



**LIGO LABORATORY**  
California Institute of Technology  
1200 E. California Blvd.  
Pasadena, CA 91125

## **Statement of Work**

### **LIGO Hanford H1 Electronics Air Conditioning C1200346-v2**

#### **1.0 Scope (LIGO sub-system)**

This Statement of Work is for the supply and installation of Ductless Air Conditioning at the H1 Electronics area located at LIGO Hanford (LHO). Equipment and piping is specified in the drawings listed above. Also included in this work are air plenum modifications and the supply and installation of powered filters as shown in the drawings. LIGO will supply the Chiller rack and fabric sleeve which connect the chiller to the air plenum.

All equipment and piping shall be mounted on spring isolators or neoprene rubber hangers. Outdoor units shall be on mounts designed for 1" of deflection or 3 Hz of isolation. If possible indoor mounts shall also be designed for 3Hz isolation. If this is not feasible LIGO will consider alternates.

A proposed routing of the piping is shown on the drawings but the vendor may propose simpler or more efficient alternates.

The concrete equipment pad shall be placed by the vendor to accommodate the outdoor units as part of this contract. The pad is to be positioned 20 feet East of the existing equipment. Piping shall be placed similar to the existing piping.

#### **2.0 Document Access**

Many supplemental documents and specifications are incorporated into and made a part this Statement of Work. Click on the document links to access these documents from the LIGO Document Control Center (DCC) or go on line to the LIGO Public DCC at <https://dcc.ligo.org/> to access the DCC#.

#### **3.0 Commercial Terms and Applicable LIGO Specifications:**

**Note: The documents listed below are invoked for this Statement of Work and comprise additional requirements which are integral to this Statement of Work.**

- [LIGO-C080185-v1](#) LIGO Commercial Items or Services Contract General Provisions
- [LIGO-Q0900001-v5](#) Advanced LIGO Supplier Quality Requirements

#### **4.0 Safety Plan:**

LIGO requires all on-site work to be covered by a written safety plan consistent with LIGO safety requirements to ensure safe work practices are followed while performing construction, maintenance, or like activities at any of the LIGO facilities.

All bidders are required to submit either a copy of their existing safety plan/program or a written description/outline of their safety program with their proposal. The bidder must also submit their plan/program for managing their subcontractor's safety related activities. In the event that a prospective contractor/vendor lacks an acceptable existing safety plan and/or program, the

contractor/vendor shall develop and implement a system safety program in compliance with the requirements negotiated at contract/PO award.

## 5.0 Drawings and Requirements

LIGO DCC #	Description
<a href="#">D1200028-v1</a>	LHO H1 Electronics Area HVAC PLAN
<a href="#">D1200029-v1</a>	LHO H1 Electronics Area HVAC PLAN and Equipment Schedules

## 6.0 Sub-Contracted Work:

LIGO expects that at least 2/3 (by dollar value) of the contracted work be performed by the Supplier named on the Purchase Order. The Supplier shall be responsible for all sub-contracted work.

## 7.0 End Item Data Package:

Before acceptance of installation, the Supplier shall provide the following, as a minimum:

- Any as-built modifications (with approval of the LIGO Contracting Officer) as mark-ups to the drawings
- Owners manuals, operating manuals and installation manuals for all equipment.

## 8.0 Delivery Requirements:

LIGO requires this equipment be installed and operating by the following dates:

Laser chiller room and diode room (AC-7) - April 1, 2012.

Remaining system – June 1, 2012.

These items will be installed at:

LIGO Hanford Observatory (LHO)  
Attn: John Worden  
127124 North Route 10  
Richland, WA 99354