ESA Energy Systems Associates, Inc.
1111 N IH35, Suite 212
Round Rock, Texas 78664

Consulting Engineers

July 6, 2018

Project No. IFB 18-30
HVAC Chiller, Boiler Systems & Associated Equipment Replacement (LoanSTAR #2)
HCC Spring Branch Campus

Addendum #1
To all prospective proposers, please see the following Addendum Items:

ITEM #1: Pre-Proposal Questions and Clarifications

Q1. The bid documents show the Board Approval only as August, and does not show a completion date. Can we get a hard schedule such as 8/15 – 12/30?

Response: The completion date is December 31, 2018. The construction schedule will be coordinated during the pre-construction meeting with the awarded Contractor.

Q2. How is the indoor work to be scheduled around any classes? Will the building be shut down for any amount of time to run the piping in through the hallways, above ceilings? Will contractor be allowed to work in the building during the day, and or night?

Response: The construction schedule will be coordinated during the pre-construction meeting with the awarded Contractor. Work which could interrupt occupancy will need to occur in stages during nights, weekends, holidays.

Q3. How long can we have the RTU's shut down at any given time, as we convert to the CHW RTU's from the DX units?

Response: The construction schedule will be coordinated during the pre-construction meeting with the awarded Contractor.

Q4. Will there be any structural drawing issued for the new rooftop equipment?

Response: TBD. The Contractor should plan for structural cross-bracing work for RTUs receiving new roof curbs, as noted on the plans.

Q5. Who is the preferred HVAC Controls contractor for the facility? Can we get contact information for the sales representative for the controls contractor?

Response: Kratos Public Safety & Security Solutions will need to be sub-contracted to do the controls work and must be included in the Contractor's pricing proposal: Robert Oldroyd, 713-482-0806.

Q6. Is there a preferred Roofing Contractor for the facility? Can we get contact information for the sales representative for the roofing contractor?

Response: This information will be provided during the pre-construction meeting with the awarded contractor.

Q7. Will there be a specification issued for the pre-insulated underground piping?

Response: Underground chilled water piping shall be factory pre-insulated Schedule 40 steel. Underground joints and fittings shall be welded. Insulation shall be minimum 1.5" thick polyurethane foam with minimum 0.15" thick (150 mil) high-density polyethylene jacket. Use pre-insulated fittings or field-insulated fittings per the pipe system manufacturer's instructions. All joints must be properly insulated and sealed per the manufacturer's instructions to prevent water infiltration and corrosion; backfill in accordance with the manufacturer's instructions and Engineer's trench detail.

Q8. Can we get a detail drawing on the trench that shows the pipe depth, backfill, select fill and asphalt or concrete (at parking & roadways)??

Response: Please refer to the Pipe Trench Detail attached at the end of these questions.

Q9. What will the minimum depth of the trench for the underground piping need to be? Soil compaction requirements? Can we use the spoils to bed and refill the trench or will we need to use select fill. If select fill, what should be used?

Response: Please refer to the Pipe Trench Detail attached at the end of these questions. Trench and backfill to be designed for H-20 loading and in accordance with the pipe manufacturer's instructions. Provide select fill for trenches through paved areas. Refer to Section 3.8 "Excavation and Back-Filling" in Specification 23 05 00 "Mechanical General Provisions".

Q10. What considerations will need to be taken for the jobsite safety? Will the trench need to be covered? Barriers? Will a lift plan be required to hoist equipment removal and new into place?

Response: Trenches will need to be fenced off or covered as necessary to accommodate foot traffic and vehicle traffic across the campus. A lift plan will be required. All staging, lift plans, barrier plans, etc will need to be coordinated with HCC administration.

Q11. Will we need to pull construction permits from City of Houston for this project?

Response: Yes, the Contractor will be responsible for pulling permits.

Q12. Will other HVAC equipment manufacturers be considered? What about controls contractors?

Response: Alternate equipment manufacturers could be submitted to the Engineer one week before the bid date to be considered for approval; however, that deadline has passed. The Contractor may also submit voluntary alternates with their proposal for Owner and Engineer consideration. Any voluntary alternates must be clearly listed as such and must show any differences from the basis of design in terms of cost, installation time, equipment specification/design, and any other relevant information to assist in the decision to accept or reject the alternate.

The following manufacturers were submitted to ESA for review and have been accepted as equivalent alternates (in addition to those already listed in the specifications and drawings):

1. Heating Boilers – Camus Hydronics
2. Variable Frequency Drives – Toshiba
3. Air and Dirt Separators – Thrush
4. Hydronic Separators – Thrush
5. Pre-Insulated Underground CHW Piping – Insul-Pipe Systems

The new controls must be integrated into the existing Andover control system, managed by Kratos.

Q13. Will HCC take care of the Life Safety (supply duct smoke detectors wiring & testing) on the new HVAC equipment or will that responsibility fall to the Contractor? If that falls to the contractor, can we get the contact information for the sales representative for the fire system / life safety contractor?

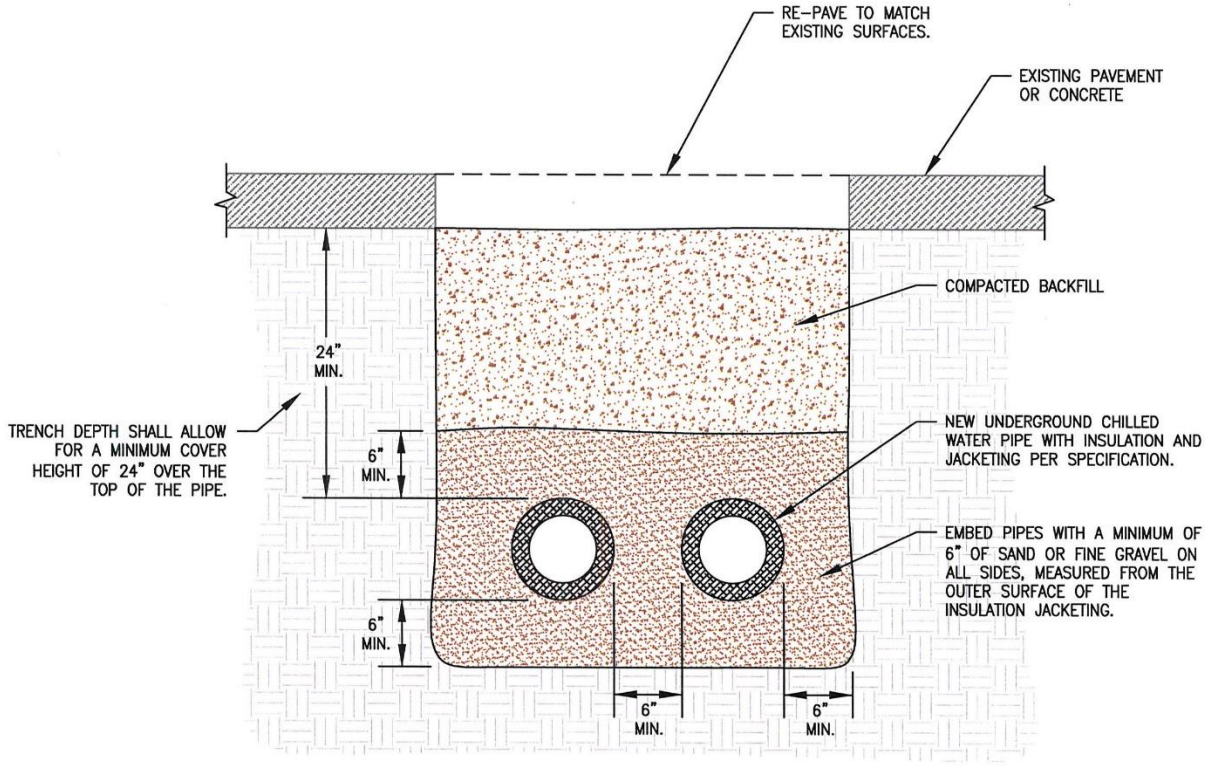
Response: The Contractor will be responsible for work involving the Life Safety systems. Please contact Koetter Fire Protection, 713-733-6888.

Q14. Because of the July 4th holidays can the bid date be extended?

Response: No.

End of Addendum #1. Prepared and sealed by Brian Clark.

Attachments: Underground CHW Pipe Trench Detail



NOTE: MAINTAIN 24" SEPARATION FROM OTHER UNDERGROUND UTILITIES.

01 UNDERGROUND CHW PIPE TRENCH DETAIL

Scale: NONE

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Addendum #2
To all prospective proposers, please see the following Addendum Items:

ITEM #1: Additional Pre-Proposal Questions and Clarifications

Q15. Are there any special working hours required to complete works inside the buildings?

Response:
The construction schedule will be coordinated during the pre-construction meeting with the awarded Contractor. Work which could interrupt occupancy will need to occur in stages during nights, weekends, holidays.

Q16. Please confirm that the BAS contractor for this site is Kratos Public Safety and Security Solutions.

Response:
Kratos Public Safety & Security Solutions will need to be sub-contracted to do the controls work and must be included in the Contractor's pricing proposal: Robert Oldroyd, 713-482-0806.

Q17. Please confirm if there is any temporary air conditioning equipment required for this project.

Response: It should be possible to sequence the installation of this project without requiring a temporary chiller to be used for cooling.

Q18. Please confirm if there is any chemical treatment required for the new hydronic piping system within our scope. If yes, please confirm current contractor or approved contractors.

Response: Per the design document Drawing SB 1.0, General Project Notes, Item #12: At project closeout, the Mechanical Contractor shall flush the chilled water and hot water piping systems and clean all strainers. The Contractor shall provide the first chemical water treatment service for the chilled water and hot water systems once the systems are cleaned, filled and operational.

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Q19. Can you provide a copy of the geotechnical report for the site area that will include the chilled water underground piping?

Response: To the best of our knowledge, no geotechnical report has been recently prepared for this site.

Q20. Can you provide a copy of the as-built drawings of the site utilities?

Response: To the best of our knowledge, no trustworthy as-built documentation exists for this location. The Contractor should make allowances to have the City of Houston survey and mark utilities prior to the start of excavation.

Q21. Can you provide a copy of the as-built drawings of the site utilities?

Response: Refer to the response for Question #21.

Q22. Can you provide a detail for the excavation for the underground chilled water piping showing concrete and asphalt specifications, required thickness, etc.?

Response: At this time, there is no information available as to the depth of the existing asphalt or concrete surfaces.

Q23. Please confirm if there are any underground valves required for the underground chilled water pipe. If yes, please provide specification and detail for the appropriate installation of such devices.

Response: There are no underground valves in the installation of the new piping.

Q24. Would you consider moving the bid date 3-4 days ahead? The current week is a little irregular due to the Fourth of July festivities and there are many people out on vacation.

Response: There are no plans for extending the bid receipt date at this time.

End of Addendum #2. Prepared and sealed by Brian Clark.

Attachments: None