

## EchoWater Facility Laboratory HVAC System Replacement RFP 9160 Questions

1. A significant difference in design effort exists for replacing the system in kind vs a new design using a heat pump. How should the scope of work be prepared?

Assume a heat pump system.

2. The air handlers included with the RFP provide supply air (100% OSA) to the facility, but there is no mention of the exhaust fans or space pressurization. Will room pressurization need to be studied as part of the SOW? This would include study of lab exhaust, general exhaust, and supply air systems for each space. A pre-construction air-balance test would be required for this effort (SOBE or 3<sup>rd</sup> party).

Go ahead and propose it as part of the scope of work. It was stated during the site visit a survey of existing ventilation conditions is standard. The following 15 exhaust fans exist:

FN15110, 300 cfm	FN15111, 250 cfm	FN15112, 200 cfm
FN15113, 200 cfm	FN15114, 200 cfm	FN15115, 2340 cfm
FN15116, 5860 cfm		

The following fans are in groups of two and have VFDs (duty and stand-by, total of eight fans below):

FN15117, 2500 cfm	FN15118, 4250 cfm	FN15119, 9750 cfm
FN15120, 5130 cfm		

3. What type of laboratory is this facility (e.g. Type I, II, III, or IV)? This influences ACH requirements for each space. If it differs by space, please clarify specifically the lab types for each room that are affected by ACU-15103 or ACU-15104.

The question does not identify a specific standard or regulation.

- a. There are four biosafety levels (BSL-1, BSL-2, BSL-3 and BSL-4). BSL-1 is the lowest level (low risk) and we believe this is an appropriate classification for the lab.
- b. ASHRAE has a standard to classify lab ventilation design levels from LVDL-0 thru LVDL-4. We believe we fall somewhere between Level 1 and Level 2 (Small to Moderate). Note there are hazardous chemicals, but they are handled in fume hoods.

Ultimately, the ventilation design needs to be confirmed by the designer.

4. Will review of lab exhaust fans and connected lab equipment need to be studied? This would ensure that each piece of lab equipment receives the required airflow and velocity requirements.

For the purposes of the proposal, exclude looking at lab equipment. This can be added after District staff learn more about the system and identify equipment specifics.

Maintain a broader scope of work specific to cooling needs of the building and building ventilation. Avoid drilling down to lab testing equipment for the proposal preparation.

5. Are room pressurization controllers desired for the specific lab spaces? This would include a room pressure sensor and controller, with a display indicating simultaneous pressure reading for each space.

Only one room has pressurization, and the corresponding fan is separate from the cooling and heating system. Maintain scope of the project specific to cooling and ventilation needs. No automation of pressurization controllers is desired at this stage.

6. Will existing fume hoods, vapor hoods, biosafety cabinets, and snorkels be fully defined with airflow and velocity requirements? Please provide equipment specs.

See response to question 4.

7. Does the District have a preferred manufacturer for the ACU units? McQuay was acquired by Daikin Applied (FYI).

The District is subject to the Public Contract code and equipment competition is a requirement.

8. What are the expected operational requirements for the facility during construction? Are temporary services required to ensure operations are uninterrupted during construction?

The laboratory has to continue to perform its function during construction so temporary cooling equipment will be necessary. Task 3 in the RFP asks the consultant to develop a plan to address this issue.

9. Is the engineering team expected to advise and consult on near-term (prior to construction) temporary provisions to meet cooling desires and/or requirements?

No.

10. If the new RTU's have additional DDC control/monitoring points, would the District prefer to integrate the new DDC points or integrate only existing DDC points from the new units? Please clarify.

The approach is to limit the scope of work and integrate only existing points.

11. There doesn't appear to be any BMS controls for the EF's? Would the facility be open to upgrading the DDC system to included controls for the EF, specifically for the Lab EFs?

The approach is to limit the scope of work and retain system controls as they are.

12. For the study of the existing roof, a roof test cut will be required. Will the District or SOBE be responsible for roof test cut payment?

The District can obtain sampling services from the County of Sacramento to test for lead and asbestos. If the sampling indicated in the question is for a separate reason, include as part of the scope.

13. Does the District desire a roofing study to propose various roofing options for the facility? Otherwise, will the District provide a desired roofing system to use as basis of design.

The District wishes to perform a condition assessment of the roof. Depending on the findings, spot repairs or in-kind replacement is assumed. Per Architectural Drawings and Roof specs, the lab roof is a Modified Butimen 4-Ply Built-Up Roofing Material.

14. Has there been any previous roof upgrades at this facility? If yes, please provide drawings, specs, as-builts.

Facility staff have been using a High Solids Roof Coating - Enduris 3525 - to coat damaged areas and extend the life. Repaired areas are shown in the pictures at the bottom of these questions. No drawings or specs for these repairs exist.

15. Will the review/upgrade of flashing and waterproofing at existing skylights, parapet walls and upper roofing/siding be included with the SOW?

The areas should be looked at as part of the roof condition assessment.

16. It was reported that there has been several roof leaks. Please provide the known locations of these leaks.

Refer to pictures at the bottom of this document. The bone-colored coating shows repaired areas.

17. Is there a desire to study and upgrade ADA elements at Building L?

No.

18. Does the District have ACAD files for the as-builts?

Yes. The drawings are the best information the District has and some field verification is to be anticipated.

19. Without an understanding of the added loads from new roofing and HVAC systems, it will be assumed that a code required seismic upgrade is not triggered. Please confirm this is an acceptable assumption for  **bidding proposing**. If not, a seismic upgrade can be included as an Add-Alt scope.

Include the seismic upgrade as part of alternate scope. The District calls this “Special Service”.

## Attachment 1 – Lab Roof Pictures

\*Bone colored patches show repaired areas with Enduris 3525



Pic – 1 Exhaust Fan Area



Pic – 2 West End Looking South



Pic – 3 Looking East to ACU15103

\*base around ACU15104 is coated in a simmilar manner



Pic – 4 Areas Between Curved Metal Roof



Pic – 5 East Side of Roof Looking Sout-West