#### ***Air Handler Controls:***

- Demo all existing legacy control devices in stages or sequence as progress determines. Every effort will be made to minimize downtime. In cases where a short downtime will occur, discussions and plans with building management will be made.
- Reuse existing air handler control cabinets, conduit, and cabling (as able).
- Install new 22/2 shielded communication BACnet bus for new BACnet controllers to be installed in the Central Energy Plant, Exposition Hall, Entertainment Hall, and Florida Living. Connect to new KMC BACnet router as part of initial network design.
- Install new KMC BACnet router in Special Events and connect to existing DX Slit system AHUs.
- Install new BACnet Controllers for each air handler as needed or required for I/O count and provide 24VAC power from external 24VAC transformer or existing 24VAC transformer in existing control cabinet/panel. Existing Special Events AHU controllers to remain and connected to the KMC BAS System.
- Reuse the following input devices for each AHU, and connect to new controller as specified by control drawings and commission:
  - Supply air temperature (Replace as needed)
  - Return air temperature (Replace as needed)
  - Space temperature (4 total Expo Hall)
  - Outside air temperature (1 Global sensor)
  - Supply fan status
  - Supply Fan start/stop
- The following components will remain in place and reconnected to the new controllers and sequenced according to the original or pre-approved modified design:
  - Mechanical valves and actuators
- Test all inputs, outputs, and overall operating sequence at initial startup.
- Add all inputs, outputs, setpoints, overrides, and other critical values or settings to the web user interface at the owner's discretion or instruction.

- Create air handler occupied and unoccupied operating schedules.
- Add control points or values to alarms, trending history and dashboards.
- Provide analytical software alarm and sequence for each chilled water air handler.
- Complete point to point commissioning of all control components.

#### ***Chillers/Towers:***

- Install new 22/2 shielded communication BACnet bus for existing Trane UC 800 BACnet modules. Connect to new router or existing JACE as part of initial network design.
- Existing end devices for pumps, chillers, towers, and miscellaneous points including the following will remain and be connected to the new KMC programmable controller:
  - Chiller start/stop and general alarm status.
  - Evaporator/Condenser water pumps start/stop and status
  - DP Transducers required for pump variable frequency drive operation (Located in Expo Hall)
  - Chilled/Condenser water system flow meters, temperature sensors supply and return to each including common and individual loop circuits
  - Cooling tower fan start/stop relays, VFD transducers, and current relays.
  - All existing end devices to include, temperature sensors, flow meters and differential pressure sensors for CEP control.
  - Isolation valves are controlled by the Chiller once enabled.
  - Mechanical valves and actuators are to remain
  - Existing enclosure with transformer will be reused as able.
- The following thermistors may be replaced due to accuracy or reliability with the new controls:
  - System temperature sensors for chilled and condensing water
- Verify water temperature immersion sensors are accurate and replace if required.
- Install proper network communication connections to chiller BACnet cards and connect as available, integrate appropriate points and values for monitoring and control into web server.
- Configure and commission chilled water system function according to pre-determined sequence of operation approved by owner management including chiller and pump lead/lag sequencing based on alarm, failure, or load inputs.
- The chillers are to be sequenced based on temperature demand.
- Include any required outside air temperature or load based lockouts for normal operation.

- Test all inputs, outputs, and overall operating sequences at initial startup.
- Add all inputs, outputs, setpoints, overrides, and other critical values or settings to the web user interface at the owner's discretion or instruction. Add all values to the chilled water system graphic pages.
- Alarms based on software-controlled output sequences, current relays, and/or alarm contacts shall be generated on web enabled front end, and automatically result in an equipment changeover until automatically reset.
- Add any control points or values specified by control drawings to alarms and trending history. This would include chilled water temperature alarms, critical plant equipment failure alarms, and all pump status alarms.
- Scheduling, Alarms, and Trending will be custom programmed and based on consultation with onsite personnel.

#### ***Graphics and Miscellaneous:***

- Setup analytical and binary status alarms on front end, with notifications through main graphics pages, email, and/or text messaging. All notification settings will be editable by approved operators.
- Alarms to be selectable by priority and divided into groups for notification customization.
- Alarms to include all critical component failures including general alarms, status failures for motors and pumps, along with analytical alarms such as supply water temperature.
- Alarms to be based on deviation from setpoint for analog values.
- The final trend history and alarm list with groupings will be created in coordination with Property Management and Daikin. Daikin will provide all data entry related to the final alarm and trend history summary.
- Add all other related inputs, outputs, and setpoints to graphics layouts, trends, and alarms for all plant, air handler, ventilation and miscellaneous controllers. Each individual mechanical equipment item with a dedicated controller will have its own dedicated graphics page.
- Create new Floor plans as required for appropriate and simple web page navigation and viewing.
- Create web homepage for additional web graphics and building links and summaries. Add space temperatures and other needed information and links to floorplan zone pages.
- Add summary pages for CEP equipment as needed in consultation with property management.

- Customer must provide compatible PC or mobile device for remote web interface viewing.
- Disposal of old Equipment included.

***Fire Alarm and Duct Detectors:***

- Existing duct detectors or systems and relays for unit shutdown upon active fire alarm are not included and are to remain as is. Unit shutdown wiring will be reconnected as previously connected.

***Scheduling:***

- Work to be performed during normal business hours Monday thru Friday, unless scheduled after hours shutdown is pre-approved.

***Special Notes and Customer Responsibilities:***

- Based on initial equipment evaluations, unknown but repairable items to existing mechanical, control, network, or building systems not listed in the Scope of Work have not been estimated and are not covered by this Proposal. The repairs or replacements of these items would have to be approved individually. Some deficiencies may be required to be corrected if they are crucial to the commissioning process or the overall correct operation of the controls or building systems. A contingency allowance is recommended for the repair or replacement of these items as they are found during the installation and commissioning process.
- Engineered As-Built Drawings will be provided at substantial completion.
- Conduit to be used as required in mechanical rooms only, all low voltage and communication cabling is to be plenum rated. Cable may be installed in open areas when needed, but secured and discrete as possible.
- Remote Access to system will be provided through Internet Network Access maintained by Customer.
- Physical access to equipment for controls installation must be provided by owner or management. Any device not capable of being mounted due to access or compatibility will be omitted from the scope until access or compatibility is resolved. Owner will provide lift for Expo Hall and any area required for high work on Air Handling Units.

***Exclusions:***

- This Agreement excludes any repairs, replacements, or modifications to any components of the building, mechanical, control, or network systems unless specifically outlined in the above Scope of Work.
- Chemical Treatment system is monitored by a stand-alone system and is not included.
- Test and balance are not included.
- Any roofing is not included.
- Fire alarm components and duct detectors are not included.
- Price does not include any cutting, patching, or painting.
- High Voltage wiring is not included.

### **Personnel**

Daikin will perform all services using factory-trained technicians who specialize in HVAC, refrigeration and electronic system maintenance and repair service.

### **Emergency Service Response**

Emergency service is available on a 7-day, 24 hour basis. For scheduled service and repairs covered under this agreement and performed at the Customer's request outside of normal working hours, the Customer agrees to pay the difference between the prevailing standard billing rate and the prevailing overtime rate.

### **Equipment Repair**

Daikin will perform all services during its regular working hours unless otherwise specified. Any services requested or agreed to by Customer that are outside the Scope of Work will be performed by Company at an additional cost. Company will invoice such services at a special service and repair billing rate at Company's published labor rate for the service area.

### **Standard Inclusions:**

The agreement includes travel to and from the site, preventative maintenance materials, and any trips to supply houses to procure materials. The customer will receive a written report for the inspection or services provided. For specific activities associated with the equipment covered under the agreement, reference the preventative maintenance activities section.

### **Standard Exclusions:**

- All work to be performed during 'normal working hours'.
- Any and all recommended/required repairs to be quoted separately.

### **Other Exclusions and Clarifications:**

- This Agreement excludes any repairs, replacements, or modifications to any components of the building, mechanical, control, or network systems unless specifically outlined in the above Scope of Work.
- Control wiring located in Expo Hall from AHU to Electrical Rooms controllers by others.



- Temporary cooling is not included.
- Test and balance is not included.
- Any roofing is not included.
- Fire alarm components and duct detectors are not included.
- Price does not include any cutting, patching, or painting.

## **OMNIAPricing and Acceptance**

Feel free to contact me if you have any questions or concerns regarding the information contained in this Service & Repair proposal. If you would like us to proceed with the solution presented above, sign the acceptance line below (including PO# if applicable) and return a copy so that we can begin to mobilize our efforts to complete services as quickly as possible. We appreciate the opportunity to provide you with this solution and look forward to working with you on this and servicing your needs in the future.

### **Investment Amount and Billing Terms:**

Investment required to implement the proposed solution

Proposal, inclusive of the pricing, is provided in accordance with Region 4 ESC Contract # R200401, available via OMNIA Partners, including the terms and conditions contained therein

(<https://public.omniapartners.com/suppliers/daikin-applied/contract-documentation#c38611>) shall govern this Proposal and the corresponding scope of work as described herein which are hereby incorporated by this reference. Pricing and acceptance are subject to Daikin Applied's final credit approval.

**Billing/Payment Terms\*:** Billed in full upon completion

\*All billings are due immediately upon Receipt

This proposal will be honored by Daikin Applied for 30 days from the date on the front of the proposal. After 30 days, Daikin Applied reserves the right to evaluate cost changes (both increases and decreases) from the proposal.

MICHAEL ROGALSKY  
Florida State Fair Authority

Site Address:  
4800 U.S. Hwy 301 North  
Tampa, Florida 33610

### **Accepted by:**

\_\_\_\_\_  
(Print Full Legal Name of Customer)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
Date:

### **Approved by:**

\_\_\_\_\_  
(Print Full Legal Name of Daikin Applied Representative)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
Date:

**Note: This Agreement is subject to final approval by Daikin Applied.**

