



<b>ASC Competition</b> <b>Commercial, Region VII</b>		<b>REQUEST FOR INFORMATION</b> FOR		<b>R.F.I. NO:</b>
  <b>HENSEL PHELPS</b> Plan. Build. Manage.		<b>UC Irvine Mesa Court Expansion</b>		<b>ISSUING SCHOOL:</b>
<b>SHEETS:</b>		<b>DETAILS / SECTIONS:</b>	<b>SPECIFICATIONS REF:</b>	
<b>TITLE OR SECTION OF WORK:</b> Laser Scan Proposal				
<b>PERTINENT PROBLEM SECTION:</b> Section 1		<b>ISSUED BY:</b> Project Engineer	<b>DATE:</b> 02/09/17	
<b>WRITTEN DESCRIPTION OF PROBLEM - ATTACH SKETCHES AS REQUIRED:</b> <p>Reference Henel Phelps Laser Scan Proposal</p> <p>Attached is a quote for Hensel Phelps Reality Capture Team to provide a complete laser scan of the existing building. This laser scan will provide an accurate as-built 3D model of the facility including structural members, current location of utilities, and other items not inherently visible. Hensel Phelps sees this as a benefit to the project and is requesting the owners approval to proceed.</p> <p>Please advise if this is acceptable.</p>				
<b>A/E RESPONSE:</b> <p>The owner takes no exceptions to the proposed field investigation survey.</p>				
<b>BY:</b>		<b>DATE:</b>		
<b>DISTRIBUTION:</b>				



# HENSEL PHELPS

Plan. Build. Manage.

4129 E Van Buren  
Suite 100  
Phoenix, Arizona 85008  
480.383.8480

## Cost Proposal for Emeryville MOB – Building Laser Scanning

February 9, 2017

### Scope Description

Services to include the laser scanning and creation of an as-built 3D model of the existing building showing current locations of in-wall and above ceiling utilities, structural members, and other items not identified in the pre-job walk.

### Cost Breakdown

- **Laser Scanning Cost**

The crew consists of three (3) persons. Two of the personnel will operate the laser scanners and the third will register the scan content.

Project Duration: 10 Days

Daily Scanning Rate: \$2,000

**Total Laser Scanning Cost: \$20,000**

- **Equipment Cost:**

Duration: 10 Days

2 Laser scanners: \$540 / day

Registration Spheres \$25 / day

Hardware and Software \$20 / day

1 Lift \$35 / day

**Total Equipment Cost: \$6,200**

- **Transportation, Lodging and Meal Costs**

Duration: 15 Days

Mobilization (\$0.55/mile x 748 miles round trip) \$823

Lodging (for 14 nights) \$100 / night / person

Daily Meal Allowance \$60 / day / person

**Total Travel Costs \$7,543**



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- **Supervisor Cost:**

Supervisor to handle coordination of staff, project set up and logistics, as well as oversee QA/QC and Laser scanning process.

Duration: 10 Days

Daily Supervisor Rate: \$100

**Total Supervisor Cost: \$1,000**

- **Overall Project Cost**

Laser Scanning Cost \$20,000

Equipment Cost \$6,200

Travel Expenses \$7,543

Supervisor Cost \$1,000

Corporate G&A (4.18%) \$1,452

Payment & Performance Bond (0.62%) \$215

General Liability Insurance (0.53%) \$184

**Overall Project Cost: \$36,595**

## File Format of Project Deliverables:

- The registered laser scan data shall be delivered as .fls files registered in FARO SCENE Version 5.4. Accuracy of the registration is dependent on the quality of the established survey control points. The topographic mesh and contours shall be delivered as a Revit 2014.Rvt file.

## Changes to scope or schedule:

Any changes to the schedule in terms of added scope or duration shall be billed at the standard daily rate for laser scanning services (including labor, equipment, travel, and supervisor costs).

## General Conditions:

1. Laser scanning technology is based on line of sight. As such, only objects observable through a direct line of site of the laser scanner will be captured. Items blocked by obstructions will not be included in our laser scan data. We will do our best to capture the greatest amount of existing conditions data possible, but do not guarantee that 100 percent of the data can be captured.
2. For accuracy purposes, we require a vibration free environment in order to capture necessary data.
3. Laser scan data will be registered to site coordinates as provided by the site surveyor. The quality and accuracy of the scan registration will be dependent on the level of quality of the surveyed coordinates. Any deviations within the survey control coordinates will likely result in deviations between what is provided from Hensel Phelps and any existing 3D models, scan content, or other content that is based on real world coordinates not provided by HP.

***World-Class Innovators. Landmark Buildings. Inspiring Performance.***