

## ADDENDUM 1

DATE: May 25<sup>nd</sup>, 2018  
 PROJECT: MSB Penthouse AHU Replacement  
 ITB NO: 744-R1816 MSB Penthouse AHU Replacement  
 OWNER: The University of Texas Health Science Center at Houston  
 TO: Prospective Proposers

This Addendum forms part of and modifies Proposal Documents dated, April 27<sup>th</sup>, 2018, with amendments and additions noted below.

### Clarification on preparing the project schedule:

- Please refer to the Uniform General Conditions (UGC) for all items related to project schedule requirements.
- All schedules must be in calendar days not work days. This must also be properly reflected in Section 6 of the RFP document.
- All schedules must include time for submittals and delivery time of long lead items.
- All schedules must include 10% float of the total project schedule as directed by the UGC.
- Contractor must include 30 days between Substantial Completion and Final Completion per the UGC.

### Questions received before the deadline

Item	Specification	Drawing	RFI/Question	Response
1		M218	Drawing Note 7 says to install new smoke detectors in the return air risers, but the note is on the supply ducts. Please clarify.	<a href="#">Please see the revised drawing in Addendum #1.</a>
2		M700 M991 M218 M118 M518	01/M700 VIEW STANDING AT EXTERIOR WALL FACING UNIT shows a motorized damper with Ebtron flow station in the return duct. VIEW STANDING AT WALKWAY FACING UNIT does not show the motorized damper or flow station. 01/M991 shows the return air flow station, but no damper. M218, M118, M518, do not show motorized damper or flow station. Please confirm requirement for motorized damper or flow station. If so, clarify M991 sequence to describe operation of return air damper at the air handler and the return air damper upstream of the return fan.	<a href="#">M991 and M700 have been coordinated. Please find the attached revised drawings in Addendum #1. The floor plans do not show these items because the details and control diagrams show them.</a>

3	23 00 00 1.16 F. 23 73 23 2.04 D.		Basic Mechanical Requirements requires guarded rotating equipment. Air Handling Unit specification allows safety cages or fan shut down switches. Please confirm that fan shut down switches are acceptable in lieu of guards or cages.	Specification section 23 00 00 states “enclosed or properly guarded”, Door switches are considered proper guarding for safety as noted in section 23 73 23. No change to documents.
4.	23 73 23 2.03 D. 1.		Please confirm Alternate D2 price is required.	Alternate D2 was removed. Please see revised specification section in Addendum #1.
5.	23 34 16 2.3 A.		Please add Johnson Controls (JCI) as an equal fan supplier. JCI brand names Barry Blower fans which is a JCI subsidiary.	Specifications have already been set and cannot be updated at this time.
6.	23 41 00 2.01		Please add Koch as an equal filter supplier.	Specifications have already been set and cannot be updated at this time.
7.	23 73 23 2.10 C.	M991	Specification says UV lights are required for pretreated outside air path on the office units. M991 shows UV lights only in the cold deck. Please clarify.	The control diagram and schedules were modified to match the specification. Addendum #1.
8.		M800	AHU - O1 to O8 are specified with copper tube/copper fins for all coils except the pretreated outside air path preheat coil. Please confirm the specified fin material is correct.	All steam coils are CU/AL. All cooling coils are CU/CU. Addendum #1 has modified the schedule to match.
9.			Please confirm that the temporary air handling units (AHU’s) can support the replacement of the two (2) existing AHU’s (Laboratory or Office) simultaneously for the duration of construction.	The AHUs that can be changed together are outlined in the documents. They have been measured recently. Some can have two units replaced at once and others can only be replaced one at a time. Please reference the document notes for that information.
10.		M901	During the walkthrough it was noticed that the flex duct tie downs illustrated on M901 note #8 are not currently being used; please confirm that this will be a requirement per the drawings and that all locations where the tie downs are shown are mandatory.	Those tie-downs are mandatory to keep the flex on the roof during wind storms. The Structural Engineer has designed those. If they are not currently being used, it will be written up in the next field report.

11.			Is it possible for this project to re-configure and re-use the existing temporary roof plenums currently being used on the penthouse roof for future locations?	Assume the current plenum on the roof cannot be reused. If the contractor would like to reuse the same plenum for certain phases on this project, it will be acceptable, but not a plenum from a previous project. Also please note, the contractor will be responsible for providing a plenum that is low-leakage and has taps in the proper places to fit the duct below.
12.			Is it possible to utilize the roof as a temporary storage site for the delivery of AHU's during construction and please confirm that plywood roof protection is all that is required in the locations of travel and storage on the roof.	Site storage of material is not permitted. Outdoor storage of material is also not permitted. If contractor elects to use the roof for any laydown or staging or material, the contractor is responsible for protecting the roof properly. The roof will be inspected and any repairs required will be the responsibility of the contractor.
13.			Please confirm the two freight elevators can be reserved during the weekend for dedicated service to transport materials and equipment for the project.	One service elevator can be reserved after normal business hours and on weekends for deliveries. However, the other elevator must be operational at the time. Both elevators can be used, but will not be placed into an independent mode at anytime.
14.		M901 M902	Per plans M901 and M902, each phase has new plenums being provided by the contractor, can one set of plenums be modified and re-used per phase in order to save the institution funds?	Assume the current plenum on the roof cannot be reused. If the contractor would like to reuse the same plenum for certain phases on this project, it will be acceptable, but not a plenum from a previous project. Also please note, the contractor will be responsible for providing a plenum that is low-leakage and has taps in the proper places to fit the duct below.
15.		M901	Per M901 Typical Hold Down Structure layout, is this tie down structure attached to the roof and if so can a detail be provided that illustrates how this is accomplished?	Please refer to the Structural drawings for the "Typical Anchor Connection to Roof Structure" detail on S200 on the attached Addendum.

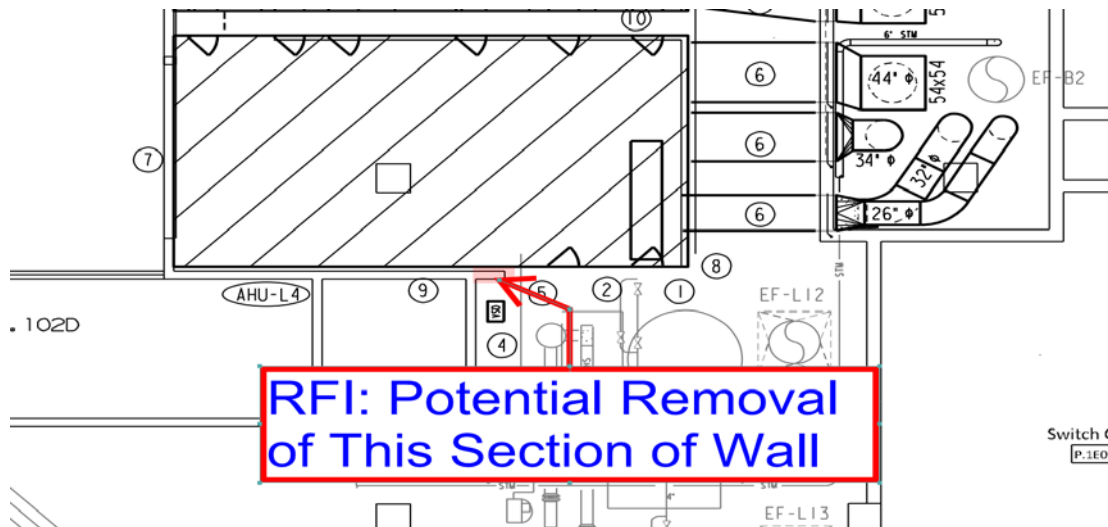
16.		<p>The RFP requests for us to provide a project schedule in Microsoft Projects software as part of our bid deliverables; is it acceptable for us to provide this schedule in Primavera P6 which is our standard schedule building software ?</p>	<p>As long as it's a critical path method schedule then it shouldn't be an issue.</p>
17.		<p>Heater Sequencing Control System – Detail 04 on drawing P101 details the components of the heater sequencing control system and the sequence of operation is detailed on drawing P301; however, there are no specifications on the heater sequencing control system.. Please confirm the system is to include the following scope:</p> <ul style="list-style-type: none"> <li>a. Heater Sequencing Control Panel configured for 480/3/60 VAC and BACnet communication capability and fused Control Transformer to step down 480/3/60 VAC to 120VAC and sized to provide 120 VAC power to the following system components: <ul style="list-style-type: none"> <li>i. Sequencing Control Panel &amp; Sequencing control components</li> <li>ii. SWH-1 &amp; SWH-2</li> <li>iii. HWCP-1 &amp; HWCP-2</li> </ul> </li> <li>b. 3” Motor Operated Butterfly Sequencing control valve for each water heater</li> <li>c. Header Temperature sensor</li> <li>d. Field wiring between the control panel and the system components</li> </ul>	<p>Answers to:</p> <ul style="list-style-type: none"> <li>a. Power source shall be 480V/3Ph/60Hz.</li> <li>b. Confirmed</li> <li>c. Confirmed</li> <li>d. Confirmed. Provide factory authorized personnel for field wiring.</li> </ul>
18.		<p>Hot Water Circulating Pumps – Two Questions:</p> <ul style="list-style-type: none"> <li>a. There is no mention in the contract documentation of automatic Alternation/Sequencing of the hot water circulating pumps; however that was a requirement of the North Side installation. Please confirm.</li> <li>b. There is also no mention in the contract documents of the hot water circulating pumps being provided with BACnet communication capability; however, the circulating pumps installed in the North Side installation were required to have BACnet capability. Please confirm.</li> </ul>	<p>Answers to:</p> <ul style="list-style-type: none"> <li>a. Match existing sequencing</li> <li>b. Match existing communication protocol on north side.</li> </ul>

19.			Please provide sizes for new compressed air pipe called for in Alternate #2	North side, the manifold piping is 1/2" and the building is 5/8". On the south side, both the building and the manifold are 5/8". This is based on visual inspection, it is the contractor's responsibility to verify prior to purchasing the pipe.
20.		P103	Sheet P103 for Alternate #2 has a note that the contractor is to test and confirm if replacing the "Wellxtrol" expansion tank is required. Please confirm that the contractor only owes testing on this tank and does not need to include a new tank at bid time.	Contractor shall test the tank as specified. Please provide an alternate cost to replace this tank in case it is required. Please call it Alternate 2.A.
21.			Please verify if contractors will be allowed to power wash the existing housekeeping pads in lieu of coating them with epoxy?	The documents do not call for epoxy on equipment pads. Contractor shall clean and prep pad for new plumbing equipment. The AHU pads will be replaced as detailed in the drawing set.
22.			Please verify we will be allowed to reuse existing concrete pads for equipment that is to be replaced.	Existing pads may be reused for plumbing work. All AHU pads are to be removed and replaced.
23.			Please provide product information on the LEAD/LAG sequencing control panel called for in Alternate #2.	JCI shall provide through the BAS.
24.			"Plumbing Piping and Equipment Replacement" specifications have a note that states, "all equipment and material is to be new, unused and manufactured in the United States." Please confirm that this project does not require contractors to only use manufactured in the United States equipment and materials.	The spec is correct, items shall be manufactured in the US.
25.			Is there a project-specific spec section for Panelboards for the MSB AHU portion? There are new panels shown, but this section is missing from the spec book. Please specify.	Please see Addendum #1.

26.			Detail 4/S200 indicates a 4x4x1/4" HSS pipe to be installed with a 5x5x1/4 plate for the temporary anchor connections at the roof. Currently, the installed temporary anchors are 4/4/3/8 angle with 6x6x3/8 plates. Please advise.	Please see Addendum #1.
27.			Please advise if epoxy coating will be required at the new AH mechanical pads.	Owner will direct contractor if this is required prior to demolition of the AHU.
28.			At all the chases there is existing electrical conduit, sprinkler heads and plumbing in conflict with the new ductwork. Please confirm relocation will be required.	Please refer to note N on the general notes page M0.00. The ducts from the new units to the chase should be in the same location & therefore, should not have to be relocated. If adjustments must be made, it is the responsibility of the contractor.
29.			At each laboratory unit there is one (1) existing floor drain within the unit concrete pad. Please confirm demolition of the floor drain will be required.	This is not a floor drain, but a condensate drain. Yes, the drain must be capped. Please refer to the additional note on the drawings.
30.			All chases are marked/considered "Confined Spaces", please confirm all project individuals that enter the chase are required to be confined space trained and keep documents on record.	Yes
31.			At L1, L2, L3 and L4 note 7 indicates a door is to be cut into the louver to allow access to the filters. Please provide access door detail.	Access doors will not be required.
32.		M508 M608	Per note 4 M508/M608 a pre-tab may be performed to determine if units can be connected to by Bypass unit at the same time. Please advise if the Owner is to perform the pre-tab.	Owner will provide pre TAB prior to demo of these units.

33.		M108 M208 M308 M408 M508 M608	Per Note 3 on Drawings M108, M208, M308, M408, M508, M608 ductwork within the chase is to be removed. Please confirm all 90 duct elbows are to be removed and replaced. Isometric Drawing on M903-M904 does not reflect what's existing.	The drawings of the demo are in the 2D. Yes, the elbows need to be removed. The isometrics are intended to show how the plenums can attach to the existing chases and connect before they reach the floor of the penthouse with reasonable SMACNA transitions. To achieve this, much of the duct located in the chase will need to be removed, then rebuilt when the new AHUs are to be reconnected. Do not assume the existing ductwork in the chase can be salvaged.
34.		M108	Note 7 on Drawing M108. Please provide details of the Concrete pad Build back for the Office AHU. Currently, all Office AHU's contain multiple mechanical pads at different heights. Please advise if new mechanical pads are to be built similar to existing. If so, please provide mechanical concrete pad detail.	The concrete pad detail is the same as the lab units per structure. The existing pads serving the Office AHU and OA pretreat sections is to be removed as note 7 on the demolition drawings and repour 3" larger on each side as noted in note 8 on the renovation drawings.
35.		M118	Per note 4/M118 existing VSD's are to be reused please advise if recertifying will be required for all VSD's that are to be reused	Yes, please include pricing to re-certify the VFDs that will be reused.
36.			Please confirm temporary plywood barriers are to be constructed to protect existing Acid lines or miscellaneous piping surrounding area construction will be taking place in.	Contractor shall be responsible for protecting existing systems, devices, finishes, and piping that are not included in the project. Contractor will repair any damage cause by itself or its subs without delay.

37.			Can we place a dumpster down at the loading dock during normal business hours? If not, is there a time frame when it will be acceptable to have one there?	After normal business hours during the week and on weekend days it is acceptable to place a dumpster at the MSB loading dock. Please refer to the Special Conditions for the hours disruptive activities are allowed.
38.			Within each laboratory units there are two (2) 2'x19'x6" existing concrete pads on top of the existing mechanical pads within each unit. Please confirm pad is to be demoed.	Concrete pads are to be removed for office and lab units.
39.			Is the unit manufacturer aware that there is a column indicated within units L-3 & L-4? Has the design team and manufacturer worked out how the unit is to be assembled with a column in the center, and a block wall adjacent.	Refer to the revised drawings, original building Structural drawings were found and those columns are not there. We had used an old background provided in the 90's. The drawings have been updated in Addendum #1.
40.	M318		Would it be possible to eliminate the shaded section of wall in the drawing below to facilitate the location of the cooling coil condensate exit from the unit, and the condensate collection/reclamation tank?	Do not remove.



**Additional clarifications:**



There are eighteen 20" ducts requiring flex as shown on the drawings of the roof for each phase. The note #1 on each roof demo drawing notes that 25% will have to be new means that there will likely be 75% of the flex that is available from previous phases. This also means that after each phase, approximately 25% of the flex will not be reusable due to weathering. This note is on each drawing because it is assumed more flex will be required to make up the total during each phase, not that 25% will be provided to the contractor and the same flex can be used after that point. Please be aware of this when ordering lengths. The amount was reduced from 50% to 25% in the Addendum because a new product was brought to our attention that will be more durable & the model has been replaced on the drawings. This price must be in the bid.

There is an existing compressed air tank in the AHU-O4 area. We have found it will have to be relocated due to the height and some piping will need to be relocated. This has been added to the drawings, but please make note of it.

**END OF ADDENDUM 1**