

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

ADDENDUM NO. 2

TO

**JOB NO. J45CO49B**  
DIAMOND HEAD STATE MONUMENT  
ROCKFALL MITIGATION – PHASE 2 (FY2015)  
HONOLULU, OAHU, HAWAII

May 26, 2016

This addendum, as issued shall become part of the Contract Documents, for the subject project. The Plans and Specifications shall be amended as follows:

**PRE-BID CONFERENCE**

A pre-bid conference and site visit was held on May 12, 2016 at 9 a.m. at Diamond Head State Monument Interpretive Kiosk at Diamond Head Road, Honolulu. See attached Minutes of Meeting.

**PLANS**

1. Sheet C-3;
  - a. Site 9; **REVISE** Limits of Shotcrete callout to read as follows:  
“LIMITS OF SHOTCRETE  
APPROX. VOLUME = 70.0’ x 12.0’ x 0.50’  
36 ANCHORS, 5’ EMBEDMENT  
SEE DETAIL 2, SHT C-7”
  - b. Mitigation Schedule; **DELETE** the shotcrete description for Site 9 and replace with the following:  
“APPROX. VOLUME = 70.0’ x 12.0’ x 0.50’  
36 ANCHORS, 5’ EMBEDMENT, SEE DET 2/C-7, SIM”
2. Sheet C-4;
  - a. Site 15; **REVISE** Limits of Shotcrete callout to read as follows:  
“LIMITS OF SHOTCRETE  
APPROX. VOLUME = 37.0’ x 10.0’ x 0.67’  
13 ANCHORS, 5’ EMBEDMENT  
SEE DETAIL 3, SHT C-7”

- b. Site 15; **ADD** the attached Figure 1 to clarify the up-trail limit of shotcrete.
  - c. Mitigation Schedule; **DELETE** the shotcrete description for Site 15 and replace with the following:  
 “APPROX. VOLUME = 37.0’ x 10.0’ x 0.67’  
 13 ANCHORS, 5’ EMBEDMENT, SEE DET 3/C-7, SIM”
3. Sheet C-5;
- a. Site 16; **REVISE** Limits of Shotcrete callout to read as follows:  
 “LIMITS OF SHOTCRETE  
 APPROX. VOLUME = 83.0’ x 16.0’ (AVG) x 0.50’  
 42 ANCHORS, 5’ EMBEDMENT  
 SEE DETAIL 2, SHT C-7”
  - b. Site 17; **REVISE** the Limits of Scaling and Shotcrete callout to read as follows:  
 “LIMITS OF SCALING AND SHOTCRETE  
 APPROX. VOLUME = 30.0’ x 8.0’ x 1.0’  
 11 ANCHORS, 5’ EMBEDMENT  
 SEE DETAIL 3, SHT C-7”.
  - c. Site 17; **REVISE** the Limits of Scaling and Shotcrete boundary in the photograph as shown in the attached Figure 2.
  - d. Mitigation Schedule; **DELETE** the shotcrete description for Site 16 and replace with the following:  
 “APPROX. VOLUME = 83.0’ x 16.0’ x 0.50’  
 42 ANCHORS, 5’ EMBEDMENT, SEE DET 2/C-7, SIM”
  - e. Mitigation Schedule; **DELETE** the shotcrete description for Site 17 and replace with the following:  
 “APPROX. VOLUME = 30.0’ x 8.0’ x 1.0’  
 11 ANCHORS, 5’ EMBEDMENT, SEE DET 3/C-7, SIM”
4. Sheet C-7;
- a. Shotcrete Section – Full Slope Detail; **DELETE** detail in its entirety and **REPLACE** with the attached Sketch No. 1.
  - b. Anchor Detail; **DELETE** 4” CLR dimensional callout.

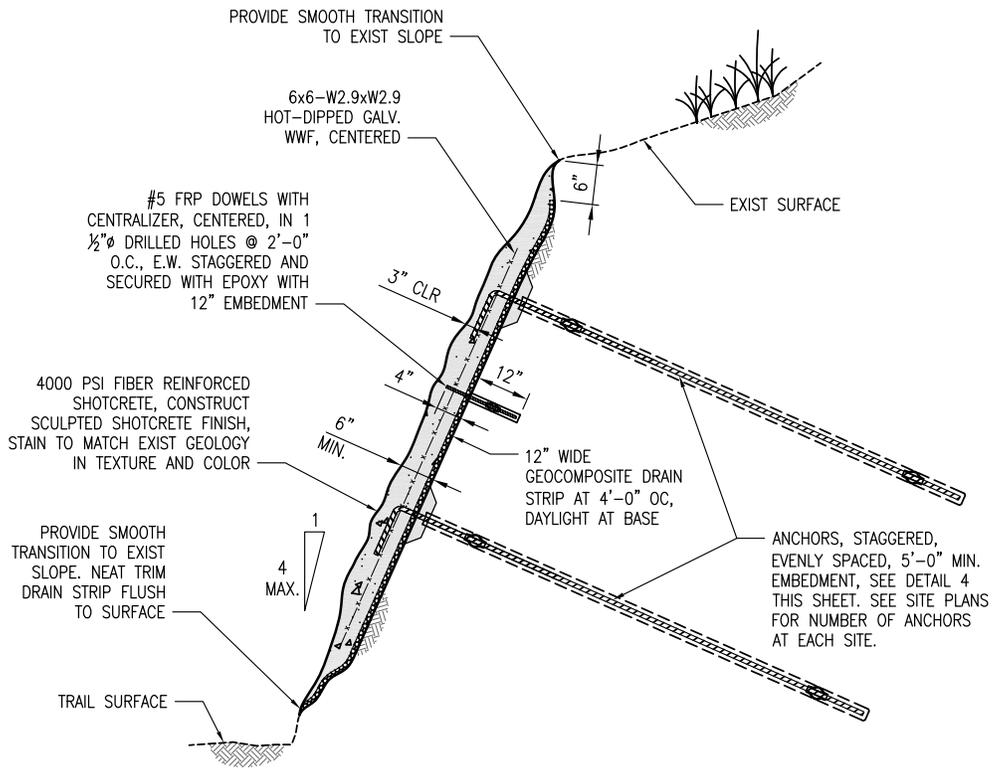




**Figure 1.** Approximate limits of shotcrete noted in red.



**Figure 2.** Approximate limits of shotcrete noted in red.



2 SHOTCRETE SECTION - SLOPE, TYP.  
C-7 NOT TO SCALE

DIAMOND HEAD STATE MONUMENT  
 ROCKFALL MITIGATION, PHASE 2 (FY2015)  
 HONOLULU, OAHU, HAWAII  
 JOB NO. J45C049B  
 REFERENCE SHEET NO.: C-7

SKETCH NO. 1 of 1

ADDENDUM 2		REVISED DETAIL
REVISION NO.	SYM.	DESCRIPTION

## **Minutes of Meeting:**

Date: May 12, 2016 at 9:00 a.m.  
Place: Diamond Head State Monument, Honolulu, Oahu  
Re: Pre-bid Conference Meeting Minutes for Job No. J45CO49B  
Diamond Head State Monument Rockfall Mitigation – Phase 2 (FY2015),  
Honolulu, Oahu, Hawaii  
Attendees: See attached sign in sheet.

The meeting was opened by Brian Chang, project engineer (DLNR), who introduced the project. The technical details of the project were then summarized by Ardalan Nikou, design consultant (AECOM). Details regarding park coordination and logistics were provided by Yara Lamadrid-Rose, Diamond Head Park Coordinator (State Parks).

### **Project Overview:**

The work shall generally consist of rock scaling and installation of sculpted shotcrete along the Diamond Head Monument Trail. The project also includes installation of a few rock dowels, removal of a delaminated rock above the entrance tunnel and scaling of a rock face section along Diamond Head Road. Due to the high volume of visitors and the historical status of the trail, the community will have close watch on the project. All equipment, material, etc. will have to be removed from the trail and the trail made safe for public use before the park is opened to the public. All work hours, park closures, staging areas, etc. shall be coordinated with DLNR and State Parks.

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

The following were comments and clarifying statements made to the bidders:

- Night work on this project is permitted, but work hours have to be coordinated with the Park and the trail needs to be cleaned up and made safe for public use by 5:00 a.m. before the park is open.
- Contractor is responsible for providing barricades and a security guard at the base of the trail during work hours until the park closes at 6:00 p.m. Security guard is also required for the Mon-Thurs park closures since the parking lot area will still be open to the public. Reminder that the security guard has to be able to verbally communicate with the Park staff and public.
- Endangered plant species exist on the lower areas of the trail. Contractor is advised to stay on the trail and not to disturb the plants in these areas.
- Public notice will need to be given at least 1 month in advance of any work.

- Community will be watching this project and may offer requests or suggestions. However, only an employee of the State or the Consultant (AECOM) is authorized to make decisions for the project.
- The trail is very populated and is highly visible to the public. It should be treated as a monument and work shall be done with integrity and in a professional manner.
- The closest point for trucks and vehicle access/staging is near the recycling/trash bins and benches near the start of the unpaved trail.
- Dry-mix shotcrete would most likely be utilized for this project.
- Sculpted shotcrete test panels are required to evaluate the competency of sculpting company. Per Specifications 03362.1.05, a test panel is required for each proposed finish, for each area.
- Trail width shall be maintained throughout shotcrete areas. Shotcrete limits for each site should be coordinated with the Engineer prior to starting any preparation work.
- Contractor can stage material in locations off the trail as long as it is secured and safe for the public and at locations coordinated with the State Parks.
- Contractor shall protect existing railings. Rock bags, equipment, etc. should not be tied on to the railings. Damage to railings will be repaired by the State at the Contractor's expense.
- Method statement is required for removal of the rock at the entrance tunnel. Temporary safety measures are required so that the existing cage and shotcrete in the area is not damaged. No scaled material is allowed to be dropped down.

The following were questions raised by the bidders:

- Will noise be a problem?
  - *Noise was not a problem for previous phases. There was an issue with fire control, so Contractor will have to notify fire department if using any fire hazardous equipment.*
- Can work be done on Sunday evening, past 6:00 p.m. to do prep work if the trail is going to be closed Monday-Thursday?
  - *Park will need to discuss with Civil Defense. Contractor shall bid the project assuming weekend work is not allowed.*
- Is the project planned to be done during slow period?
  - *Yes, dates are listed in the project specifications.*

- Is the inspection team OK with night work?
  - *Inspection by State and/or Consultant is not anticipated to be full time, but if inspection is necessary for a particular activity, they can be made available to accommodate the contractor's hours. However, Contractor should provide reasonable advance notice when requesting presence of inspection staff.*
  
- Are shotcrete panels required daily?
  - *See specifications. Shotcrete test panel are required for each work day or 50 CY whichever is less. Sculpted test panels are required for each area, depending on the geological features. Number of test panels may be reduced depending on the results of the initial testing. Project should be bid assuming test panels are required per specifications.*
  
- Regarding Detail 2/C-7, the bottom trenches will be very difficult to construct and also will reduce the width of the trail.
  - *Detail 2/C-7 has been revised. See revised detail attached.*
  
- Regarding Detail 2/C-7, does saw cutting need to go through all 2 feet of depth for the excavation at the top?
  - *Detail 2/C-7 has been revised. See revised detail attached.*
  
- Regarding Detail 2/C-7, after the bottom trench is excavated it may be open for a while before installing concrete. Will it be OK to cover with plywood or other method if the trail has to be opened before it's filled?
  - *Detail 2/C-7 has been revised. See revised detail attached.*
  
- What are the extents of scaling? Is it required to remove only very loose and surficial rocks or will a lot of larger rocks need to be scaled as well? Plans note that scaling includes anything that can be removed with a 4' scaling bar. Since the rock at the site is soft, a lot of material can be removed from the slopes.
  - *Contractor can expect to be required to remove mostly loose and surficial rocks and also rocks that require small hand tools. Since the material along the trail is soft, "digging" to remove rocks will be limited. However, some areas may require the larger scaling bar to remove bigger rocks and contractor shall be prepared for these situations. Scaling shall be coordinated with the Engineer on site.*
  
- Is the contract 60 calendar days or 60 working days? Due to extent of work and access limitations, 60 calendar days is not a lot of time to complete the work. 60 working days may also not be enough time.
  - *The specifications show contract of 60 consecutive calendar days. However, if contractors feel this is not enough time, they should thoroughly review the project and provide an approximate duration. If warranted, the State will look into possibly extending the contract time.*

- Can mules or donkeys be used to transport equipment and material up and down the trail?
  - Use of mules/donkeys is acceptable provided the Contractor clean up and properly dispose of all droppings immediately.

The meeting adjourned at 11:30 a.m.

Submitted by:

Brian Chang, P.E.

Engineering Division

Department of Land and Natural Resources

SIGN-IN SHEET

PRE-BID CONFERENCE/SITE VISIT

Job Number: J45CO49B

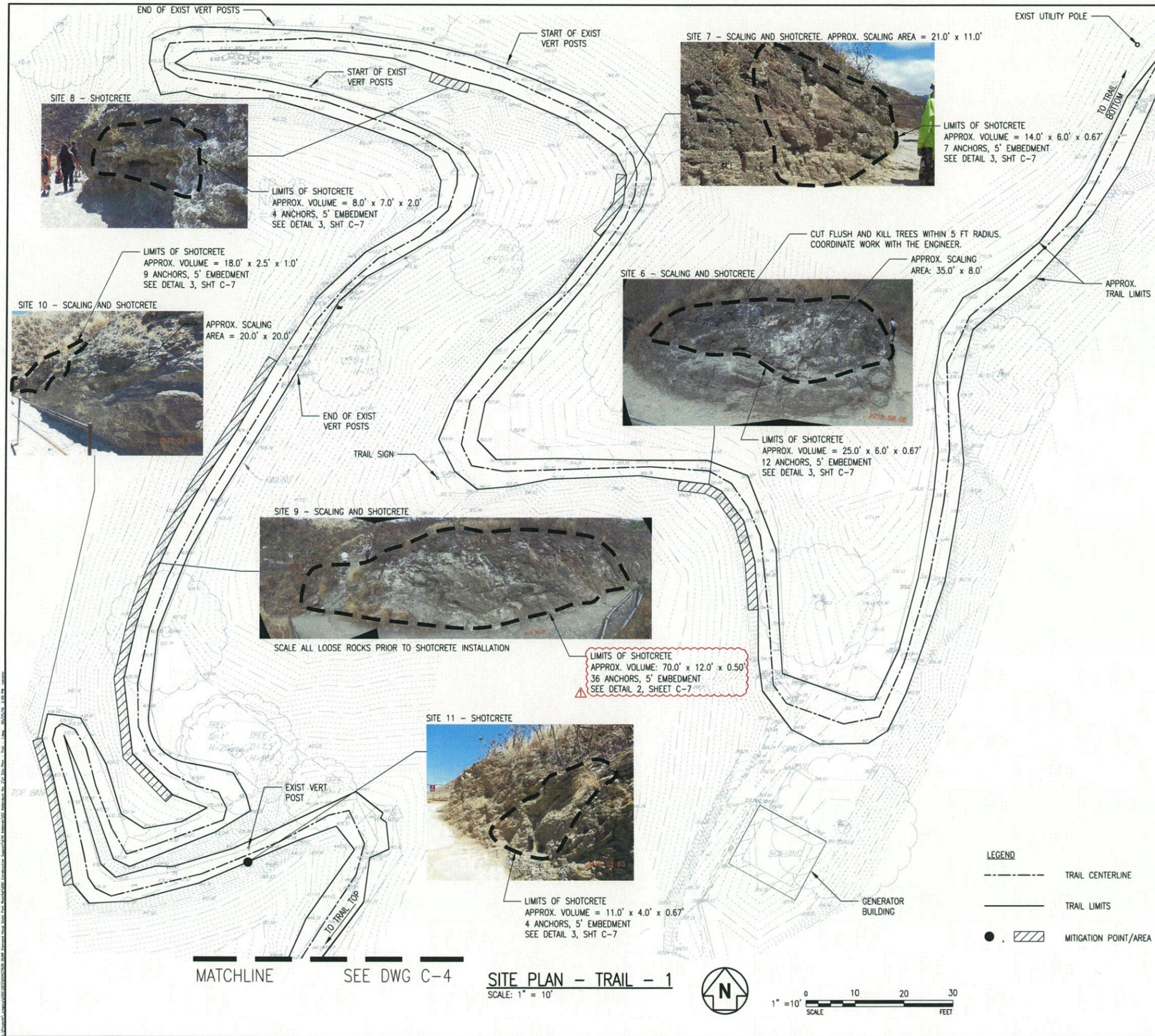
Date and Time: May 12, 2016 9:00 a.m.

Job Title: Diamond Head State Monument Rockfall Mitigation-Phase 2 (FY2015)

Honolulu, Oahu, Hawaii.

	<u>Name</u>	<u>Company</u>	<u>Email Address</u>	<u>Phone</u>
1	Brian KF Chang	DLNR/Eng Div	briankfchang@hawaii.gov	587-0250
2	Ardalan Nikou	AECOM	Ardalan.Nikou@aecom.com	529-7223
3	Govi Tillotson	Prometheus Construction	govt@prometheusconstruction.com	927-8521
4	Scotty Smith	Hi-TECH Rockfall	scotty@Hi-TechRockfall.com	754-6804
5	Pierre Rousseau	AmeriTECH	PierreRousseau1@hotmail.com	808-590-9644
6	Yun Lamun Bid	Rose State Parks		587-0294
7	Kahaloa K. Keahi-Wood	State Parks	kahaloa.k.Keahi-Wood@hawaii.gov	271-3281
8	Peter Gooding	Prometheus	peter@prometheusconstruction.com	954-2615
9	Ryan Okahashi	AECOM	ryan.okahashi@aecom.com	529-7241
10	Yueheng Pan	AECOM	yueheng.pan@aecom.com	388-0830
11	Ryan Nikou	AECOM	ryan.nikou@aecom.com	529-7252
12	Ardalan Nikou	AECOM	ardalan.nikou@aecom.com	529-7222
13				
14				
15				
16				
17				
18				
19				

Meeting location – Diamond Head Monument Interpretive Kiosk, Honolulu



- NOTES:**
- FOR ROCK DOWEL, ANCHORS, AND SHOTCRETE DETAILS SEE SHEET C-7.
  - SITE LOCATIONS AND DIMENSIONS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ALL SITE LOCATIONS AND DIMENSIONS WITH THE ENGINEER IN THE FIELD PRIOR TO STARTING WORK.
  - PHOTOS ARE PROVIDED TO SHOW THE GENERAL AREA DESIGNATED FOR MITIGATION AND MAY NOT ACCURATELY REFLECT THE TOTAL AREA THAT REQUIRES MITIGATION. CONTRACTOR SHALL CONFIRM EACH LOCATION AND COORDINATE AND MARK THE LIMITS OF EACH MITIGATION METHOD WITH THE ENGINEER IN THE FIELD PRIOR TO STARTING WORK.
  - SCALING AND/OR SHOTCRETE LIMITS PROVIDED ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE AND MARK THE LIMITS WITH THE ENGINEER IN THE FIELD PRIOR TO STARTING WORK.
  - SCALING SHALL INCLUDE SAFE REMOVAL OF ALL ROCKS THAT ARE LOOSE, OVERHANGING, OR CREATING A SAFETY HAZARD TO THE PUBLIC, AS DETERMINED BY THE ENGINEER IN THE FIELD. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY MEASURES FOR SAFE SCALING AND REMOVAL OF THE ROCKS AT NO ADDITIONAL COST TO THE STATE.
  - CONTRACTOR SHALL BE PREPARED TO PERFORM ADDITIONAL ROCK SLOPE SCALING ALONG THE ENTIRE TRAIL AT LOCATIONS NOT IDENTIFIED ON THE PLANS, BUT DEEMED HAZARDOUS BY THE ENGINEER IN THE FIELD. THIS WORK SHALL BE INCLUDED IN THE PAYMENT FOR ADDITIONAL ROCK SLOPE SCALING AS DESCRIBED IN THE PROPOSAL AND SPECIFICATIONS SECTION 02232 - ROCK SLOPE SCALING.
  - CONTRACTOR'S EQUIPMENT AND WORK DEBRIS INCLUDING SCALED ROCKS SHALL BE REMOVED OFF THE TRAIL AT THE END OF EACH DAY.
  - ANY DAMAGE TO EXIST FACILITIES SHALL BE REPAIRED TO ORIGINAL OR BETTER CONDITION BY THE STATE AT THE CONTRACTOR'S EXPENSE.
  - LOCATIONS OF EXISTING VERTICAL POSTS SHOWN ON THIS SITE PLAN ARE APPROXIMATE AND ARE SHOWN TO ASSIST WITH LOCATING MITIGATION SITES. NOT ALL EXISTING POSTS ALONG THE TRAIL ARE DEPICTED ON THIS PLAN.

MITIGATION SCHEDULE		
SITE #	MITIGATION METHOD	DESCRIPTION
6	SCALING	APPROX. AREA = 35.0' x 8.0'
	SHOTCRETE	APPROX. VOLUME = 25.0' x 6.0' x 0.67' 12 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
7	SCALING	APPROX. AREA = 21.0' x 11.0'
	SHOTCRETE	APPROX. VOLUME = 14.0' x 6.0' x 0.67' 7 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
8	SHOTCRETE	APPROX. VOLUME = 8.0' x 7.0' x 2.0' 4 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
9	SCALING	APPROX. VOLUME = 70.0' x 12.0'
	SHOTCRETE	APPROX. VOLUME = 70.0' x 12.0' x 0.50' 36 ANCHORS, 5' EMBEDMENT. SEE DET 2/C-7, SIM
10	SCALING	APPROX. AREA = 20.0' x 20.0'
	SHOTCRETE	APPROX. VOLUME = 18.0' x 2.5' x 1.0' 9 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
11	SHOTCRETE	APPROX. VOLUME = 11.0' x 4.0' x 0.67' 4 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM

REVISION NO.	SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
		ADDENDUM NO. 2		05/18/2016	

ADALAN R. NINKU  
LICENSED PROFESSIONAL ENGINEER  
No. 6198-C  
HAWAII, U.S.A.

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

**DIAMOND HEAD STATE MONUMENT  
ROCKFALL MITIGATION, PHASE 2 (FY2015)  
HONOLULU, OAHU, HAWAII**

**SITE PLAN - TRAIL - 1**

DESIGNED: ARN/YP	SUBMITTED:
DRAWN: JPN	DATE: MAY 2016
CHECKED: JPN	SCALE: AS NOTED
APPROVED:	DRAWING NO. C-3
CHIEF ENGINEER	05/26/2016

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

4/30/18  
Expiration Date of the License

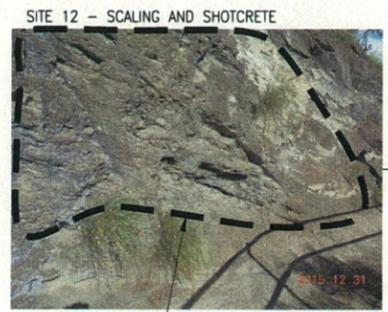
MATCHLINE SEE DWG C-4

**SITE PLAN - TRAIL - 1**  
SCALE: 1" = 10'

LEGEND  
 - - - - - TRAIL CENTERLINE  
 ——— TRAIL LIMITS  
 ● / ▨ MITIGATION POINT/AREA

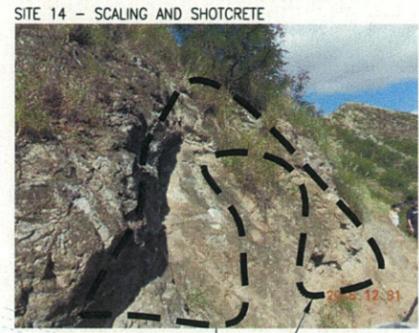
0 10 20 30  
1" = 10' SCALE FEET

MATCHLINE SEE DWG C-3



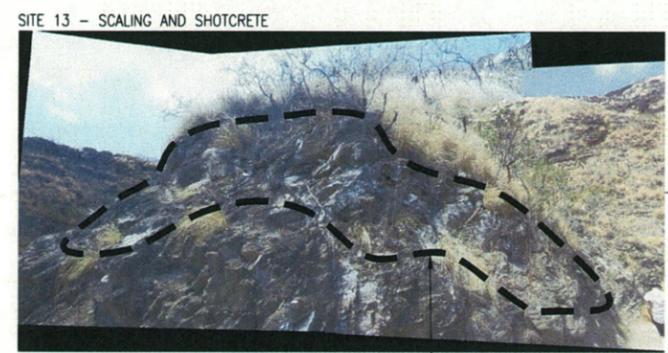
SITE 12 - SCALING AND SHOTCRETE

LIMITS OF SHOTCRETE  
APPROX. VOLUME = 14.0' x 8.0' x 0.67'  
7 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 3, SHT C-7



SITE 14 - SCALING AND SHOTCRETE

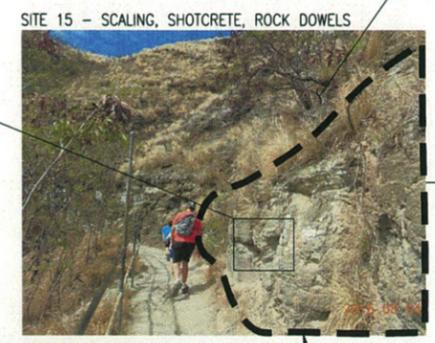
LIMITS OF SHOTCRETE  
APPROX. VOLUME = 35.0' x 5.0' x 2.5' (AVG)  
17 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 3, SHT C-7



SITE 13 - SCALING AND SHOTCRETE

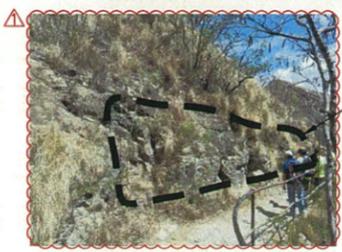
LIMITS OF SHOTCRETE  
APPROX. VOLUME = 40.0' x 4.0' x 1.0'  
20 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 3, SHT C-7

THREE (3) ROCK DOWELS, 8' MINIMUM EMBEDMENT AT LOCATIONS DETERMINED BY THE ENGINEER.



SITE 15 - SCALING, SHOTCRETE, ROCK DOWELS

CUT FLUSH AND KILL TREES

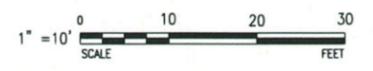


LIMITS OF SHOTCRETE  
APPROX. VOLUME = 37.0' x 10.0' x 0.67'  
13 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 3, SHT C-7

- LEGEND**
- TRAIL CENTERLINE
  - TRAIL LIMITS
  - , ▨ MITIGATION POINT/AREA



SITE PLAN - TRAIL - 2  
SCALE: 1" = 10'



- NOTE:**
- FOR ROCK DOWEL, ANCHORS, AND SHOTCRETE DETAILS SEE SHEET C-7.
  - SITE LOCATIONS AND DIMENSIONS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ALL SITE LOCATIONS AND DIMENSIONS WITH THE ENGINEER IN THE FIELD PRIOR TO STARTING WORK.
  - PHOTOS ARE PROVIDED TO SHOW THE GENERAL AREA DESIGNATED FOR MITIGATION AND MAY NOT ACCURATELY REFLECT THE TOTAL AREA THAT REQUIRES MITIGATION. CONTRACTOR SHALL CONFIRM EACH LOCATION AND COORDINATE AND MARK THE LIMITS OF EACH MITIGATION METHOD WITH THE ENGINEER IN THE FIELD PRIOR TO STARTING WORK.
  - SCALING AND/OR SHOTCRETE LIMITS PROVIDED ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE AND MARK THE LIMITS WITH THE ENGINEER IN THE FIELD PRIOR TO STARTING WORK.
  - SCALING SHALL INCLUDE SAFE REMOVAL OF ALL ROCKS THAT ARE LOOSE, OVERHANGING, OR CREATING A SAFETY HAZARD TO THE PUBLIC, AS DETERMINED BY THE ENGINEER IN THE FIELD. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY MEASURES FOR SAFE SCALING AND REMOVAL OF THE ROCKS AT NO ADDITIONAL COST TO THE STATE.
  - CONTRACTOR SHALL BE PREPARED TO PERFORM ADDITIONAL ROCK SLOPE SCALING ALONG THE ENTIRE TRAIL AT LOCATIONS NOT IDENTIFIED ON THE PLANS, BUT DEEMED HAZARDOUS BY THE ENGINEER IN THE FIELD. THIS WORK SHALL BE INCLUDED IN THE PAYMENT FOR ADDITIONAL ROCK SLOPE SCALING AS DESCRIBED IN THE PROPOSAL AND SPECIFICATIONS SECTION 02232 - ROCK SLOPE SCALING.
  - CONTRACTOR'S EQUIPMENT AND WORK DEBRIS INCLUDING SCALED ROCKS SHALL BE REMOVED OFF THE TRAIL AT THE END OF EACH DAY.
  - ANY DAMAGE TO EXIST FACILITIES SHALL BE REPAIRED TO ORIGINAL OR BETTER CONDITION BY THE STATE AT THE CONTRACTOR'S EXPENSE.

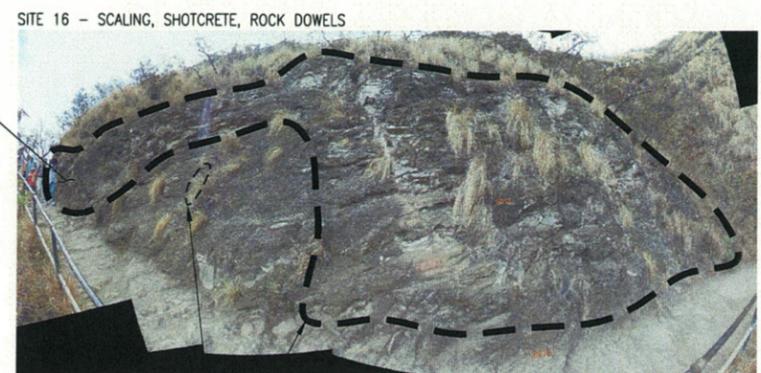
MITIGATION SCHEDULE

SITE #	MITIGATION METHOD	DESCRIPTION
12	SCALING	APPROX. AREA = 14.0' x 8.0'
	SHOTCRETE	APPROX. VOLUME = 14.0' x 8.0' x 0.67' 7 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
13	SCALING	INCLUDED IN 375.0' x 20.0' AREA
	SHOTCRETE	APPROX. VOLUME = 40.0' x 4.0' x 1.0' 20 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
14	SCALING	INCLUDED IN 375.0' x 20.0' AREA
	SHOTCRETE	APPROX. VOLUME = 35.0' x 5.0' x 2.5' 17 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
15	SCALING	INCLUDED IN 375.0' x 20.0' AREA
	SHOTCRETE	APPROX. VOLUME = 37.0' x 10.0' x 0.67' 13 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
	ROCK DOWEL	3 DOWELS, 8' MIN. EMBEDMENT

MATCHLINE SEE DWG C-5

ADDENDUM NO. 2		05/18/2016	
REVISION NO.	SYM.	DESCRIPTION	SHT./OF
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION <b>DIAMOND HEAD STATE MONUMENT          ROCKFALL MITIGATION, PHASE 2 (FY2015)          HONOLULU, OAHU, HAWAII</b>			
<b>SITE PLAN - TRAIL - 2</b>			
DESIGNED: RTN/YP	SUBMITTED:		
DRAWN: RTN	DATE: MAY 2016		
CHECKED: [Signature]	SCALE: AS NOTED		
APPROVED: [Signature]	DRAWING NO. C-4		
		THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. APPROVED: [Signature] DATE: 05/26/2016 CHIEF ENGINEER	

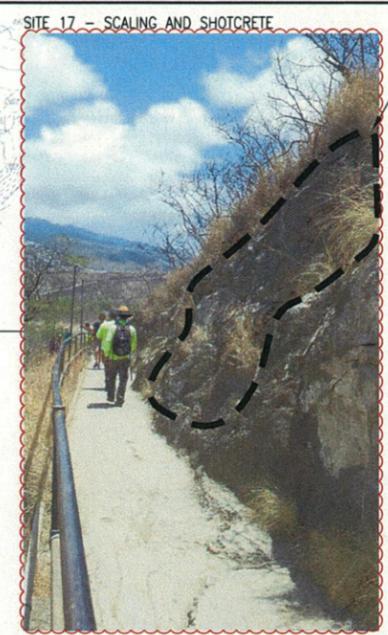
TWO (2) ROCK DOWELS, 8' MIN. EMBEDMENT AT LOCATIONS DETERMINED BY THE ENGINEER.



SITE 16 - SCALING, SHOTCRETE, ROCK DOWELS

LIMITS OF SCALING  
APPROX. AREA = 375.0' (L) x 20.0' (H)  
COORDINATE EXTENT WITH THE ENGINEER

LIMITS OF SHOTCRETE  
APPROX. VOLUME = 83.0' x 16.0' (AVG) x 0.50'  
42 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 2, SHEET C-7



SITE 17 - SCALING AND SHOTCRETE

LIMITS OF SCALING AND SHOTCRETE  
APPROX. VOLUME = 30.0' x 8.0' x 1.0'  
11 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 3, SHEET C-7

SITE #	MITIGATION METHOD	DESCRIPTION
16	SCALING	INCLUDED IN 375.0' x 20.0' AREA
	SHOTCRETE	APPROX. VOLUME = 83.0' x 16.0' x 0.50' 42 ANCHORS, 5' EMBEDMENT. SEE DET 2/C-7, SIM
	ROCK DOWEL	2 DOWELS, 8' MIN. EMBEDMENT
17	SCALING	APPROX. AREA = 24.0' x 8.0'
	SHOTCRETE	APPROX. VOLUME = 30.0' x 8.0' x 1.0' 11 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
18	SHOTCRETE	APPROX. VOLUME = 13.0' x 2.0' x 3.0' 4 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
	SHOTCRETE	APPROX. VOLUME = 6.0' x 2.0' x 1.0' 3 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
19	SCALING	APPROX. AREA = 35.0' x 7.0' (AVG) REMOVE BLOCK = 4.0' x 2.5' x 1.0'
	SHOTCRETE	APPROX. VOLUME = 35.0' x 5.0' x 2.0' 18 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM
20	SHOTCRETE (2 SITES, EACH)	APPROX. VOLUME = 10.0' x 2.0' x 2.0' 5 ANCHORS, 5' EMBEDMENT. SEE DET 3/C-7, SIM

SEE DWG C-4  
MATCHLINE

TO TRAIL BOTTOM  
TO TRAIL TOP

APPROX. TRAIL LIMITS

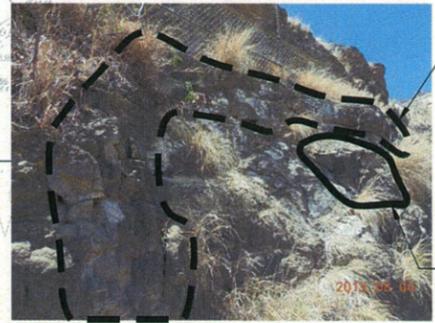
SHOTCRETE DAMAGED WALL  
APPROX. VOLUME = 13.0' x 2.0' x 3.0'  
4 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 3, SHT C-7

SITE 18 - SHOTCRETE



SHOTCRETE DAMAGED WALL  
APPROX. VOLUME = 6.0' x 2.0' x 1.0'  
3 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 3, SHT C-7

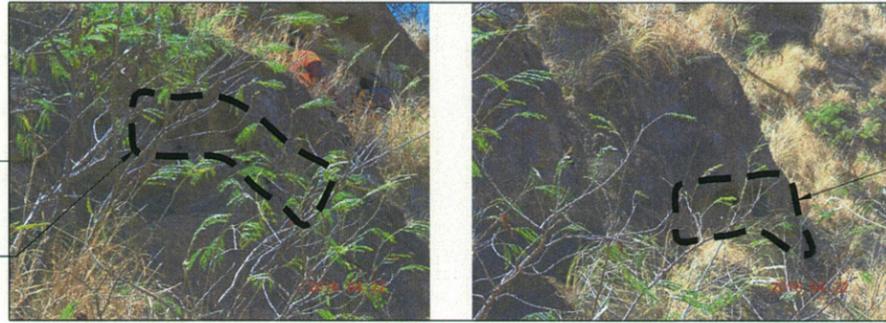
SITE 19 - SCALING AND SHOTCRETE



LIMITS OF SCALING AND SHOTCRETE  
APPROX. VOLUME = 35.0' x 5.0' x 2.0'  
18 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 3, SHEET C-7

SCALE AND REMOVE BLOCK  
APPROX. SIZE = 4.0' x 2.5' x 1.0'

SITE 20 - SHOTCRETE

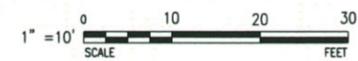


LIMITS OF SHOTCRETE  
APPROX. VOLUME = 10.0' x 2.0' x 2.0'  
5 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 3, SHEET C-7

LIMITS OF SHOTCRETE  
APPROX. VOLUME = 10.0' x 2.0' x 2.0'  
5 ANCHORS, 5' EMBEDMENT  
SEE DETAIL 3, SHEET C-7

LEGEND  
--- TRAIL CENTERLINE  
--- TRAIL LIMITS  
●, ▨ MITIGATION POINT/AREA

SITE PLAN - TRAIL - 3  
SCALE: 1" = 10'



NOTE:

- FOR ROCK DOWEL, ANCHORS, AND SHOTCRETE DETAILS SEE SHEET C-7.
- SITE LOCATIONS AND DIMENSIONS SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY ALL SITE LOCATIONS AND DIMENSIONS WITH THE ENGINEER IN THE FIELD PRIOR TO STARTING WORK.
- PHOTOS ARE PROVIDED TO SHOW THE GENERAL AREA DESIGNATED FOR MITIGATION AND MAY NOT ACCURATELY REFLECT THE TOTAL AREA THAT REQUIRES MITIGATION. CONTRACTOR SHALL CONFIRM EACH LOCATION AND COORDINATE AND MARK THE LIMITS OF EACH MITIGATION METHOD WITH THE ENGINEER IN THE FIELD PRIOR TO STARTING WORK.
- SCALING AND/OR SHOTCRETE LIMITS PROVIDED ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE AND MARK THE LIMITS WITH THE ENGINEER IN THE FIELD PRIOR TO STARTING WORK.
- SCALING SHALL INCLUDE SAFE REMOVAL OF ALL ROCKS THAT ARE LOOSE, OVERHANGING, OR CREATING A SAFETY HAZARD TO THE PUBLIC, AS DETERMINED BY THE ENGINEER IN THE FIELD. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY MEASURES FOR SAFE SCALING AND REMOVAL OF THE ROCKS AT NO ADDITIONAL COST TO THE STATE.
- CONTRACTOR SHALL BE PREPARED TO PERFORM ADDITIONAL ROCK SLOPE SCALING ALONG THE ENTIRE TRAIL AT LOCATIONS NOT IDENTIFIED ON THE PLANS, BUT DEEMED HAZARDOUS BY THE ENGINEER IN THE FIELD. THIS WORK SHALL BE INCLUDED IN THE PAYMENT FOR ADDITIONAL ROCK SLOPE SCALING AS DESCRIBED IN THE PROPOSAL AND SPECIFICATIONS SECTION 02232 - ROCK SLOPE SCALING.
- CONTRACTOR'S EQUIPMENT AND WORK DEBRIS INCLUDING SCALED ROCKS SHALL BE REMOVED OFF THE TRAIL AT THE END OF EACH DAY.
- ANY DAMAGE TO EXIST FACILITIES SHALL BE REPAIRED TO ORIGINAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.

REVISION NO.	SYMBOL	DESCRIPTION	SHT./OF	DATE	APPROVED
ADDENDUM NO. 2					
05/18/2016					

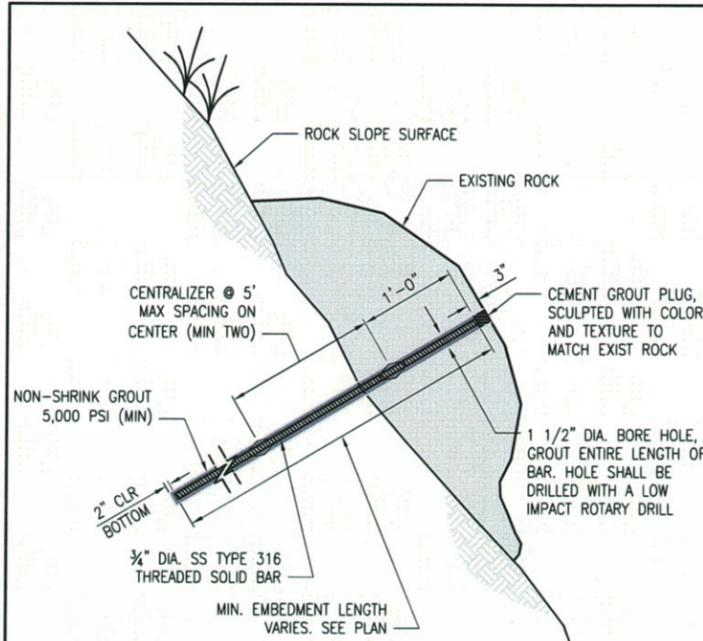
ARDAN R. NIROLI  
LICENSED PROFESSIONAL ENGINEER  
No. 6198-C  
HAWAII, U.S.A.

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION

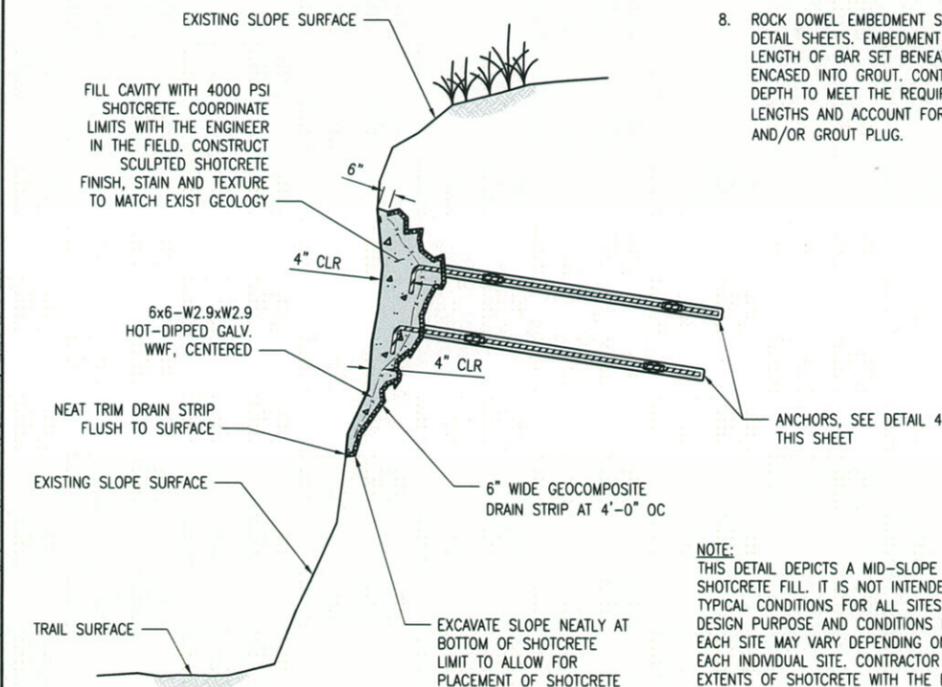
**DIAMOND HEAD STATE MONUMENT  
ROCKFALL MITIGATION, PHASE 2 (FY2015)  
HONOLULU, OAHU, HAWAII**

**SITE PLAN - TRAIL - 3**

DESIGNED: ARN/YP	SUBMITTED:
DRAWN: RTN	DATE: MAY 2016
CHECKED: ARN	SCALE: AS NOTED
APPROVED: [Signature]	DRAWING NO. C-5
4/30/18 Expiration Date of the License	5/26/2016 DATE



1 ROCK DOWEL  
C-7 NOT TO SCALE

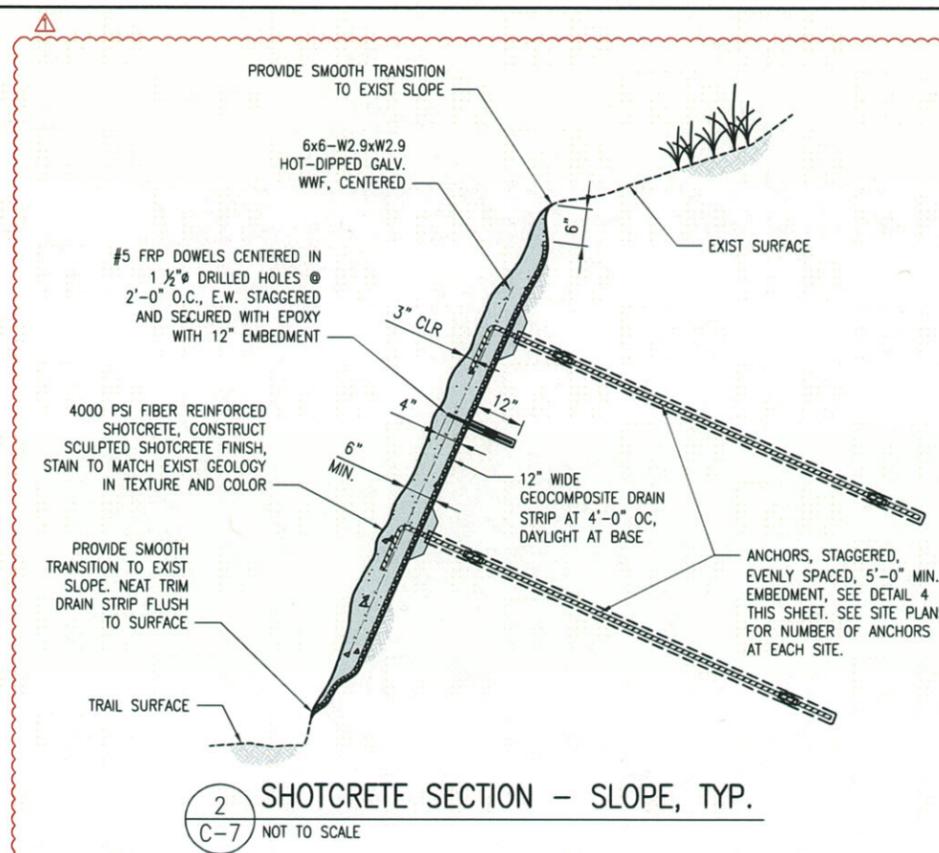


3 SHOTCRETE SECTION - ISOLATED OUTCROP, TYP.  
C-7 NOT TO SCALE

**ROCK DOWEL NOTES:**

- ALL ROCK DOWEL LOCATIONS AND ORIENTATIONS SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO DRILLING. BORE HOLES DRILLED WITHOUT PRIOR APPROVAL FROM THE ENGINEER MAY BE REJECTED AT THE DISCRETION OF THE ENGINEER. REJECTED BORE HOLES SHALL BE FILLED WITH GROUT AND NEW HOLES SHALL BE DRILLED AT THE CONTRACTOR'S EXPENSE.
- UNLESS OTHERWISE SPECIFIED AND APPROVED IN WRITING BY THE ENGINEER, ALL BORE HOLES SHALL BE DRILLED USING A LOW IMPACT ROTARY DRILL TO PREVENT DAMAGE TO THE EXISTING SLOPE. AIR POWERED DRILLS ARE NOT ALLOWED. DAMAGE TO THE EXISTING SLOPE SHALL BE REPORTED TO THE ENGINEER FOR CORRECTIVE ACTION AT THE CONTRACTOR'S EXPENSE.
- ALL BORE HOLES SHALL BE CLEANED OUT USING COMPRESSED AIR PRIOR TO INSERTING THE DOWEL. ENGINEER RESERVES THE RIGHT TO WITNESS THE CLEANING PROCESS AND INSERTION OF DOWELS. CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE OF CLEANING AND INSERTION OF DOWELS SO THAT DEPTH AND CLEANLINESS OF THE DRILLED HOLES CAN BE CONFIRMED. DOWELS GROUDED WITHOUT INSPECTION SHALL BE REJECTED AND REPLACED AT NO ADDITIONAL COST TO THE STATE.
- ALL ROCK DOWELS SHALL BE GROUDED IN THE PRESENCE OF THE ENGINEER. GROUDED DOWELS WITHOUT THE ENGINEER PRESENT SHALL BE REJECTED AND THE ROCK DOWELS REPLACED AT THE CONTRACTOR'S EXPENSE.
- ALL ROCK DOWELS SHALL BE CENTERED IN THE DRILLED HOLE USING CENTRALIZERS. CONTRACTOR SHALL ADJUST CENTRALIZER SIZE ACCORDING TO DRILLED HOLE DIAMETER IF NECESSARY. ANY ROCK DOWEL NOT CENTERED SHALL BE REJECTED AND REPLACED AT THE CONTRACTOR'S EXPENSE. ANCHORS OR DOWELS SHALL NOT DEVIATE MORE THAN 8% OF THE DRILLED DIAMETER FROM THE CENTER OF THE HOLE. ALL DOWELS SHALL BE APPROVED PRIOR TO INSERTION OF CEMENT GROUT PLUG.
- CONTRACTOR SHALL KEEP THE AREA CLEAN DURING GROUDED. ANY SPILLED GROUT SHALL BE CLEANED IMMEDIATELY AT NO ADDITIONAL COST TO THE STATE.
- SURFACE GROUT SHALL BE SCULPTED AND STAINED TO MATCH EXISTING SURROUNDING COLOR, TEXTURE, AND SHAPE CONDITIONS.
- ROCK DOWEL EMBEDMENT SHALL BE AS SPECIFIED ON THE DETAIL SHEETS. EMBEDMENT LENGTH SHALL BE THE ACTUAL LENGTH OF BAR SET BENEATH THE SLOPE SURFACE AND ENCASED INTO GROUT. CONTRACTOR SHALL ADJUST THE DRILL DEPTH TO MEET THE REQUIRED MINIMUM EMBEDMENT LENGTHS AND ACCOUNT FOR TOP/BOTTOM CLEARANCE AND/OR GROUT PLUG.

**NOTE:**  
THIS DETAIL DEPICTS A MID-SLOPE CAVITY THAT REQUIRES SHOTCRETE FILL. IT IS NOT INTENDED TO REPRESENT TYPICAL CONDITIONS FOR ALL SITES ON THESE PLANS. THE DESIGN PURPOSE AND CONDITIONS FOR SHOTCRETE AT EACH SITE MAY VARY DEPENDING ON THE CONDITIONS AT EACH INDIVIDUAL SITE. CONTRACTOR SHALL COORDINATE THE EXTENTS OF SHOTCRETE WITH THE ENGINEER IN THE FIELD.



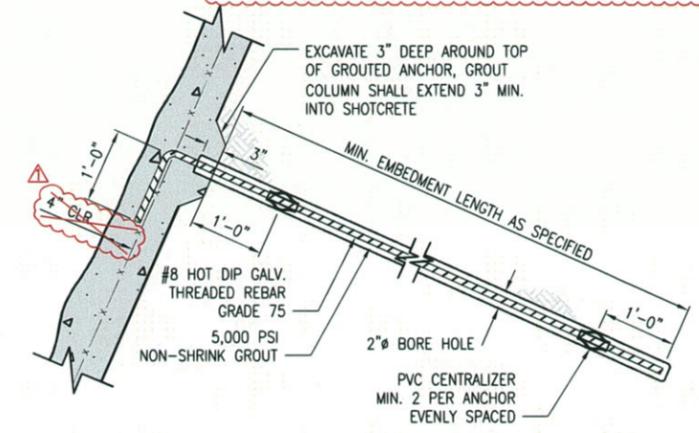
2 SHOTCRETE SECTION - SLOPE, TYP.  
C-7 NOT TO SCALE

**SHOTCRETE NOTES:**

- SHOTCRETE LIMITS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE ACTUAL SHOTCRETE LIMITS WITH THE ENGINEER IN THE FIELD PRIOR TO STARTING WORK.
- CONTRACTOR SHALL CLEAN SHOTCRETE AREA OF DIRT, DEBRIS, VEGETATION AND ALL LOOSE MATERIAL PRIOR TO INSTALLING SHOTCRETE AT NO ADDITIONAL COST TO THE STATE. SHOTCRETE AREA SHALL BE MARKED BY THE CONTRACTOR AND INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO SHOTCRETE OPERATION.
- WELDED WIRE FABRIC WWF 6x6-W2.9xW2.9 SHALL BE HOT-DIPPED GALVANIZED AND SHALL BE INSTALLED WITH SHOTCRETE AND AS REQUIRED BY SHOTCRETE OPERATION IN THE FIELD AT NO ADDITIONAL COST TO THE STATE. WIRE REINFORCING SHALL NOT BE IN CONTACT WITH THE SLOPE SURFACE. CONCRETE SPACERS SHALL BE USED TO MAINTAIN A MINIMUM DISTANCE OF 3 INCHES BETWEEN MESH AND SLOPE.
- ALL METAL COMPONENTS (EXCEPT FOR THOSE SPECIFIED AS SS) SHALL BE HOT DIP GALVANIZED.
- CONTRACTOR SHALL INSTALL GEOCOMPOSITE DRAIN PER MANUFACTURER'S RECOMMENDATIONS. UPON INSTALLATION, DRAINS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO BEING COVERED.
- ALL REINFORCING STEEL SHALL HAVE 3 INCHES OF MINIMUM COVER EVERYWHERE, TYPICAL.
- SHOTCRETE WORK SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER. ANY SHOTCRETE PLACED WITHOUT THE ENGINEER PRESENT SHALL BE REJECTED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL PROTECT THE TRAIL AND ADJACENT ROCKS DURING SHOTCRETE OPERATIONS FROM OVER-SPRAY AND/OR SPILLS. SHOTCRETE SPILLED OUTSIDE OF THE DESIGNATED SHOTCRETE LIMITS SHALL BE CLEANED IMMEDIATELY AT NO ADDITION COST TO THE STATE.
- AREAS NOT TO BE SHOTCRETED SHALL BE COVERED FOR PROTECTION AND SHALL BE CLEANED IMMEDIATELY AFTER ACCIDENTAL SPRAYING.
- SEE SPECIFICATIONS FOR FURTHER DETAILS REGARDING SHOTCRETE, GROUDED DOWELS, GROUDED ANCHORS, ETC.
- CONTRACTOR SHALL CUT ROCK PROTRUSIONS THAT ENCRDACH INTO THE TRAIL AS DETERMINED BY THE ENGINEER UP TO 5 CY TOTAL. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO SHOTCRETE INSTALLATION.

**ANCHOR BAR NOTES:**

- ANCHOR BAR SHALL BE #8 GRADE 75 HOT DIP GALV. COATED (ASTM A-153).
- NUMBER OF ANCHORS AND EMBEDMENT LENGTHS SHALL BE AS SPECIFIED ON THE PLAN SHEETS C-3 THROUGH C-5.
- ANCHORS SHALL BE PROTECTED AT ALL TIMES FROM DAMAGE. ALL STEEL SHALL BE KEPT ON PALLETS AND HIGH ABOVE THE GROUND AND PROTECTED AS NOT TO ALLOW DAMAGE TO PROTECTIVE COATING. ALL STEEL SHALL BE NEW, FREE FROM DIRT, DETRIMENTAL SCALE, PAINT, OIL, OR OTHER SUBSTANCES.
- NO SHOTCRETE SHALL BE PLACED PRIOR TO THE INSPECTION AND APPROVAL OF SIZE, LENGTH, AND PLACEMENT OF ALL ANCHORS BY THE ENGINEER.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO (2) WORKING DAYS OF ADVANCE NOTICE FOR THE ENGINEER TO INSPECT AND APPROVE THE PREPARATION WORK PRIOR TO SHOTCRETING. IN ADDITION, THE CONTRACTOR SHALL ALLOW THE ENGINEER ONE (1) WORKING DAY TO COMPLETE INSPECTION OF SHOTCRETE AREA AND FOR THE CONTRACTOR TO MAKE THE NECESSARY CORRECTIONS PRIOR TO SHOTCRETE OPERATION.
- ANCHORS SHALL BE CENTERED IN THE DRILLED HOLE USING CENTRALIZERS. ANY ANCHOR NOT CENTERED SHALL BE REJECTED AND REPLACED AT THE CONTRACTOR'S EXPENSE. ANCHOR BAR SHALL NOT DEVIATE MORE THAN 8% OF THE DRILLED DIAMETER FROM THE CENTER OF THE HOLE.
- ALL BORE HOLES SHALL BE CLEANED OUT USING COMPRESSED AIR PRIOR TO INSERTING THE ANCHOR. ENGINEER RESERVES THE RIGHT TO WITNESS THE CLEANING PROCESS AND INSERTION OF ANCHORS. CONTRACTOR SHALL NOTIFY THE ENGINEER IN ADVANCE OF CLEANING AND INSERTION OF ANCHORS SO THAT DEPTH AND CLEANLINESS OF THE DRILLED HOLES CAN BE CONFIRMED. ANCHORS GROUDED WITHOUT INSPECTION SHALL BE REJECTED AND REPLACED AT NO ADDITIONAL COST TO THE STATE.
- ALL GROUDED SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER. GROUDED ANCHORS WITHOUT THE ENGINEER PRESENT SHALL BE REJECTED AND THE ANCHORS REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL KEEP THE AREA CLEAN DURING GROUDED. ANY SPILLED GROUT SHALL BE CLEANED IMMEDIATELY AT NO ADDITIONAL COST TO THE STATE. IN ADDITION, AREAS ADJACENT TO SHOTCRETE AREAS MUST BE PROTECTED FROM STAINING AND OTHER DAMAGES USING PLASTIC SHEETS AND OTHER METHODS FOR PROTECTION AGAINST STAINING AND DAMAGE.
- CONTRACTOR SHALL COORDINATE ANCHOR LAYOUT AND DRILLING ORIENTATION OF EACH ANCHOR WITH THE ENGINEER IN THE FIELD PRIOR TO DRILLING. ANCHORS INSTALLED WITHOUT PRIOR APPROVAL FROM THE ENGINEER SHALL BE REJECTED AND REPLACED AT THE CONTRACTOR'S EXPENSE.



4 ANCHOR DETAIL, TYP.  
C-7 NOT TO SCALE

REVISION NO.		SYM.	DESCRIPTION	SHT./OF	DATE	APPROVED
			ADDENDUM NO. 2		05/18/2016	
STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES ENGINEERING DIVISION  DIAMOND HEAD STATE MONUMENT ROCKFALL MITIGATION, PHASE 2 (FY2015) HONOLULU, OAHU, HAWAII  <b>TYPICAL DETAILS</b>						
DESIGNED: ARN/YP			SUBMITTED:			
DRAWN: RTN			DATE: MAY 2016			
CHECKED: ARN			SCALE: AS NOTED			
APPROVED:			DRAWING NO. C-7			
			05/26/2016 DATE			

REVISED PROPOSAL

FOR

DEPARTMENT OF LAND AND NATURAL RESOURCES  
ENGINEERING DIVISION  
State of Hawaii

JOB NO. J45CO49B  
DIAMOND HEAD STATE MONUMENT  
ROCKFALL MITIGATION – PHASE 2 (FY2015)  
HONOLULU, OAHU, HAWAII

\_\_\_\_\_, 2016

Chief Engineer  
Engineering Division  
Department of Land and Natural Resources  
State of Hawaii  
Honolulu, Hawaii

Dear Sir:

The undersigned, having carefully examined the local conditions and all available records and information covering conditions which may affect the cost of the work to be performed, and having carefully examined the Plans and Specifications, and other contract documents, hereby proposes to furnish and pay for all materials, tools, equipment, labor and other incidental work necessary to perform the work of rock scaling and removal, traffic control, installing grouted anchors and rock dowels, and installing structural and sculpted shotcrete, as required or called for in this Proposal, all according to the true intent and meaning of the Notice to Bidders, Information and Instructions to Bidders, Proposal, Detailed Specifications, Interim General Conditions, Plans, and any and all addenda for:

JOB NO. J45CO49B  
DIAMOND HEAD STATE MONUMENT  
ROCKFALL MITIGATION – PHASE 2 (FY2015)  
HONOLULU, OAHU, HAWAII

on file in the office of the Engineering Division for the TOTAL SUM BASE BID (Items 1 to 9) of:

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

and will fully complete all work under this contract within 60 consecutive calendar days from the date of written notice to proceed, including date of said order, said total sum being itemized on the following pages.

## PROPOSAL

Item No.	Quantity	Unit	Description	Unit Price	Total
<b>Diamond Head Summit Trail</b>					
1.	130	CY	Shotcrete, including anchors, reinforcement, drain strips, sculpted finish and other incidentals, installed complete.	\$ _____	\$ _____
2.	1	LS	Rock Slope Scaling for removal of loose rocks at sites identified on the plans, inclusive of vegetation clearing and tree removal and all labor, debris removal and proper disposal of materials, complete.	LS	\$ _____
3.	10	Crew-Days	Additional Rock Slope Scaling for removal of loose rocks found in the field, but not identified on the plans, inclusive of vegetation clearing and all labor, debris removal and proper disposal of materials, complete.	\$ _____	\$ _____
4.	40	CY	Additional Sculpted Shotcrete for locations found in the field, but not identified in the plans, inclusive of all labor, materials, and equipment for installation per Plans Sheet C-7 and as directed by the Engineer, complete.	\$ _____	\$ _____
5.	40	LF	Rock Dowels at locations identified on the plans, inclusive of all labor and materials, complete.	\$ _____	\$ _____
<b>Diamond Head Road</b>					
6.	1	LS	Rock Slope Scaling for removal of loose rocks at sites identified on the plans, inclusive of vegetation clearing and all labor, debris removal and proper disposal of materials, complete.	LS	\$ _____
7.	1	LS	Traffic Control	LS	\$ _____
8.	1	Allow	Landscaping	\$5,000	\$5,000
<b>Subtotal Base Bid (Items 1-8)</b>					\$ _____

9.	1	LS	Mobilization and Demobilization. (Not to Exceed 10% of the Total Sum Bid)	LS	\$_____
<b>Total Sum Base Bid (Items 1-9)</b>					\$_____

**HAWAII PRODUCTS PREFERENCE AND/OR USE OF HAWAII PRODUCTS**

In accordance with Act 175, SLH 2009, the Hawaii products preference is applicable to this solicitation. Hawaii products may be available for items noted on the Offer Form. The Hawaii Products List is available on the SPO webpage at <http://spo.hawaii.gov/for-vendors/hawaii-product-preferences/>.

Bidder offering a Hawaii product (“HP”) shall identify the HP in the table below. Any person desiring a Hawaii product preference shall have the product(s) certified and qualified, if not currently on the Hawaii Products List, prior to the deadline for receipt of offer(s) specified in the procurement notice and solicitation. The responsibility for certification and qualification shall rest upon the person requesting the preference.

Persons desiring to qualify their product(s) not currently on the Hawaii Product List, shall complete Form SPO-38, *Certification for Hawaii Product Preference*, and submit the completed form to the Procurement Officer providing any additional information required by the Procurement Officer. One form shall be completed and submitted for each product. Form SPO-38 is available on the SPO webpage at <http://spo.hawaii.gov/all-forms/>.

For the purpose of selecting the low bid when a solicitation contains both HP and non-HP, the price offered for a HP item shall be decreased by subtracting 10% for the class I or 15% for the class II HP item(s) offered. The lowest total offer, taking the preference into consideration, shall be awarded the contract, unless the offer provides for additional award criteria. The contract amount of any contract awarded, however, shall be the amount of the price offered, exclusive of the preferences.

In the event of any change that materially alters the bidder’s ability to supply the Hawaii product(s), the bidder shall immediately notify the Procurement Officer in writing and the parties shall enter into discussions for the purpose of revising the contract or terminating the contract for convenience.

Item No.	Pre-Approved Hawaii Product Description & Manufacturer	Class (I or II)	Quantity	Unit Measure	Unit Price	Total Price

RECYCLED PRODUCTS PREFERENCE

This project allows a 10% price preference for recycled products in accordance with HRS 103D-1005. Bidders are required to complete this section. FAILURE TO COMPLETE THIS SECTION MAY BE SUFFICIENT CAUSE FOR REJECTION OF THE BID.

Only the following products are being considered for the recycled product preference. Please indicate your selection of recycled or non-recycled product by indicating its cost FOB jobsite unloaded in the schedule below, including applicable General Excise & Use Taxes.

<u>DESCRIPTION</u>	<u>RECYCLED PRODUCT COST</u>	<u>NONRECYCLED PRODUCT COST</u>
_____	\$ _____	\$ _____
_____	\$ _____	\$ _____
_____	\$ _____	\$ _____
_____	\$ _____	\$ _____

The bidder requesting a recycled product preference by his selection above, shall also complete and submit the form "CERTIFICATION OF RECYCLED CONTENT" as shown in the Interim General Conditions and provide all supporting information with this proposal. Additional information may be requested to qualify a product.

The following definitions are applicable to the CERTIFICATION OF RECYCLED CONTENT form:

"Post-consumer recovered material" means any product used by a consumer, including a business that purchases the material, that has served its intended end use, and that has been separated or diverted from the solid waste stream for the purpose of use, reuse, or recycling.

"Product" includes materials, manufactures, supplies, merchandise, goods, wares, and foodstuffs.

"Recovered material" means waste material and by-products that have been separated, diverted, or removed from the solid waste stream after a manufacturing process for the purpose of use, reuse, or recycling. Recovered material does not include those materials and by-products that are generated and normally reused on-site or within original manufacturing processes (such as mill broke, in the case of paper products).

"Recycled content" means the percentage of a product composed of recovered material, or post-consumer recovered material, or both.

"Recycled product" means a product containing recovered material, or post-consumer recovered material, or both.

The bidder agrees that preference for recycled products shall be taken into consideration to determine the low bidder in accordance with said Section and the rules promulgated, however, the award of contract will be in the amount of the bid offered exclusive any preference.

## APPRENTICESHIP AGREEMENT PREFERENCE

1. If applicable to this project, any bidder seeking the preference must be a party to an apprenticeship agreement registered with the State Department of Labor and Industrial Relations (DLIR) at the time the bid is submitted for each apprenticeable trade the bidder will employ to construct the project. “Employ” means the employment of a person in an employer-employee relationship.
  - a. The apprenticeship agreement shall be registered with the DLIR and conform to the requirements of Hawaii Revised Statutes Chapter 372.
  - b. Subcontractors do not have to be a party to an apprenticeship agreement for the bidder to obtain preference.
  - c. The bidder is not required to have apprentices in its employ at the time the bid is submitted to qualify for the preference.
2. A bidder seeking the preference must state the apprenticeable trade the bidder will employ for each trade to be employed to perform the work by submitting a completed signed original Certification Form 1 verifying participation in an apprenticeship program registered with DLIR. “Apprenticeable trade” shall have the same meaning as “apprenticeable occupation” pursuant to Hawaii Administrative Rules (HAR) §12-30-5.
  - a. The *Certification Form 1* shall be authorized by an apprenticeship sponsor listed on the DLIR list of registered apprenticeship programs. “Sponsor” means an operator of an apprenticeship program and in whose name the program is approved and registered with the DLIR pursuant to HAR §12-30-1.
  - b. The authorization shall be an original signature by an authorized official of the apprenticeship sponsor.
  - c. The completed signed original Certification Form 1 for each trade must be submitted with the bid. Previous certifications shall not apply.
  - d. When filling out the Certification Form 1, the name of Apprenticeable Trade and Apprenticeship Sponsor must be the same as recorded in the List of Construction Trades in Registered Apprenticeship Programs that is posted on the DLIR website. “Registered apprenticeship program” means a construction trade program approved by the DLIR pursuant to HAR §12-301 and §12-30-4.
  - e. The *Certificate Form 1* and the List of Construction Trades in Registered Apprenticeship Programs is available on the DLIR website at: <http://labor.hawaii.gov/wdd/>.
3. Upon receiving the Certification Form 1, the Procurement Officer will verify that the apprenticeship program is on the List of Construction Trades in Registered Apprenticeship Programs and that the form is signed by an authorized official of the Apprenticeship Program

Sponsor. If the programs and signature are not confirmed by the DLIR, the bidder will not qualify for the preference.

4. If the bidder is certified to participate in an apprenticeship program for each trade which will be employed by the bidder for the project, a preference will be applied to decrease the bidder's bid amount by five percent (5%) for evaluation purposes.
5. Should the bidder qualify for other preferences (e.g. Hawaii Products), all applicable preferences shall be applied to the bid price.

**CAMPAIGN CONTRIBUTIONS BY STATE AND COUNTY CONTRACTORS PROHIBITED**

If awarded a contract in response to this solicitation, offeror agrees to comply with HRS 11-355, which states that campaign contributions are prohibited from a State and county government contractor during the term of the contract if the contractor is paid with funds appropriated by a legislative body between the execution of the contract through the completion of the contract.

### CONDITION OF AWARD

It is understood that the award of the contract will be made on the basis of the lowest responsible Total Sum Base Bid (Items 1 to 9) selected by the Board of Land and Natural Resources.

It is understood and agreed that the Board of Land and Natural Resources reserves the right to reject any and/or all bids and waive any defects when, in the Board's opinion, such rejection or waiver will be for the best interest of the State of Hawaii.

In the event all bids exceed available funds certified by the appropriate fiscal officer, the head of the purchasing agency responsible for the procurement in question is authorized in situations where time or economic considerations preclude resolicitation of work of a reduced scope to negotiate an adjustment of the bid price, including changes in the bid requirements, with the low responsible and responsive bidder, in order to bring the bid within the amount of available funds. It is understood and agreed upon that the head of the purchasing agency may delete a portion or all of any item(s) in the proposal at the stated unit or lump sum price as necessary to stay within the available funding. The bidder is responsible to make an earnest effort to represent the actual cost of each item, including all materials, labor, equipment, overhead and profit in their bid proposal to preclude claims of anticipated profit or loss of profit because of an unbalanced bid proposal.

It is also understood that if a mutually agreeable cost for the reduced scope of work necessitated by a lack of available funds cannot be agreed upon between the bidder and the head of the purchasing agency within 14 calendar days after the bid opening, then the bid may be rejected in the best interest of the purchasing agency, and the head of the purchasing agency may negotiate in progressive order (lowest to highest) with the next lowest responsible and responsive bidder.

It is also understood and agreed that the award of the contract shall be conditioned upon funds being made available for this project and further upon the right of the Board of Land and Natural Resources to hold all bids received for a period of sixty (60) days from the date of the opening thereof, unless otherwise required by law, during which time no bid may be withdrawn.

It is also understood that Notice to Proceed may be delayed up to one (1) year after the bid opening date, and that no additional compensation will be provided for any claim for escalation or delay for issuance of Notice to Proceed on or before that date.

It is also understood and agreed that the quantities given herewith are approximate only and are subject to increase or decrease, and that the undersigned will perform all quantities of work as either increased or decreased, in accordance with the provisions of the Contract Specifications.

It is also understood and agreed that the estimated quantities shown for the items for which a UNIT PRICE is asked in this Proposal are only for the purpose of comparing on a uniform basis, bids offered for the work under this contract, and the undersigned agrees that he is satisfied with and will at no time, dispute said estimated quantities as a means of claims for anticipated profit or loss of profit, because of a difference between the quantities of the various classes of work done or the materials and equipment installed, and the said estimated quantities. On UNIT PRICE bids, payment will be made only for the actual number of units incorporated into the finished project at the contract UNIT PRICE.

After the proposals are opened and read, the figures will be extended and/or totaled in accordance with the bid prices of the acceptable proposals and the totals will be compared. In the comparison of bids, words written in the proposal shall govern over figures and unit prices will govern over totals. Until the award of the contract, however, the right will be reserved to reject any and all proposals and to waive any defects or technicalities as may be deemed best for the interest of the State.

It is also understood and agreed that liquidated damages in the amount of THREE HUNDRED AND NO/100 DOLLARS (\$ 300.00 ) for each and every calendar day in excess thereof prior to completion of the contract shall be withheld from payments due to the Contractor.

It is also understood and agreed that if this bid is accepted, the successful bidder must enter into and execute a contract with the Board of Land and Natural Resources and furnish a Performance and Payment Bond, as required by law. These bonds shall conform to provisions of Section 103D-324 and 325, Hawaii Revised Statutes and any law applicable hereto.

It is also understood and agreed that the successful bidder will provide all necessary labor, materials, tools, equipment, and other incidentals necessary to do all the work and furnish all the materials specified in the contract in the manner and time herein prescribed, and according to the requirements of the Engineer as therein set forth.

It is understood that by submitting this proposal, the undersigned is declaring that his firm has not been assisted or represented on this matter by an individual who has, in a State capacity, been involved in the subject matter of this contract in the past two years.

It is understood that by submitting this proposal in accordance with HAR 3-122-192, the undersigned is declaring that the price submitted is independently arrived without collusion.

It is also understood that by submitting this proposal, a Certification for Safety and Health Programs for bids in excess of \$100,000 (in accordance with HRS 396-18), the undersigned certifies that his organization will have a written safety and health plan for this project that will be available and implemented by the Notice to Proceed date of this project. Details of the requirements of this plan may be obtained from the Department of Labor and Industrial Relations, Occupational, Safety and Health Division (HIOSH).

It is further understood and agreed that the successful bidder shall comply with paragraph 3.1.a "SUBCONTRACTING" of the General Provisions which requires that the contractor shall perform with his own organization and with the assistance of workmen under his immediate superintendence, work of a value not less than twenty percent (20%) of the value of all work embraced in the Contract, except that certain contract items of work, if specifically referred to in the special provisions, will be exempted from said twenty percent requirement.

Compliance with §103-310 HRS. As a condition of award all bidders shall comply with all laws governing entities doing business in the State, including Chapter 237 HRS (general excise tax); Chapter 383 HRS (employment security – unemployment insurance); Chapter 386 HRS (workers compensation); Chapter 392 HRS (temporary disability insurance); and Chapter 393 HRS (pre-paid health care), and shall produce all documents to the State (DLNR, Engineering Division) required to demonstrate compliance with these subsections. Any bidder making a false affirmation or certification under this subsection shall be suspended and may be debarred from further offerings or awards pursuant to §103D-702 HRS.

**RECEIPT OF ADDENDA**

The bidder also acknowledges receipt of any and all addenda issued by the Engineering Division, by recording the date of receipt of the respective addenda in the space provided below:

<u>Addendum</u>	<u>Date Received</u>	<u>Addendum</u>	<u>Date Received</u>
No. 1	_____	No. 5	_____
No. 2	_____	No. 6	_____
No. 3	_____	No. 7	_____
No. 4	_____	No. 8	_____

It is understood that failure to receive any such addendum shall not relieve the Contractor from any obligation under this Proposal as submitted.

It is also understood and agreed that if this Proposal is accepted and the undersigned should fail or neglect to contract as aforesaid, the Board may determine that the bidder has abandoned the Contract, and thereupon, forfeiture of the security accompanying his proposal shall operate and the same shall become the property of the Board.

**JOINT CONTRACTORS OR SUBCONTRACTORS  
TO BE ENGAGED ON THIS PROJECT**

The Bidder agrees that the following is a complete listing of all joint contractors or subcontractors covered under Chapter 444, Hawaii Revised Statutes (HRS), who will be engaged by the Bidder on this project to perform the required work indicated pursuant to Section 103D-302, HRS. It is the sole responsibility of the contractor to review the requirements of this Project and determine the appropriate licenses that are required to complete the Project. The Bidder certifies that the completed listing of joint contractors or subcontractors fulfills the requirements for the project and the Bidder, together with the listed subcontractors or joint contractors have all the specialty contractor’s licenses to complete the work, except as provided for in HRS §103D-302(b). Failure of the Bidder to comply with this requirement may be just cause for rejection of the bid.

“A” General Engineering Contractors and “B” General Building Contractors are reminded that due to the Hawaii Supreme Court’s January 28, 2002 decision in Okada Trucking Co., Ltd. v. Board of Water Supply, et al., 97 Haw. 450 (2002), they are prohibited from undertaking any work, solely or as part of a larger project, which would require the general contractor to act as a specialty contractor in any area in which the general contractor has no license. Although the “A” and “B” contractor may still bid on and act as the “prime” contractor on an “A” or “B” project (See, HRS §444-7 for the definitions of an “A” and “B” project.), respectively, the “A” and “B” contractor may only perform work in the areas in which they have the appropriate contractor’s license (*An “A” or “B” contractor obtains “C” specialty contractor’s licenses either on its own, or automatically under HAR § 16-77-32*). The remaining work must be performed by appropriately licensed entities.

General Engineering “A” Contractors automatically have these “C” specialty contractor’s



Enclosed herewith is a:

- 1. Surety Bond (\*1) )
- 2. Legal Tender (\*2) )
- 3. Cashier's Check (\*3) )
- 4. Certificate of Deposit (\*3) ) in the
- 5. Certified Check (\*3) ) amount
- 6. Official Check (\*3) ) of
- 7. Share Certificate (\*3) )
- 8. Teller's Check (\*3) )
- 9. Treasurer's Check (\*3) )

(Cross Out Those Not Applicable)

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Dollars (\$ \_\_\_\_\_)

as required by law.

Respectfully submitted,

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Name of Company, Joint Venture  
or Partnership

---

Contractor's License No.

By \_\_\_\_\_  
Signature (\*4)

Title \_\_\_\_\_

Print Name \_\_\_\_\_

Date \_\_\_\_\_

Address \_\_\_\_\_

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Telephone No. \_\_\_\_\_

NOTES:

1. Surety bond underwritten by a company licensed to issue bonds in this State;
2. Legal tender; or
3. A certificate of deposit; share certificate; or cashier's, treasurer's, teller's, or official check drawn by, or a certified check accepted by, and payable on demand to the State by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration.
  - A. These instruments may be utilized only to a maximum of \$100,000.
  - B. If the required security or bond amount totals over \$100,000, more than one instrument not exceeding \$100,000 each and issued by different financial institutions shall be accepted.
4. Please attach to this page evidence of the authority of this officer to submit bids on behalf of the Company and also the names and residence addresses of all officers of the Company.
5. Fill in all blank spaces with information asked for or bid may be invalidated.  
PROPOSAL MUST BE INTACT, MISSING PAGES MAY INVALIDATE YOUR BID.

**End of Proposal**