



Statement of Work:

LIGO Hanford Observatory Landscape Maintenance and Tumbleweed Removal LIGO-C1106833-v2

1.0 Scope

LIGO requires a contractor to perform a variety of services related to the upkeep and maintenance of the landscaping surrounding a number of buildings and equipment pads. The landscaping consists of irrigated lawn, irrigated plants and trees, approximately 5 acres of rock covered ground, numerous concrete equipment pads and 6 miles of paved roads (Y arm, X arm, and entry roads). The contractor shall supply all equipment, tools and chemicals required for the work. Equipment and tools may be stored on site.

2.0 Document Access

Certain supplemental documents and specifications are incorporated into and made part of this Statement of Work. Click on highlighted document links, or enter the provided document numbers in the LIGO Public Document Control Center (DCC) at <https://dcc.ligo.org/>, in order to obtain these documents.

Paper copies may be requested.

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-C1106854-v1](#) Aerial photos of LIGO Hanford Observatory
- [LIGO-C1106855-v1](#) Photos of possible tumbleweed conditions

4.0 Special Conditions

LIGO requires the contractor to perform "noisy" work on planned maintenance periods. Lawn mowing and other weekly service requiring the use of powered equipment shall be performed in this maintenance period (currently Tuesday 8 am to 12 noon). Hand work such as pruning and weeding can be performed at other times. Periodic weed control and tumbleweed removal shall be coordinated with LIGO in order to minimize disruption of LIGO operations. Travel down either the Y-arm or X-arm roads requires LIGO permission. No subcontracting is permitted.

Strong winds in the fall and spring can deposit many tons of tumbleweeds on the LIGO property, completely blocking road access to outbuildings. The contractor must be able to respond in a timely fashion to clear roads for fire department access and other work. For this purpose the contractor shall mobilize and begin tumbleweed removal within 3 calendar days of a LIGO request. The contractor shall work a minimum of 8 hours per day until single lane access to outbuildings is restored.

5.0 Services Requested:

Lawn:

The lawn area requires weekly mowing, trimming, and cleanup of lawn clippings from March 15 thru Oct 30. The lawn shall be fertilized every three months of the growing season and shall be kept in good condition and free of weeds. LIGO maintains a well and the associated water treatment system and water conservation is important. Significant changes in water usage must be coordinated with LIGO.

Irrigation system:

The contractor is responsible for maintenance of the irrigation system including startup in March and blowout in October. The contractor shall supply the air compressor and hoses. The contractor is responsible for maintenance of sprinklers and emitters. Replacement of sprinklers and the repair of underground piping and supply pump system is LIGO's responsibility unless damaged by the contractor.

Plants and trees:

There are roughly 300 individual plants and trees on the LIGO property. Each plant has an emitter supplying irrigation water. The contractor shall maintain and adjust these devices as needed to prevent flooding or blockage. All plants and trees are to be pruned and trimmed twice per year. Plants and trees shall be fertilized every 3 months of the growing season.

Building perimeters:

The contractor shall be on site at least once per week year round to keep the corner station area in good order. This may require pick up of tumbleweeds, hand pulling of weeds, and sweeping of sidewalks and equipment pads. Cracks and crevices in the concrete and paved areas shall be kept clear of weeds. Once per month the 4 outbuildings and equipment pads shall be cleaned and weeded in a similar fashion.

Landscaping rock:

The corner station buildings are the OSB, LSB, Staging Building, Warehouse, and Water building. These buildings are surrounded by landscaping rock for fire safety reasons. These buildings and surrounding area are shown in the attached photo. This landscaping shall be maintained by weeding and spraying of weed control chemical. Anti-germination chemical shall be applied to this area at least annually. Weekly attention year round is required to control weeds and remove blown in tumbleweeds.

Access Roads:

6 miles of paved road connect outbuildings to the corner station buildings and connect the site to Rt 10. The perimeter of these roads shall be kept in good order and free of weeds by spraying and placing anti-germination chemical twice per year.

A one foot strip on the outside of the road and the entire space between the road and concrete tube shall be controlled in the above fashion. Cracks and crevices in the road and concrete surrounding doorways and loading bays shall be kept clear of weeds.

Tumbleweeds:

Spring and fall wind storms may bring in large quantities of tumbleweeds – see the attached pictures. The contractor shall quote hourly rates for the baling and removal of this material. At times this work is

high priority as road access to out buildings can be blocked. The contractor must be able to respond within 3 days with the tractor, baler, truck and trailer, and a 3 man crew. As tumbleweeds are baled the contractor shall remove the bales and place in the surrounding areas as directed. Some years may require as many as 500 hours of effort or as little as 100 hours for tumbleweeds. The contractor is responsible for the supply, maintenance and repair of all equipment.

6.0 Proposal Information

Pricing:

Contractors shall provide a fixed monthly rate which includes all services listed above except for the tumbleweed service. The contractor shall provide hourly rates for tumbleweed removal, irrigation repair, and other miscellaneous work such as snow removal. A site visit must be performed before responding to this request for proposals. Contractors are responsible for confirming conditions and area measurements.

Experience:

Contractors shall list prior experience, references, and special capabilities.

7.0 Work Location

The work site is located at:

LIGO Hanford Observatory (LHO)

127124 North Route 10
Richland, WA 99354

Mail:

LIGO Hanford Observatory
PO Box 159
Richland, WA 99352
Attn: John Worden, Observatory Manager
Bubba Gateley, Facilities Manager