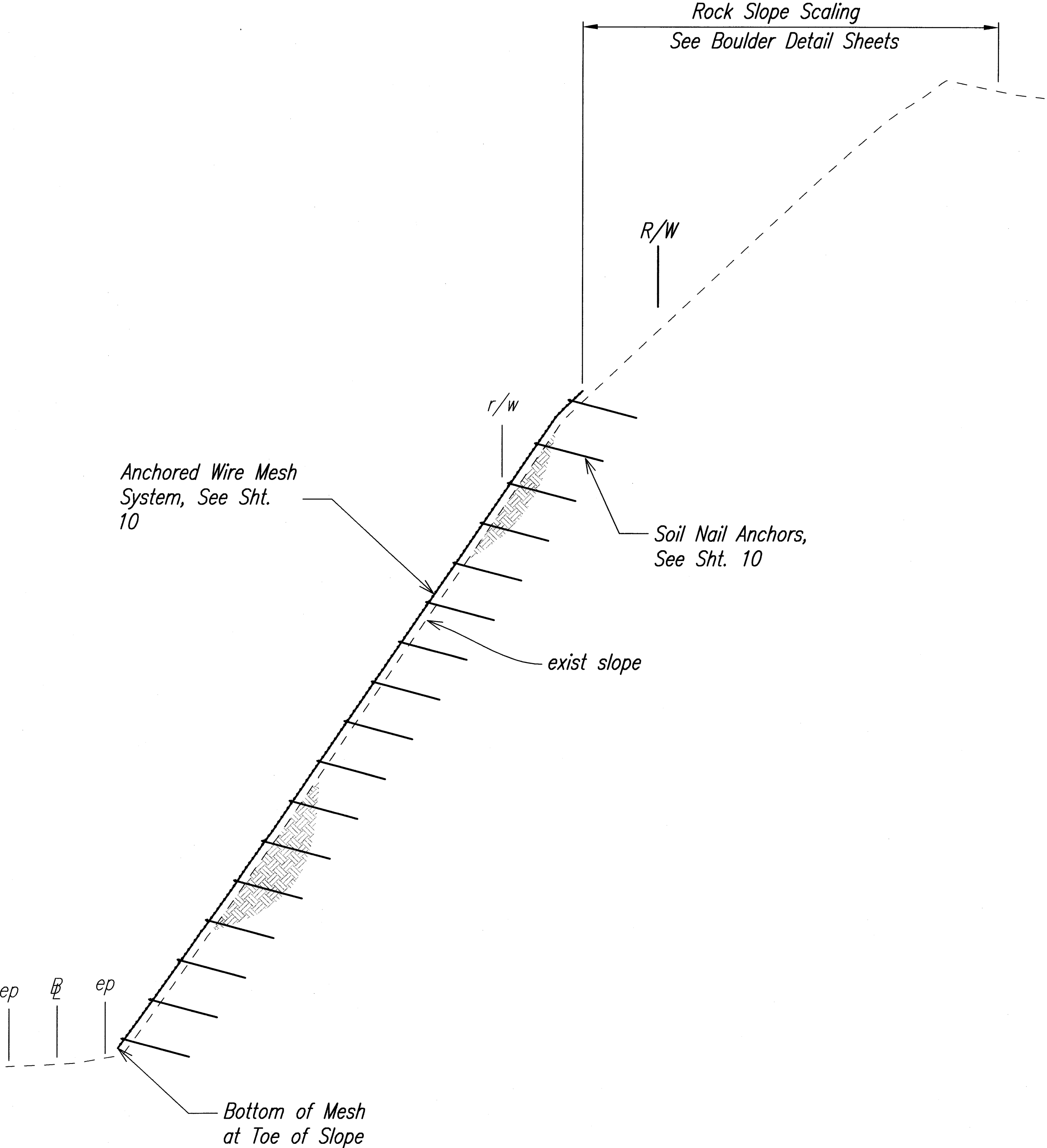


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-15(21)	2010	42	89

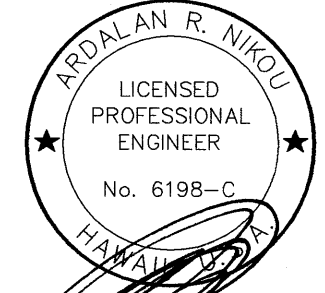


Boulder List				
Location	Number of Rocks	Size (ft)	Latitude (°)	Longitude (°)
P34	1	4 x 3 x 4	19.98907	-155.24825
	6	1.5 x 1 x 1		
P50	1	8 x 8 x 6.5	19.98787	-155.24962
P51	~100	1 x 0.5 x 0.6	19.98832	-155.24948
P52	~50	1 x 0.6 x 0.4	19.98843	-155.24967
P53	~180	1 x 0.5 x 0.5	19.98847	-155.24987
	1	6 x 8 x 5		
P54	1	2 x 2.5 x 3.5	19.98855	-155.25002
	1	12 x 13 x 9		
	~50	0.5 x 0.5 x 0.5		
P55	1	3 x 6 x 2	19.98863	-155.24975
P56	1	6 x 4 x 3	19.98872	-155.24955
	1	6 x 14 x 4		
P57	1	1.5 x 5 x 1.5	19.98892	-155.24942
P59	1	4.5 x 2.3 x 2	19.98890	-155.24930
P60	8	3 x 3 x 3	19.98890	-155.24930
P61	4	2.5 x 1.5 x 1.5	19.98890	-155.24930
P62	1	2.5 x 6.5 x 6	19.98910	-155.24898
	3	1 x 1 x 1		
P63	1	6 x 4 x 6	19.98925	-155.24883

ORIGINAL PLAN	DATE
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	

DRAWN BY: [Blank] DATE: [Blank]
 CHECKED BY: [Blank]
 DESIGNED BY: [Blank]
 QUANTITIES BY: [Blank]
 PLOT DATE: 08-05-2010 08:52 am
 PLOT SCALE: 1" = 20'

AECOM



EXPIRATION DATE OF THE LICENSE 4/30/2010
 THIS WORK WAS PREPARED BY
 ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

MP 26.55 TYPICAL SECTION

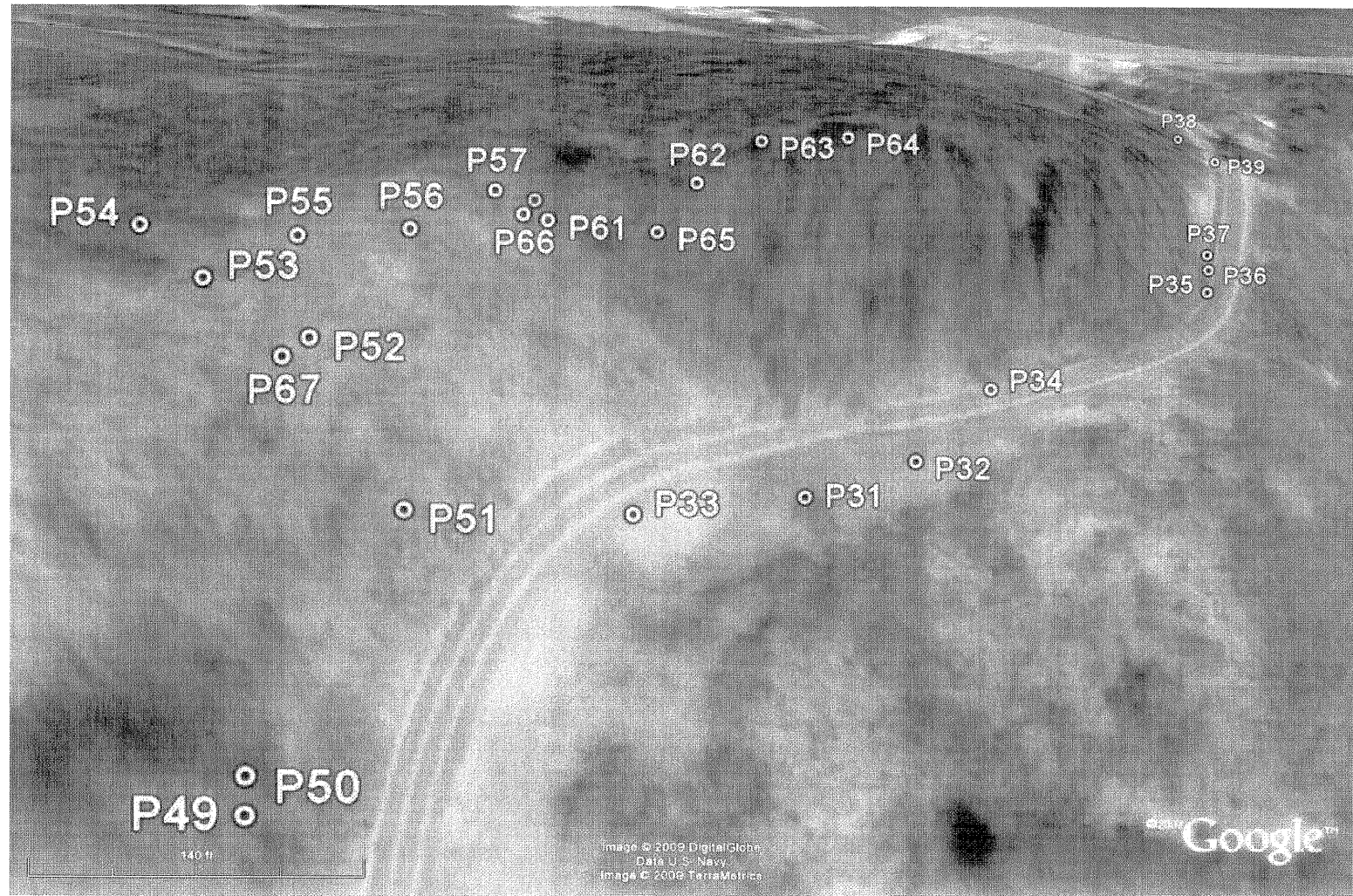
EMERGENCY EARTHQUAKE ROCKFALL REPAIRS
AT VARIOUS LOCATIONS

F.A. Project No. ER-15(21)

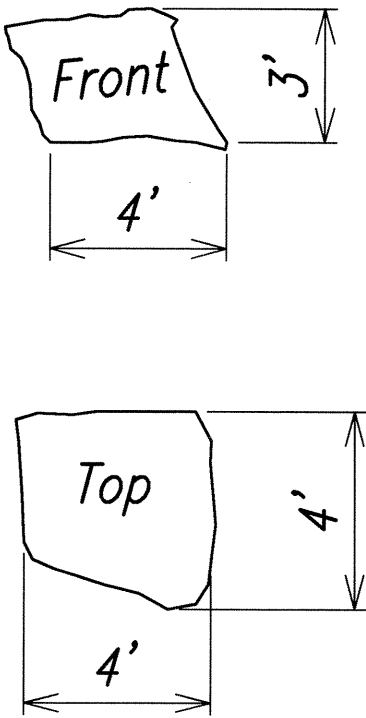
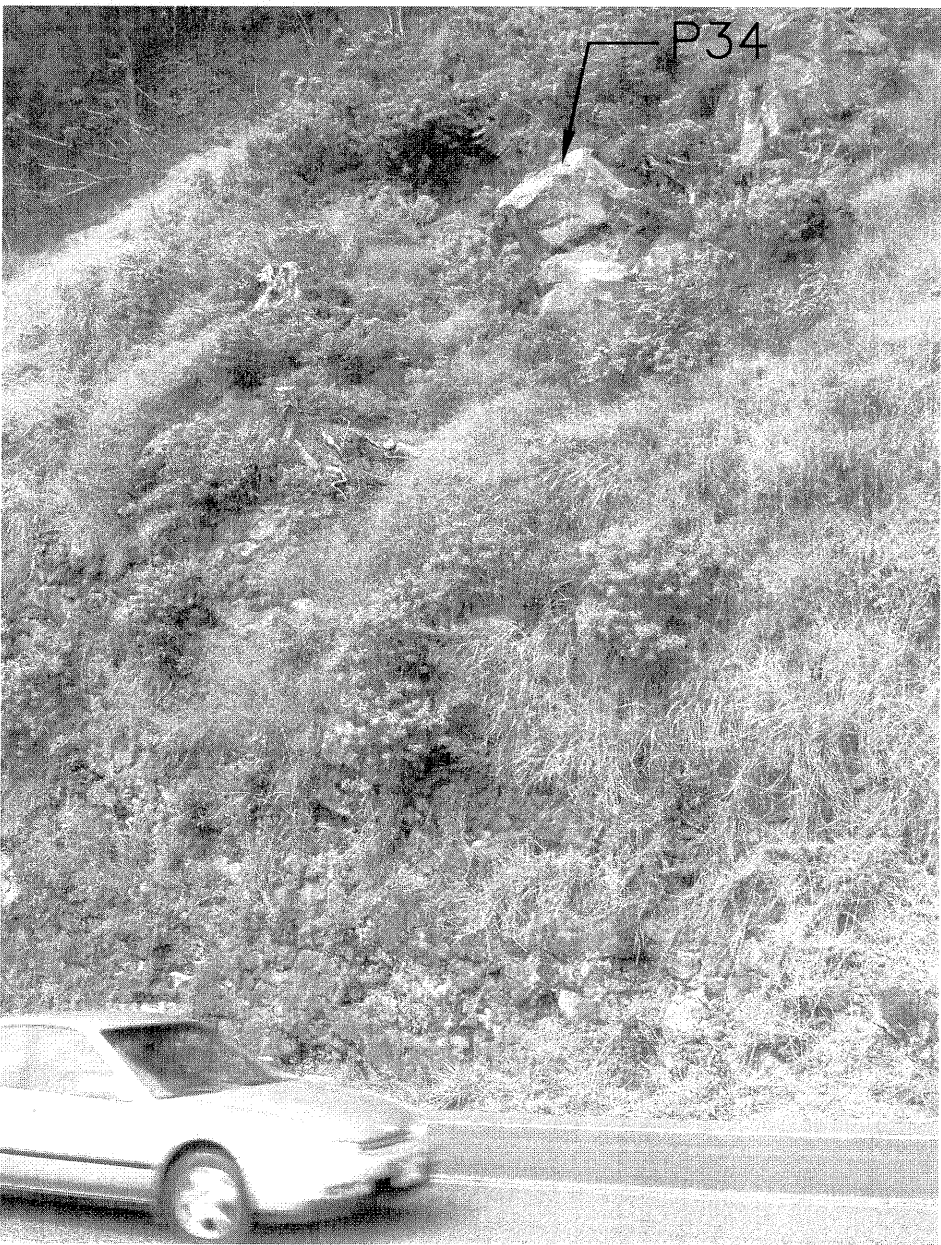
Scale: As Noted Date: December, 2009

SHEET No. 2 OF 5 SHEETS

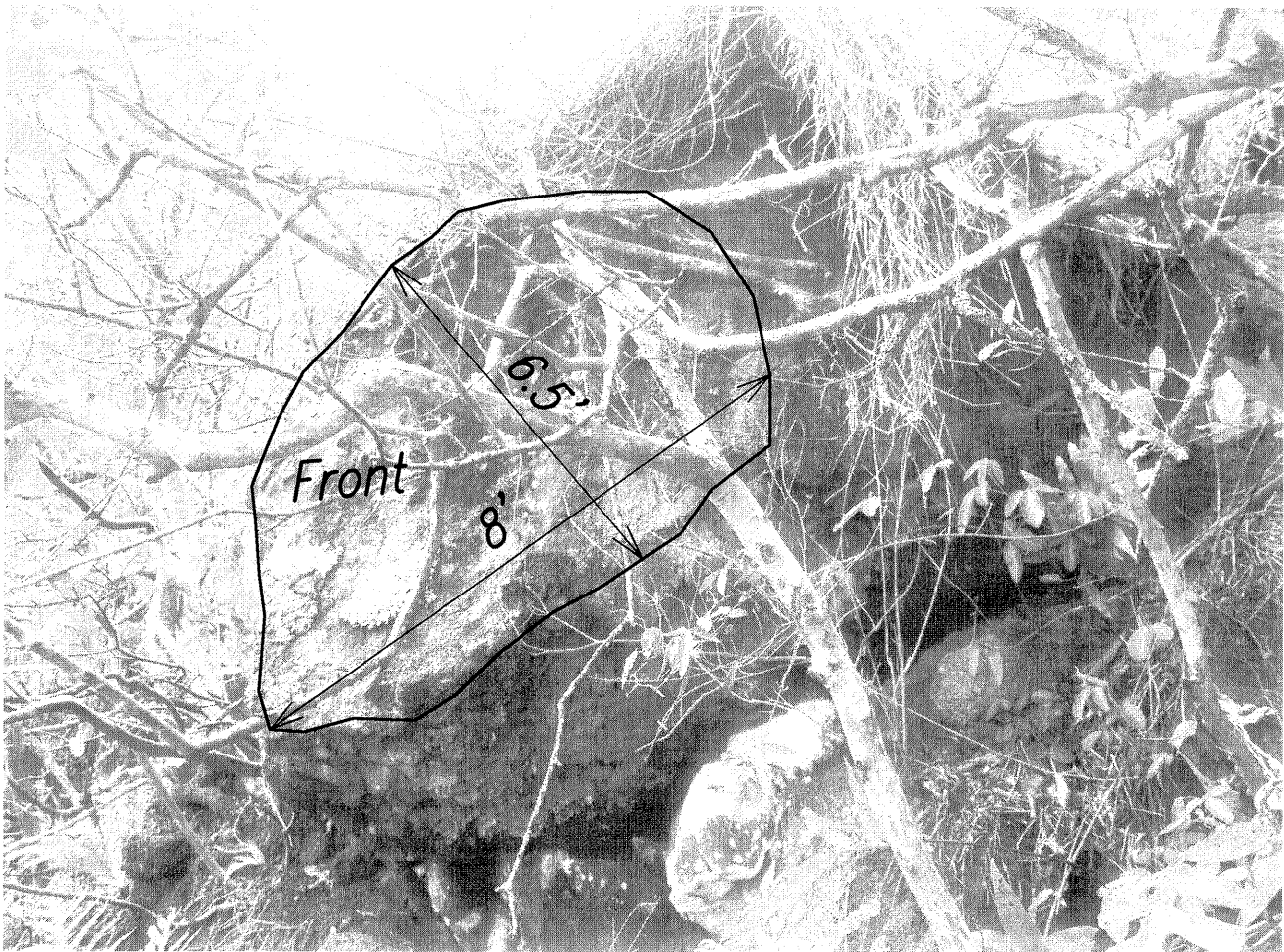
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-15(21)	2010	43	89



Location Map
MP 26.55, Route 19



P34
1 rock, size 4' x 3' x 4'
6 rocks, average size 1.5' x 1' x 1'
On the cliff at Lat. 19.98907°, Log. -155.24825°
(not to scale)



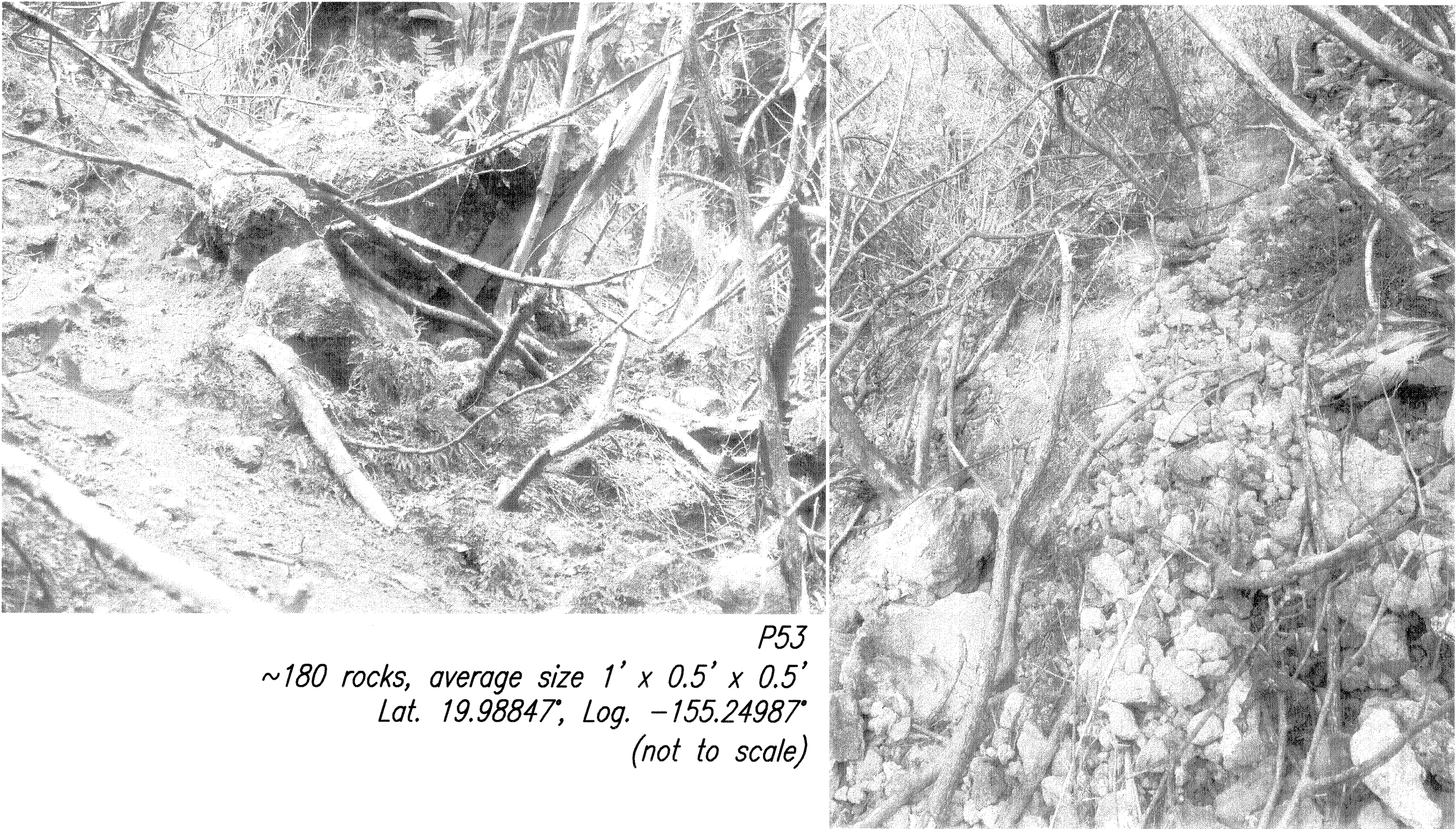
P50
1 block, size 8' x 6.5' x 8'
Lat. 19.98787°, Log. -155.24962°
(not to scale)



P51
~ 100 rocks, average size 1' x 0.5' x 0.6'
Lat. 19.98832°, Log. -155.24948°
(not to scale)



P52
~50 rocks, average size 1' x 0.6' x 0.4'
Lat. 19.98843°, Log. -155.24967°
(not to scale)

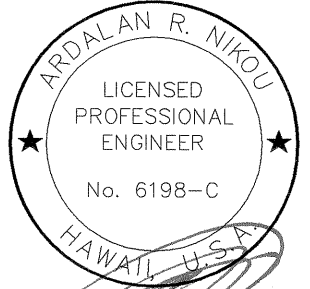


P53
~180 rocks, average size 1' x 0.5' x 0.5'
Lat. 19.98847°, Log. -155.24987°
(not to scale)

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
No.	DESIGNED BY	
	CHECKED BY	

PROJECT NAME: P-15(21)0001-001 Earthquake Remedial Repair (A-1) MP 26.55 Boulder Details (A) ROUTE: 19-20-2009 @ 08:35 am PLOT DATE: 01-06-2010 @ 09:00 am

AECOM



EXPIRATION DATE OF THE LICENSE 4/30/2010
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

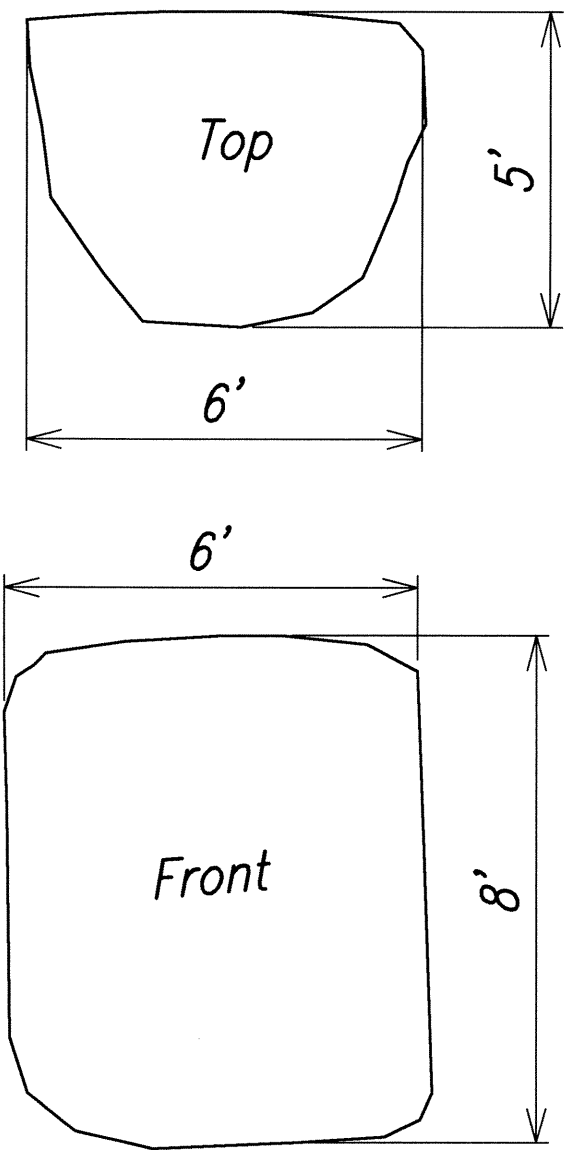
MP 26.55 BOULDER DETAILS

EMERGENCY EARTHQUAKE ROCKFALL REPAIRS
AT VARIOUS LOCATIONS

F.A. Project No. ER-15(21)

Scale: As Noted Date: December, 2009

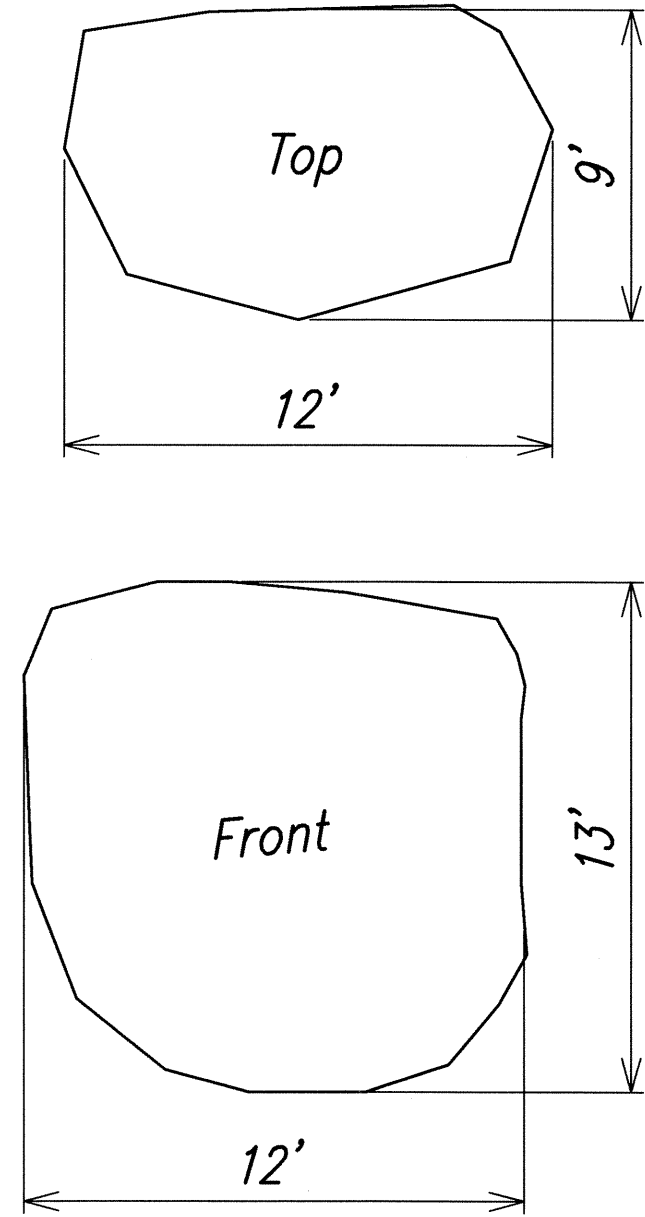
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-15(21)	2010	44	89



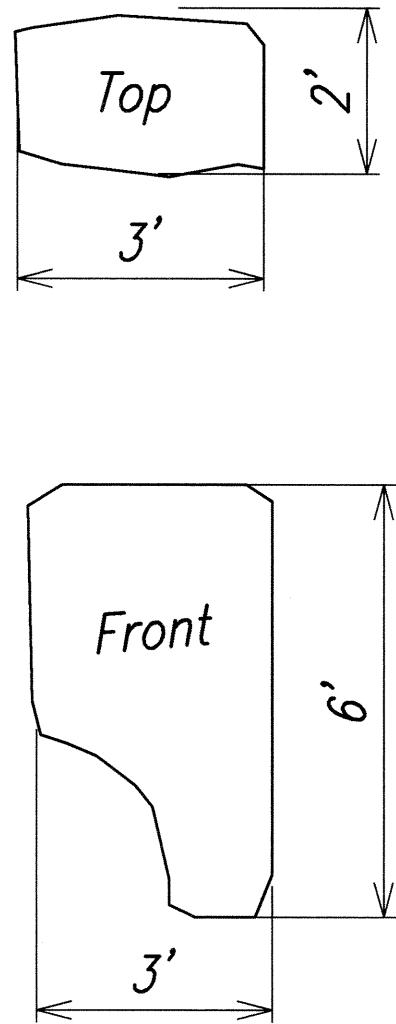
P53
1 rock, average size 6' x 8' x 5'
Lat. 19.98847°, Log. -155.24987°
(not to scale)



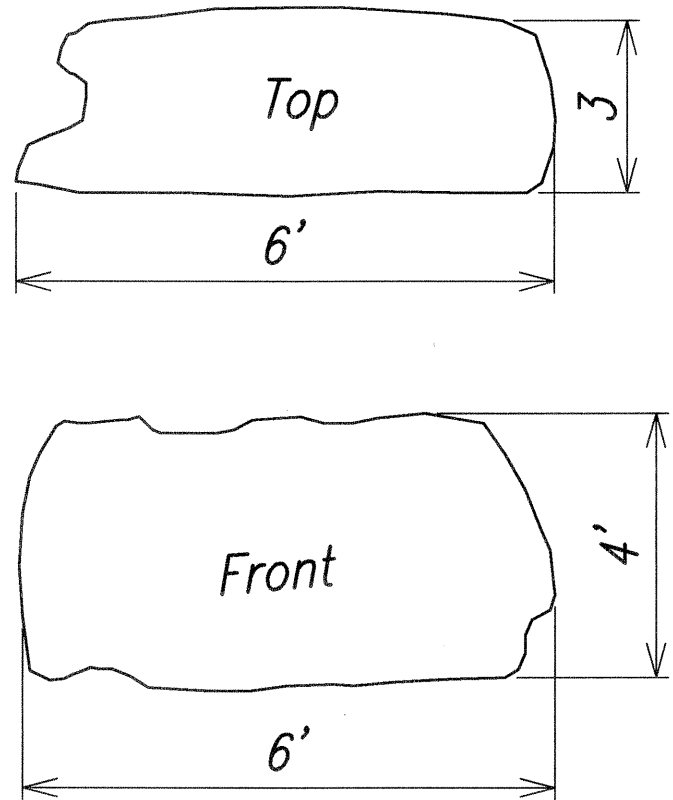
P54
~50 rocks, average size 0.5' x 0.5' x 0.5'
1 rock, size 2' x 2.5' x 3.5'
Lat. 19.98855°, Log. -155.25002°
(not to scale)



P54
1 rock, size 12' x 13' x 9'
Lat. 19.98855°, Log. -155.25002°
(not to scale)



P55
1 rock, size 3' x 6' x 2'
Lat. 19.98863°, Log. -155.24975°
(not to scale)

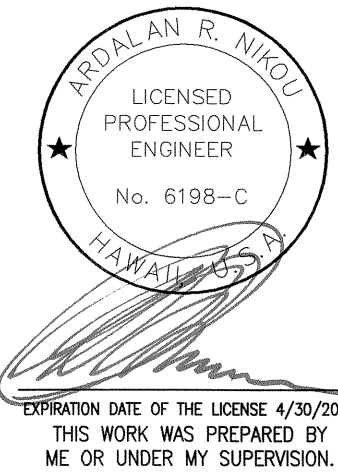


P56
1 rock, size 6' x 4' x 3'
Lat. 19.98872°, Log. -155.24955°
(not to scale)

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
No.	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

REV/REVISION: P:\1\100013-001 Earthquake Remedial Repairs\04_P54\01 Drawings\14 MP 26.55 Boulder Details.dwg (JST) (PDS) 14-12-2009 @ 03:24 pm E:\JST DATE: 09-06-2010 @ 09:30 am

AECOM



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MP 26.55 BOULDER DETAILS

EMERGENCY EARTHQUAKE ROCKFALL REPAIRS

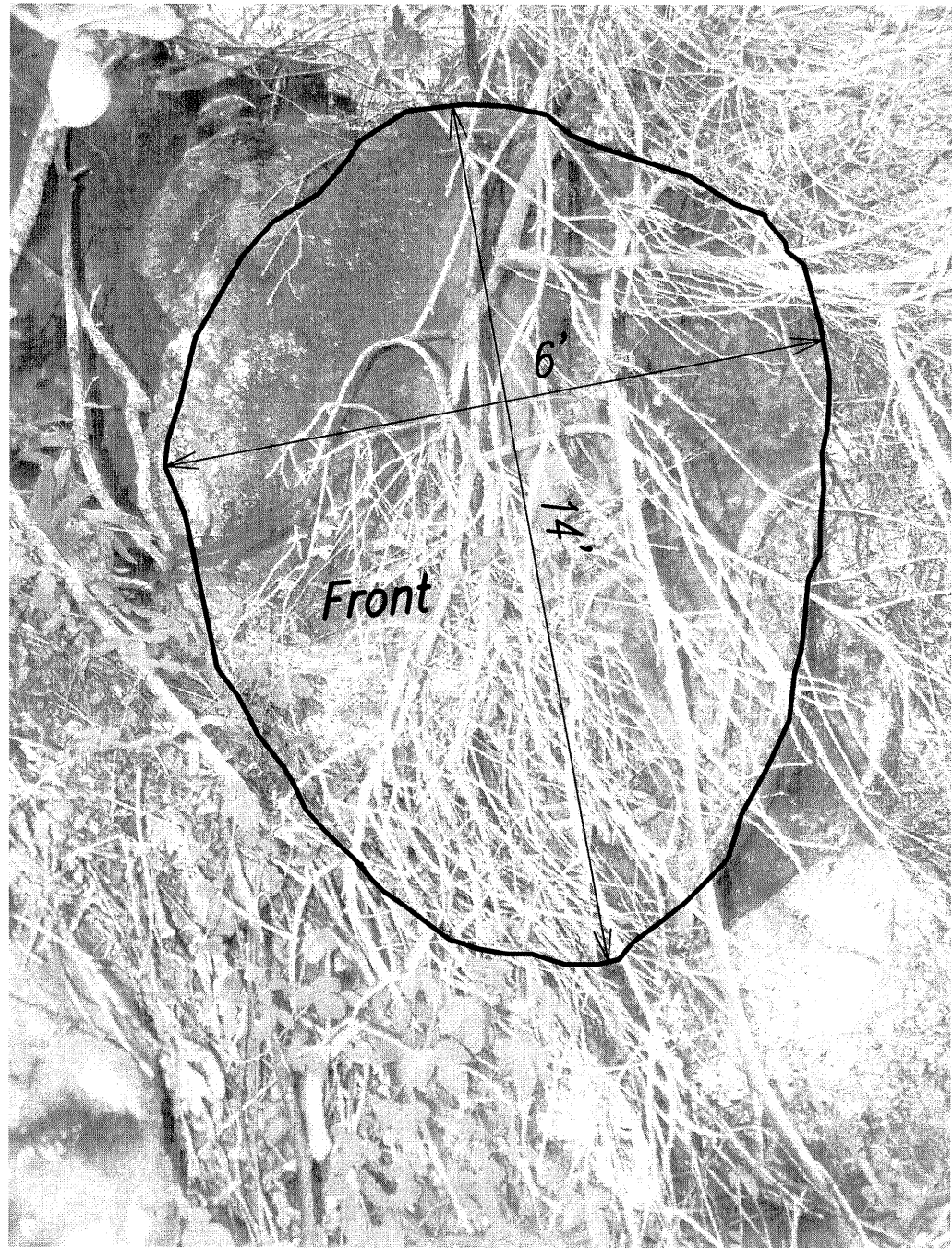
AT VARIOUS LOCATIONS

F.A. Project No. ER-15(21)

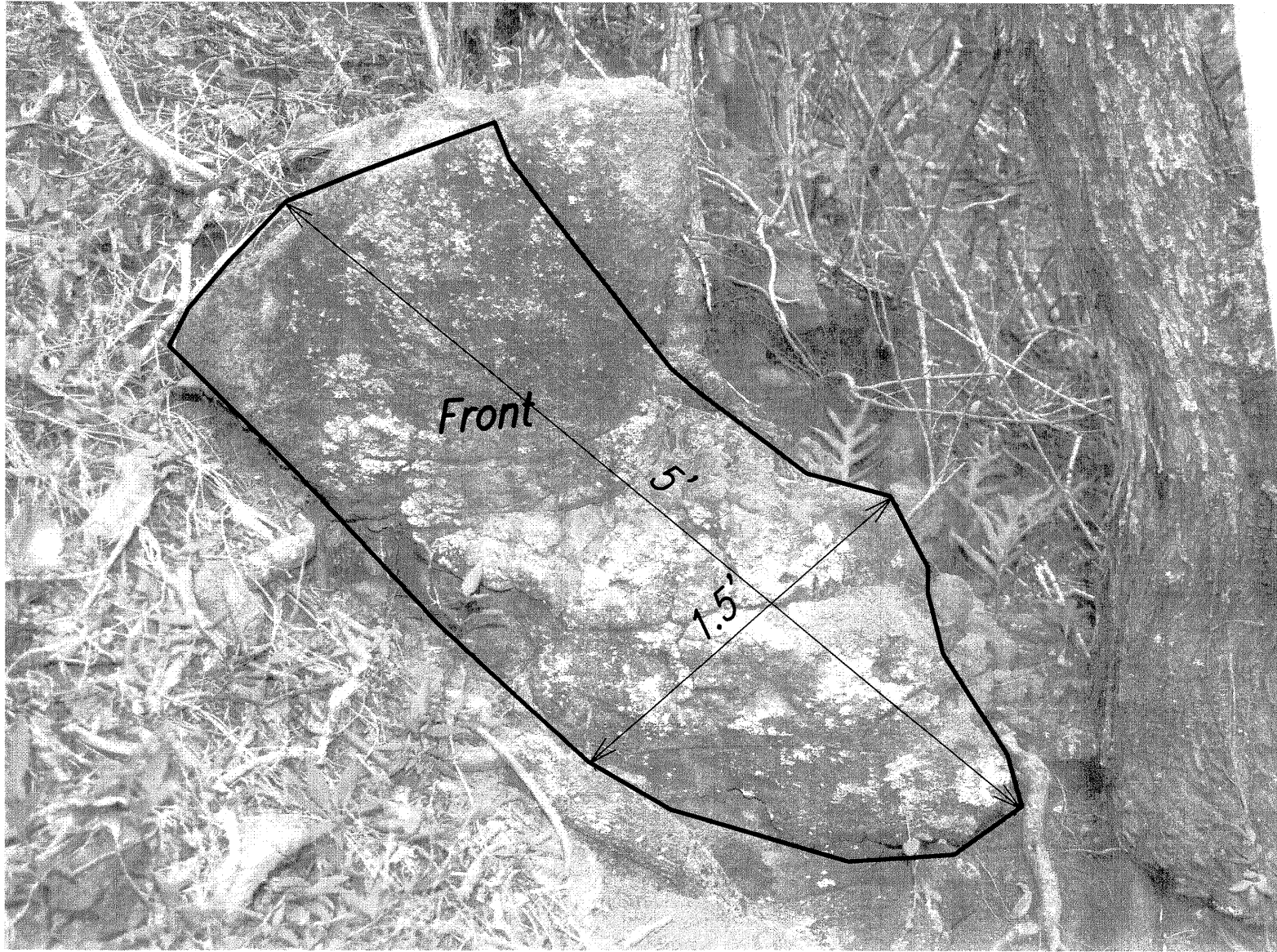
Scale: As Noted Date: December, 2009

SHEET No. 4 OF 5 SHEETS

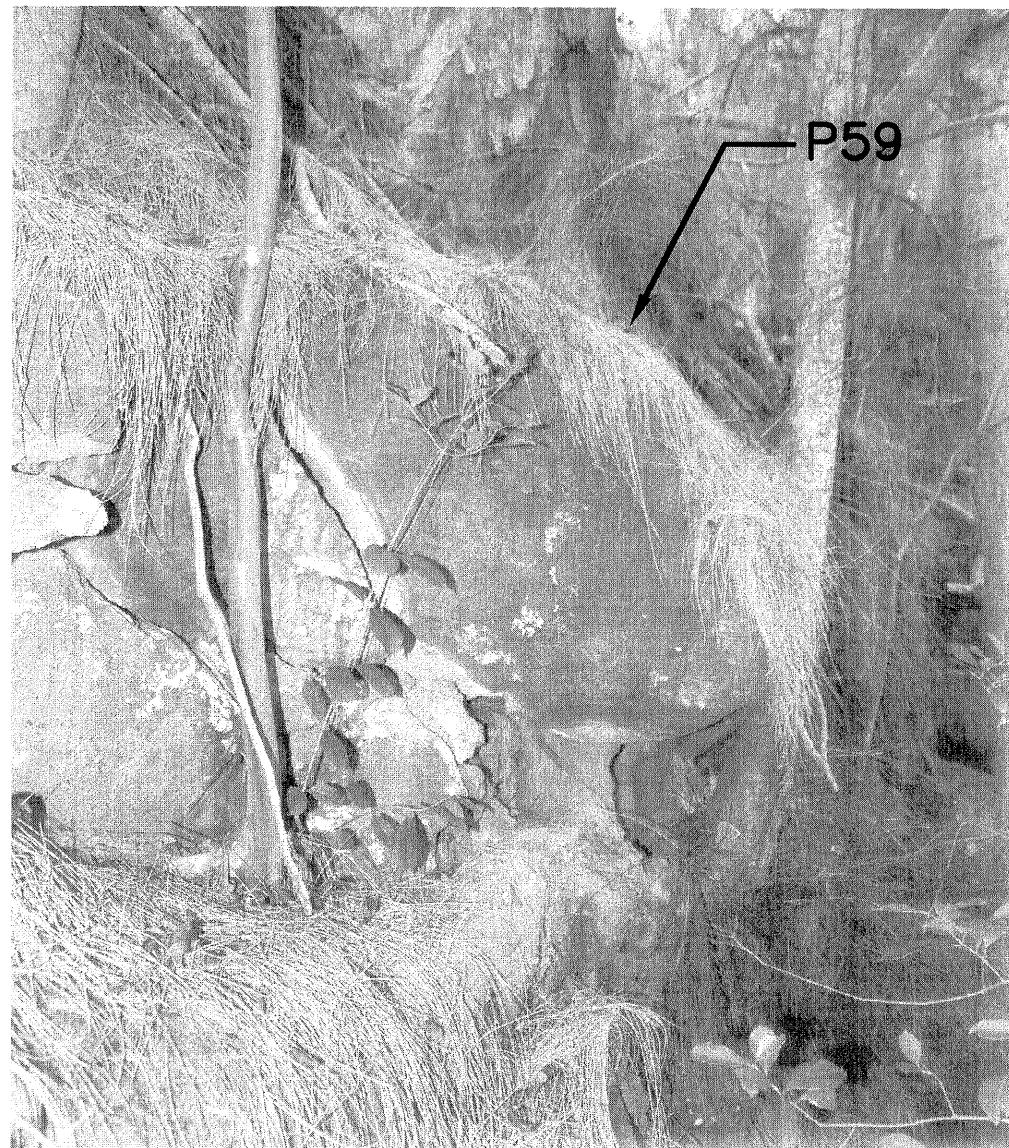
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ER-15(21)	2010	45	89



P56
1 rock, size 6' x 14' x 4'
Lat. 19.98872°, Log. -155.24955°
(not to scale)



P57
1 rock, size 1.5' x 5' x 1.5'
Lat. 19.98892°, Log. -155.24942°
(not to scale)



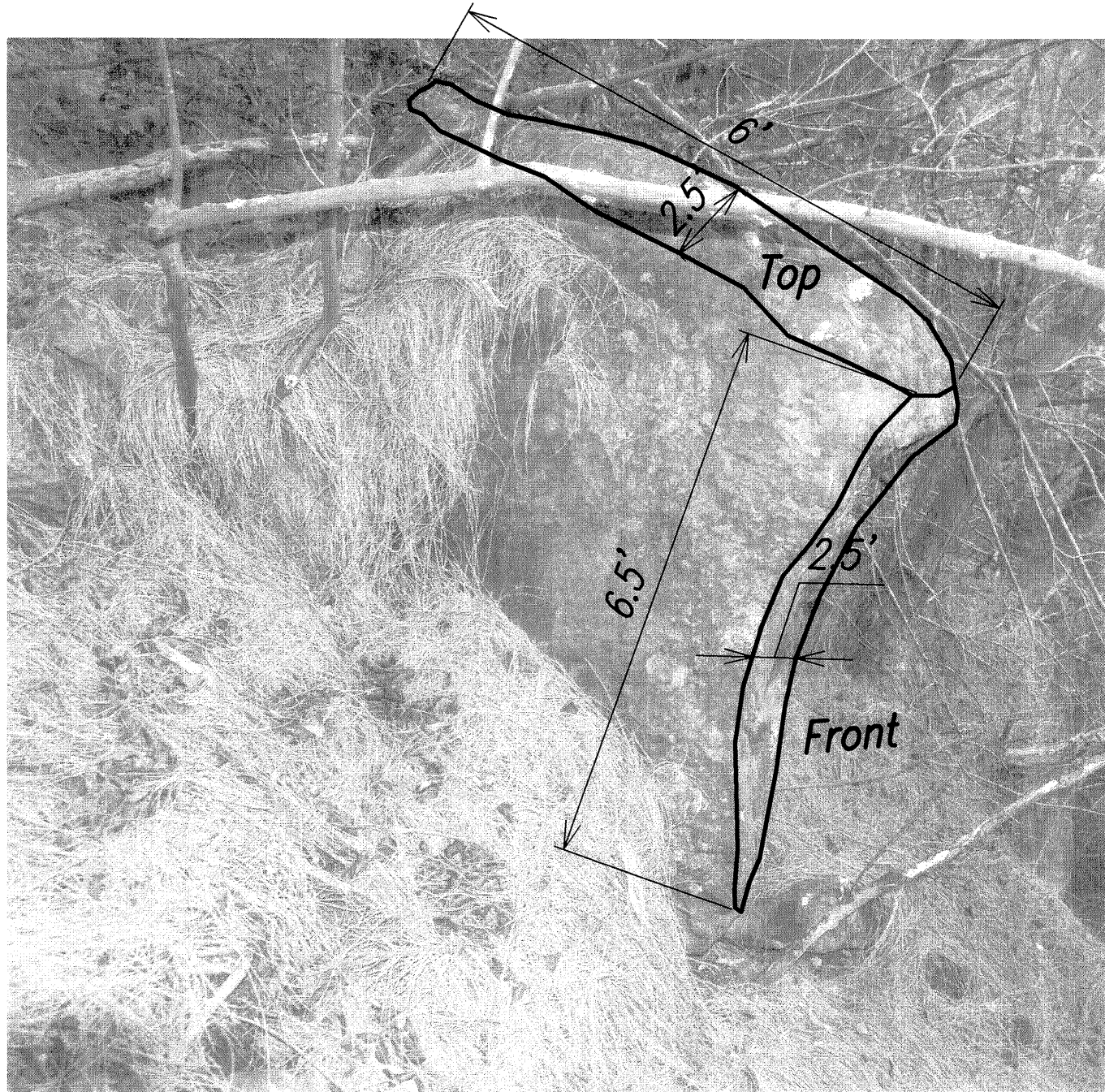
P59
1 rock, size 4.5' x 2.3' x 2'
Lat. 19.98890°, Log. -155.24930°
(not to scale)



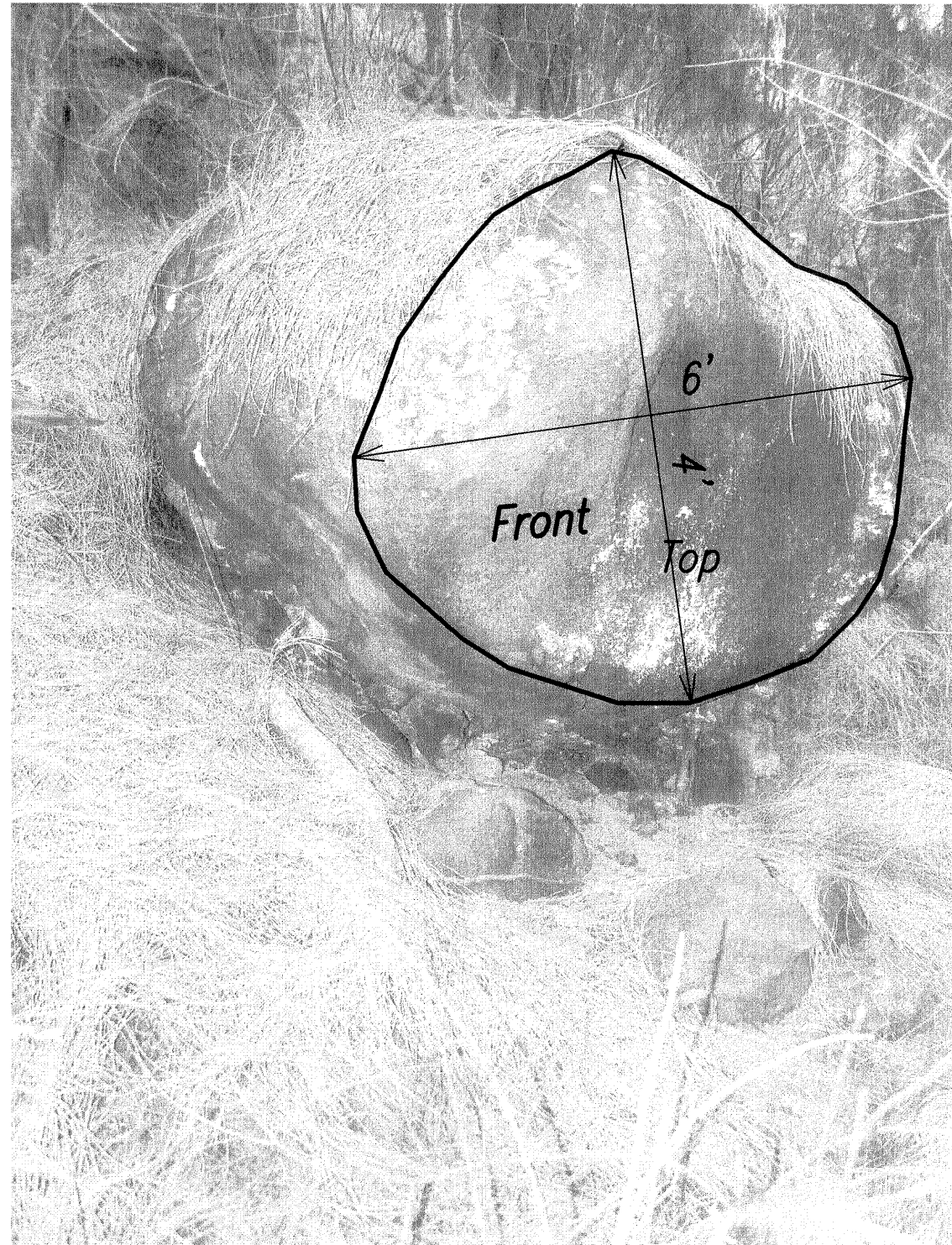
P60
8 rocks, average size 3' x 3' x 3'
Lat. 19.98890°, Log. -155.24930°
(not to scale)



P61
4 rocks, average size 2.5' x 1.5' x 1.5'
Lat. 19.98890°, Log. -155.24930°
(not to scale)



P62
1 rock, size 2.5' x 6.5' x 6'
3 rocks, average size 1' x 1' x 1'
Lat. 19.98910°, Log. -155.24898°
(not to scale)

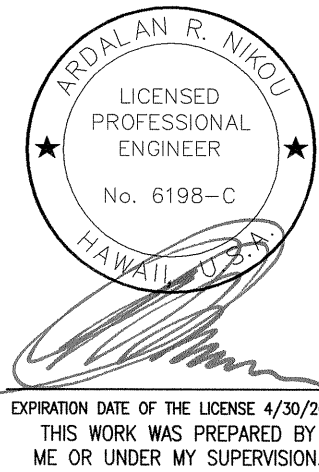


P63
1 rock, size 6' x 4' x 6'
Lat. 19.98925°, Log. -155.24883°
(not to scale)

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	CHECKED BY	
No.		

REVISED: P-17 (08/13-20) Earthquake Remedial Repair (04/08/05) MP 26.55 Boulder details.dwg (04/08/05) 54-05-2010 © 08/01 am PLOT DATE: 01-26-2010 © 08/01 am

AECOM



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MP 26.55 BOULDER DETAILS
EMERGENCY EARTHQUAKE ROCKFALL REPAIRS
AT VARIOUS LOCATIONS
F.A. Project No. ER-15(21)
Scale: As Noted Date: December, 2009
SHEET No. 5 OF 5 SHEETS