

ADDENDUM NO. 1
FOR A DESIGN AND BUILD PROJECT
FOR THE REPLACEMENT OF THE CHILLERS
FOR HAWAI'I CONVENTION CENTER

RFP No. 2022-7

DATED: August 4, 2022

I. Amendments to RFP Deadlines

In addition to the pre-proposal conference, the Hawaii Convention Center is allowing proposers (1) one additional site visit. This second site visit allows the proposer the opportunity to invite its design consultants and subcontractors to review the scope of work onsite. The following guidelines will be followed:

1. Each proposer will select from one of the listed scheduled times found on page 2. Timeslots will be scheduled on a first come basis.
2. Each meeting time will be a maximum of 45 minutes long.
3. The proposer will be responsible for submitting an agenda to be approved by the HCC. HCC reserves the right to make modifications and adjustments to the agenda.
4. All questions may be subject to be added to the Questions and Answers response by the HCC.

Accordingly, all references to deadlines are to follow the new timeline in the revised Section 1.4 below. Section 1.4 of the RFP shall be replaced in the entirety with the following:

1.4 PROCUREMENT TIMETABLE and SIGNIFICANT DEADLINES

The Timetable and Significant Deadlines set out herein; represents HCC's best estimate of the schedule to be followed in the RFP process. If an activity of the timetable (i.e., Proposal Due Date for Receipt of Proposals) is delayed, the rest of the timetable deadlines may be shifted by the same number of days. HCC will advise Offerors by issuing an addendum to the RFP of any changes to the proposed timetable.

<u>Activity</u>	<u>Scheduled Date</u>
RFP Announcement	Monday, July 18, 2022
RFP Issue	Tuesday, July 19, 2022
Register by	Tuesday, July 26, 2022
Pre-Proposal Conference (mandatory)	Friday, July 29, 2022
Pre-Proposal Individual Conference (optional)	Wednesday, August 10, 2022
Closing Date for Receipt of Questions	Friday, August 12, 2022
HCC's Response to Offeror's Questions	Tuesday, August 16, 2022
Proposal Due Date	Monday, August 22, 2022
Best and Final Offers (optional)	Monday, August 29, 2022
Design-Builder Selection/Award of Contract (tentative)	August-Early September 2022

The following timeslots to choose from are as follows:

Wednesday, August 10, 2022

8:00am – 8:45am

9:00am – 9:45am

10:00am – 10:45am

11:00am – 11:45am

Break

12:00pm – 12:45pm

1:00pm – 1:45pm

2:00pm – 2:45pm

II. Amendments to the RFP Documents

To clarify this is a Design-Build project. The intention of the project is to not replace in-kind. The Hawaii Convention Center is seeking proposals to improve its existing chiller plant, which will include but is not limited to becoming more technologically advanced, energy efficient, and require less maintenance.

The following RFP documents are to be withdrawn and replaced with the following:

1. Appendix-G-Inatsuka-Engineering-Scope-Basis,-dated-July-5,-2022 UPDATED

In all other respects, the RFP shall remain unchanged.

HAWAII CONVENTION CENTER – CHILLER REPLACEMENT

July 5, 2022, *UPDATED*

OBJECTIVE

The Hawaii Convention Center seeks to replace the following equipment at their facility at 1801 Kalakaua Avenue, Honolulu, HI 96815.

- 2 each 725 ton York centrifugal chillers (R-123) with VFD compressor
 - Primary chilled water pump – 1,450 gpm @ 55' TDH
 - Condenser water pump – 2,175 gpm @ 60' TDH
- 2 each 795 ton York centrifugal chillers (R-123) with constant speed compressor
 - Primary chilled water pump – 1,590 gpm @ 55' TDH
 - Condenser water pump – 2,460 gpm @ 60' TDH
- 1 each 200 ton Trane centrifugal chiller (R-123) with VFD compressor
 - Primary chilled water pump – 400 gpm @ 55' TDH
 - Condenser water pump – 600 gpm @ 60' TDH
- 2 each Secondary chilled water pumps – 3,045 gpm @ 130' TDH

In addition to the equipment above, the following support equipment and systems shall be replaced to support the chillers and pumps.

- Refrigerant monitoring system.
- Upgrade the chiller plant ventilation system to match current ASHRAE 15-2019 safety standard. The current plant is naturally ventilated.
- Replace the motor control centers MCC-SF and MCC-SE.
- Include a new primary chilled water manifold to allow the operation of any primary chilled water pump with any chiller.
- Equipment shall be connected to the existing Automated Logic Building Automation System (BAS).
- Replace the existing piping insulation.

There are four (4) existing Reymosa cooling towers that were recently replaced. Selection and performance criteria are enclosed within the record drawings provided. The cooling towers are not part of the scope of this RFP; however, would be used as part of the energy simulation.

Life Cycle Cost Analysis

Perform a Life Cycle Cost Analysis (LCCA) with parameters as noted below.

- Life Cycle: 30 years
- Discount rate: 6%
- Inflation/Escalation rate: 3%
- Include applicable initial/collateral costs
- Include applicable replacement/costs
 - Periodic testing/maintenance
 - Eddy current testing
 - Bearings
- Include annual costs
 - Load profile by Island Controls (Jason Forester)
 - HECO utility bill (\$/kWh, \$/kW)
 - Maintenance costs

Equipment to be included in the life cycle cost analysis shall be limited to the replacement equipment only; however, the cooling towers shall be used in the energy simulation.

Energy simulation software to simulate the energy consumption shall be in compliance with ASHRAE 140 – 2020. The following documents shall be submitted with the LCCA results:

- Energy simulation inputs including load and usage profiles.
- Energy consumption outputs isolating chiller, pump and cooling tower in kWh and kW units.
- Certificate of compliance with ASHRAE 140 – 2020.

MECHANICAL BASIS OF DESIGN

CODES AND REFERENCES

IBC	International Building Code, International Conference of Building Officials, 2018 Edition, with local amendments
ASHRAE	ANSI/ASHRAE Standard 62.1-2019, Ventilation for Acceptable Indoor Air Quality
IECC	International Energy Conservation Code, 2018 Edition, with local amendments
UPC	Uniform Plumbing Code, 2012 Edition, International Association Plumbing and Mechanical Officials.
DOH	Hawaii State Department of Health, Chapter 39 Air Conditioning and Ventilation 1983, ASHRAE Standard 62.1
SMACNA	Sheet Metal & Air Conditioning Contractor's National Association, Standards
ADAAG	2010 Americans with Disabilities Act for Accessible Design, United States Department of Justice
NFPA	NFPA 13: Standard for the Installation of Sprinkler Systems, 2016 Edition NFPA 101: Life Safety Code

AIR CONDITIONING SYSTEMS

The following record drawings are provided for reference:

- M0.1 – Schedules and Notes
- M.2.0.2 – Intermediate Level VAC Plan
- M.2.0.4 – Meeting Room Level VAC Plan
- M.2.0.5 – Ballroom Level VAC Plan
- M.2.2.E - Intermediate Sector E VAC Plan
- M.2.4.E – Meeting Room Sector E VAC Plan
- M.2.5.E – Ballroom Level VAC Plan
- M10.1 – Piping Diagrams VAC

AIR CONDITIONING SYSTEMS CONTINUED

Design parameters shall be as follows:

- Chilled water supply temperature: 43°F
- Chilled water temperature rise: 12°F
- Condenser water setpoint temperature is 79°F
- Equipment selections will not require upgrade of electrical utility system.
- N+1 redundancy required for peak equipment.
- N+1 redundancy required for nighttime/unoccupied equipment.

Reported historical load ranges

- Instantaneous peak: 1,800 tons
- Sustained peak: 1,380 tons
- Typical occupied range: 950-1,200 tons
- Nighttime/Unoccupied range: 75-100 tons

Acoustics

- Chillers shall be provided with seismically restrained vibration isolators (2" min. static deflection) unless manufacturer recommends otherwise.
- Pumps shall be provided with inertia pads and seismically restrained vibration isolators (2" min. static deflection), twin sphere flexible connectors, wye strainer with blowdown valve, non-slam check valve.

Controls

New equipment shall be monitored and controlled by the Automated Logic Building Automation System (BAS). Coordinate new sequence of operations with Island Controls with an emphasis on simplicity.

Access

Work to remove walls in order to move the demolished and new equipment through the plant is described in other sections. Methodology and associated costs are the responsibility of the Design-Builder to propose.

PLUMBING

Plumbing work shall be limited to any incidental work (temporary or permanent) that may be required to replace the chillers, pumps and piping.

FIRE PROTECTION

Fire protection work shall be limited to any incidental work (temporary or permanent) that may be required to replace the chillers, pumps and piping.

ELECTRICAL BASIS OF DESIGN

CODES AND REFERENCES

IBC	International Building Code, International Conference of Building Officials, 2018 Edition, with local amendments
IEEE	IEEE 242, Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems, 2001 IEEE 399, Recommended Practice for Industrial and Commercial Power System Analysis, 1997
NFPA	NFPA 1, Fire Code, 2018 Edition, with local amendments NFPA 70, National Electrical Code, 2017 Edition with local amendments NFPA 70E, Standard for Electrical Safety in the Workplace, 2015 Edition NFPA 101, Life Safety Code, 2015 Edition
ANSI	ANSI C2, National Electrical Safety Code, 2017 Edition
IECC	International Energy Conservation Code, 2018 Edition, with local amendments
ADAAG	2010 Americans with Disabilities Act for Accessible Design, United States Department of Justice

ELECTRICAL SYSTEMS

The following design drawings are provided for reference:

- EP-2.2E – Intermediate Level, Sector E Floor Plan Power
- EP-2.4E – Meeting Room Level, Sector E Floor Plan Power
- E5.1 – One Line Diagram Central

Plant Design parameters shall be as follows:

- Chiller power: 480/277-volts, 3-phase, 4-wire.
- Pumps (primary chilled water, condenser water) power: 480/277-volts, 3-phase, 4-wire.
- Phase work to coincide with shutdown of mechanical work.
- Incidental related work to accommodate replacement and improvements.

ELECTRICAL SYSTEMS CONTINUED

- Perform overcurrent protective device coordination studies to determine overcurrent protective devices and to determine overcurrent protective device settings for selective tripping in accordance with IEEE 242 for calculating short-circuit currents and determining coordination time intervals and IEEE 399 for general study procedures. Field adjusts relays and protective device settings according to recommended settings provided by coordination study.

FIRE ALARM AND DETECTION

As necessary during alterations or renovations devices or any fire-warning system permitted to be made inoperative or inaccessible, a fire watch shall be required.