## State of Hawaii DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION P.O. Box 373 Honolulu, Hawaii 96809

#### ADDENDUM NO. 1

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### JOB NO. F80C661C KALALAU TRAIL ROCKFALL MITIGATION NAPALI COAST STATE WILDERNESS PARK, KAUAI, HAWAII

#### April 28, 2016

This addendum, as issued shall become part of the Contract Documents, for the subject project.

PRE-BID CONFERENCE

A pre-bid conference and site visit was held on April 21, 2016 at 11 a.m. at the project site at the Kalalau Trail Head. See attached Minutes of Meeting.

ENGINEERING DIVISION

CARTY CHANG, P.E. Chief Engineer

## **Minutes of Meeting:**

Date:	April 21, 2016 at 11 a.m.
Place:	Napali Coast State Wilderness Park, Haena, Kauai
Re:	Pre-bid Conference Meeting Minutes for Job No. F80C661C
	Kalalau Trail Rockfall Mitigation
Attendees:	See attached sign-in sheet.

The meeting was opened by Brian Chang, project engineer, who introduced the project. Ardalan Nikou of AECOM provided the general project description and scope of work. Alan Carpenter of DLNR Division of State Parks also provided general history and background of the project area.

### **Project Overview:**

The work shall consist of improvements to two (2) rock outcrop sites located along the Kalalau Trail. Improvements include construction of shotcrete pedestals with steel reinforcing, shotcrete sculpting, and installation of grouted rock bolt anchors. Both sites are located within DLNR property and require a short steep hike to access the project areas.

Site 1 includes two boulders that will require a shotcrete pedestal and three (3) rock bolt anchors. One boulder is a large protruding rock with a large overhang and opened back fracture. The other boulder rests behind it and likely provides support to the other boulder. Site 2 includes one large standing rock with opened back fracture and some overhanging features. This boulder will only require a shotcrete pedestal.

The following questions/comments were raised at the pre-bid conference and the responses are hereby provided:

- What are the requirements for pedestrian traffic control during the work day and flexibility of the 10 minute maximum trail closure requirement?
  - Contractor may choose to close the trail for up to three (3) consecutive days to facilitate the contract work. Any trail closures shall be coordinated in advance and approved by the State Parks. During park closures, trail shall remain accessible for users to safely exit the trail from Kalalau Beach Park.
- There are many historic features near the project areas including the trail, a historic cabin located below the trail, and Native Hawaiian cultural sites located below the trail. How will the historic areas be protected?
  - Contractor shall submit a work method statement detailing proposed methods of protection of the trail, surrounding historical features, features below the trail, and detailed contingencies in the event of damage to existing boulders or historical features.
  - The work method statement shall be submitted to the Engineer for approval prior to the start of the work.

- The trail is fairly narrow and the amount of space for work and equipment staging is very limited. Where will the Contractor stage their equipment and how will large equipment be mobilized to the site?
  - Contractor shall coordinate staging locations with the Engineer.
  - Large equipment such as a compressor can be flown in to the project site via helicopter. The Contractor shall coordinate mobilization with the Engineer.
- Where will erosion control BMP's be installed?
  - Compost filter socks shall be installed around work areas and staging areas per plan and to intercept runoff water going through the project site.
- Temporary cable lashing shall be installed prior to start of drilling work for rock bolts.
  - Locations of temporary cable lashing anchors shall be coordinated and approved by the Engineer.
- Shotcrete sculpting shall match existing geology, shape, and color of surrounding existing features.
  - Contractor shall submit a sculpted test panel for approval by the Engineer prior to the start of the work.
- Revise detail for the shotcrete pedestal at Site 2.
  - A 1'x1' shotcrete lip shall be installed along the bottom of the entire width of the boulder. Additional steel reinforcing mesh shall also be required, see attached detail Sketch No. 1.
- Rock bolt anchors at Site 1 shall have minimum embedment of 15' per plan.
  - Subsurface conditions are unknown and therefore additional embedment may be required. Final depth shall be approved by the Engineer prior to grouting.
  - Contractor shall exercise care while drilling. Contractor shall submit a detailed plan for rock bolt installation.

The meeting adjourned at 12:30 p.m.

Submitted by:

Brian Chang, P.E.

Engineering Division

Department of Land and Natural Resources



NAPALI COAST STATE WILDERNESS PARK, KAUAI, HAWAII JOB NO. F80C661C

SKETCH NO. 1 of 1

ADDENDUM 1		REVISED DETAIL
REVISION NO.	SYM.	DESCRIPTION

REFERENCE SHEET NO.: C-3

# SIGN-IN SHEET

# **PRE-BID CONFERENCE/SITE VISIT**

Job Number:F80C661CDate: April 21, 2016Job Title:Kalalau Trail Rockfall Mitigation, Napali Coast State Wilderness Park,Kauai

Namo	Company	Email Address	Phone
			507.0250
Brian KF Chang	DLNR/Eng Div	brianktchang@hawaii.gov	587-0250
Ardalan Nikou 🥢	AECOM	Ardalan.Nikou@aecom.com	529-7223
Noch Wong	AECOM	Noch. Wong Calcom. com	529.7282
Ryan OKahashi	AECOM	ryan-okahashi recon	
Reper Griding	promethers	peter @ provettens coust	1- 954-2615
Jue	Promethius	Bring @ promotlewconstruction	com \$640460
Scott Sheldon	Earthwork Pointic	scott @ earthworks parfic un	246-5508
Katie Maroney	DLAR	Kathleen. A. Marone for Hama	516-287-189.
Dan Rich	DINR	serry.e.viell e hawaii.gov	346-3923
ALAN CARPENTER	DENR	alan. b. compenterchansel.	587-0286
Brian Mahnhun	Promethens	Brisnepromethus Constructione	an
Holly McEldowney	DLNR-Parks	Holly . McEklowney @pawa	1.900 587-0507
VICTORIA WICHMAN	DLNR - PARKS	VICTORI. L. WICHMAN Char	ai.gr. 353-19
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	Name Brian KF Chang Ardalan Nikou R Noah Wong Ryan OKahashi Refer Gisdin Scott Sheldon Katie Maroney Any Rich ALAN CARPENTER Brian Maham Holly Mc Elelowney Victoria Wichman	Name Company Brian KF Chang DLNR/Eng Div Ardalan Nikou & AECOM Noah Wong AECOM Ryan OKahashi AECOM Ryan OKahashi AECOM Refer Gridin Prometices Scott Sheldon Earthwoodu pointic Kate Maroney DLNR Mar Rich DLNR ALAN CHAPENTER DENR Brian Maham Promethens Huly M. Eldowney DLNR - Packs	Name Company Email Address   Brian KF Chang DLNR/Eng Div briankfchang@hawaii.gov   Ardalan Nikou A AECOM Ardalan.Nikou@aecom.com   Noah Wong AECOM Nowh. Wong@aecom.com   Noah Wong AECOM Nowh. Wong@aecom.com   Ryan OKahashi AEcoM Nowh. Wong@aecom.com   Ryan OKahashi AEcoM ryan-okahashi eecom.com   Ryan Okahashi AEcoM ryan-okahashi eom   Rohan Promethus Decomthus Decomthus   Scont Drohan Promethus Scont Peathworks perific in most eom   Mate March DLNR Jerry.e.rich e hawaii.go   Math DLNR DLNR Geonopromethus Constructioned

Meeting location - Trail Head at Napali Coast State Wilderness Park