

## Buffer Breaches

**Site 19947** is located within Kohanaiki Ahupua'a and consists of three collections of stacked rocks. It is interpreted as an ahupua'a boundary marker. It has an accepted preservation buffer of 5 m (approximately 15 feet) on all sides. Grading activities encroached within 2.4 meters of the eastern edge, as measured from feature B (the eastern most rock pile). The site itself was not damaged.

Preservation measures from the APMP ( Hammatt and Shideler, 2014), p. 51:

Preservation will be through avoidance and protection (conservation). There will be a construction buffer zone of 5 m on all sides of the site. The buffer zone is depicted in Figure 33. The buffer zone would not be demarcated on the ground, other than the continuous barrier on the highway side during construction.

**Site 28783**, located within Kaloko Ahupua'a consists of a complex of six agricultural planting areas and has an accepted preservation buffer of 5 m on all sides except the east (highway) side where the buffer is 3.6 m (approx. 11.8 ft). Grading activities associated with the Queen Kaahumanu Highway Widening Phase 2 project encroached upon Feature B, which is located directly in front of a large culvert. Grading encroached to within 2.6 meters of the two Christmas berry trees which are presumed to denote 2 features of this site (unclear which letter corresponds to which site for Features C-F).

Preservation measures from the APMP ( Hammatt and Shideler, 2014), p. 98 and 103:

**Feature B** is an 'a'a excavation comprised of several adjacent and partially interconnected areas that have been cleared to a level bedrock surface. The cleared areas consist of a layer of sediment and organic debris of varying thickness that presently supports the growth of Christmas berry trees and grasses. The cleared areas are irregularly shaped and enclosed by a combination of unmodified 'a'a flow and roughly stacked a'a cobble and small boulders. Modern garbage, including aluminum cans, bottle mattresses and food containers is scattered throughout Feature B. The eastern side of the excavation has been covered, and potentially impacted by massive basalt "blue-rock" boulders likely pushed into the site during initial construction of the Queen Kaahumanu Highway. No artifacts or midden observed.

This site was recommended for interim preservation with protection behind a continuous barrier on the highway (east) side during highway widening work with a commitment to the previously agreed-to mitigation (excavation) prior to any future land disturbance in the immediate vicinity. Interim preservation will be through avoidance and protection (conservation). Preservation of Features A&C through F is indicated. Feature B is recommended for Data Recovery.

**Site 28811** is located within 'O'oma 1<sup>st</sup> Ahupua'a and consists of a pahoehoe excavation interpreted as a quarry site. It has a preservation buffer of 5 m on all sides except the highway sides (east), where the buffer is 2.2 m. Grading activities associated with the Queen Kaahumanu Highway Widening Phase 2 project encroached to within 1.2 m of the eastern edge of the site. The site itself was not damaged

Preservation measures from the APMP ( Hammatt and Shideler, 2014), p. 108:

This site is recommended for interim preservation with protection behind a continuous barrier on the highway (east) side during highway widening work with a commitment to previously agreed to mitigation (excavation) prior to any future land disturbance in the immediate vicinity. Interim preservation will be through avoidance and protection (conservation). There will be a buffer zone of 5 m on all sides of the site except for the mauka side where it will be 2.2 m. The buffer zone would not be demarcated to on the ground.

Recommendation is no further action upon concurrence from SHPD. Section 5.7 of the APMP notes that SHPD has requested permanent buffer zones be demarcated with plants or some type permanent barrier if a site is threatened by on-going activities. Because of its location, Feature B of Site 28783 may be threatened by on-going activities. However, the recommendation for this site is data recovery rather than preservation. Possibly because of its location in front of the culvert.

### Attachment A-Site 19447 photographs



September 9, 2016 photograph of Site 19447 looking north.



Same photograph of Site 19447 looking north taken on May 12, 2020 (with meter stick along limits of grading).





May 12, 2020 photograph of Site 19447 taken from the breach looking west (with meter stick along limits of grading).



May 12, 2020 photograph of Site 19447 taken from Feature B looking east (with meter stick along limits of grading).



**Attachment B-Site 28783 photographs**



September 9, 2016 photograph of Site 28783 looking north.



Same photograph of Site 28783 looking north taken on May 12, 2020.



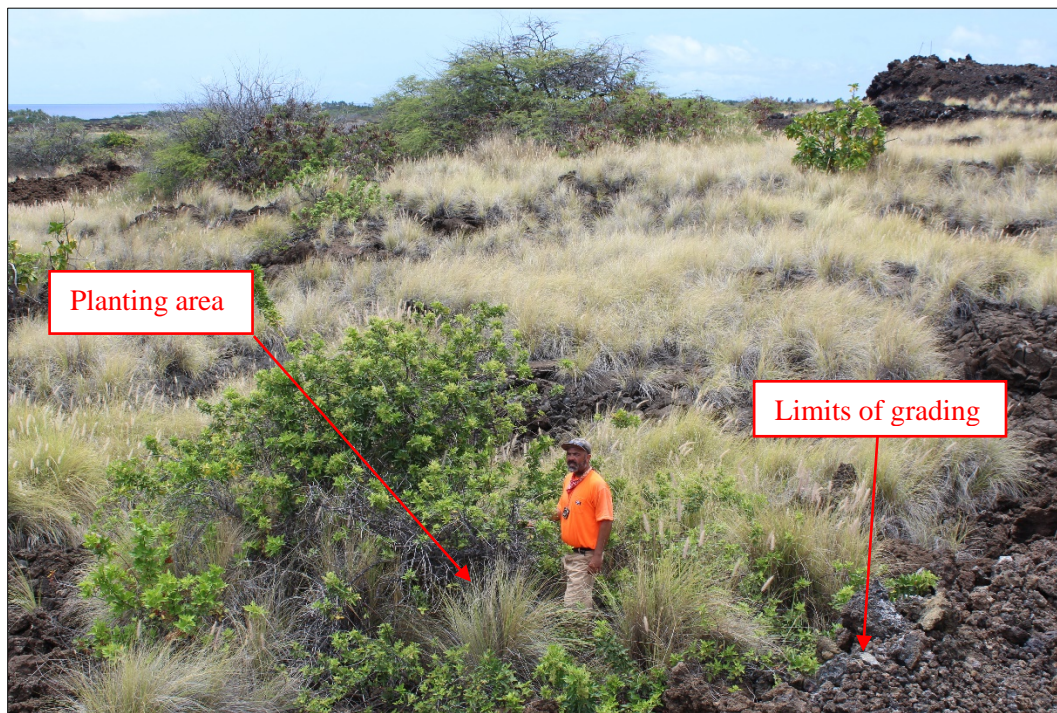


May 12, 2020 photograph of Site 28783 Feature B looking north (with meter stick along limits of grading).

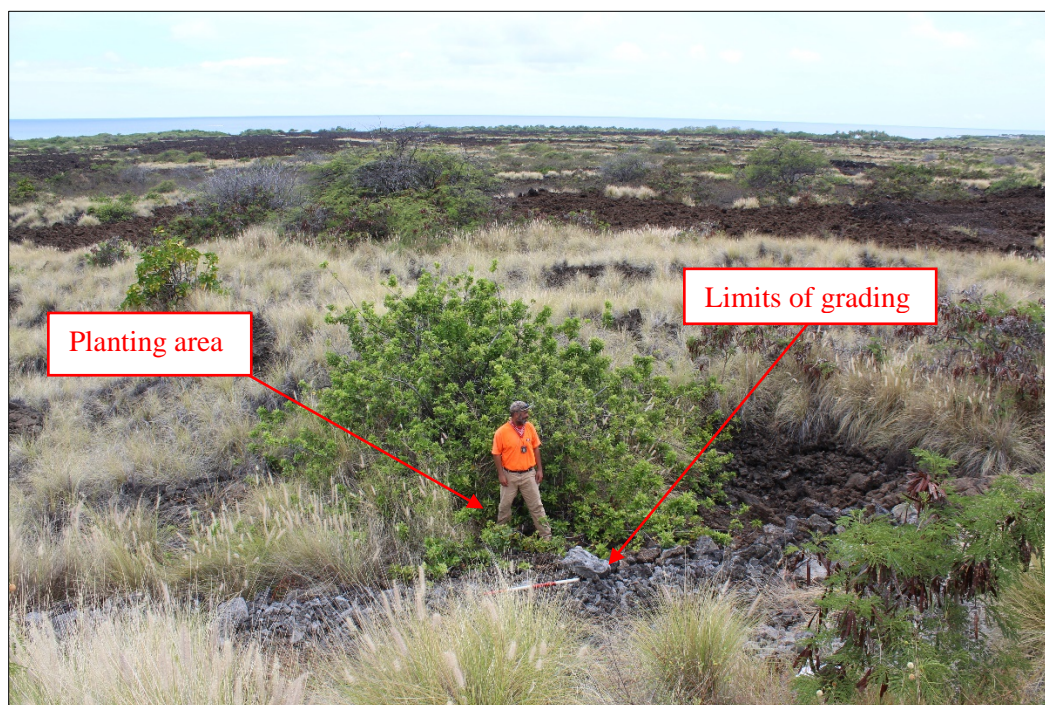


May 12, 2020 photograph of Site 28783 Feature B looking south.





May 12, 2020 photograph of an undesignated planting area at Site 28783 looking northwest with the limits of grading indicated.



May 12, 2020 photograph of an undesignated planting area at Site 28783 looking northwest with the limits of grading indicated.



**Attachment C-Site 28811 photographs**

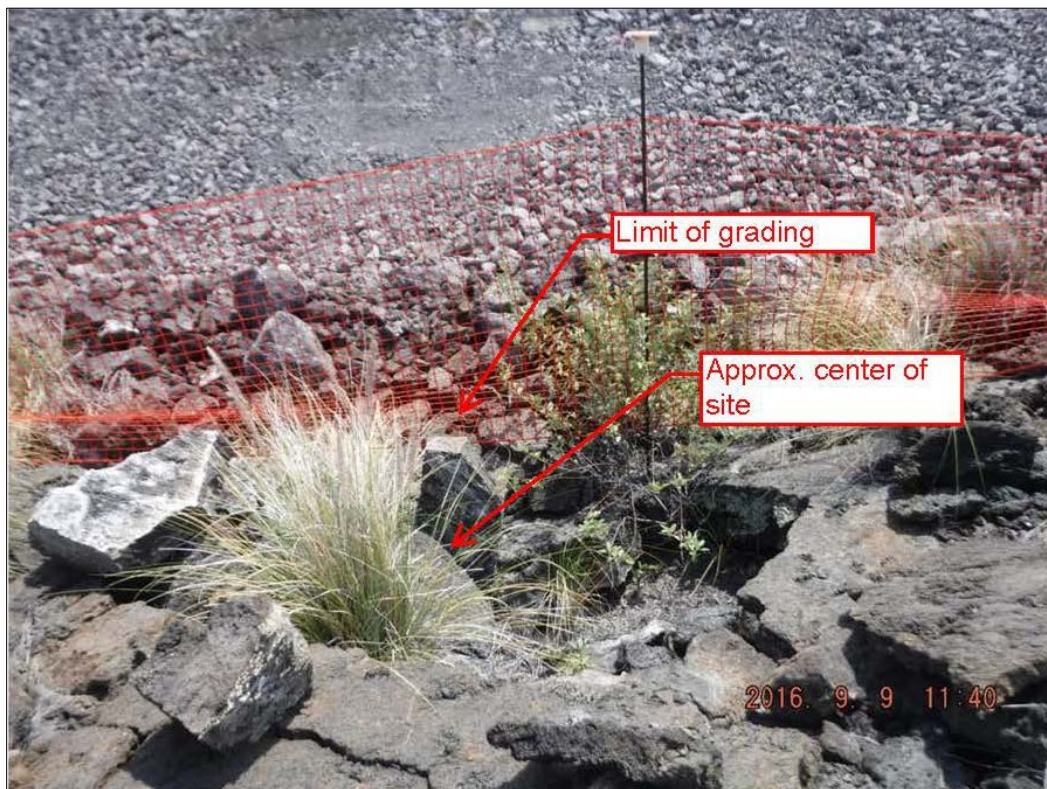


September 9, 2016 photograph of Site 28811 looking north.

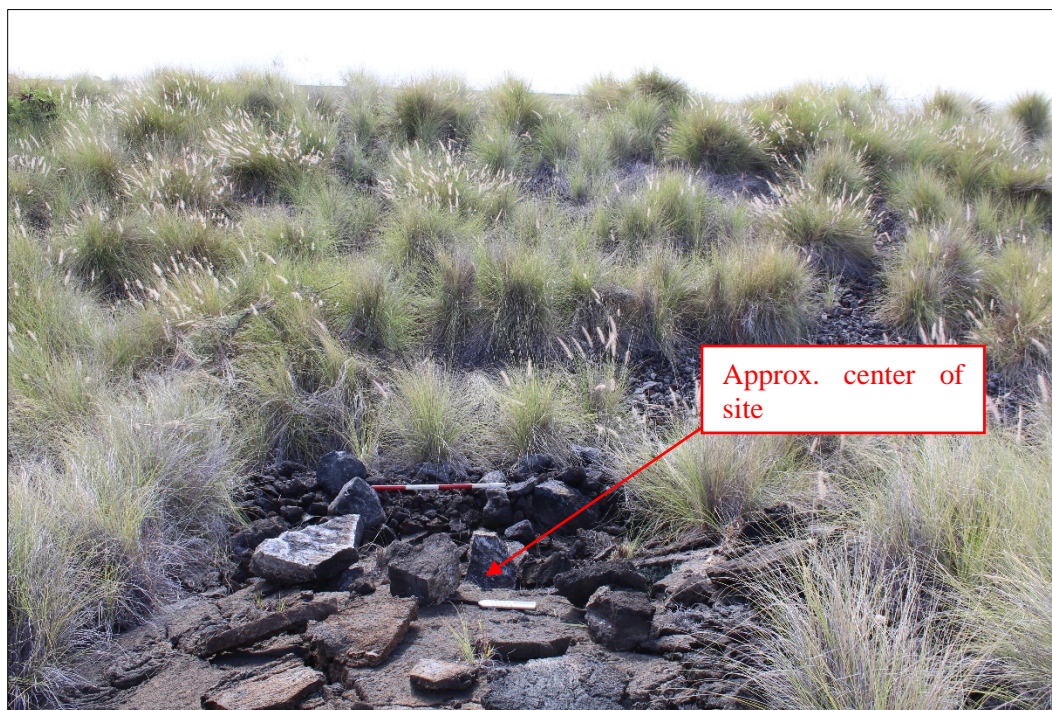


May 12, 2020 photograph of Site 28811 looking north.



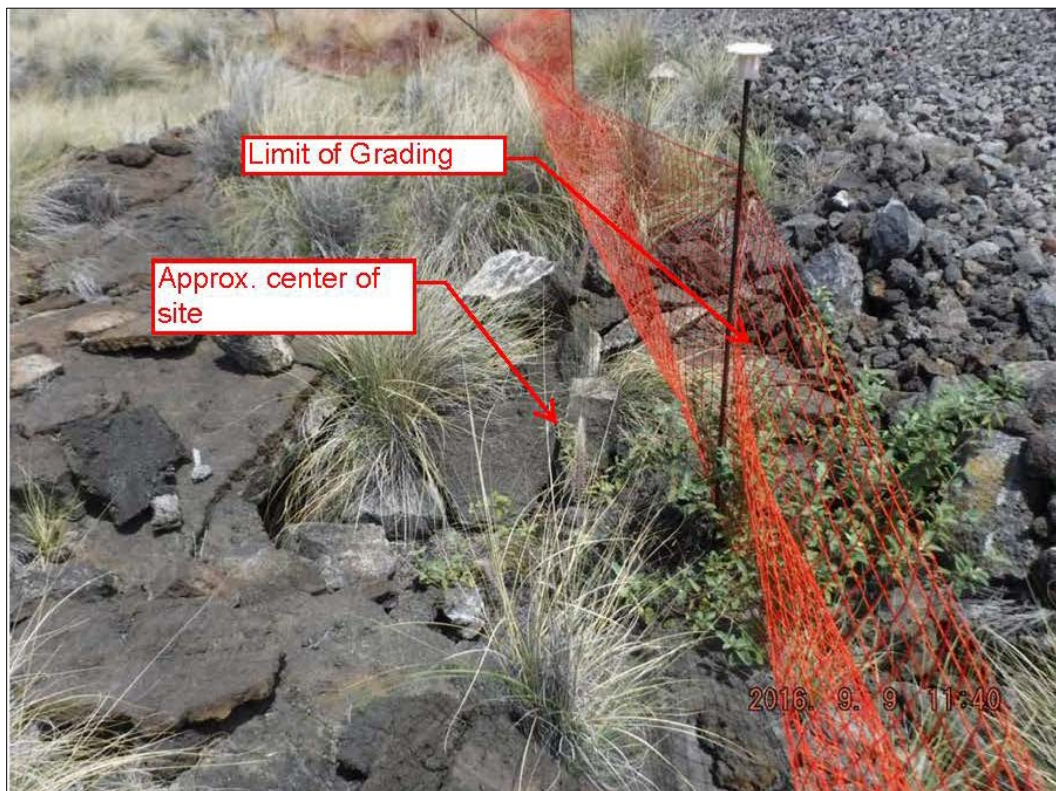


September 9, 2016 photograph of Site 28811 looking east.

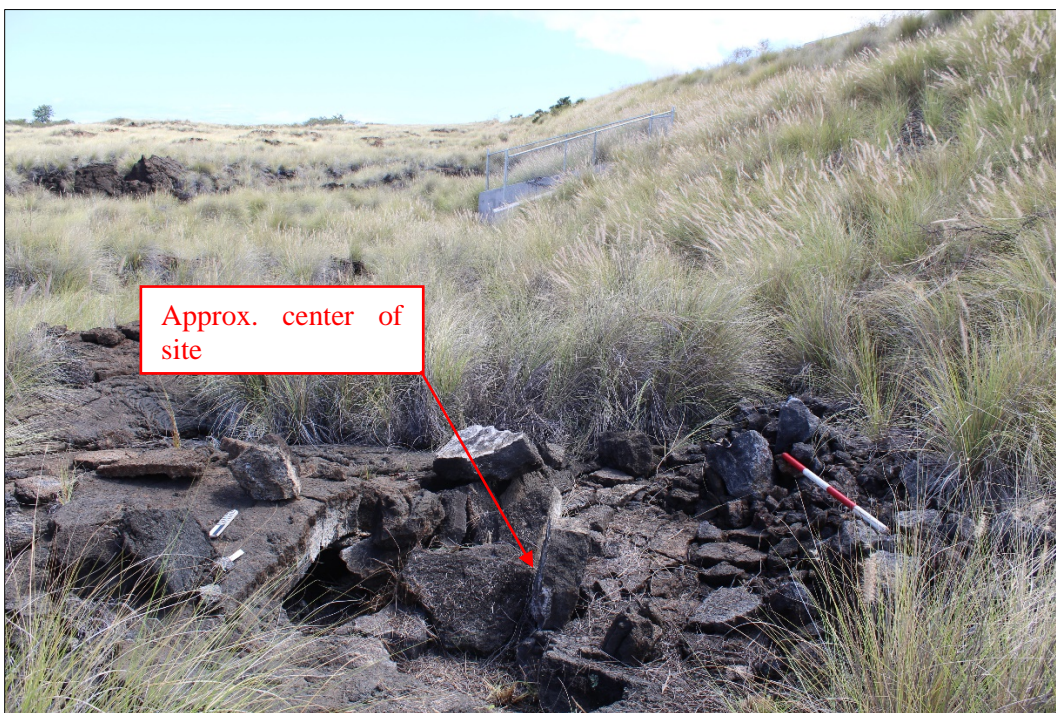


May 12, 2020 photograph of Site 28811 looking east (with meter stick along limits of grading).





September 9, 2016 photograph of Site 28811 looking north.



May 12, 2020 photograph of Site 28811 looking north (with meter stick along limits of grading).