

Appendix 3
Contractor for Controls Upgrade Project Re-Bid
M&T Bank Stadium
MSA Project No. 21-040

All questions below were RFIs from the first proposal. All answers are applicable to this proposal. Any changes to the answers as they were previously answered are bolded. Some drawings page numbers may have changed.

Questions and Answers

1. The RFP details a green cleaning program being implemented at the Camden Yards Complex. Is the intent for this section to be additional guidelines for the cleaning operations that will be required in final cleaning specification (section 017410)? Or is this section in the RFP to indicate that the cleaning services will be handled by the stadium authorities existing contract? If these LEED green cleaning requirements are for this project, can you please consider the following:
 - a. Please advise how frequently the green cleaning will be required? Will it be only for final cleaning and required after a given area or floor are complete? Does complete including all testing and commissioning?
 - b. Is intermittent light broom cleaning acceptable for all but the final cleaning?
 - i. Can the final green cleaning be performed as a one-time operation prior to contractor demobilization or does it need to be more frequent?

M&T Bank Stadium is a LEED building. The included green cleaning policies are for all cleaning that takes place in the building. Contractor will be responsible for cleaning their own job site but is only required to do what is necessary to keep their job site neat and clean. Given that the scope requires work in almost every room of the building, a final cleaning of every space is not required. All that is required is to clean your work area within that room. This should be done as the project goes. The green cleaning policies give guidance on which chemicals (if any are needed) can be used.

2. Can as-built drawings for the existing Microlite lighting control panels be provided if they are available?

The attached document is all that is available for existing drawings. This should only be used for reference and field verification is still required.

3. Can as-built drawings for the existing Musco & Lumenpulse lighting control systems be provided if they are available?

As-built drawings are not available for the Lumenpulse system. Applicable Musco drawings are attached.

4. Drawing E.401 shows dimming panels with lighting control wiring run to the existing Microlite relay panels. Is the intent to have the dimming panels remain?

Yes. The dimming panels shall be energized (typical for corner suite systems) or shall have preset scenes triggered (typical for club level/bars) from the lighting control relays.

5. Will M&T Bank Stadium provide a secure location to stockpile material that is to be recycled complying with the LEED waste management requirements?

Yes.

6. If there are permit fees associated with this work, should the cost of permits be considered in this bid or should they be billed at cost plus overhead and profit?

Permitting is not required for this project.

7. Specification section 230900-2 calls out that all room thermostats and sensors shall be field coordinated with the owner and in compliance with ADA guidelines. Please advise if we will be providing one for one replacement with existing wall mounted space sensors for the project or if new locations (or mounting heights) will be required. Any deviations from one for one replacement will require wall patching and painting.

- a. Is touch up paint acceptable for any locations where thermostats have been relocated to a different area or mounting height? Are we required to paint the entire wall or the entire room after drywall repairs have been made for relocated sensors? Spec section 27 references a division 9 painting spec but that spec is not included in the project specifications.

*New thermostats shall be in compliance with ADA guidelines. **Contractor shall include patching and painting where necessary.***

8. 260100-2 paragraph R calls for the owner to re-lamp all existing light fixtures to remain. This seems generic based on a project with a different scope but just for confirmation can you please confirm that new lamping is not required.

Confirmed that new lamping is not required. Specification reference will be removed.

9. In locations where similar cable would be installed for replacement, is it acceptable to reuse cabling? For example, the (80) toilet exhaust fans have rs-485 cable daisy chained to relays would require the same cable to be installed for this project. Please reference ESI Dwg 8.2. Are we allowed to reuse this cable if we verify and warranty it to be in good working order?

Contractor shall provide a voluntary deduct alternate for this. Contractor must verify and warranty the existing cable. The wiring must also provide the resiliency and performance (i.e. bandwidth, speed, etc...) required for the project. Any existing wiring, cable, devices reused must be equivalent to a new installation.

10. In locations where input-output cable is in good condition, are we allowed to reuse this cable if we verify and warranty it to be in good working order?

Contractor shall provide a voluntary deduct alternate for this. Contractor must verify and warranty the existing cable. The wiring must also provide the resiliency and performance (i.e. bandwidth, speed, etc...) required for the project. Any existing wiring, cable, devices reused must be equivalent to a new installation.

11. As a follow up to the previous RFI, can the relays for the (80) toilet exhaust fans be reused as well as the wiring?

No.

12. Would it be possible for bidders to receive interior finish drawings, reflected ceiling plan, and/or elevations drawings as available?

Interior finish drawings are not available for the entire building. If specific areas are required, contractors can schedule a site visit to review.

13. Control drawing M4.23 indicates that the split system units will have a thermostat that can be integrated/controlled through the BAS. Is the intent to have any BACnet smart thermostat with IO points controlling the ductless split units, heat pump AC units, and computer room AC units or are we to obtain manufacturer specific BACnet thermostats. If manufacturer stats are required, can you please provide product data on these units where this is required.

A BACnet smart thermostat with IO points is acceptable, this is the intent. Contractor shall verify that provided thermostat is compatible to perform the functions and BAS integration required. A manufacturer's thermostat will only be needed if it is required.

14. Note 11/M1.22 calls out connecting condensing units to the BAS. This would require a manufacturer gateway. Please provide product data (schedule of make/model for the equipment) so that we can determine the cost for this.

The split systems, consisting of an indoor unit and condensing unit or heat pump can be connected to the BAS as a system (i.e. separate monitoring of the condensing units is not required).

15. Could you please provide a points list for or description of needed I/O points for the walk-in freezers?

a. *Per drawing note on floor plan, BAS shall monitor cooler/freezer status, and internal temperature.*

16. For Alternate 2 and 2A, does the MD Stadium Authority expect the controls contractor to sub-contract an electrical contractor to perform the Caterpillar engine modifications (2A) and the Generator management system, emergency power system control cabinet, switchgear controls, battery string, & battery charger?

The contractor shall be responsible to provide all work associated with this scope. If sub-contractors or manufacturer's representatives are required to complete the work, it will be the responsibility of the bidding Contractor to determine and include in their price.

17. Seeking clarification to determine if the controls contractor is to cover this generator/switchgear scope along with integration to the BAS or just integration into the BAS.

Both must be included in scope. See response to question #22.

18. Specification section 230900-19 paragraph 2.20B calls for all wiring to be installed in conduit. 250000-14 allows for Teflon rated cable in plenum ceilings. Please advise if open plenum cable is acceptable.

Pricing shall include all cable in conduit unless above ceiling in which plenum rated cabling can be used.

19. Specification 250000-14 paragraph 8 calls out Teflon rated cable. Our cable vendor has shared the following information as they encounter this requirement often: “Teflon” is a trademarked word for a product by Dupont but it refers to the FEP material that is used for the jacket. FEP is Fluorinated Ethylene Propylene, which is a material that contains no PVC and has a higher jacket melting point temperature rating of at least 150 Degrees Celsius vs. The Standard Soft Jacketed PVC Plenum Rated Cables At 75 Degrees Celsius. Please advise if the FEP generic version with a higher melting point is acceptable. Our specific cable in mind by Windy City wire is UL listed for a 200 degrees Celsius melting point cable jacket but is generic FEP.

There is no intent to require a proprietary cable, (i.e. Teflon). As such, approved equal is acceptable to the basis of design, “Teflon rated cable”. Alternate products can be submitted to the engineer through a pre proposal RFI to determine if the products will be approved equal.

20. Note 1 M4.11 calls out that all actuators are pneumatically actuated. Even though they are not contract documents, the JCI control drawings show that the fan coil unit and fan powered VAVs currently have electrically powered control valves. It is acceptable to not replace actuators for any electrically powered actuators currently in place?

All actuators shall be included for replacement.

21. Musco has indicated that they do not have BACnet or Modbus capability with their system. The network architecture drawing M4.11 shows a CAT-6 drop as being typical for each Musco panel. E4.02 shows the Musco connection to the new lighting control relay panels. Is the intent that the new lighting control system sends IO to the Musco lighting control. Their system is capable of IO interfacing with outside systems per Musco’s direction (but not BACnet or Modbus). This would eliminate the need for data drops to each Musco panel.

Intent is to have the Musco system integrated into the BAS to provide monitoring and control for: On / Off and Presets. Contractor shall provide means necessary (i.e. additional BAS relays, a translator, or other bas device) to accomplish this scope.

The lighting control system shall trigger the Musco lighting scenes, similar to the operation of the dimming and facade lighting systems. The lighting control system will communicate via BACnet with the BAS, but will have a hardwired IO interface with the Musco system.

22. Can we please be provided with a sequence or points list for the crawl space unit heaters? Are they electric or hot water?

They are electric. Electric Unit Heater points shall include: Space temperature sensor; Electric heat status; and Electric heat command. Alarm at: Equipment failure; and Failure to maintain temperature set point for 10 minutes.

23. The plan view drawing show quantity (6) of electric cabinet unit heaters where they are directly called out as electric in their corresponding note. The ESI drawings list (141) electric cabinet unit heaters. We have counted an additional (156) cabinet unit heaters on the plan view, which are not specified for hot water or electric, for a total of (162) cabinet unit heaters. Can you please provide the quantity of hot water and the quantity of electric cabinet unit heaters?

The majority are electric. Of the total shown on the drawings, contractor shall assume 20 are hot water and the rest are electric.

24. Can you please provide clarification as to whether the convector type heaters are electric or hot water? The sequence on M4.23 does not call this out.

All convectors are assumed to be hot water. Include heating water for pricing. All convectors shall be field verified by contractor.

25. For the radiators, we are assuming these are hot water but can not find any valve information for them. Please confirm that the finned tube radiators are hot water and not electric. Are we to assume that each section of finned tube has its own valve or is the valving grouped into areas?

All radiators are assumed to be heating water. Include heating water for pricing. All radiators shall be field verified by contractor. The radiators are grouped to include between 2 to 4 elements on common exposure. The valves are currently not connected to the existing BAS. Each radiator group has a temperature sensor installed on the window mullion. For example, see sheet M1.31, drawing Note #3. Each instance of this note indicates one (1) radiator group (i.e. 1 valve and 1 temperature sensor).

26. Please provide a name and contact information for your fire system contractor – we will need to coordinate pricing with them to perform smoke evacuation testing and ensure we are meeting the spec.

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27. End Devices and Related Components: Please clarify which specific portions of the existing project installation can be re-used. For the BAS points, we realize that actuators and space sensors are being replaced. Please include clarification for the following:

- A. Can all other end-devices and interfaces be reused?
- B. Can wiring be reused?
- C. Can all existing enclosures be reused?
- D. Can all components and materials in those cabinets be reused (power supplies, etc.)?
- E. Can relays, contactors, and interfaces be reused?
- F. All existing power sources can be reused.
- G. MSA will provide empty breakers for all new power sources required in close proximity to the required area to be controller.
- H. Are there any input devices that need to be replaced on the lighting control system.

A – F. All end-devices, controller enclosures and wiring shall be replaced. Power wiring to equipment can be existing to remain since the equipment is not being replaced. Power wiring to ATC devices can also remain if it does not affect the end-product. Contractor shall field determine and replace as required.

G. Contractor is responsible for all power and circuits. MSA is not providing anything (i.e. labor or materials). Work shall be coordinated with the MSA and the MSA may provide guidance.

H. Yes, as required to fulfil the scope.

28. Complete Details on Drawings: Please confirm that all BAS points to be controlled and monitored, all lighting to be controlled and all meters to be replaced are shown on the drawings. Specifically address that there are no additional “everything” provisions that need to be taken into consideration for a complete design inclusive of equipment not currently detailed by the plans and specs.

Documents are not inclusive of every point and device.

29. Drawing M4.11 – ATC General Notes – Are the points described in this section required? If they are not currently on the BAS system, are they to be provided as part of this project? Please specifically address: condensate switches, air measuring stations, damper end switches, reheat discharge sensors, current sensing relays, etc.

All items described shall be included with this project.

30. Addendum 1 10-28-20 Drawing M4.11 - BAS General Notes and Network Architecture "...self-heating loop'. This includes wiring to LAN Switches, ATC Panels, Controllers and to Equipment. There shall be no instance where loss of one wire or component will impact multiple pieces of equipment." If network wiring is lost to one controller, multiple pieces of equipment controlled by that BAS controller can be impacted. Please clarify requirements. Specifically, please confirm this statement is not intended to change the controller configurations or require that every single piece of equipment has to be put onto a different controller.

It is not intended to have a every piece of equipment on a separate controller.

31. Drawing M4.11 – ATC General Note 22 – Can multiple pieces of equipment be put on the same controller? For example can fan coil units, an exhaust fans, and radiant heat be put on the same controller. Can all “existing controllers” point configurations be reused? Please state whether for existing controllers, the existing configurations can be reused (including where multiple pieces of equipment such as pumps are on the same controller).

*Multiple pieces of equipment can be connected to a single controller.
Cannot confirm reuse of existing controller configurations.*

32. TAB Requirements--General. Section 230200 3.4 TESTING, ADJUSTING AND BALANCING Is air and water balancing a requirement of this scope? If so, could you please clarify whether existing conditions to be recorded prior to any work starting—preinstallation TAB. Can you provide the correct settings that equipment should be balanced to if TAB is required. Please clarify what equipment is required to be balanced if this functionality is required. The referenced section includes listing of equipment and components that are not part of this project.

Air and water balancing are both required. Refer to specification section 230593 TAB. Pre-demo testing is required to establish a baseline for post-construction values.

33. For Fan Coil Units: Are three settings for the fan (low, medium, and high) to be provided or just one output for fan control?

Just one output. The motors are single speed.

34. Drawing M4.11 – ATC General Notes 6 and 7 – Are current sensing relays required for fan coil units, fan powered vav boxes, exhaust fans, and toilet exhaust fans?

Yes, as required to connection to the BAS.

35. Please verify that contractor is not responsible for any Janitorial requirements with the exception of cleaning up areas pertaining to project work space.

Confirmed.

36. Drawing M4.11 – Addendum 3. “Existing BAS serving the Stadium shall be removed at completion of project. (Existing BAS shall remain in operation until new BAS is fully functional and tested.)” Please confirm this statement is not in any way requiring two parallel operating systems for all controllers or take over at the end of the project. As points corresponding to each controller are moved to the new BAS, they will no longer be in operation on the original BAS design. Nor can they be controlled by two sets of logic. We can leave architecture in place for controller which are still operation on the old BAS prior to moving their corresponding points over to new BAS.

As this facility will remain in operation the BAS work must be removed and installed to keep the facility running. It is understood that the equipment cannot be installed by 2 separate BAS systems, and that is not the intent here. ATC contractor must develop a plan and confirm new work is operational before removing the existing BAS.

37. GENERAL COMMISSIONING 01 91 10 Part I 1.2 A. Please confirm that as long as the Controls Contractor or Main Contractor responsible for a task is present at that portion of the project’s commissioning, that the other Contractors do not also have to be present. For example, as long as the Controls Contractor is present for all BAS functions, the Service Contractor or Mechanical who only changed a few valves, electrical who ran wiring, etc. do not also have to be present.

Commissioning may require contractors for multiple disciplines depending on what is being tested. The Controls or Main Contractor may not be sufficient in all cases. Must be reviewed with CxA Agent.

38. GENERAL COMMISSIONING 01 91 10 Part I 1.2 A. Please confirm that as long as the Controls Contractor or Main Contractor responsible for a task is present at that portion of the project’s commissioning, that the other Contractors do not also have to be present. For example, as long as the Controls Contractor is present for all BAS functions, the Service Contractor or Mechanical who only changed a few valves, electrical who ran wiring, etc. do not also have to be present.

See response above to question.

39. GENERAL COMMISSIONING 01 91 10 Part I 1.3 This section says the Commissioning scope can be changed after the initial scope meeting. We have no way to estimate the impact of the statement. Can we be assured that for bidding purposes we are using only the scope specifically detailed and address changes later? Can you confirm that commissioning pertains to the scope of work being performed and not base-building conditions? We do not use independent monitoring temperature devices for tracking of temperatures. Can you quantify how many of these will be used in commissioning or whether this is provision not applicable?

Propose the scope as defined, however, during construction the Commissioning plan will be established and coordinated with the contractor. Scope refers to project scope, not base building. Cannot determine quantity of monitoring devices at this time.

40. GENERAL COMMISSIONING 01 91 10 Part I 3.4 15. a. Water Pressure Is this section applicable to this project?

Yes.

41. GENERAL COMMISSIONING 01 91 10 Part I 3.2 Portable Operators Terminal Please confirm a laptop connected via internet is also acceptable for use in commissioning. (There are instances where we prefer to show the trended data to address questions immediately where applicable rather than have them put onto a report to address later.)

Laptop is acceptable.

42. Are 3 outputs required for speed control of each fan coil unit supply fan (low, medium, high speed)?

See above.

43. What is the purpose of the specifications of the end devices and sensors in section 230900 if the existing end devices are re-used? Examples are items 2.6, 2.7, 2.8, 2.9, etc.

Existing end-devices shall be replaced as new. See response above.

44. Specification section 230900 item C.15 – page 8 – Does this apply to existing controllers and enclosures or are they to remain on their current power source?

Remain on current normal or emergency power source, unless specifically indicated to be connected to emergency.

45. The fin tube radiation is controlled by Viconics BACnet MSTP controllers. Can they be replaced with new Viconics controllers on the MSTP bus or do the points need to be connected to an IP level controller?

We do not believe this is correct for the existing radiators. We believe they are generally controlled locally and not tied into the existing BAS. Under the scope of work of this project, we ARE connecting them to the new BAS. We cannot determine the answer to this question at this point. We believe IP level, but we are looking for the contractor's BAS wiring diagram during construction to determine the appropriate controller.

46. The toilet exhaust fans are controlled by BACnet MSTP relays. Can the relays be reused? Can new relays be used of the same or similar type? Is it required they be put on a controller. If so does it have to be an IP controller or can a b3 controller be used?

Assume new relays. Assume they are to be placed on a controller. Assume IP. See response to question #41 above.

47. Specification section 230900 page 19 states that “all wiring shall be installed in conduit”. Specification section 250000 page 14, item 8 states that wiring can be installed without conduit above suspended ceilings. Can wiring above suspended ceilings be installed without conduit?

Yes.

48. Specification section 250000 page 11 item 2.3 B. – what systems are applicable for this project?

Description is for “connection” of systems to accomplish scope, not for all systems mentioned to be “monitoring/control” thru the BAS. For example, Facility Ethernet jacks are not expected to be viewable on the BAS, but they would be required where connecting to a workstation computer.

49. Specification section 250000 page 14 item 5 (EMT conduit) contradicts with specification section 260533 - page 4 item B.2. (rigid conduit). Which section is correct for this project?

EMT conduit for BAS and Integrated Systems work.

50. Specification section 250000 page 14 item 2.4 – Is building advisor required for this project?

Do not include pricing for this in the base bid. Contractor can provide a price as an alternate at bottom of financial proposal.

51. Specification section 250000 page 17 item 2.5 – Does this integration/functionality already exist at the MSA? What CMMS software is going to be purchased?

There is an existing to remain software in use. The current system in use is Aware Manager.

52. Specification section 260519 – page 2 item B – We are requesting that Windy City Wire be added to the list of acceptable manufacturers.

Commodity products that meet the project specification and suit the project application will be accepted for review.

53. Please confirm whether there is work in Specifications section 230100 applicable to this project.

Confirmed. (All submitted specifications are applicable to this project)

54. Please confirm whether there is work in Specifications section 230200 applicable to this project.

Confirmed. (All submitted specifications are applicable to this project)

55. Please confirm whether there is work in Specifications section 230500 applicable to this project.

Confirmed. (All submitted specifications are applicable to this project)

56. Is Section 230593 applicable for this project?

Confirmed. (All submitted specifications are applicable to this project)

57. Section 230593 – Item 1.1 A – why is a TAB contractor required to transfer setpoints from the existing BAS to the new BAS? Please confirm this work can be performed by the Control's Contractor.

It is acceptable if the Controls Contractor completes this work in lieu of TAB. Work must be coordinated with the TAB contractor to ensure all existing and new setpoints are documented.

58. Section 230593 – Item 1.1 B – TAB contractor to provide calibration of all sensors and devices. Please clarify this work can be performed by the Control's Contractor. If not, please clarify which sensors this is applicable to.

We believe TAB is required to complete this. How would the Controls Contractor calibrate without being able to independently measure the airflow, temperature, etc... to verify the sensors are calibrated?

59. Section 230593 – Item 1.1.C.1.c – why is a TAB contractor needed for this?

I may not be understanding the coordination you are questioning. We would be open to review which contractor ultimately completes the work, but we believe this scope typically falls under a TAB Contractor.

60. Section 230593 – Item 1.1.D – Balancing requirement for all air and water side equipment after installation. – Clarify what items need to be TAB – (item 2)

As required for setting values thru the new BAS and calibrating sensors/devices. Note that the intent is not to rebalance the entire facility for the sake of rebalancing, the TAB scope is intended to supplement the BAS replacement scope.

61. Drawing M4.11 - ATC General Notes – Are the points described in this section required? If they are currently not on the BAS system are they to be provided as part of this project? (For example, condensate switches, air measuring stations, damper end switches, reheat discharge sensors, current sensing relays, etc.?).

See responses above to question #7.

62. Drawing M4.11 - ATC General Note 22 – Can multiple pieces of equipment be put on the same controller. (i.e. fan coil unit with an exhaust fan and radiant heat).

See responses above to question #10.

63. This may just be a clarification: Drawing M4.11 – Network Architecture Note 9 – The existing BAS system will be decommissioned one controller at a time as equipment is put on the new BAS system.

See responses above to question #20.

64. For the Work Order System requirements: Is this applicable to this project? If so, is the integration to be the same as provided for the Orioles Park project? Can you provide the software platform which MSA uses? Can Maximo be used?

M&T Bank Stadium has their own Work Order & CMMS software. This existing to remain software will be utilized. The existing system in Aware Manager. The extent of the contractor's responsibility is to provide the information needed for MSA to enter into the system in the format we request.

65. Specifications requirements which are not applicable: We understand that the base specifications pertain to new construction or larger projects. This means that there are sections not applicable to this project. Can you remove these sections or make it clear for the contract responsibilities that general construction responsibilities inclusive of the following do not pertain to this project: snow removal, cleaning of the building, Mechanical Contractor responsibilities, general full building electrical requirements, all maintenance responsibilities, etc. Also, there are sections of the specifications which are unclear such as whether we are required to replace all the filters for the AHUs, provide the actual circuits required for new work, etc.--can you address those so we are clear on what is actually required? Are there specifically any parts of the following sections required: Section 262726 Wiring Devices, 262813 Section not issued, if 264313 Surge Suppression, 262816 Enclosed Switches and CBs, 262913.03 Manual and Magnetic Motor Starters?

For 262726, new receptacles are shown on the drawing. For 264313, 262813 and 262913.13, no specific work is shown on the electrical drawings. The sections are included for work that may be necessary under the BAS controls upgrade.

66. Metering System Requirements: Do you specifically want RS485 for the metering or would an IP networking option be acceptable?. 264313

The basis of design meter utilizes RS485. An IP networking option that integrates into the new network will be considered.

67. Metering Gateways: Can we use gateways which meet the Schneider required functionality requirements even though they are not specified?

Alternate products that meet the requirements shall be submitted for review following the alternate process in the specs.

68. Work Scheduling: Can another software platform be used other than Primavera P6? If not, can MSA provide a copy of this software license to be used during this installation--to be returned upon completion? If not, can MSA provide internet access to Owner's version of this software on the same PC as used for this installation so we can use MSA's licensing without having to purchase a copy. Alternatively, can MSA provide tie-in to its Primavera scheduling for the project on another PC?

Any scheduling software can be used.

69. Parking: Can MSA provide parking during this installation? If not for all workers, can it provide at least 4 spaces near the building to accommodate loading of materials?

MSA will provide parking to all contractors.

70. Storage: Can MSA provide a secure area in the building where materials can be stored?

Yes.

71. Section 250000 – 2.3 B. References various equipment, platforms, and software the new iBMS is to be capable of integrating into / with. Please provide technical information on all items not installed as part of this contract, i.e. Work Order Server, VOIP Telephones, etc.

See responses above to question #44.

72. Smoke and Fire Contractor: Can MSA/Owner be responsible for all work his smoke/fire contractor will need to perform? As part of the work we are providing interfaces as required. Please clarify how and when new smoke and fire interfaces are to be tested and who needs to be involved for this testing. During the commissioning process, is Owner responsible for having Siemens or applicable contractor available to address smoke and fire? What are the requirements for smoke and fire check out for new work? Can MSA carry this responsibility--increase allowance is required? This testing would more logically be performed in segments throughout the installation to assure the fire and smoke warnings are working. The requires coordination with the fire department in some cases. It should not be left until commissioning. Correspondingly, if it is left to be addressed at commissioning, can the fire and smoke testing be separate so that contractor is not standing around needlessly while other components are tested? Please provide greater detail on the coordination and methodologies to be implemented.

Existing fire alarm contractor is Siemens. Contractor shall be responsible for all testing. Coordination shall be required with the existing fire alarm contractor.

Contractor is responsible for all costs and management of this scope of work within their bid.

Testing and verification shall be done as the project progresses in increments that make sense.

The fire department does not need to be involved.

The installing contractor shall show the commissioning agent proper operation of all sequences.

73. Performance bonding and allowances carried: Can bonding be increased at the actual time that MSA/Owner's allowances are used?

Bond shall be inclusive of the allowance as that will be the contract value.

74. Section 017410-1 calls for washing down exterior of building and other seemingly extreme requirements. Please provide clarity on actual expected scope.

Only as required for completion of work and keeping facility clean. Not intended to be a extreme or restrictive requirement. Intent is for the contractor to leave the site in the same condition they found it.

75. Are there any times work is not permitted? During games or events?

Refer to previous addendum.

76. Please provide the basis of design for the model of Power Logic sub-meters.

Refer to electrical documents.

77. Specification 230900-1 and 250000 call for integration into the fire alarm system. Is there any information on the make / model / communication protocol of the fire system?

Fire Alarm is Siemens XLS. Contact was provided with previous addendum who can provide further information.

78. The Johnson Controls and ESI drawings reference an HVU-6. Mechanical Drawings M1.02 and M4.25 show an AHU-6 and no HVU-6. Was HVU-6 converted to AHU-6? If so, AHU-6 references a variable frequency drive, CHW valve, dampers, filter DP switch, and perhaps other points that were not on HVU-6. Are we to provide and install all of these devices?

Correct, HVU-6 was converted to AHU-6. Yes, with the exception of the VFD. Existing VFD shall remain.

79. Specification section 017419 lays out a LEED waste management and disposal plan, which creates a meaningful administration work load and adds cost to the project. As the building is in operation and has already obtained LEED certification, we want to understand how strictly enforced these requirements will be and confirm that they are in fact required.

The building has to constantly follow the LEED requirements to maintain its LEED certification. Contractors are responsible for submitting the LEED tracking information for waste tracking. MSA will provide the template. Given the nature of the project, the majority of material purchased will be exempt so contractor does not need to complete the sustainable purchasing log. Green cleaning policies should be followed as outlined the previous addendum but no tracking information is required for that.