DECLARATION OF LICENSED SURVEYOR ANTHONY CROOK

Anthony Crook, states as follows:

1. I am over 18 years of age, and have knowledge of the matters set forth in this Declaration, and, if called upon to testify, I could and would competently testify thereto.

2. I have been hired by Tom Pierce, Attorney at Law, LLLC, with respect to the above-captioned case, to provide opinions and other survey-type assistance regarding land identified as Land Commission Award 7124, Royal Patent 8164, to Kamaʻikaʻaloa, bearing Tax Map Key No. (2) 2-3-005-004 ("HRC Property"), which is a portion of the *ahupuaʻa* of Kalialinui ("Kalialinui").

3. Whether or not stated below, all findings and opinions herein are made as a percipient witness and/or are based on my training, knowledge and experience as a licensed professional surveyor. Whether or not stated below, all practices that I have employed in reaching my opinions herein are made within the accepted standards and practices of licensed surveyors.

Education, Licenses and Work Experience

4. My relevant education includes the following: National Diploma in Surveying from Technikon Natal, Durban, South Africa; Bachelor of Science in Land Surveying from Michigan Technological University; and a Master of Science in Geophysics from the Michigan Technological University.

5. My relevant licenses include the following: Licensed Surveyor in the State of Hawaiʻi and Licensed Land Court Surveyor in the State of Hawaiʻi.

6. My relevant work experience includes, but is not limited to, the following. Since 2007, my wife and I have run Ailana Surveying & Geomatics, LLC, which conducts work throughout the Hawaiian Islands. My company offers a broad array of survey services, including boundary stakeouts, topographical surveys, elevation certificates, shoreline certifications, ALTA surveys, cell tower surveys, FAA 1-A & 2-C certifications, and hydrographic surveys. Since 2009 to present, I am also currently employed as a Surveyor II, with the County of Maui. Prior to starting my company, I worked for Peter Taylor, Engineer and Land Surveyor, Inc, located on Kauai from 2004 to 2007.

General Field Data Collection Methodology

7. As a licensed surveyor, I am permitted in forming my opinion to rely on a variety of sources of information, including review of maps of all kinds, surveys, deeds, easements, leases, title reports, as well as information on the ground.

8. Attached hereto as **Exhibit AC-1** is a list of the maps, deeds and other documents I reviewed in the course of this project.

9. In addition, I have made seven field trips to the HRC Property between 2011 to present, namely on the following dates: August 17, 2011, August 17, 2012, February 18, 2013, March 26, 2013, April 22, 2013, and one in May 2013.

10. During my field trips, I surveyed the location of rock cairns ("*ahu*") and other trail artifacts or features (collectively "Field Data"). I also used my GPS receiver (described below) to track on the ground mapped trails within the HRC Property while being accompanied by Plaintiffs' trail expert, Richard Stevens, Ph.D., and others.

11. I have ascertained the location of the Field Data by collecting global positioning system ("GPS") coordinates, using a survey grade dual frequency GPS receiver.

12. GPS is a space-based satellite navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites. It is maintained by the United States government and is freely accessible to anyone with a GPS receiver. All of the data I collected, as discussed below, are derived from a survey grade GPS receiver, which is the accepted standard for this application.

13. Subsequent to the field trips, I post-processed the field GPS data using the GPS base station located at the summit of Haleakala, maintained by the United States Department of Commerce, National Oceanic and Atmospheric Administration, National Geodetic Survey ("NGS"). The GPS data yielded a horizontal accuracy of one foot or better.

14. The horizontal datum I used is based on the State Plane Coordinate System ("SPCS") maintained by NGS, and based on the North American Datum of 1983 ("NAD83"). There are five SPCS zones in Hawai'i. I used NAD83 for Zone 2 of the SPCS, which covers Maui County.

Map and Deed Property Description Accuracy

15. In the ordinary course of my survey practice, I use and refer to maps and deeds from various sources in order to determine the location of boundaries, shorelines, roads, trails and related natural and manmade features on the ground.

16. Maps can be of varying levels of accuracy, depending on a number of variables, including the technology used to create the map, the purpose for which the map was prepared, the person(s) who collected the data presented in in the map, and the person(s) who prepared the map.

17. Property descriptions in deeds also range in accuracy and must be evaluated on a case by case basis. Metes and bounds descriptions are generally accurate. However, it may depend on the quality of the instruments being used and the care of the surveyors.

18. Based on my education, training and professional experiences, I am capable of evaluating when a map or property description in a deed provides sufficiently accurate information for the matter at hand.

Mapping of Relevant Descriptions and Plotting of Relevant Maps

19. With respect to the maps or metes and bounds descriptions in the documents below, I have entered all, or portions of them, into my computer aided drafting (CAD) software for this project. I adopt in other places in this Declaration the abbreviations set forth below (these documents are described in greater detail in **Exhibit AC-1**):

> ***"1885 Map":*** Hawaiian Government Survey map of Maui; W.D. Alexander, Surveyor-General, dated 1885 (as well as the same map, brought up to date in 1903 by John M. Donn);
>
> ***"Castle Property"***: Deed from Haleakala Ranch Company to Joseph B. Castle, dated September 20, 1899;
>
> ***"Grant 8164"*:** Land Patent No. 8164 to Kamaʻikaʻaloa (for *ahupuaʻa* Kalialinui), dated October 21, 1904;
>
> ***"Grant 4937"*:** Land Patent No. 4937 to H.A. Baldwin (for "The Olinda Premises"), dated February 12, 1906;
>
> **"*1907 Map*":** Hawaiʻi Territory Survey, Walter E. Wall, Surveyor, Haleakala Tract, dated 1907;
>
> ***"Grant 5207"*:** Land Patent No. 5207 to Worth O. Aiken (for land in Olinda), dated December 15, 1909;

***"Kula Pipe Easement"*:** Grant of easement from HRC to Territory, dated January 16, 1915;

***"C.S.F. 2705"*:** Copy of Survey Furnished to Territory Land Office for Olinda Reservoir Lot, Reservoir Road and Diversion Ditch, dated October 2, 1916;

***"1922 Map"*:** Department of the Interior, U.S. Geological Survey, Hawaiʻi (Island and County of Maui); Makawao Quadrangle, 920-N-II-W/2-SE/4, Territory of Hawaiʻi, Wallace R. Farrington, Governor, C.T. Bailey, Commissioner of Public Lands; Topography by T. F. Murphy, Control in part by Hawaiian Territorial Survey, Surveyed in 1922;

***"1926 Road Options Map"*:** Portion of a U.S.G.S. map showing similar data to the 1922 Map, including the "Haleakala Crater Trail" shown on the 1922 Map, and with annotations regarding other routes;

***"Crater Road"*:** Map entitled "Haleakala Road, F.A.P. 5B," Territorial Highway Department, Territory of Hawaiʻi, dated January 3, 1930 (also notated as follows: "Exchange Deed: Haleakala Ranch Co. Ltd. to T.H., Dec. 10, 1930, Liber 1098, P. 255, Land Office Deed 4023");

***"Haleakala National Park"*:** 16 U.S.C. § 391(a) (2011), entitled "Boundary on island of Maui changed," providing metes and bounds description, noting "Feb. 12, 1927, ch. 111, §1, 44 Stat. 1087" and "Establishment of detached portion of Hawaiʻi National Park lying on island of Maui as Haleakala AE8 National Park, eff. July 1, 1961, see § 396(b) of this title"; and

***"1983 USGS Map"*:** Kilohana Quadrangle, Hawaiʻi—Maui Co., Island of Maui, 7.5 Min. Series (topographic), dated 1983.

The Priority of Conflicting Title Elements that Determine Boundary Location

20. Conflicts between title elements have resulted in the following summary of judge-made priority ranking among the terms of a deed:

1. Call for a survey
2. Call for monuments
    a. Natural
    b. Artificial
    c. Record boundaries (in event of a gap)
3. Calls for Directions and Distances
4. Calls for Directions
5. Calls for Distance

6. Call for Coordinates

7. Call for Area

If the results obtained by adhering to the above ranking are clearly contrary to the overall intent expressed in the deed, however, the clearly stated contrary intent expressed in the deed will control.

21. I understand that the above list is substantially followed by courts in Hawai'i. For example, I have been provided the case quote below which summarizes the priority scheme:

> In construing a grant and locating the land, the surveyor must consider all parts of the grant, including the sketch of the grant. However, there is an order of importance in the description of a grant; certain portions of a description must be used before the surveyor can go to other portions of the description to locate the land. The order of importance of the calls of a grant are as follows: Most important are natural monuments, next are courses, next are distances and least important is the area. Monuments, courses and distances, in that order of importance, control because they are more certain and there is less likelihood of a mistake being made as to them.
>
> All of these ordinary rules however need not be followed and may be reversed when under the circumstances they do not carry out the intention of the grantor as to the location or extent of the land described in the grant.

Apo v. Dillingham Inv. Corp., 57 Haw. 64, 71, n.2, 549 P.2d 740, 745, n.2 (1976).

22. I adhere to the above principles with respect to my opinions below.

<u>Ahupua'a</u>

23. For orientation purposes, attached hereto as **Exhibit AC-2a, AC-2b and AC-2c** are reduced or enlarged portions of the 1885 Map showing the general location of the *ahupua'a* of Makawao ("Makawao"), and Kalialinui on the island of Maui, a relevant boundary between the Makawao and Kalialinui, and the Haleakala Trail shown on the 1885 Map, which is within Kalialinui, with portions within the HRC Property.

The Metes and Bounds Description of the "Haleakala Crater Trail" Identified on the 1922 Map

24. ***Attached hereto as Exhibit AC-3 is a centerline metes and bounds description of a trail within the HRC Property identified as "Haleakala Crater Trail" on the 1922 Map conformed to field and other data.*** (This trail is hereinafter referred to as the "1905 Route.")

25. The basis for the above opinion follows.

26. During the course of this project, I found at the County of Maui a map, dated 1922, covering portions of Kalialinui and Makawao ("1922 Map"). The 1922 Map includes in its margins the following information:

> Department of the Interior, U.S. Geological Survey, Hawai'i (Island and County of Maui);
>
> Makawao Quadrangle, 920-N-II-W/2-SE/4, Territory of Hawai'i, Wallace R. Farrington, Governor, C.T. Bailey, Commissioner of Public Lands;
>
> Topography by T. F. Murphy, Control in part by Hawaiian Territorial Survey, Surveyed in 1922;
>
> Polyconic projection, Hawaiian datum, 5000 yard grid based upon U. S. zone system, but with central meridian 158°

27. The 1922 Map from the County of Maui delineates a trail, which the map identifies as "Haleakala Crater Trail."

28. In addition to this 1922 Map found at the County of Maui, I have reviewed two other copies of the same, or essentially the same, map--one found in the Hawai'i State Archives, and one produced by HRC during discovery. I found these maps to be consistent with each other with respect to the issues here.

29. I have also reviewed three other USGS maps showing portions of Kalialinui, dated 1929, 1935 and 1942. All three of these maps show a trail that is essentially identical to the Haleakala Crater Trail shown on the 1922 Map.

30. United States Geological Survey ("USGS") maps, such as the 1922 Map, tend to contain reliable, accurate data.

31. The 1922 Map is based on an older coordinate/datum system known as "Old Hawaiian Datum." Because the data collected are in State Plane Coordinates NAD83, Zone 2, scale, translation and rotation between the two coordinate systems is necessary.

32. Two acceptable methods may be used to plot the field data in this instance.[1] The method employed here was to scale/rotate/translate the 1922 Map and scale it to fit the modern data. This is most easily done using CADsoftware. In this case I used a software program known as Autodesk, AutoCAD Civil 3d (2013 version).

33. As part of the scale/rotate/translate process, I first identified on the 1922 Map four known government triangulation stations. I retrieved from the NGS website the published State Plane Coordinates for the four triangulation stations. The four triangulation stations identified on the 1922 Map are: Piiholo (TU2963); Pu'u Koha (TU2969); Pu'u Pane (TU2860); Pu'u Nianiau (TU2795). I first plotted the triangulation stations relative to each other in their respective projection within AutoCAD Civil 3D. I then scanned a hard copy of the 1922 Map. I then translated, rotated and scaled to fit the four triangulation stations as shown on the 1922 Map.

34. Having accomplished the above, the projection of the 1922 Map is now in State Plane Coordinates, NAD83, Zone 2, and any points can be digitized and their resultant value will be in State Plane Coordinates to within the accuracy of the map. Similarly any points that are already in State Plane Coordinates can be plotted on the 1922 Map and their relative positions can be determined with respect to features on the 1922 Map.

35. The Haleakala Crater Trail shown on the 1922 Map consists of straight lines and angles. This level of specificity on this type of map would only be done when a cartographer has survey data to permit this level of specificity.

36. Attached hereto as **Exhibit AC-4** is a centerline metes and bounds description of the Haleakala Crater Trail as it is shown on the 1922 Map without considering any other data. (This plotted line for the Haleakala Trail shown on the 1922 Map is hereinafter referred to as the "Map Line.")

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[1] One method (not employed here) is to take the data collected and post-processed from the GPS receiver and convert it back to "Old Hawaiian" projection using software available from the NGS website. This converted data can then be hand plotted on the paper version of the 1922 map. While this method will yield the same result, it is far more time-consuming, but does offer an alternative method if AutoCAD software (described below) or similar systems are not available for use.

37. After plotting the 1922 Map, I transferred that data to my GPS receiver. I then used the GPS receiver in the field to walk as close as possible to the Map Line. All of the Map Line is walkable, and appears to have been well designed for hikers or horse riders.

38. As I followed the Map Line, I located data found on the ground in proximity to the Map Line. The ground data consisted of a number of things, that I could observe myself. Alternatively, ground data were identified by trail expert, Richard Stevens. The ground data includes rock cairns (*ahu*), wooden guideposts erected in *ahu*, or what remain of them, curbstones, rock bridges, horse shoes, centerline of trail beds, and centerlines of roads (collectively "Trail Artifacts").

39. I later plotted the Trail Artifacts so that they could be compared to the Map Line. Overall, the Trail Artifacts show very good correlation with the Map Line—in some cases within five feet of accuracy. A depiction of (1) the Map Line and (2) some of the located Trail Artifacts is shown in **Exhibit AC-5**. In total, I have located 42 *ahu* (some with guideposts, and some without). Each of the *ahu* are numbered (1 through 42) in **Exhibit AC-5**.

40. The 1905 Route (*i.e.,* the conformed metes and bounds centerline description in **Exhibit AC-3**) is the Map Line adjusted to account for: (1) the Trail Artifacts, *i.e.,* monuments found on the ground; (2) the "Haleakala Trail" shown on the 1907 Map; (3) the metes and bounds description for the Olinda Reservoir Road (CSF 2705); (4) the metes and bounds description for the Kula Pipeline Easement; and (5) two manmade structures constructed after the trail was designed and built, namely Crater Road, and a tall game fence *mauka* of Crater Road. **Exhibit AC-5** identifies the above areas of adjustment as green dashes. A further discussion of the above adjustments follows, described from *makai* to *mauka*.

The First Variance from the 1922 Map Line

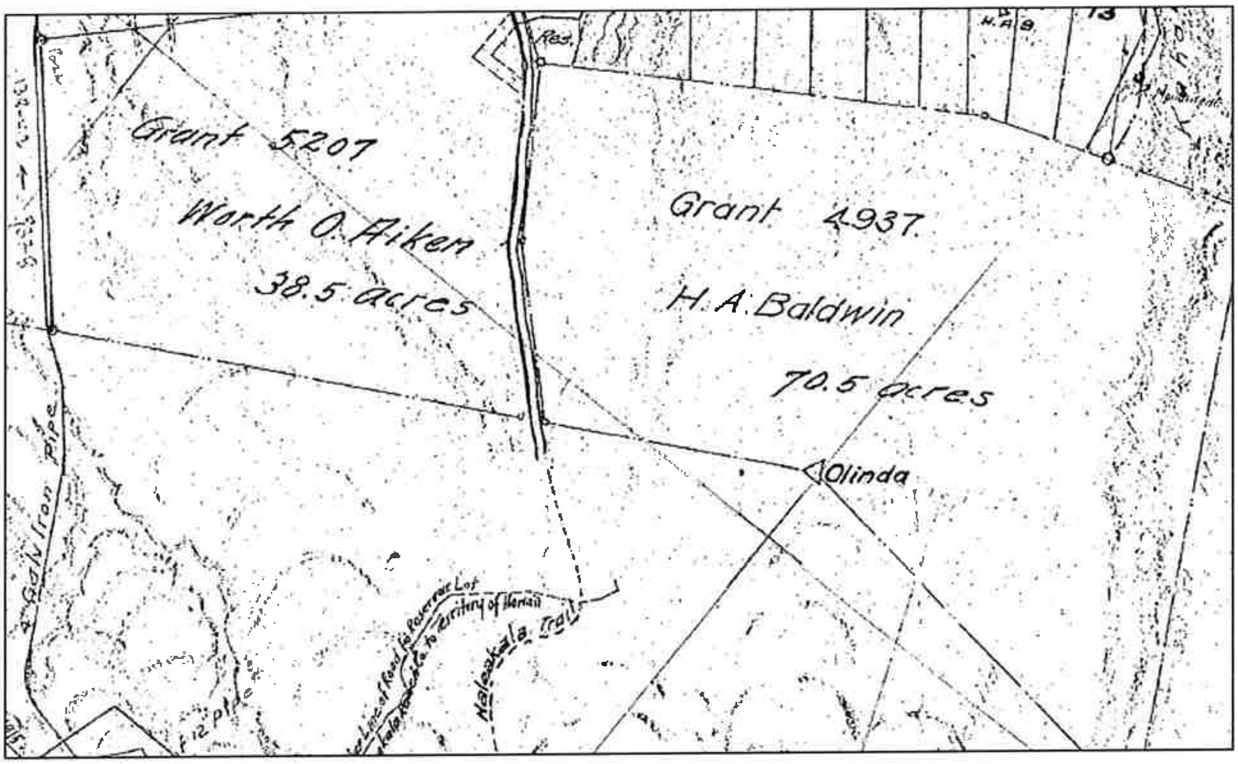
41. The first variance from the Map Line relates to the exact location of the trail near the Olinda Road terminus. No *ahu* are evident in this area. This is not surprising considering the significant grading activity that has occurred over time in that area (based on observation). While there are no *ahu* in this lower portion of the HRC Property, other information confirms the 1905 Route in this area, as discussed below.

42. In the *Report of the Surveyor to the Governor of the Territory of Hawai'i (For the Eighteen Months Ending December 31, 1906)*, the Territory of Hawai'i ("Territory") Surveyor, Walter E. Wall, reported as follows:

> *Olinda Survey.* Application for purchase was made for what is known as the "Olinda" premises, a portion of the government land situated in the mauka part of Makawao ***on the mountain road to Haleakala.*** The lot, containing an area of 70.50 acres, was surveyed and marked out in December, 1905, and the plan and description completed.
>
> In March, 1906, another lot ***across the mountain road*** opposite the "Olinda" premises was surveyed and marked out. This one has an area of 38.20 acres. Plans and description completed.

(Emphasis added).

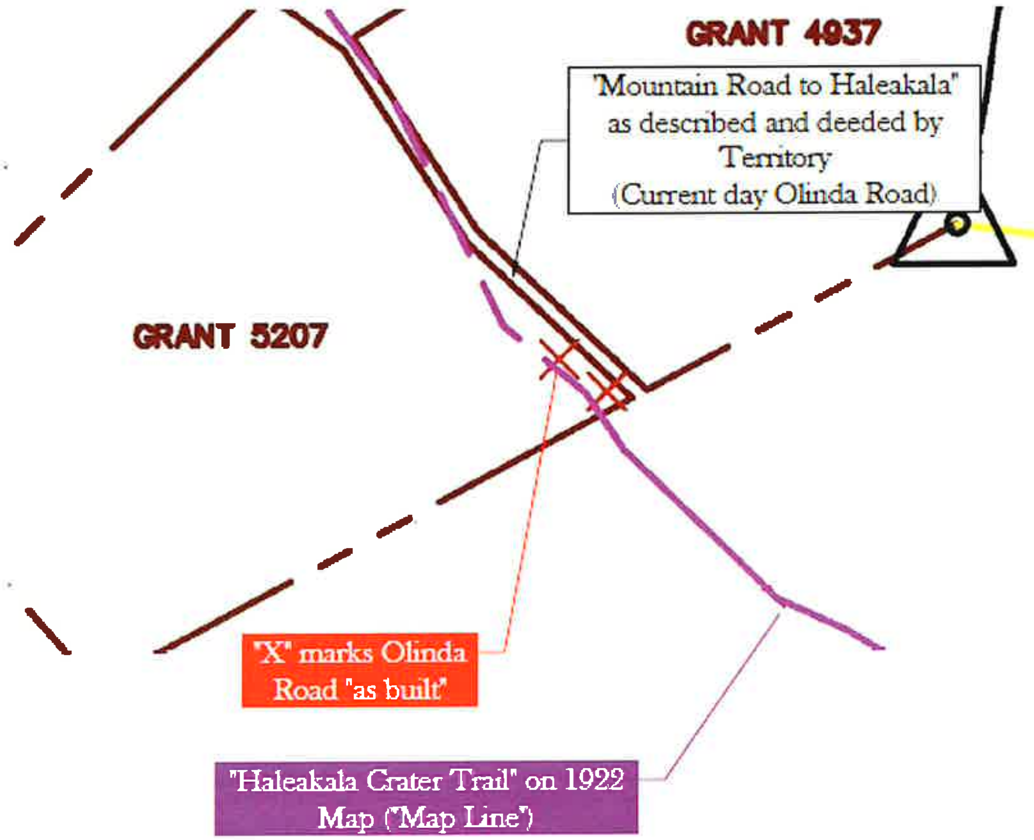
43. The 70.5 acre parcel is what is depicted on the 1907 Map as "Grant 4937," and the 38.20 acre parcel is what is depicted on the 1907 Map as "Grant 5207." As shown on the excerpt from the 1907 Map below, these two grants are separated by "the Mountain Road to Haleakala" (as described in the grants), which becomes "Haleakala Trail" after it continues *mauka* into Kalialinui.



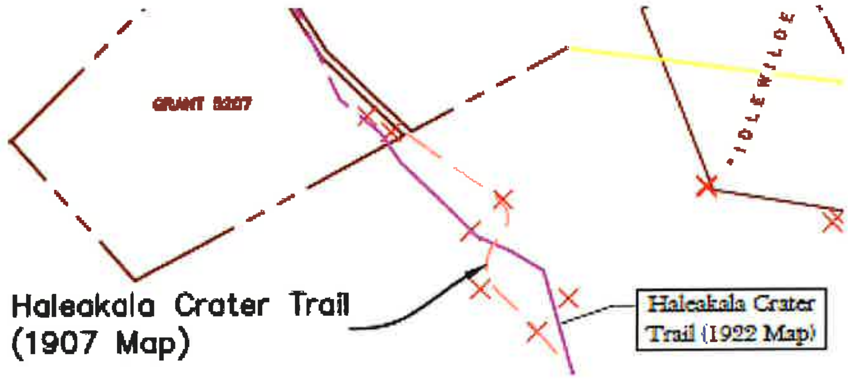
44. Grant 4937 and Grant 5207 were described by the Territory by metes and bounds description from triangulation stations still in use today. I have plotted those two grants against where Olinda Road is on the ground today.

45. During one of my field trips I located portions of Olinda Road as it is built today between Grant 4937 and Grant 5207. Based on that data, I know that Olinda Road currently does not fall exactly within the *recorded* right of way created by Grants 4937 and 5207. As can be seen in **Exhibit AC-6**, Olinda Road, where it exists today, encroaches into Grant 5207. (Even in modern times this is a common occurrence, and is true for roads in the Olinda area.)

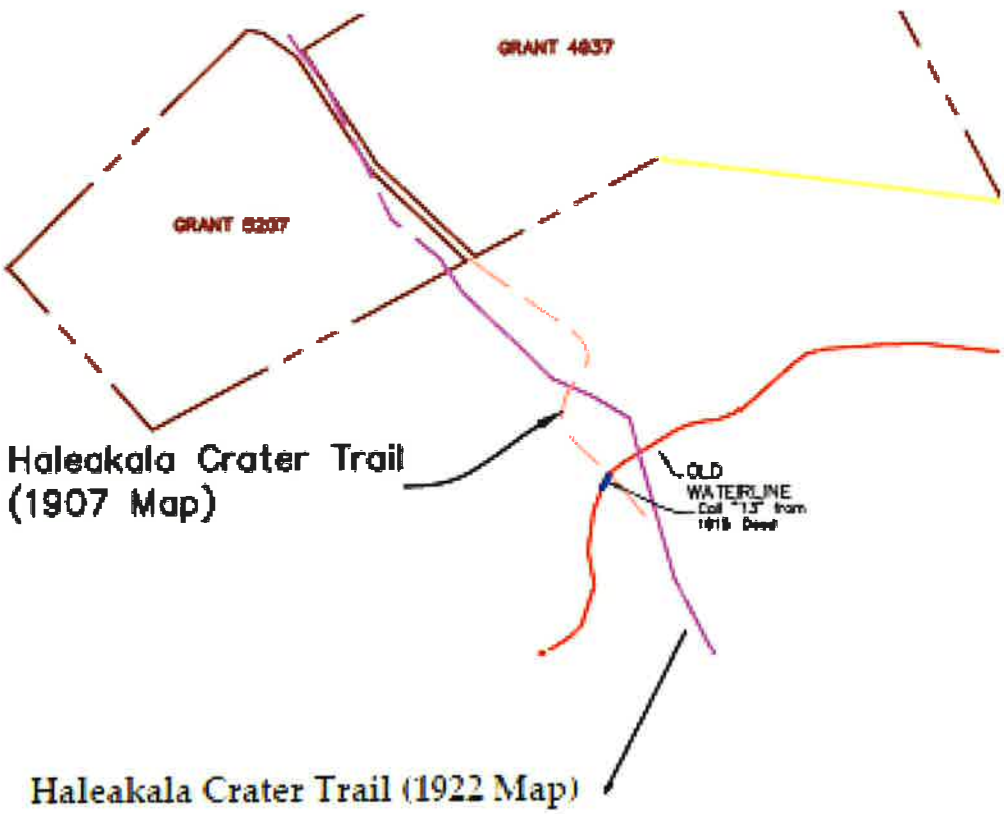
46. Similarly, a portion of the Haleakala Crater Trail shown on the 1922 Map does not fall within the recorded right of way for Olinda Road but instead encroaches on Grant 5207. *See* **Exhibit AC-6** (and below). This would be consistent with a survey based on field data from the engineer who laid out the trail in the field.



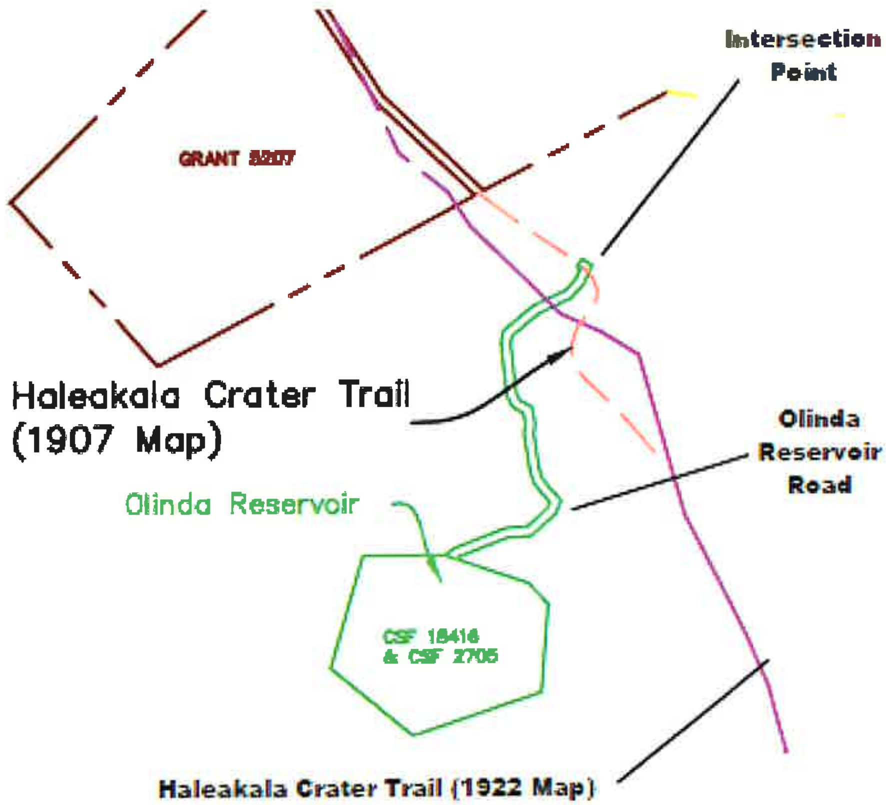
47. When I plot the "Haleakala Trail" shown on the 1907 Map (excerpt at ¶ 43, above,), it is slightly northeast of the "Haleakala Crater Trail" shown on the 1922 Map. *See* **Exhibit AC-7** (and below).



48. In 1915, HRC conveyed the Kula Pipeline Easement to the Territory of Hawai'i. Call number "13" of the metes and bounds description uses a point on the Haleakala Trail to describe the pipeline location (discussed further below). The Haleakala Trail shown on the 1907 Map ties in closely with the location described in the Kula Pipeline Easement. *See* **Exhibit AC-8** (and below).



49. Also, a year later, in 1916, the Territory surveyed the "Road to Olinda Reservoir" (discussed further below). I have plotted this against the 1907 Map. The Road to Olinda Reservoir closely intersects with the Haleakala Trail shown on the 1907 Map. *See* **Exhibit AC-9** (and below).



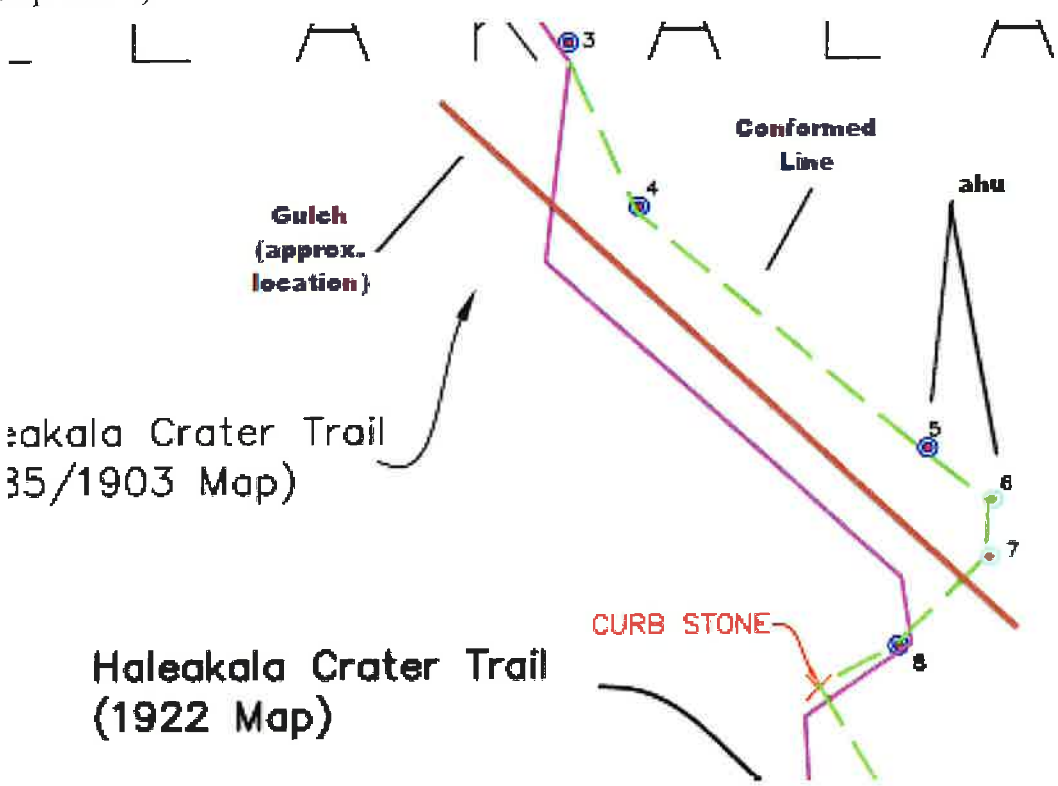
50. Therefore, based on the above highly correlated information, I adopted the location of Haleakala Trail shown on the 1907 Map over the Map Line in this area.

51. This location also correlates with portions of the existing dirt road within the HRC Property. *See* **Exhibit AC-10.**

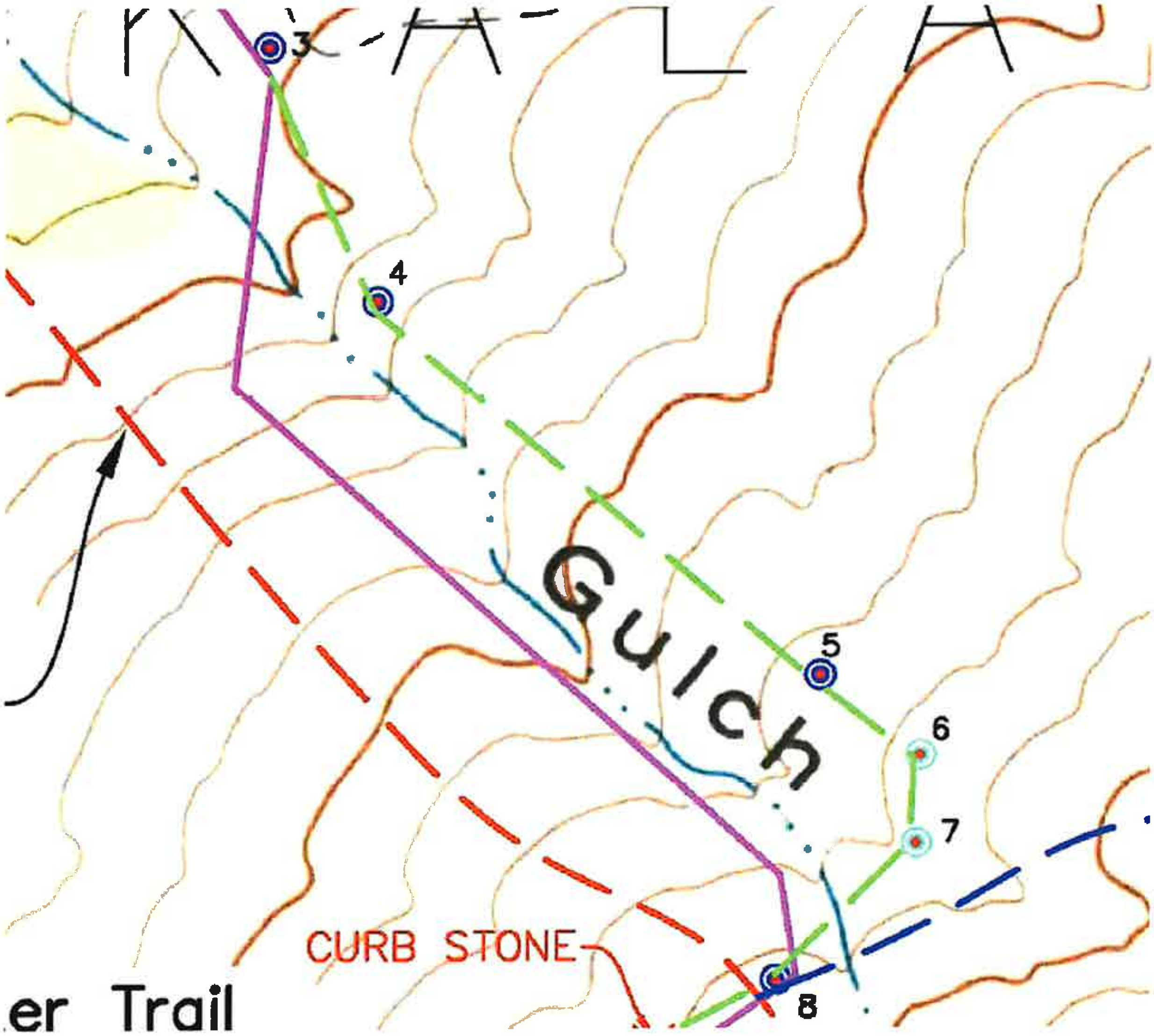
52. For this reason, I also made minor adjustments from the Map Line in the area abutting the Castle Property. Conformed route (green dash) to Map Line (lavender) along western boundary of Castle Property in **Exhibit AC-5**.

The Second Variance from the 1922 Map Line

53. The second variance from the Map Line relates to the choice of a crossing across the Kailua gulch. From Olinda, the trail initially ascends on the north side of Kailua gulch. However, it must cross over at a certain point so that it may go further south for the large switchback. There are two good gulch crossings in this area (both still being used today). The 1922 Map shows the gulch crossing occurring at a lower crossing opportunity. However, I have located four *ahu* still on the north side of Kailua Gulch above that lower crossing (numbered 4, 5, 6, 7). The *ahu* show that the trail continued on the north side for a bit before crossing the gulch at a higher point. Because of the significant Trail Artifacts in this area, the 1905 Trail, as described in **Exhibit AC-3**, adopts the Trail Artifacts and thus crosses the gulch at the upper crossing point. *See* **Exhibit AC-11** (and below). Kailua Gulch is identified on the 1983 USGS map, and I have overlaid the Map Line and the conformed line on that map. *See* **Exhibit AC-20** (and excerpt below).

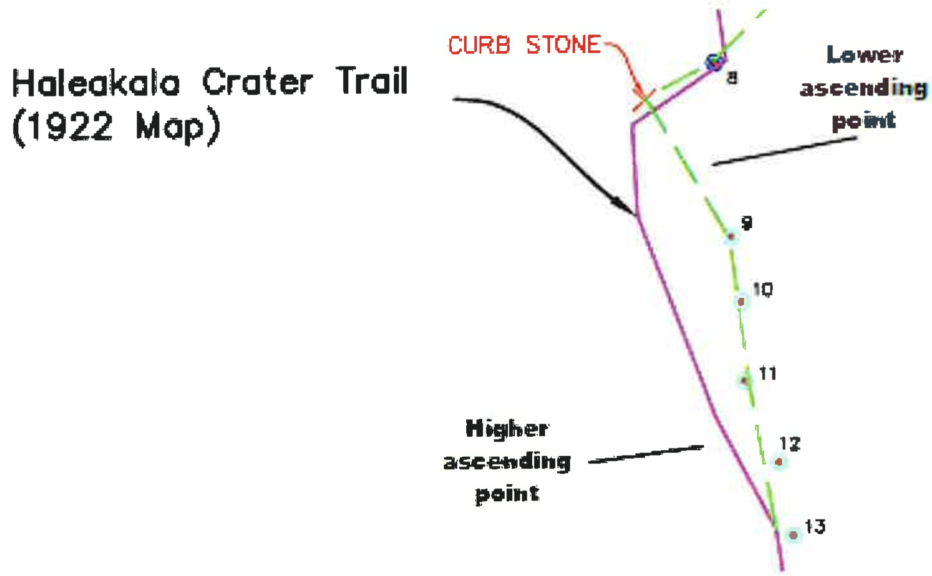


54. Kailua Gulch is identified on the 1983 USGS map, and I have overlaid the Map Line and the conformed line on that map. *See* **Exhibit AC-20** (and excerpt below).



The Third Variance from the 1922 Map Line

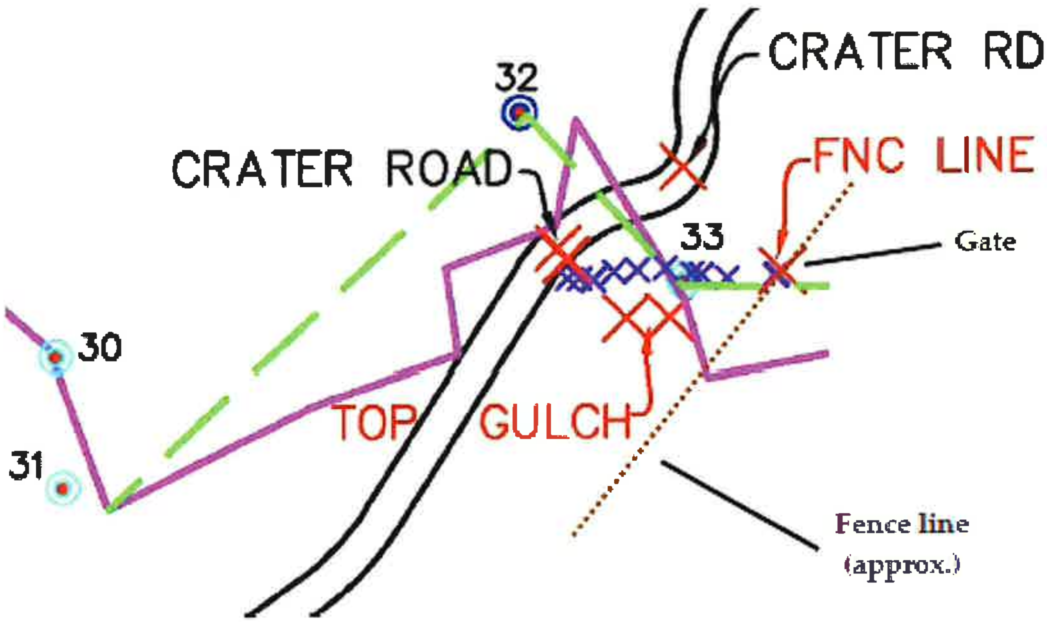
53. The third variance from the 1922 Map Line occurs just above the second variance, described above. Here, like above, there are a number of located *ahu* which do not align with the Map Line (numbered 9, 10, 11, 12). I have hiked both routes. Both routes are passable by pedestrians or horses. The Map Line selects a higher point to ascend a ridge. The ground route shown by the *ahu* selects a lower point to ascend; then it traverses the side of the ridge. In this area I conformed the Map Line to the abundant Trail Artifacts. This conformed area may be seen in the full map on **Exhibit AC-5** and in the close up map in **Exhibit AC-12** (shown below).



The Fourth Variance from the 1922 Map Data

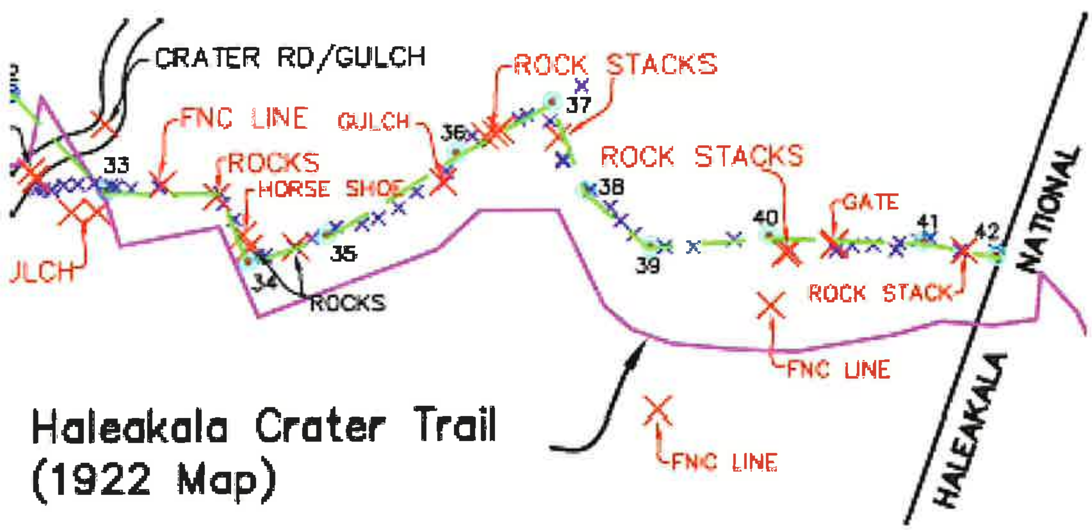
55. The fourth variance is not really a variance. It is instead the need to account for two subsequent construction events, which cross the Haleakala Crater Trail shown on the 1922 Map (*i.e.,* Map Line). The first manmade structure is the Crater Road, aka State Highway 378. The second is a tall, chain link fence to keep out pig, deer and cattle ("Game Fence"), which is *mauka* of Crater Road and runs roughly parallel to it. Crater Road was built in around 1935. I have plotted a relevant section of the road from a metes and bounds description of the road, dated 1930 (see **Exhibit AC-1**). The road construction covered over portions of the trail *makai* of Crater Road. However, a well-used trail exists in this area that provides access across the highway, and this trail still aligns well with two of the *ahu* (numbered 31 and 32). I have adjusted to that trail (the adjustment in this area is approximated). The Game Fence runs parallel to Crater Road for a long distance. However, the fence has an existing gate very close to where the Map

Line crosses the fence. I have adjusted the trail to align with that gate. See **Exhibit AC-13** (and below), which provides a close up of Crater Road, a location for the gate in the fence, and the adjusted route (green dash).



<u>**The Fifth Variance from the 1922 Map Data**</u>

56. The final adjustment is above Crater Road up to the Haleakala National Park boundary. Here, the original trail is evident on the ground for almost its entire length and there are a number of *ahu* confirming the route (numbered 34 through 42). I therefore adhere to the Trail Artifacts. The adjustment is shown in **Exhibit AC-14** (and below).



Comparison of 1905 Trail (Shown on 1922 Map) to 1885 Trail (Shown on 1885 Map)

57. In 1885, the Kingdom of Hawai'i completed a Hawaiian Government Survey map of Maui. This "1885 Map" is a very accurate map for its time. The 1885 Map was updated by John Donn in 1903. I have reviewed both versions of the map, and they are the same with respect to the "Haleakala Trail" shown on each of them.

58. The 1885 Map shows a trail, identified as "Haleakala Trail," starting in Makawao and ascending through Kalialinui on the south side of Pu'u Nianiau to the Haleakala Crater rim, and then on to the summit and points in between (the "1885 Route"). The trail also has a junction, with route that led around north side of Pu'u Nianiau to the crater rim, and from there on through the crater ("Halemau Route").

59. Similar to the 1922 Map, I prepared a map line of the 1885 trail and walked significant portions of it, along with trail expert and historian Richard Stevens, using my GPS equipment. I have also plotted the 1885 Route against the 1905 Route. They both start at current day Olinda Road where it terminates at the boundary between Makawao and Kalialinui. They both go to essentially the same point on the Haleakala crater rim. **Exhibit AC-15** is a map showing the 1885 Route, the Halemau Route, and the "Haleakala Crater Trail" shown on the 1922 Map, along with the conformed portions, which collectively make the "1905 Route."

60. The 1885 Route generally takes a steeper route to the summit. The 1905 Route takes a more gradually ascending route to the summit.

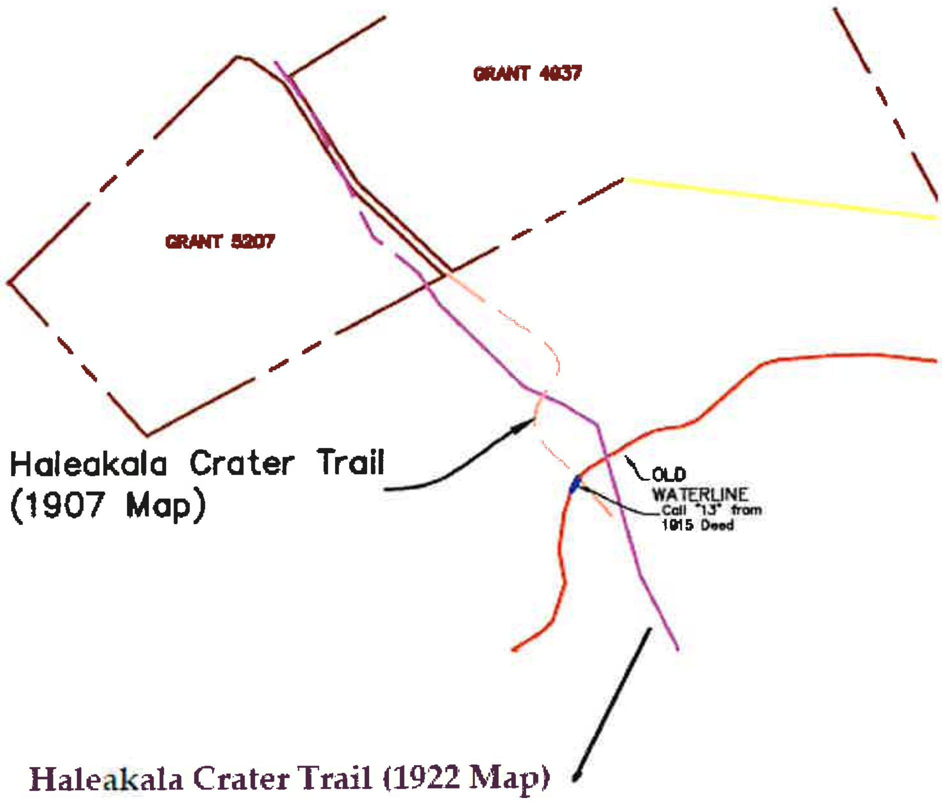
Road to Olinda Reservoir (CSF 2705 and CSF 18,416)

61. C.S.F. 2705 (from 1916) describes a "Road to Olinda Reservoir." This road connects from Olinda Reservoir to what is marked on maps as "Haleakala Trail" or "Road to Haleakala." As the map shows for C.S.F. 2705, it does not connect to Olinda road. I have confirmed this on my plotting of the description in C.S.F. 2705. *See* **Exhibit AC-9**. The description means the surveyor for C.S.F. 2705 understood Haleakala Trail to be a government road in 1916.

62. The metes and bounds description for the Road to Olinda Reservoir, C.S.F. 18,416 (from 1978) is the same as the description set forth in C.S.F. 2705, identified above. This means that the surveyor of C.S.F. 18,416 understood Haleakala Trail to be a government road in 1978.

Kula Pipeline Easement

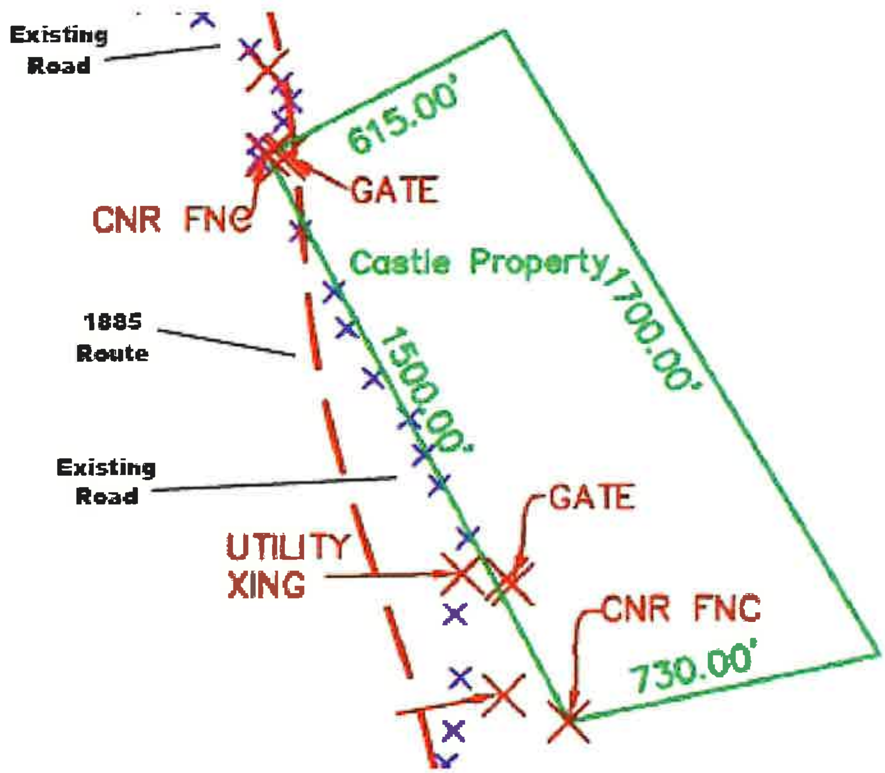
63. In 1915, HRC entered into the Kula Pipeline Easement. The first metes and bounds description in the deed is a survey of a center line for a three foot wide easement for a "wooden stave" section of the Kula Pipe Line in favor of the Territory. Call number "13" provided as follows: "13. 208° 42' 69.4 feet on a curve to the right *and across Haleakala trail . . .* ." I have plotted the location of this call "13" thereby providing good confirmation of the location of the 1905 Trail at that specific location. *See* **Exhibit AC-8** (and below).



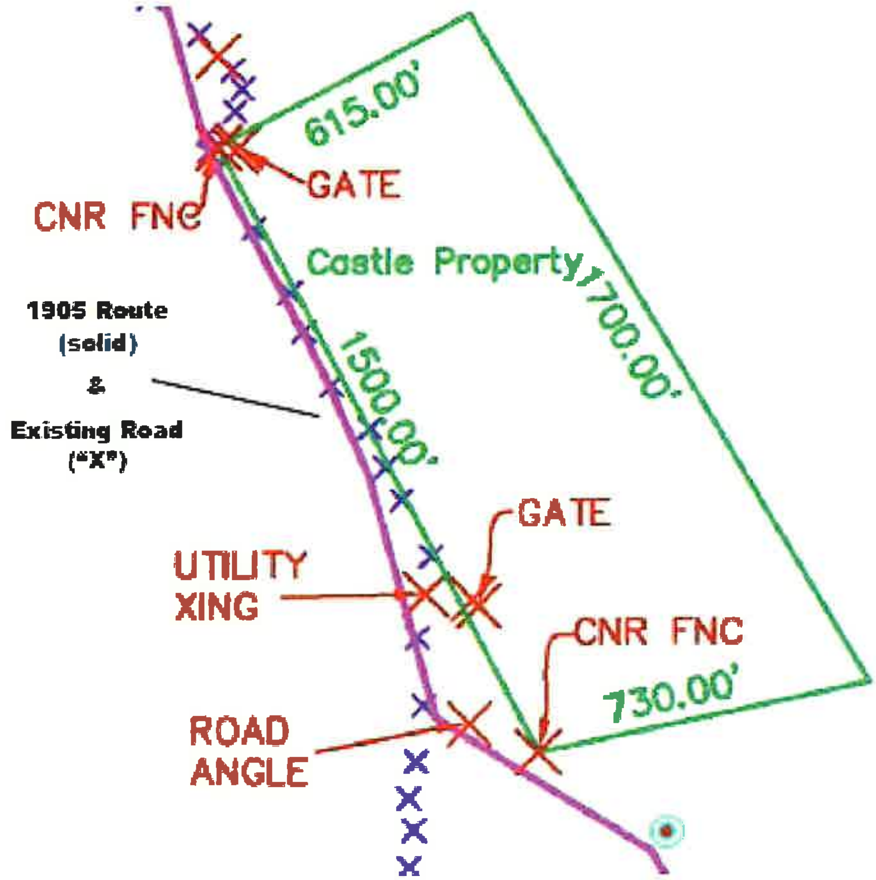
__Castle Property__

64. I have reviewed the Castle Property deed, conveyed by HRC to James B. Castle in 1899. While on the HRC Property, I located the southeastern and southwestern corners of the Castle Property, based on existing fence corners. I later plotted the Castle Property using the field data and the description in the Castle Property deed.

65. The "Haleakala Trail" (as shown on the 1885 Map, aka 1885 Route) crossed through the *makai,* western, corner of the Castle Property. *See* **Exhibit AC-16** (and below). The existing road (marked by purple Xs) to the Castle Property from Olinda Road still shares some places with the 1885 Route in the *makai,* western, corner of the Castle Property.



66. The "Haleakala Crater Trail" (as shown on the 1922 Map, aka 1905 Route) essentially parallels and abuts much of the Castle Property's southern boundary, and then wraps around the Castle Property's southeastern corner, where there is a remaining *ahu*. The existing road follows portions of the 1905 Route along the Castle Property's western boundary. *See* **Exhibit AC-17** (and below).



1926 Road Options Map

67. I have reviewed a map referred to here as the "1926 Road Options Map." This map appears to be a portion of a USGS map. I say that because it includes much of the information found on the 1922 Map, including the "Haleakala Crater Trail," as denoted on both maps. The 1926 Road Options Map is annotated. It shows three hand drawn routes going from the top of Olinda road to around Pu'u Nianiau. As the map indicates, none of the proposed routes coincides with the 1905 Route.

Exchange Deeds for Hawai'i National Park and Road to Park (Crater Road)

68. I have reviewed the deeds identified below, and can confirm that none of the properties being granted by the Territory of Hawai'i to HRC, as described therein, include portions of the Haleakala Crater Trail shown on the 1922 Map. (With respect to the only reference to lands being deeded by the Territory involving Kalialinui, I have plotted the reference and confirmed it is with respect to land nowhere near the subject area.)

> Deed between Territory and HRC (exchange of lands for then called "Hawai'i National Park"), dated **August 9, 1927**, recorded in the Registry of Conveyances, Territory of Hawai'i, Book 903, Pages 9-15;
>
> Deed between Territory and HRC (exchange of lands for eighty foot wide road right of way to Hawai'i National Park), dated **December 10, 1930**, recorded in the Registry of Conveyances, Territory of Hawai'i, Book 1098, Pages 355-389.

TMK Maps

69. I have reviewed Tax Map 2-4-015 and Tax Map 2-3-005. The boundary between those two maps is the boundary between Makawao and Kalialinui.

Maps Prior to 1885

70. A map of the Crater, dated 1869, prepared by W. D. Alexander, Registered Map No. 1268 ("1869 Map"), shows a "Road to Makawao" at the northern Crater rim within Kalialinui. This Road to Makawao at that point on the Crater rim appears to be the same as the "Haleakala Trail" shown on the 1885 Map. The original and republished portion of the 1869 Map is attached hereto as **Exhibit AC-18**.

71. Registered Map No. 1185, a Hawaiian Government Survey map of Haleakala Crater, dated 1884 (the "1884 Map") shows two trails on the north crater rim within Kalialinui. The trail at a place on the crater rim marked as "Leleiwi" appears to be the same trail as the Halemau Route (described earlier) in that location. The trail at a place called "Ana moe haole"

appears to the same trail as the 1885 Route (described earlier) in that location. A reduced and enlarged portion of the 1884 Map is attached hereto as **Exhibit AC-19**.

I, Anthony Crook, declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

DATED: Kula, Maui, Hawai'i, July 17, 2013.

ANTHONY CROOK

BIBLIOGRAPHY

Sources of information reviewed or relied upon by Anthony Crook for his findings and opinions:

MAPS

MAPS AND SURVEYS	
Description	**Bates**
Map of the Crater of Haleakala. 1869. W.D. Alexander. (Collections of the Hawai'i State Survey Division).	955
Makawao, Maui. 1872. Hawaiian Government Survey. W.D. Alexander, Surveyor-General. Triangulation and Boundaries by W.D. Alexander. Topography by C. Lyons and J. Brown. Map by C.J. Lyons. Scale 1:12000. (Collections of the Hawai'i State Survey Division); RM No. 603.	941
Map Showing Haleakala Crater. 1884. Hawaiian Government Survey, W.D. Alexander, Sup't. According to M.D. Monsarrat's Survey of Nuu; Scale 1:24000, 1884. (Collections of the Hawai'i State Survey Division); RM No. 1185.	942
Maui, Hawaiian Islands. 1885. Hawaiian Government Survey; W.D. Alexander, Surveyor General; Primary Triangulation by W.D. Alexander and S.E. Bishop; Boundaries and topography by W.D. Alexander, C.J. Lyons, M. D.. Monsarrat, F.S. Dodge, S.E. Bishop, E.D. Baldwin, and W.R. Lawrence; Map by F.S. Dodge. Scale 1:60000. (Geography and Map Division, Library of Congress); RM No. 1268.	3364 - 3365
Maui, Hawaiian Islands. 1885, brought up to date in 1903 by John M. Donn. Hawaiian Government Survey. W.D. Alexander, Surveyor General; Primary Triangulation by W.D. Alexander and S.E. Bishop; Boundaries and topography by W.D. Alexander, C.J. Lyons, M. D.. Monsarrat, F.S. Dodge, S.E. Bishop, E.D. Baldwin, and W.R. Lawrence; Map by F.S. Dodge. Scale 1:60000. (Collections of the Hawai'i State Survey Division).	943
Haleakala Tract, Makawao, Maui. 1907. Hawai'i Territory Survey. Walter E. Wall, Surveyor. Hawaii Territory Survey. Scale one inch: 500 feet. (Collections of the Hawai'i State Survey Division); RM No. 2394.	944
C.S.F. 2705. October 2, 1916. Copy of Survey Furnished, Territory of Hawai'i Land Office, for Olinda Reservoir Lot, Reservoir Road and Diversion Ditch.	67-75

Hawai'i (Island and County of Maui), Makawao Quadrangle. 1922. Department of the Interior, U.S. Geological Survey. 920-N-II-W/2-SE/4, Territory of Hawaii; Wallace R. Farrington, Governor; C.T. Bailey, Commissioner of Public Lands. Topography by T. F. Murphy, Control in part by Hawaiian Territorial Survey, Surveyed in 1922. 5000 yard grid based upon U.S. zone system, but with central meridian 158°. (Collections of the Maui County, Department of Public Works).	959, 3568-3569
Road Options Map, 1926. Portion of a U.S.G.S. map showing similar data to the 1922 Map, including the "Haleakala Crater Trail" shown on the 1922 Map, and with annotations regarding other routes.	962
"Haleakala National Park" 16 U.S.C. § 391(a) (2011), entitled "Boundary on island of Maui changed," providing metes and bounds description, noting "Feb. 12, 1927, ch. 111, §1, 44 Stat. 1087" and "Establishment of detached portion of Hawai'i National Park lying on island of Maui as Haleakala AE8 National Park, eff. July 1, 1961, see § 396(b) of this title"	
Island of Maui, Territory of Hawai'i. 1929. Excerpt from U.S. Geological Survey dated 1929. (Collections of the Hawai'i State Archives, G4382.M3 1929.HS8.S9).	3462
Island of Maui, Territory of Hawai'i. 1935. Excerpt from U.S. Geological Survey dated 1935 (Collections of the Hawai'i State Archives, G4382.M3 1935.HS8.F6).	3463
Crater Road, January 3, 1930. Map entitled "Haleakala Road, F.A.P. 5B," Territorial Highway Department, Territory of Hawai'I (also notated as follows: "Exchange Deed: Haleakala Ranch Co. Ltd. to T.H., Dec. 10, 1930, Liber 1098, P. 255, Land Office Deed 4023")	2228
Geologic and Topographic Map, Island of Maui, Hawaii. 1942. Geological Survey, U.S. Department of the Interior. Scale 1:62500 (Collections of the Library of the Geological Survey of Alabama in Tuscaloosa).	3060, 3361
C.S.F. 18,416. September 12, 1978 Copy of Survey Furnished, State of Hawai'i, for Oliinda Reservoir Lot, Mauka Diversion Ditch for Olinda Reservoir and Road to Olinda Reservoir	77-85
Kilohana Quadrangle, Hawai'i—Maui Co., Island of Maui, 7.5 Min. Series. 1983. Geological Survey, U.S. Department of Interior (topographic)	968

TAX MAP KEYS

Tax Map Key 2-4-15. "Dwg. No. 1922; By N.A. & D.S.C.; Source Tax Maps Bureau." Portion of Olinda, Makawao, Maui (PATH 1665)

Tax Map Key 2-3-005. 1990. "Dwg. No. 1990; By: D.S.C. & H.N. April 1934; Source: Tax Maps Bureau." Portion of Kula, Makawao, Maui (PATH 1666)

DEEDS

Land Patent No. 4937 to H.A. Baldwin (for "The Olinda Premises"), dated February 12, 1906 (PATH 751-754)

Land Patent No. 5207 to Worth O. Aiken (for land in Olinda), dated December 15, 1909 (HR 0880-0882)

Deed from Haleakala Ranch Company to Joseph B. Castle, dated September 20, 1899 (HS 365-366)

Land Patent No. 8164 to Kamaikaaloa (for *ahupua'a* Kalialinui), dated October 21, 1904 (HS 342-345)

"Kula Pipe Easement": Grant of easement from HRC to Territory, dated January 16, 1915 (HR 0055-61)

"Aiken Lease": Lease from HRC to W.O. Aiken, dated March 23, 1916 (H2163-2166)

Deed between Territory and HRC (exchange of lands for then called "Hawai'i National Park"), dated August 9, 1927, recorded in the Registery of Conveyances, Territory of Hawai'i, Book 903, Pages 9-15 (HS 234-243)

Deed between Territory and HRC (exchange of lands for eighty foot wide road right of way to Hawai'i National Park), dated December 10, 1930, recorded in the Registry of Conveyances, Territory of Hawai'i, Book 1098, Pages 355-389 (HS 149-160)

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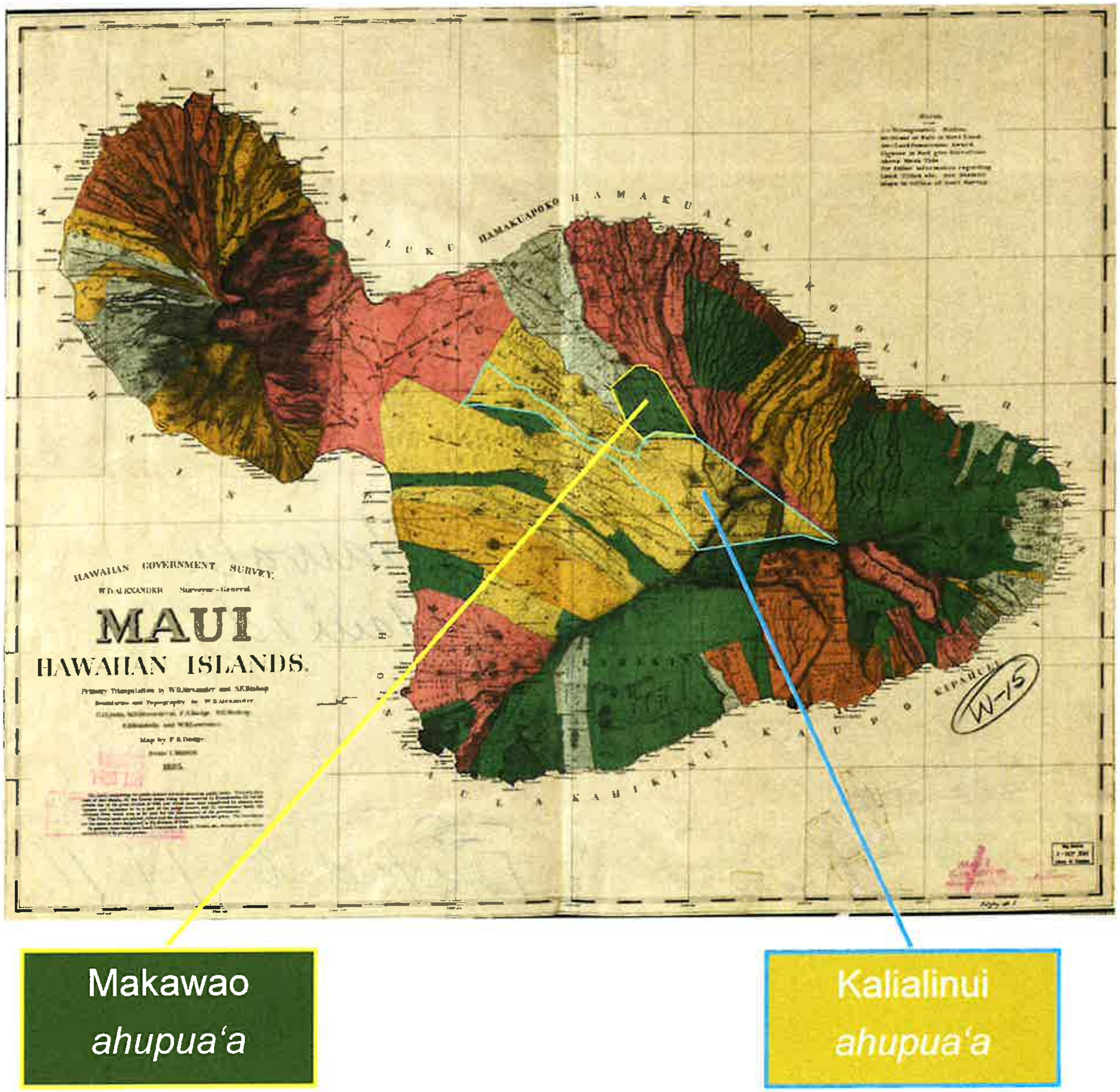
Land Surveys—A Guide for Lawyers and Other Professionals (2nd Ed.) p. 6

Apo v. Dillingham Inv. Corp., 57 Haw. 64, 71, n.2, 549 P.2d 740, 745, n.2, (1976).

Report of the Surveyor to the Governor of the Territory of Hawai'i (For the Eighteen Months Ending December 31, 1906) (PATH 2617-2170)

NGS website that published State Plane Coordinates for the four triangulation stations

Ahupua'a


HAWAIIAN GOVERNMENT SURVEY
W.D. ALEXANDER Surveyor-General
MAUI
HAWAIIAN ISLANDS
HAMAKUAPOKO
KIPAHULU
W-15
Makawao
ahupua'a
Kalialinui
ahupua'a

Ahupua'a and Haleakala Trail (1885 Map)

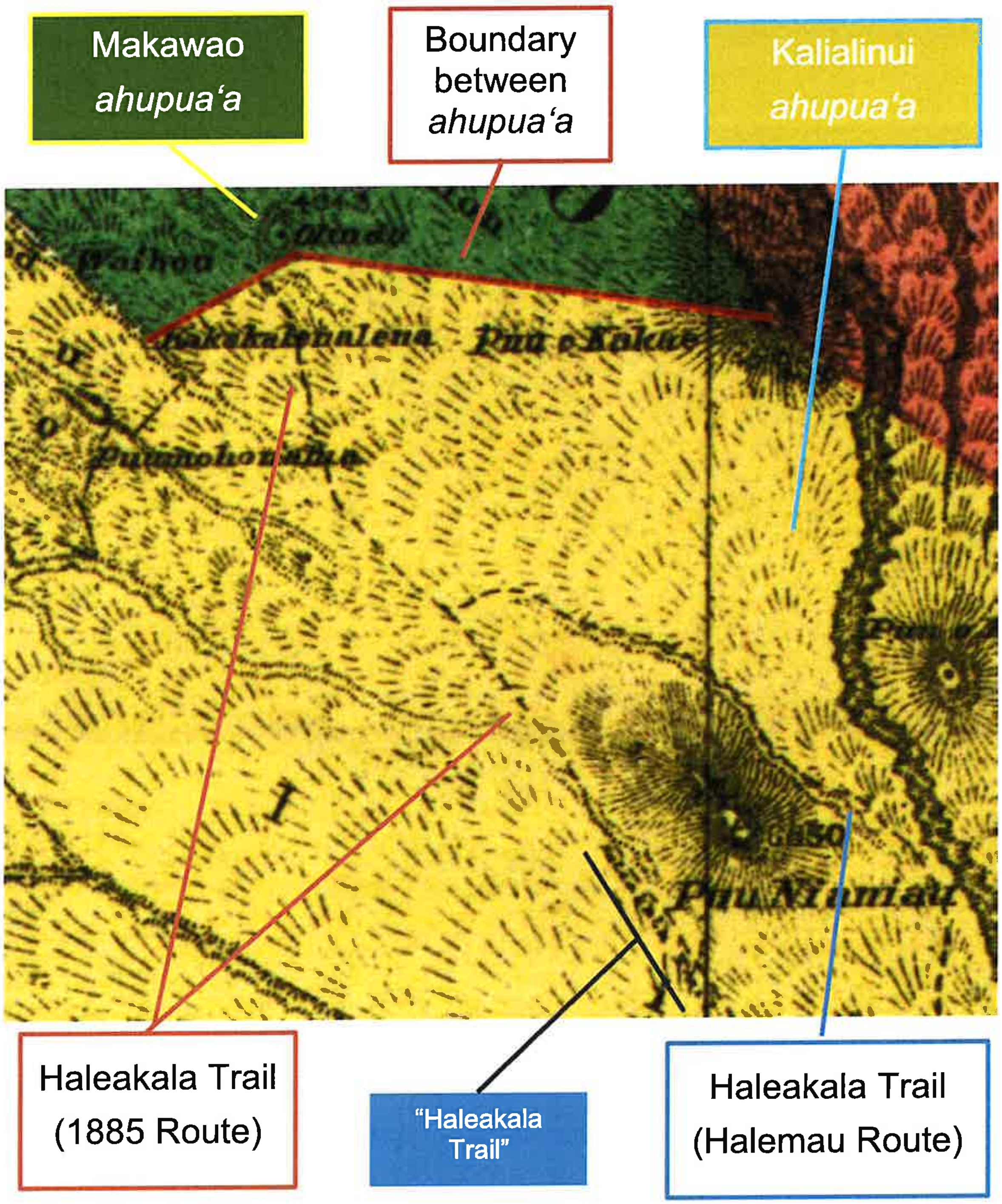
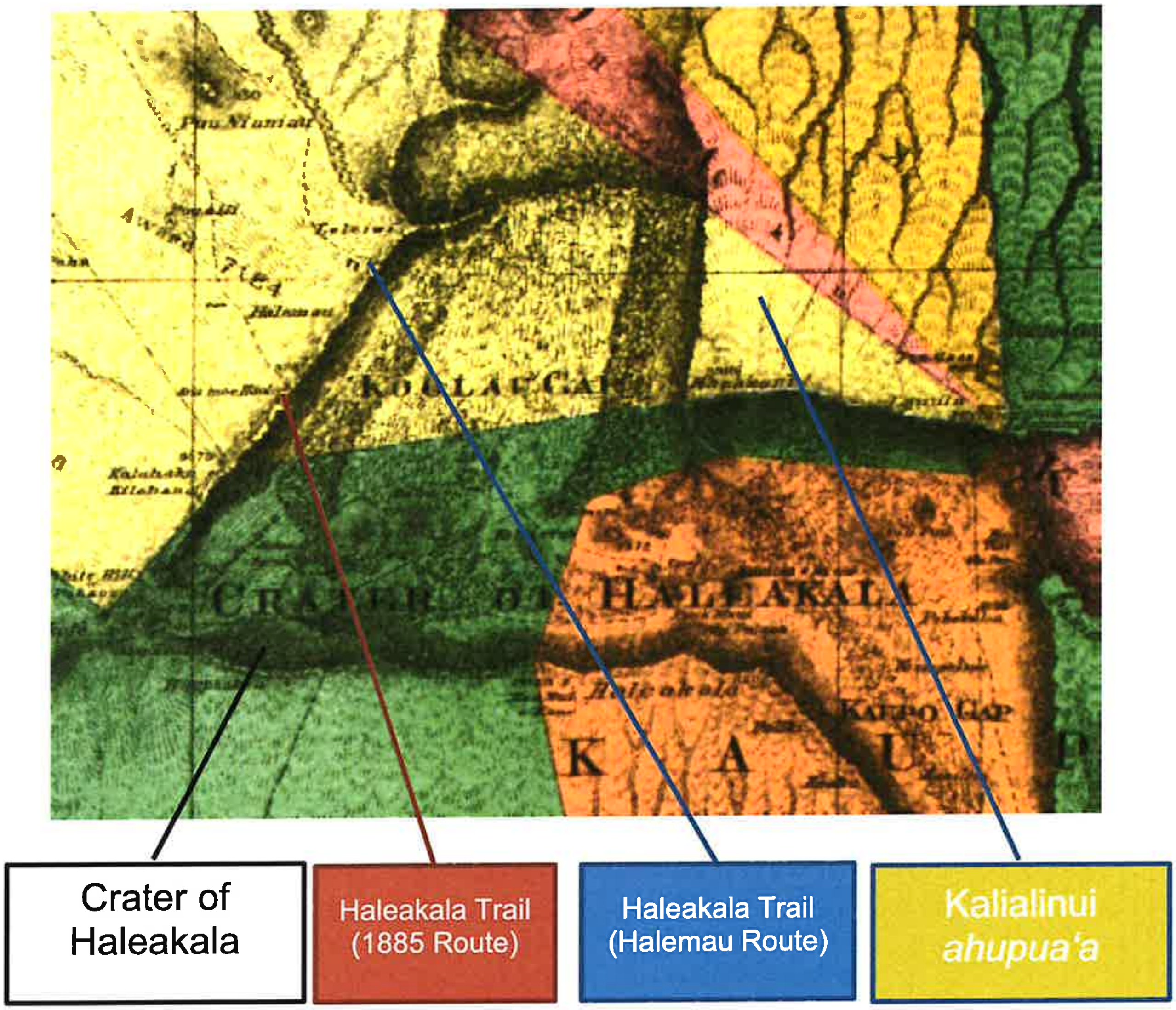


EXHIBIT AC-2b

Ahupua'a (Crater Closeup)



CENTERLINE OF HALEAKALA CRATER TRAIL
BASED ON "1922 MAP" AND FIELD INSPECTIONS

AFFECTING TMK 2-2-3-005-004

BEGINNING AT THE NORTHWESTERN END OF THE CENTERLINE OF THIS HALEAKALA CRATER TRAIL, AT THE CENTER OF THE SOUTHWESTERN TERMINUS OF OLINDA ROAD, A PUBLIC RIGHT-OF-WAY, THE COORDINATES OF SAID POINT OF BEGINNING REFERRED TO GOVERNMENT SURVEY TRIANGULATION STATION "PUU NIANIAU", STATE PLANE COORDINATES, NAD83, ZONE 2, BEING 171,001.71 FEET NORTH AND 1,774,444.78 FEET EAST AND RUNNING BY GRID AZIMUTHS MEASURED CLOCKWISE FROM TRUE SOUTH:

1	306°00'	553	FEET AFFECTING TMK 2-2-3-005-004;
2	29°20'	160	FEET AFFECTING TMK 2-2-3-005-004;
3	56°15'	300	FEET AFFECTING TMK 2-2-3-005-004;
4	1°55'	80	FEET AFFECTING TMK 2-2-3-005-004;
5	289°00'	390	FEET AFFECTING TMK 2-2-3-005-004;
6	316°50'	375	FEET AFFECTING TMK 2-2-3-005-004;
7	334°55'	290	FEET AFFECTING TMK 2-2-3-005-004;
8	332°40'	1080	FEET AFFECTING TMK 2-2-3-005-004;
9	358°55'	300	FEET AFFECTING TMK 2-2-3-005-004;
10	302°10'	550	FEET AFFECTING TMK 2-2-3-005-004;
11	331°30'	1200	FEET AFFECTING TMK 2-2-3-005-004;
12	324°25'	965	FEET AFFECTING TMK 2-2-3-005-004;
13	336°20'	600	FEET AFFECTING TMK 2-2-3-005-004;
14	310°20'	1400	FEET AFFECTING TMK 2-2-3-005-004;
15	308°00'	290	FEET AFFECTING TMK 2-2-3-005-004;
16	2°55'	210	FEET AFFECTING TMK 2-2-3-005-004;
17	45°15'	470	FEET AFFECTING TMK 2-2-3-005-004;
18	62°10'	310	FEET AFFECTING TMK 2-2-3-005-004;
19	329°30'	710	FEET AFFECTING TMK 2-2-3-005-004;
20	352°20'	650	FEET AFFECTING TMK 2-2-3-005-004;
21	349°30'	600	FEET AFFECTING TMK 2-2-3-005-004;
22	351°10'	570	FEET AFFECTING TMK 2-2-3-005-004;
23	1°15'	1240	FEET AFFECTING TMK 2-2-3-005-004;
24	315°25'	425	FEET AFFECTING TMK 2-2-3-005-004;
25	15°50'	375	FEET AFFECTING TMK 2-2-3-005-004;
26	338°50'	610	FEET AFFECTING TMK 2-2-3-005-004;
27	85°45'	150	FEET AFFECTING TMK 2-2-3-005-004;
28	30°10'	595	FEET AFFECTING TMK 2-2-3-005-004;
29	356°50'	475	FEET AFFECTING TMK 2-2-3-005-004;
30	50°50'	210	FEET AFFECTING TMK 2-2-3-005-004;
31	20°50'	630	FEET AFFECTING TMK 2-2-3-005-004;
32	310°10'	545	FEET AFFECTING TMK 2-2-3-005-004;

EXHIBIT AC-3

33	339°40'	360	FEET AFFECTING TMK 2-2-3-005-004;
34	226°50'	1205	FEET AFFECTING TMK 2-2-3-005-004;
35	317°50	490	FEET OVER AND ACROSS CRATER ROAD AND AFFECTING TMK 2-2-3-005-004;
35	270°00'	420	FEET AFFECTING TMK 2-2-3-005-004;
36	339°00'	280	FEET AFFECTING TMK 2-2-3-005-004;
37	252°10	310	FEET AFFECTING TMK 2-2-3-005-004;
38	237°45'	550	FEET AFFECTING TMK 2-2-3-005-004;
39	241°55'	385	FEET AFFECTING TMK 2-2-3-005-004;
40	339°40'	345	FEET AFFECTING TMK 2-2-3-005-004;
41	311°40'	310	FEET AFFECTING TMK 2-2-3-005-004;
42	265°30'	430	FEET AFFECTING TMK 2-2-3-005-004;
43	272°20'	550	FEET AFFECTING TMK 2-2-3-005-004;
44	281°00'	258	FEET TO THE WESTERN BOUNDARY OF HALEAKALA NATIONAL PARK AND THE END OF THE HALEAKALA TRAIL AFFECTING TMK 2-2-3-005-004;

CENTERLINE OF HALEAKALA CRATER TRAIL
AS SHOWN ON "1922 MAP"

AFFECTING TMK 2-2-3-005-004

BEGINNING AT THE NORTHWESTERN END OF THE CENTERLINE OF THIS HALEAKALA CRATER TRAIL, AT THE CENTER OF THE SOUTHWESTERN TERMINUS OF OLINDA ROAD, A PUBLIC RIGHT-OF-WAY, THE COORDINATES OF SAID POINT OF BEGINNING REFERRED TO GOVERNMENT SURVEY TRIANGULATION STATION "PUU NIANIAU", STATE PLANE COORDINATES, NAD83, ZONE 2, BEING 170,947.43 FEET NORTH AND 1,774,355.33 FEET EAST AND RUNNING BY GRID AZIMUTHS MEASURED CLOCKWISE FROM TRUE SOUTH:

1	326°30'	105	FEET AFFECTING TMK 2-2-3-005-004;
2	314°20'	350	FEET AFFECTING TMK 2-2-3-005-004;
3	315°00'	180	FEET AFFECTING TMK 2-2-3-005-004;
4	294°20'	190	FEET AFFECTING TMK 2-2-3-005-004;
5	301°45'	180	FEET AFFECTING TMK 2-2-3-005-004;
6	344°10'	710	FEET AFFECTING TMK 2-2-3-005-004;
7	333°00'	565	FEET AFFECTING TMK 2-2-3-005-004;
8	336°40'	240	FEET AFFECTING TMK 2-2-3-005-004;
9	344°25'	550	FEET AFFECTING TMK 2-2-3-005-004;
10	302°10'	550	FEET AFFECTING TMK 2-2-3-005-004;
11	331°30'	1200	FEET AFFECTING TMK 2-2-3-005-004;
12	324°25'	965	FEET AFFECTING TMK 2-2-3-005-004;
13	6°40'	750	FEET AFFECTING TMK 2-2-3-005-004;
14	312°10'	1770	FEET AFFECTING TMK 2-2-3-005-004;
15	351°15'	250	FEET AFFECTING TMK 2-2-3-005-004;
16	55°20'	480	FEET AFFECTING TMK 2-2-3-005-004;
17	356°40'	395	FEET AFFECTING TMK 2-2-3-005-004;
18	339°00'	920	FEET AFFECTING TMK 2-2-3-005-004;
19	332°10'	545	FEET AFFECTING TMK 2-2-3-005-004;
20	351°10'	570	FEET AFFECTING TMK 2-2-3-005-004;
21	1°15'	1240	FEET AFFECTING TMK 2-2-3-005-004;
22	315°25'	425	FEET AFFECTING TMK 2-2-3-005-004;
23	15°50'	375	FEET AFFECTING TMK 2-2-3-005-004;
24	338°50'	610	FEET AFFECTING TMK 2-2-3-005-004;
25	85°45'	150	FEET AFFECTING TMK 2-2-3-005-004;
26	30°0'1	595	FEET AFFECTING TMK 2-2-3-005-004;
27	356°50'	475	FEET AFFECTING TMK 2-2-3-005-004;
28	50°50'	210	FEET AFFECTING TMK 2-2-3-005-004;
29	20°50'	630	FEET AFFECTING TMK 2-2-3-005-004;
30	310°10'	545	FEET AFFECTING TMK 2-2-3-005-004;
31	339°40'	360	FEET AFFECTING TMK 2-2-3-005-004;
32	243°15'	480	FEET AFFECTING TMK 2-2-3-005-004;

EXHIBIT AC-4

33	250°55'	325	FEET AFFECTING TMK 2-2-3-005-004;
34	171°40'	185	FEET AFFECTING TMK 2-2-3-005-004;
35	249°20	245	FEET AFFECTING TMK 2-2-3-005-004;
36	190°35'	230	FEET AFFECTING TMK 2-2-3-005-004;
37	328°55'	440	FEET OVER AND ACROSS CRATER ROAD AND AFFECTING TMK 2-2-3-005-004;
38	343°05'	170	FEET AFFECTING TMK 2-2-3-005-004;
39	259°35'	370	FEET AFFECTING TMK 2-2-3-005-004;
40	336°20'	355	FEET AFFECTING TMK 2-2-3-005-004;
41	249°25'	685	FEET AFFECTING TMK 2-2-3-005-004;
42	227°25'	205	FEET AFFECTING TMK 2-2-3-005-004;
43	270°00'	280	FEET AFFECTING TMK 2-2-3-005-004;
44	333°55'	390	FEET AFFECTING TMK 2-2-3-005-004;
45	310°20'	135	FEET AFFECTING TMK 2-2-3-005-004;
46	289°55'	145	FEET AFFECTING TMK 2-2-3-005-004;
47	276°00'	205	FEET AFFECTING TMK 2-2-3-005-004;
48	272°55'	235	FEET AFFECTING TMK 2-2-3-005-004;
49	260°30'	360	FEET AFFECTING TMK 2-2-3-005-004;
50	254°15'	175	FEET AFFECTING TMK 2-2-3-005-004;
51	275°05'	128.5	FEET TO THE WESTERN BOUNDARY OF HALEAKALA NATIONAL PARK AND THE END OF THE HALEAKALA TRAIL AFFECTING TMK 2-2-3-005-004;

"MAP LINE" AND "TRAIL ARTIFACTS"
(full map)

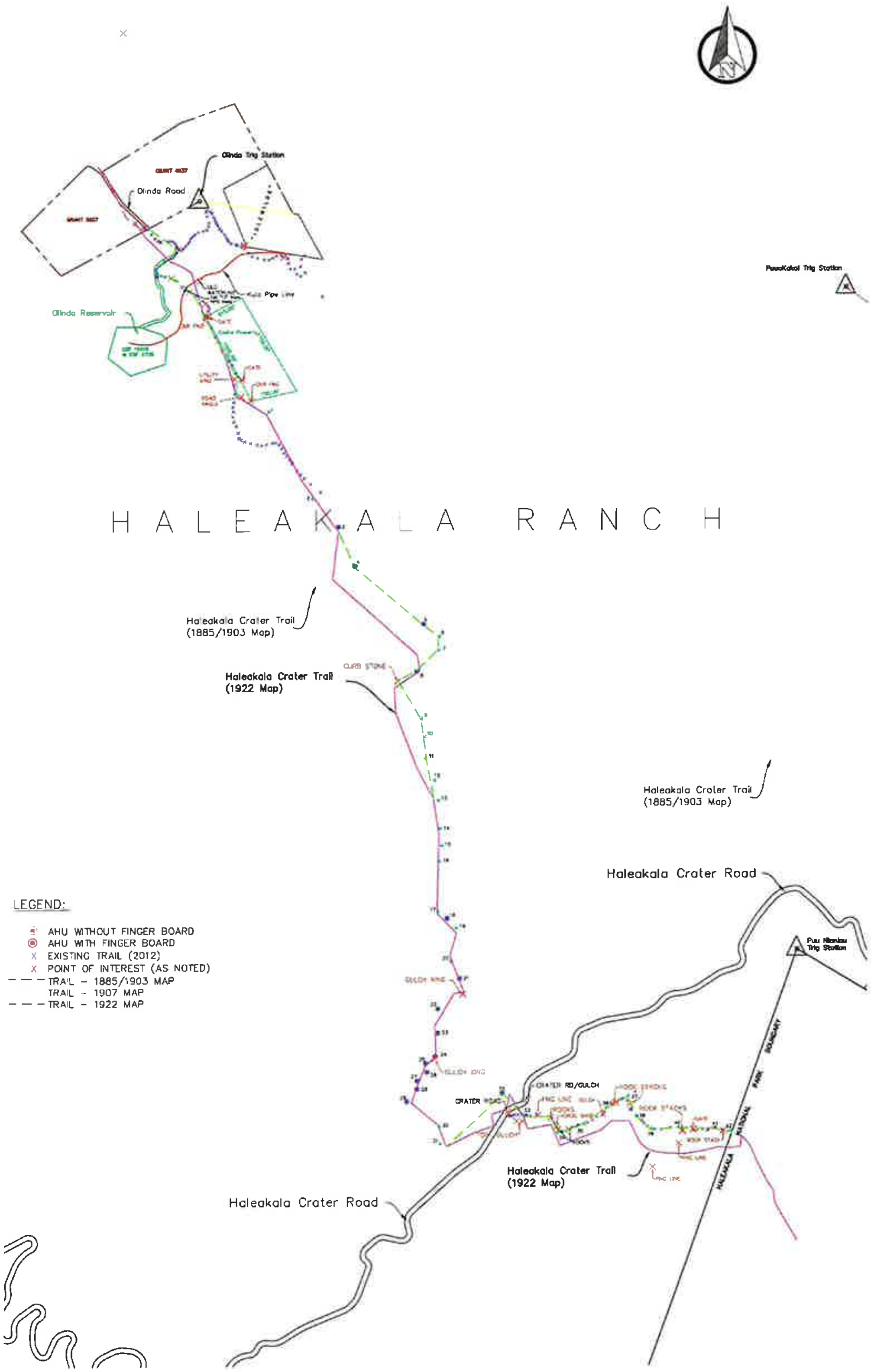
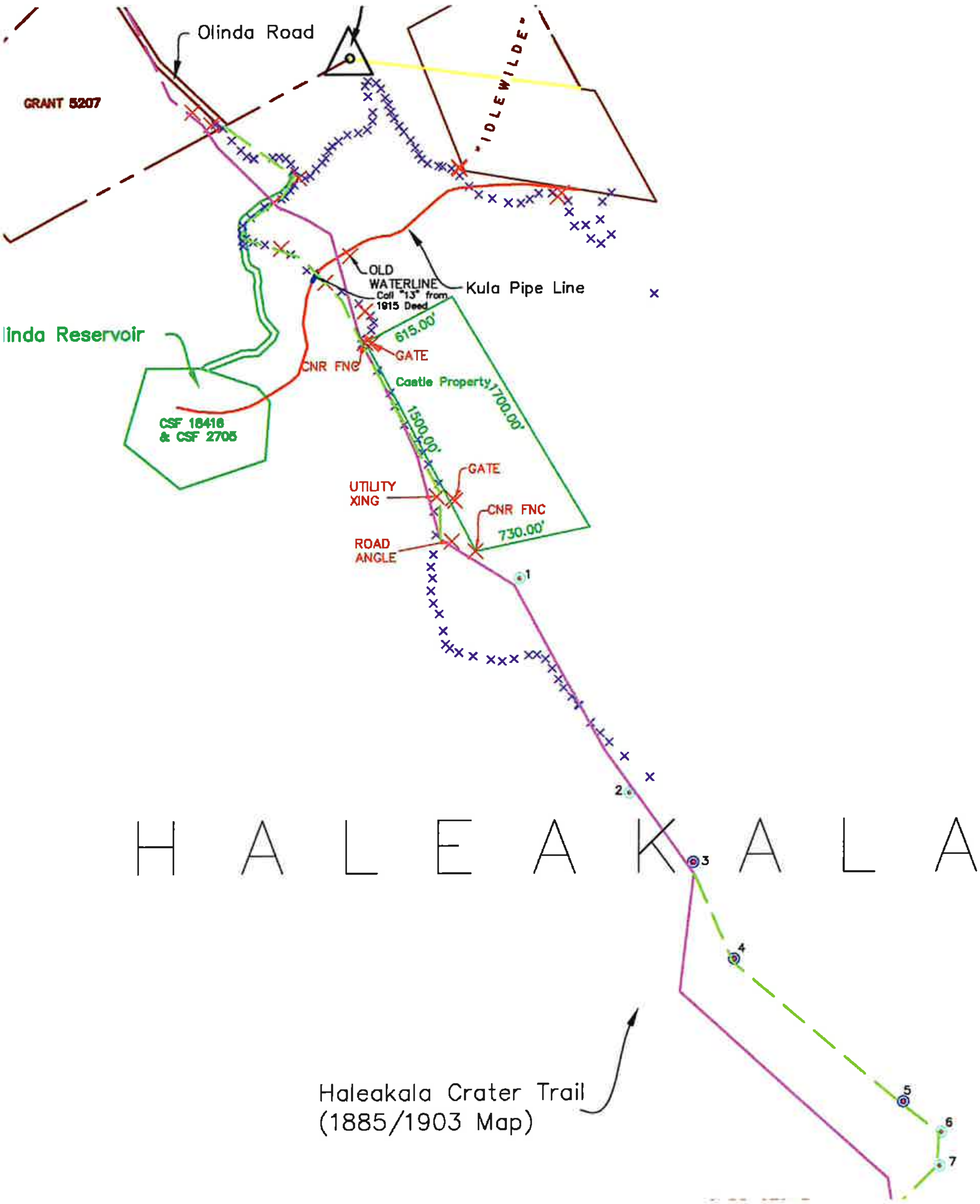
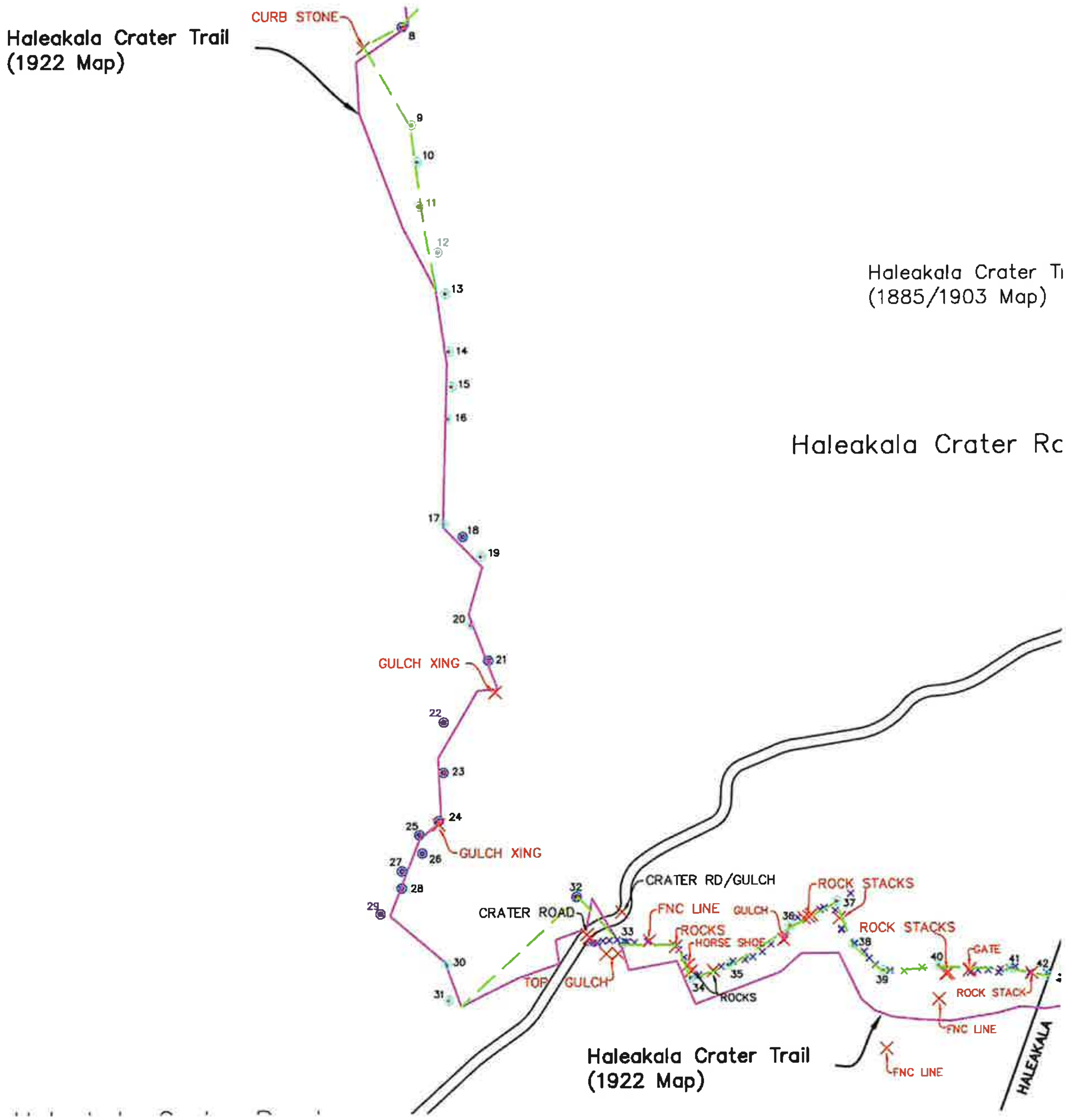


EXHIBIT AC-5

Lower Portion of Map on Page 1



Upper Portion of Map on Page 1



LOCATION OF OLINDA ROAD

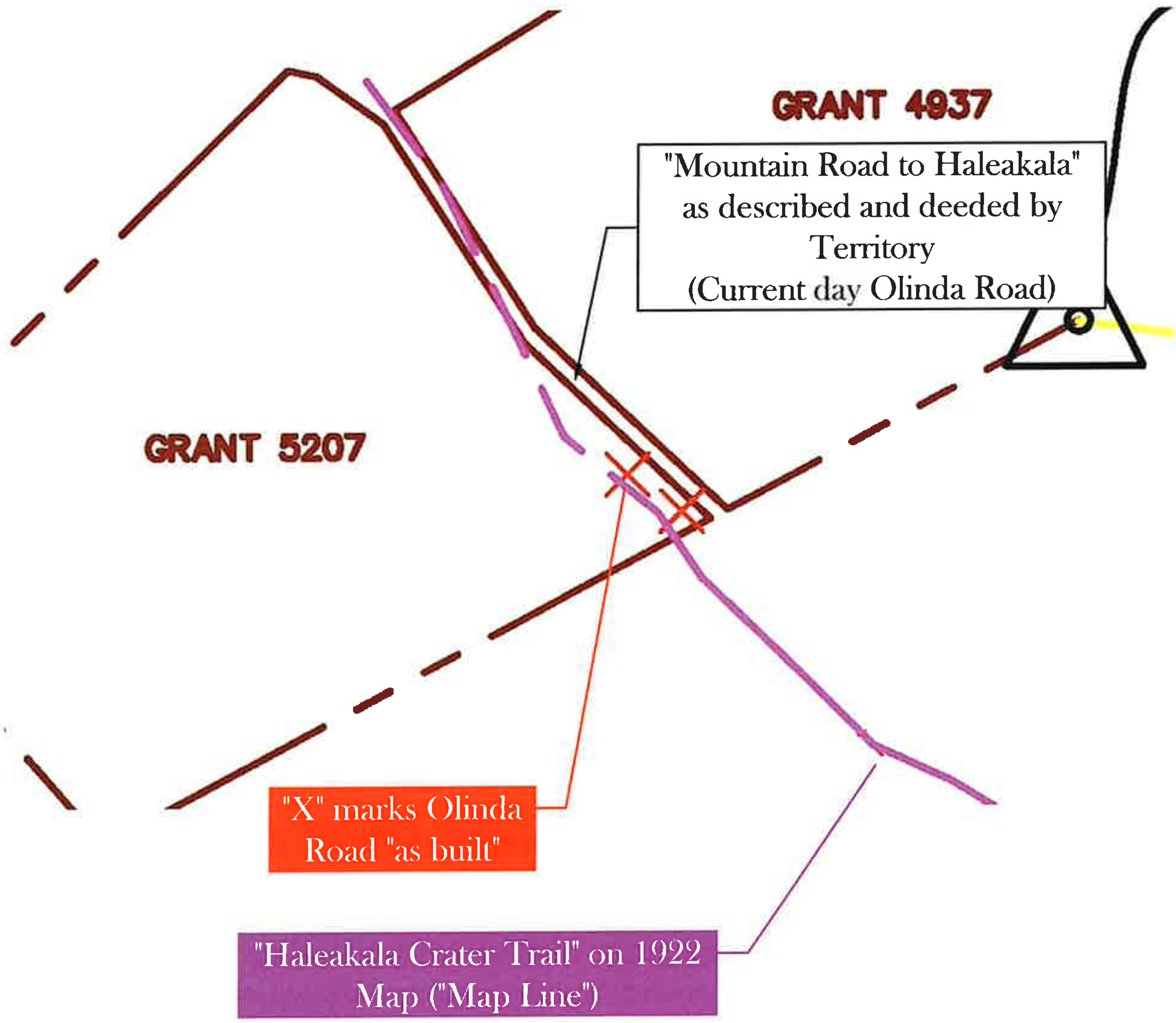
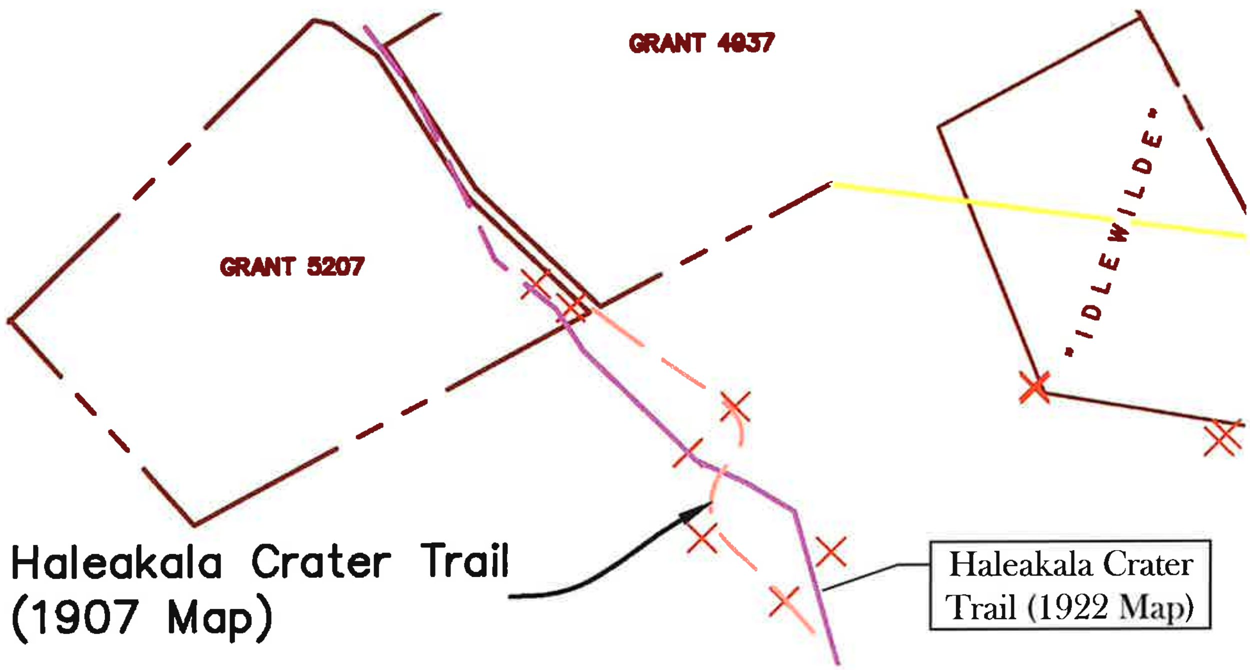


EXHIBIT AC-6

COMPARE 1907 MAP TRAIL TO 1922 MAP TRAIL



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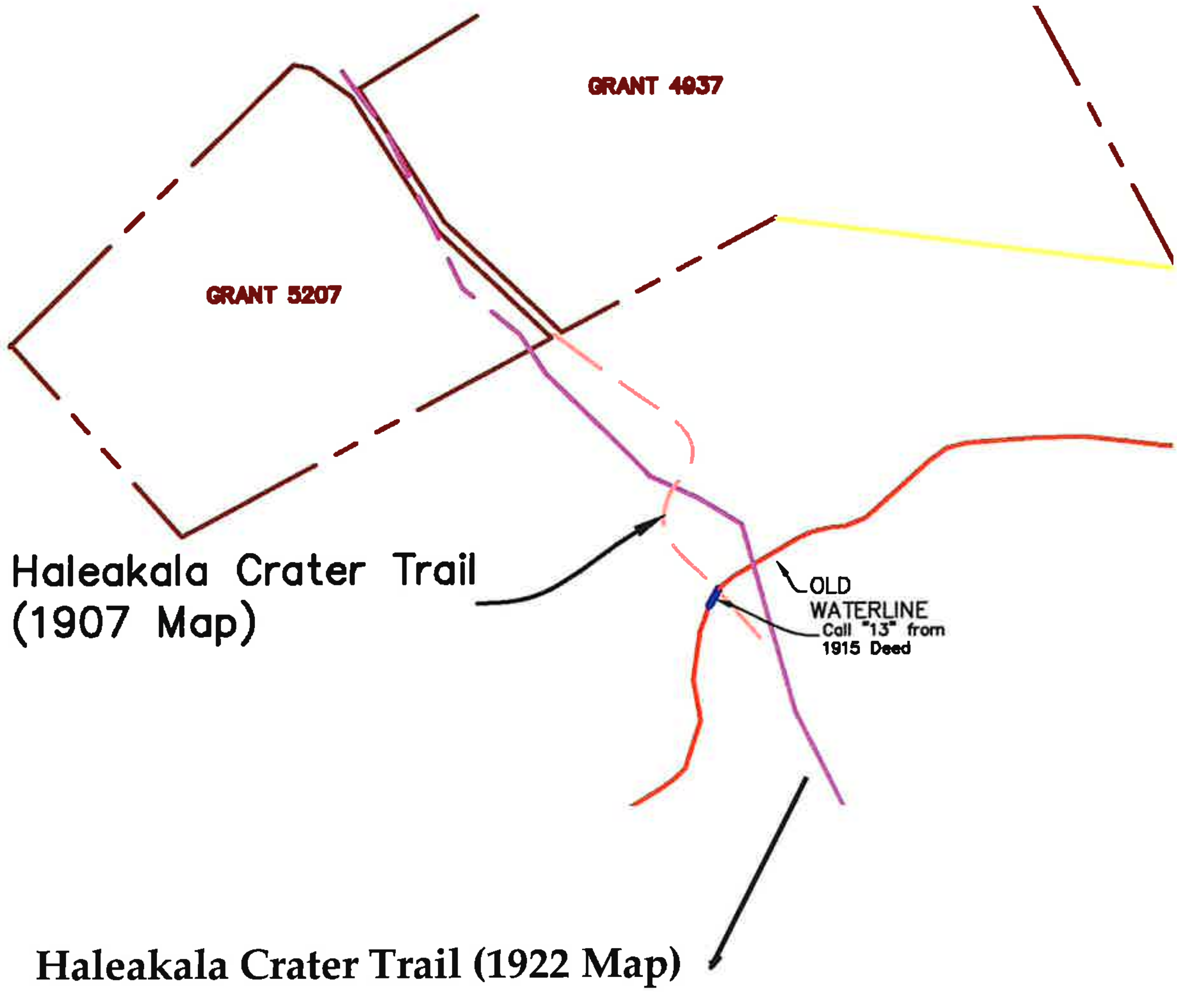
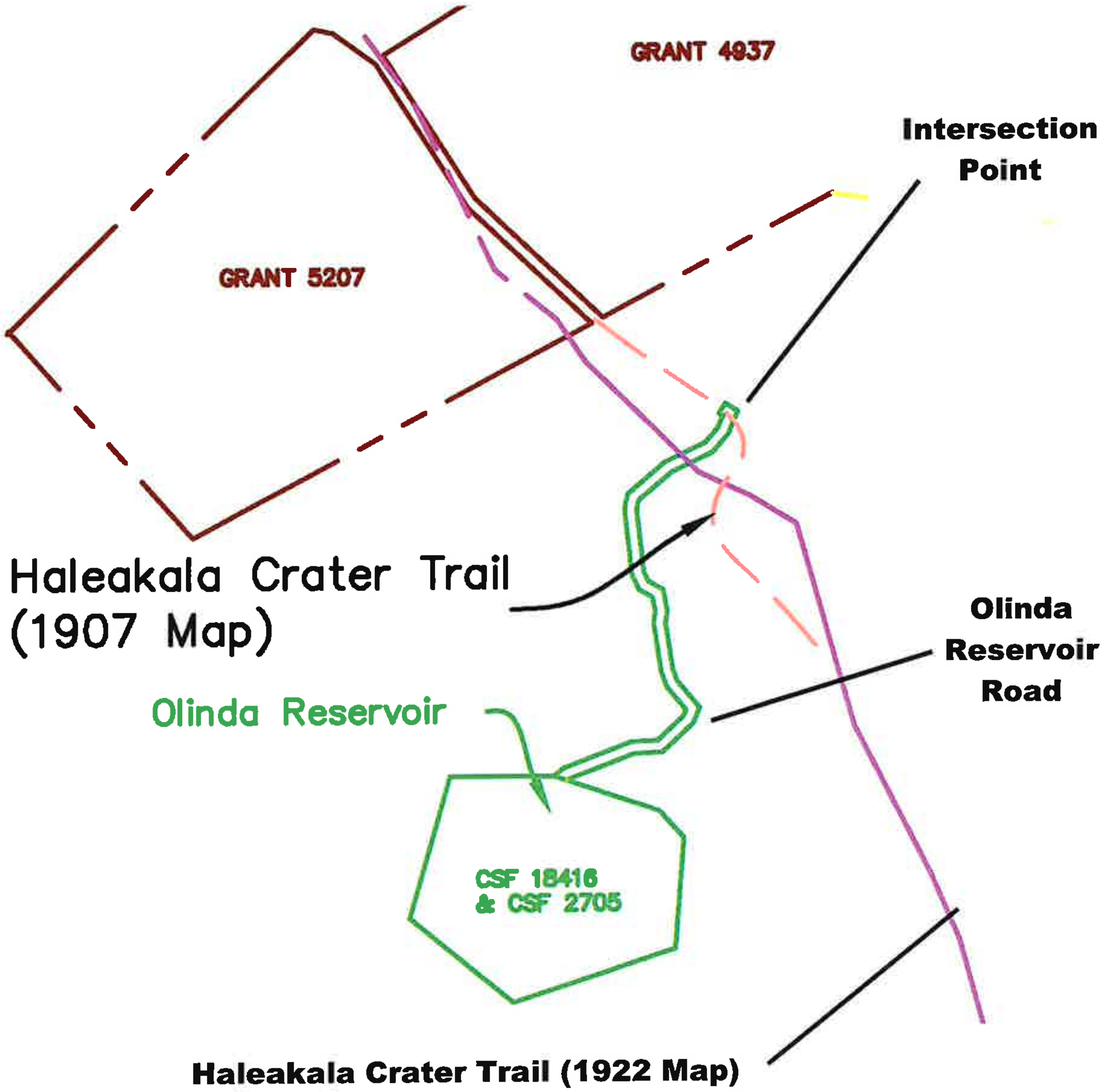
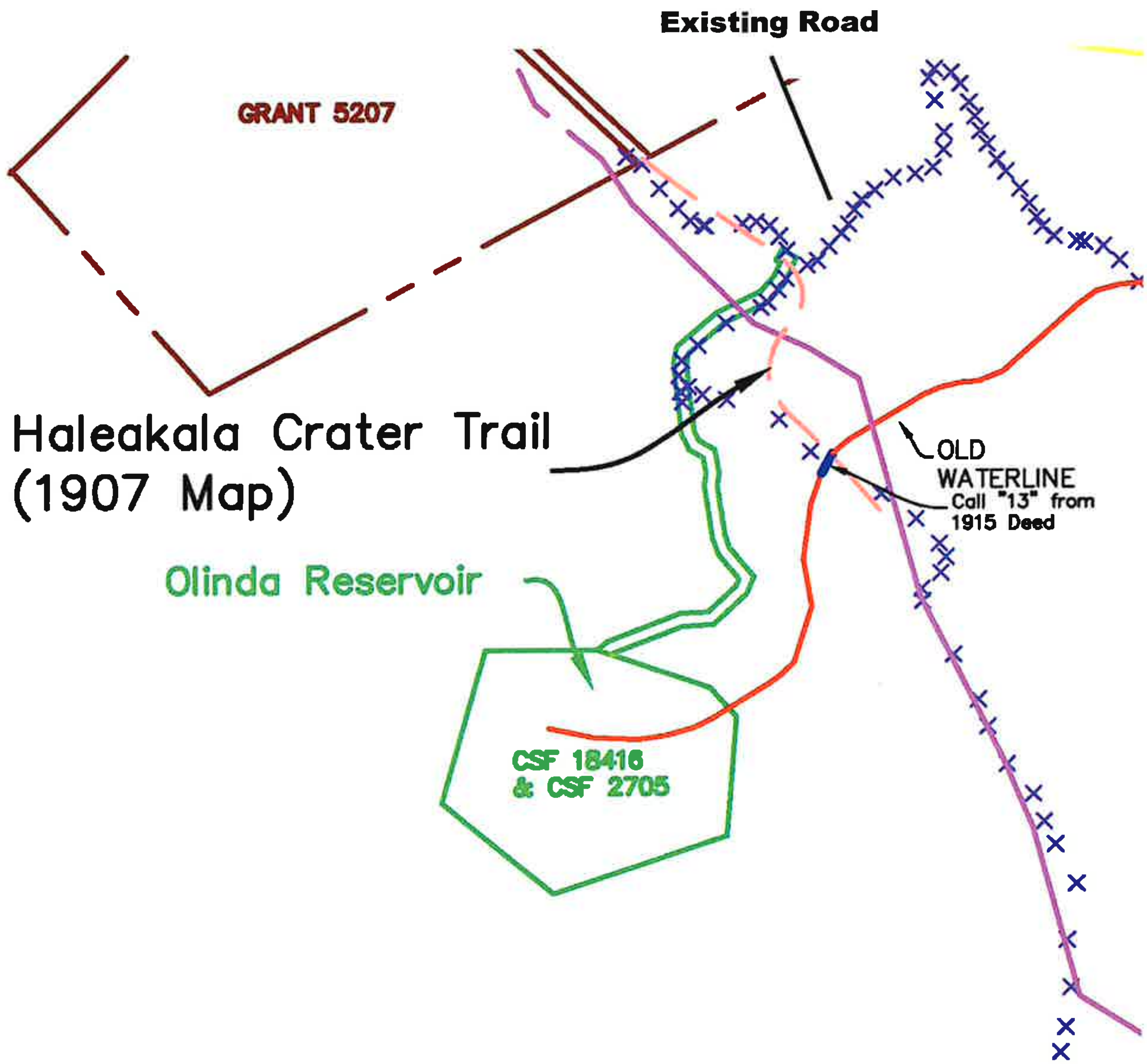

GRANT 4937
GRANT 5207
Haleakala Crater Trail
(1907 Map)
OLD
WATERLINE
Call "13" from
1915 Deed
Haleakala Crater Trail (1922 Map)

EXHIBIT AC-8



GRANT 4937
Intersection Point
GRANT 5207
Haleakala Crater Trail (1907 Map)
Olinda Reservoir
Olinda Reservoir Road
CSF 18416 & CSF 2705
Haleakala Crater Trail (1922 Map)

EXHIBIT AC-9



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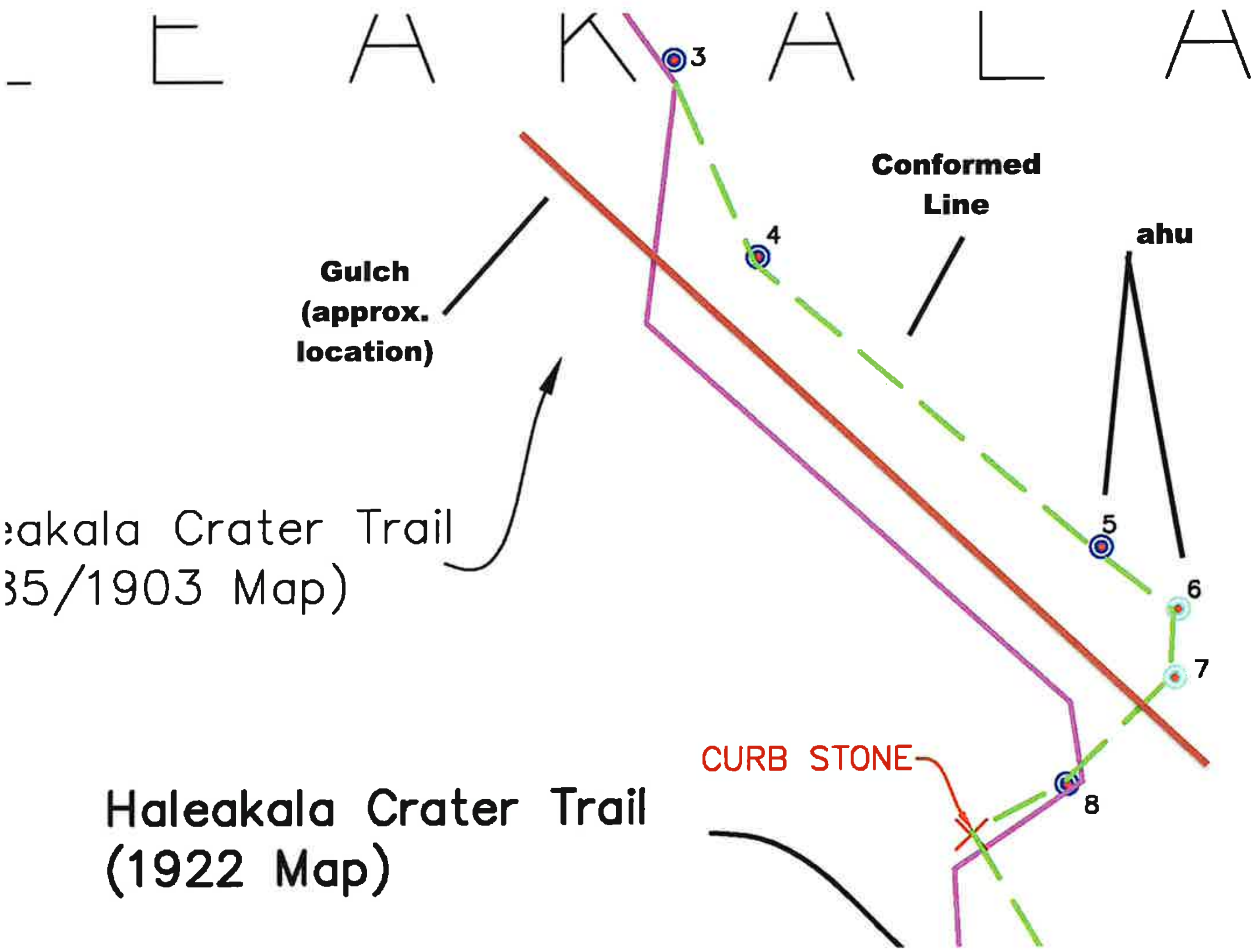


EXHIBIT AC-11

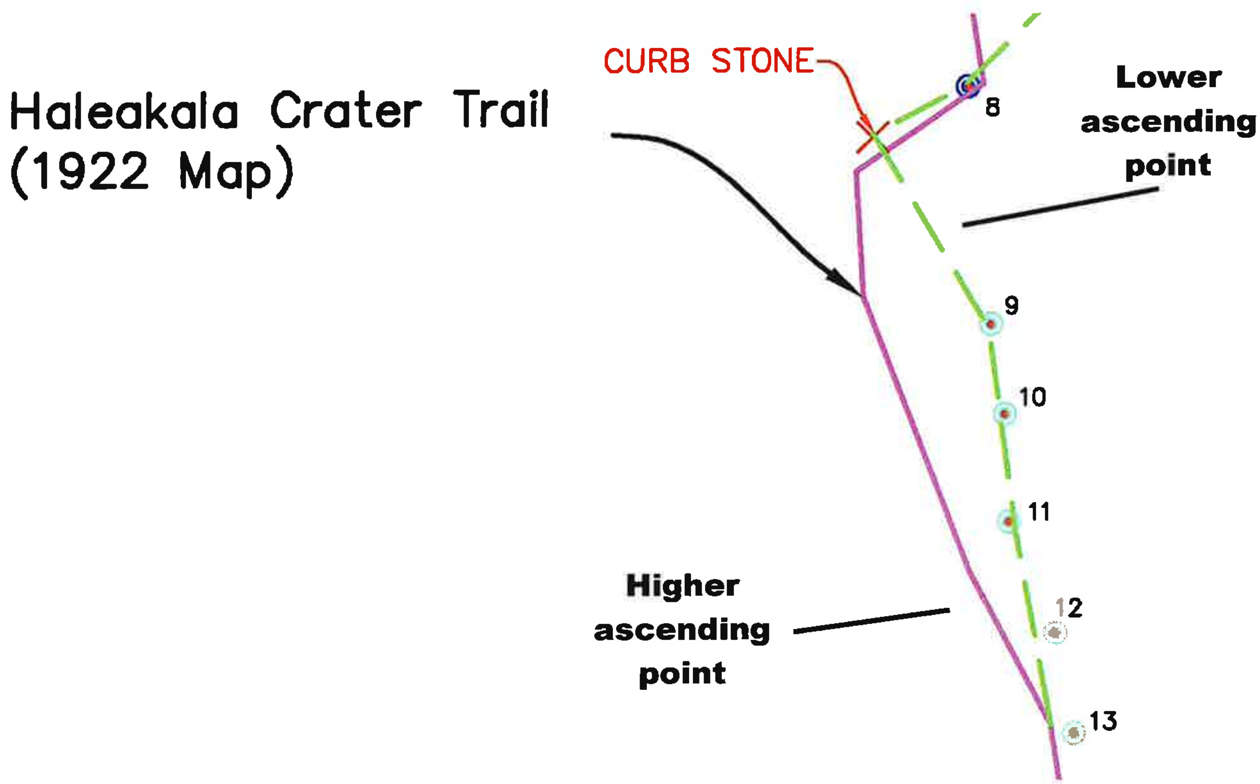
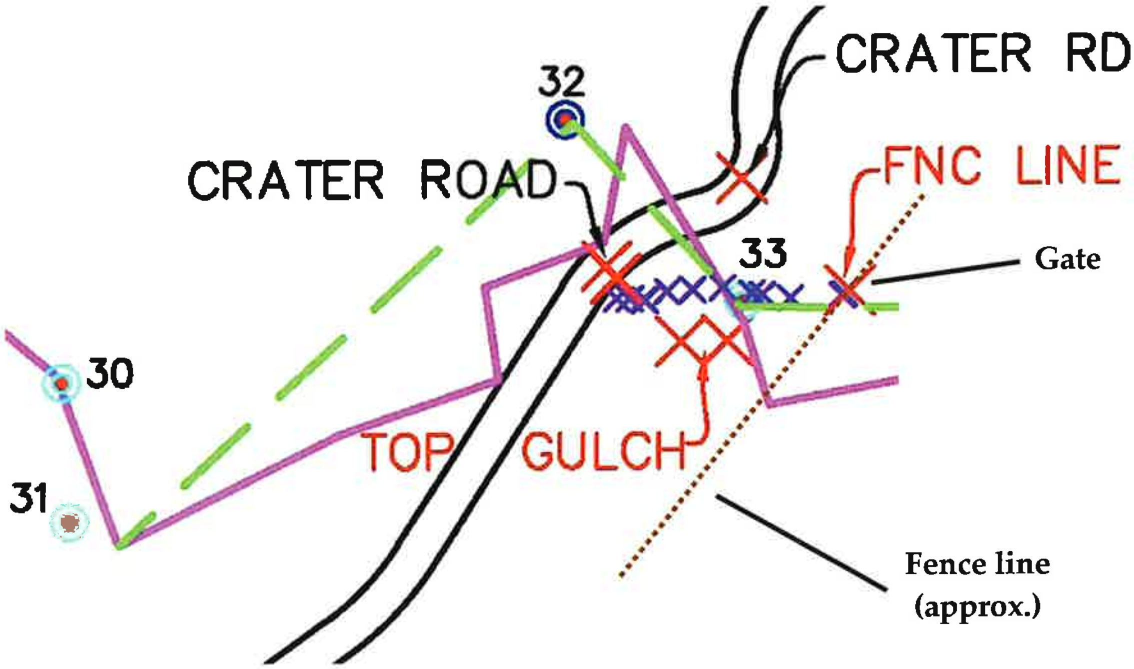


EXHIBIT AC-12



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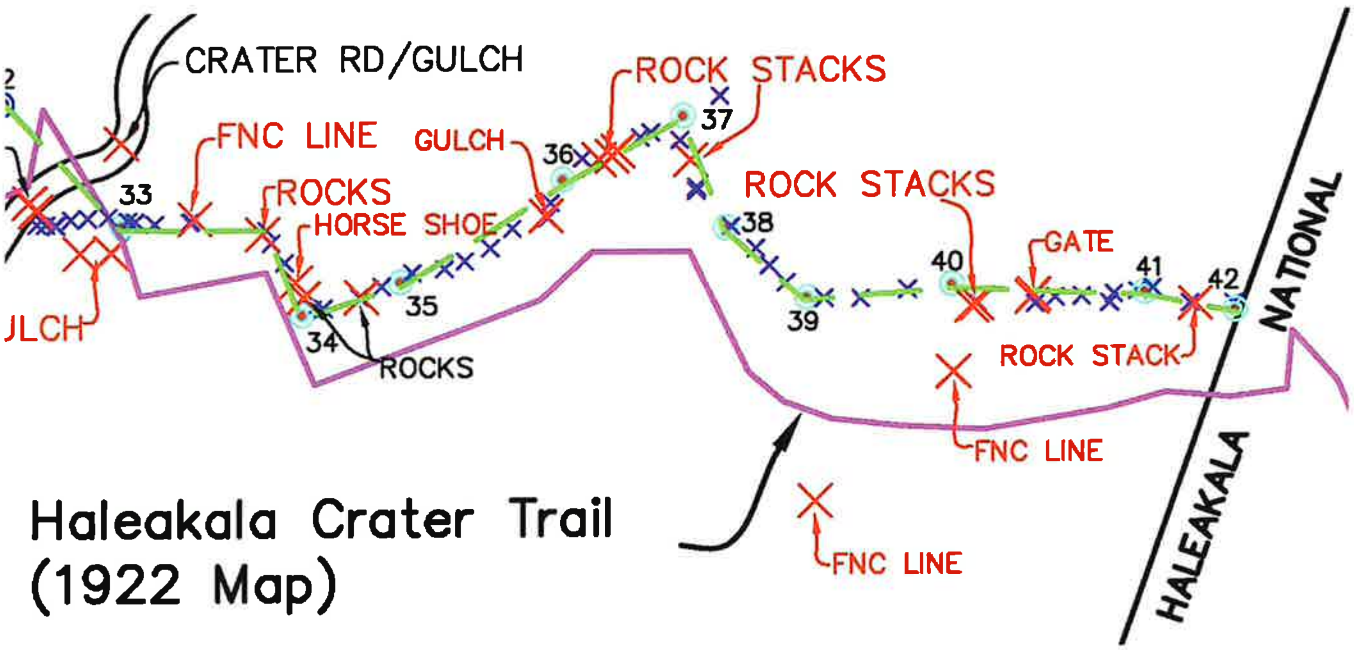


EXHIBIT AC-14

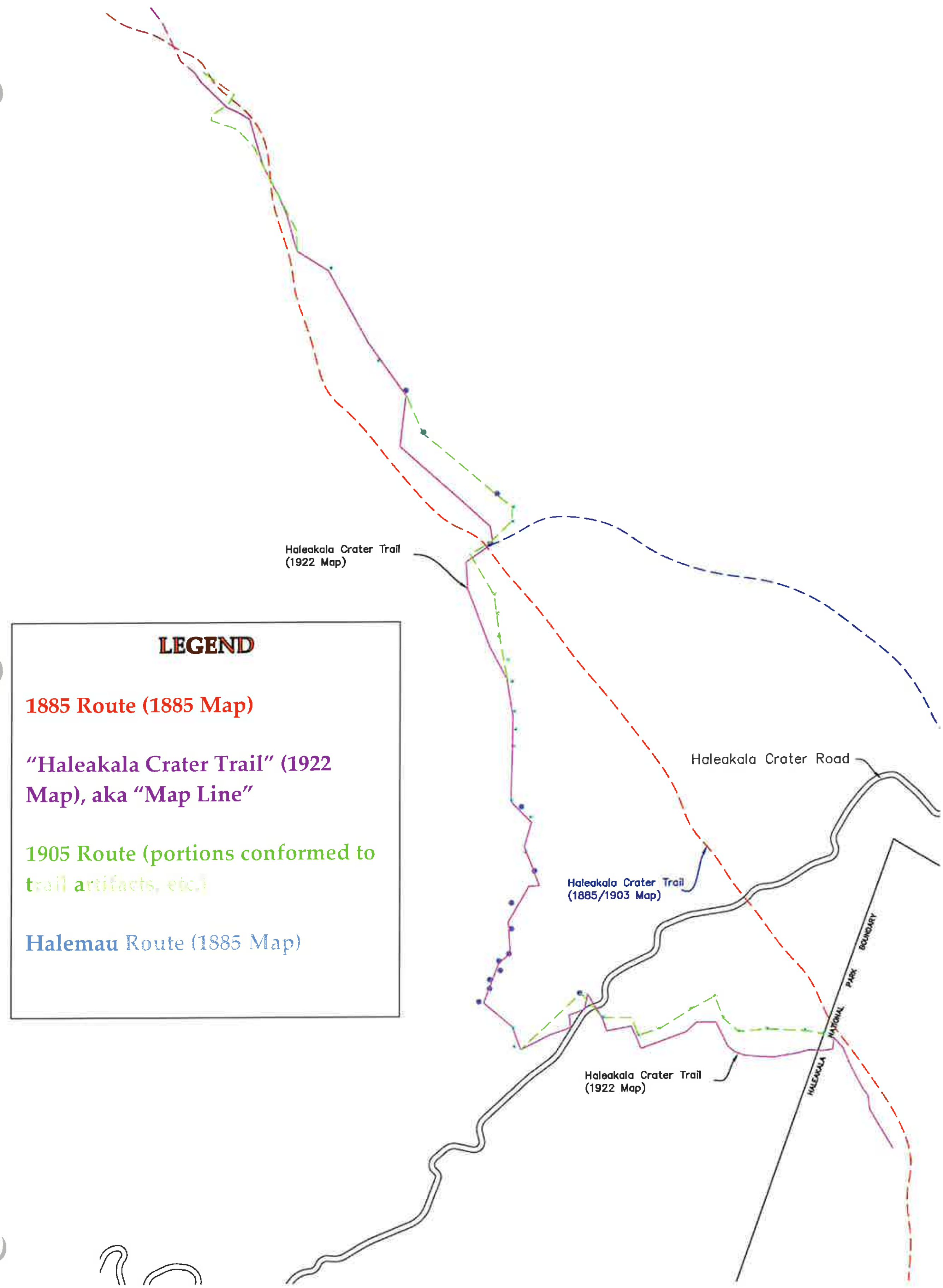


EXHIBIT AC-15

1885 ROUTE AND CASTLE PROPERTY

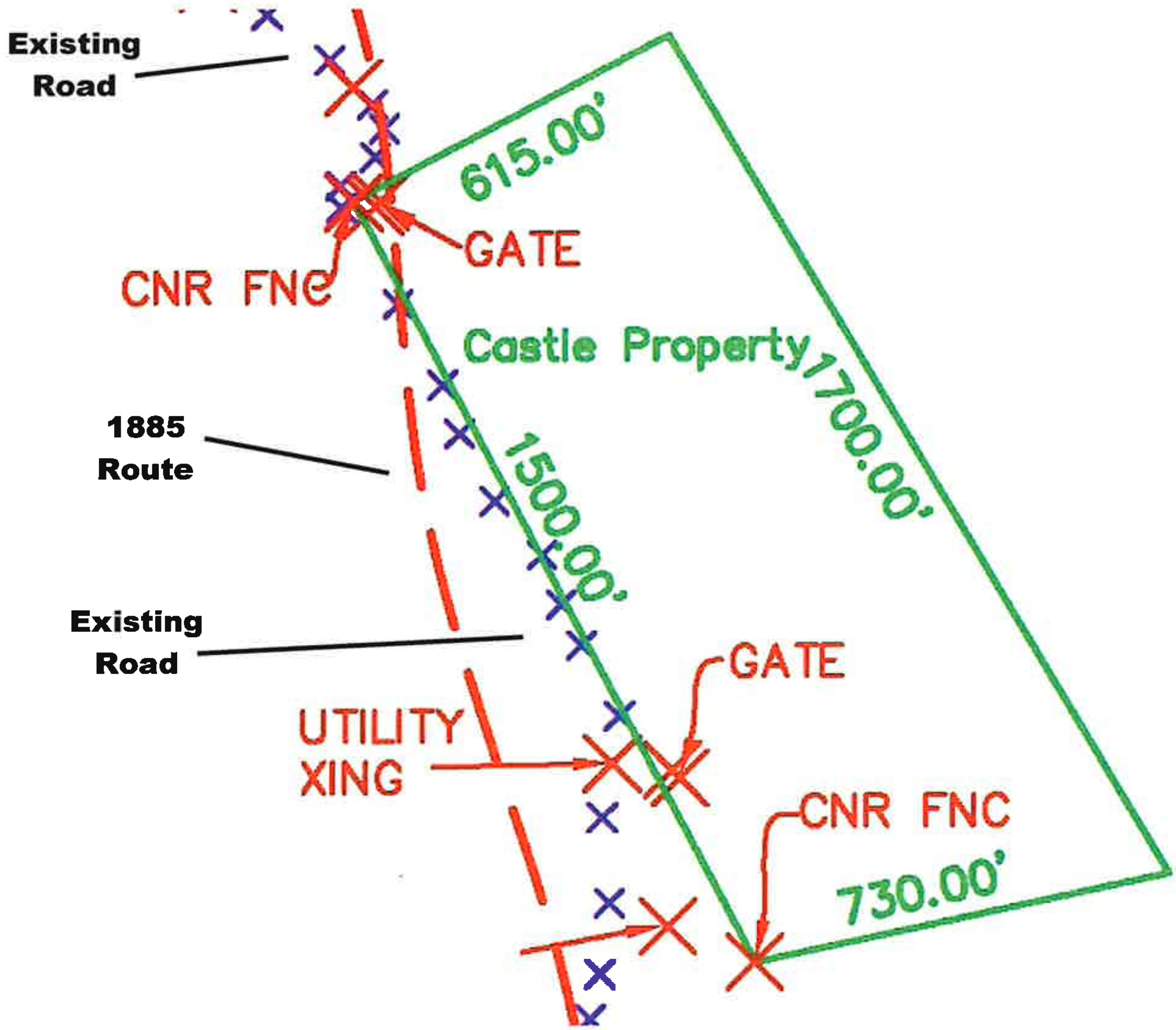


EXHIBIT AC-16

1905 ROUTE AND CASTLE PROPERTY

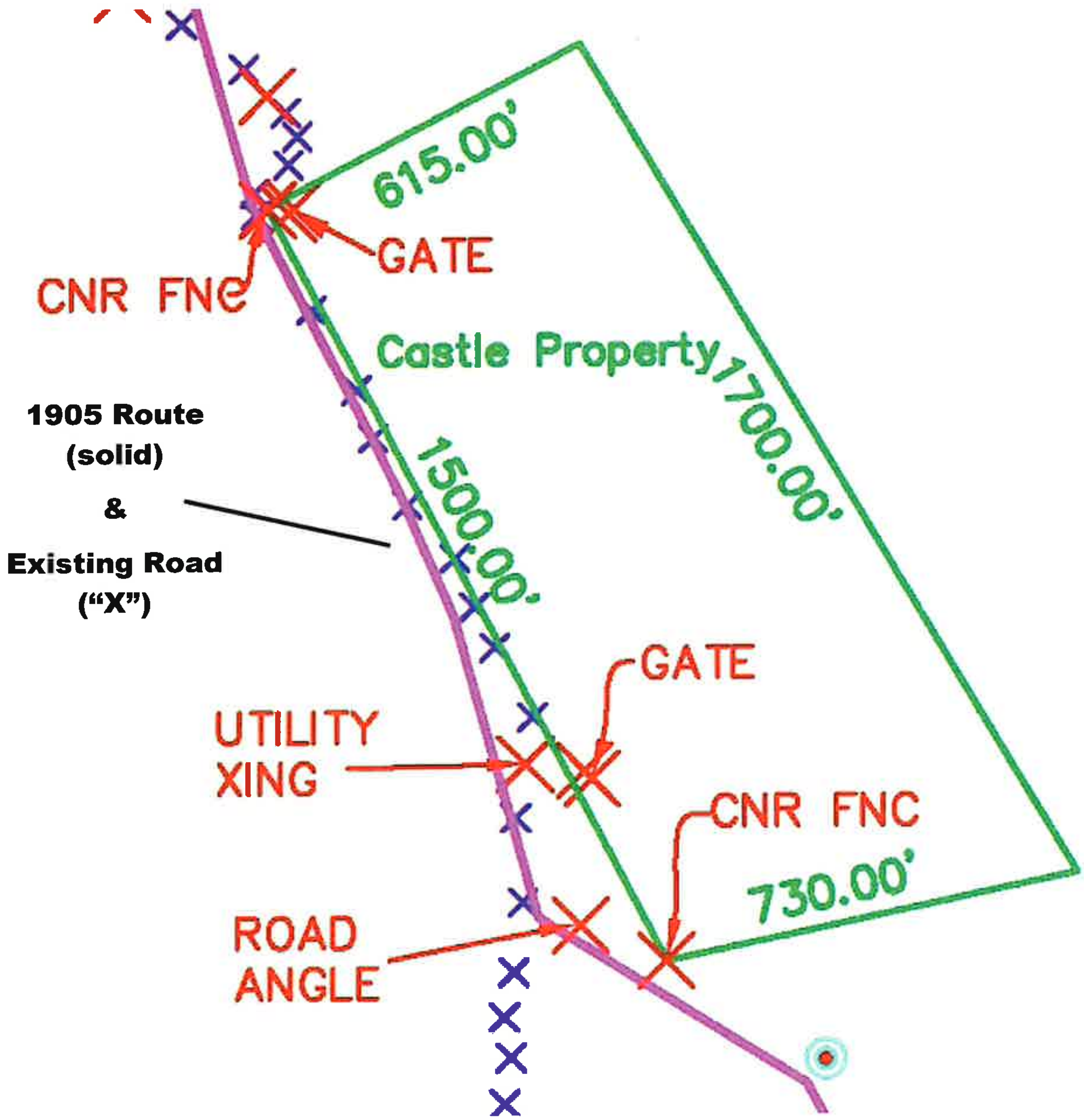
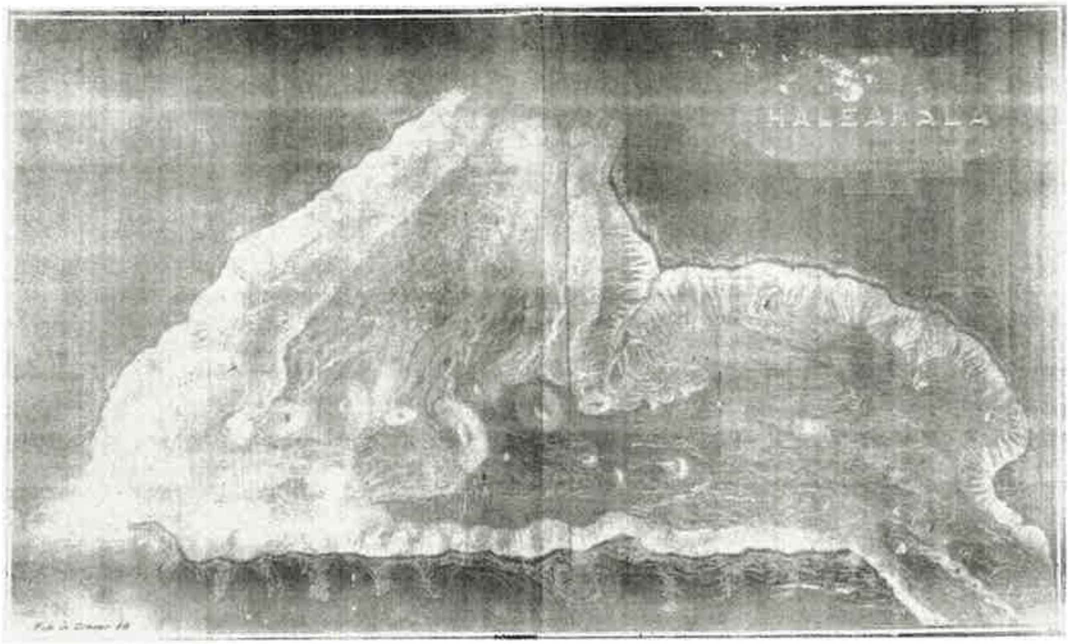


EXHIBIT AC-17

1869 Map Certified Copy (very faint)



1869 Map

(Republished in Isabella Bird, *Six Months in Hawai'i*, and reproduced in Mapping the Lands and Waters of Hawai'i, (vol. 3))

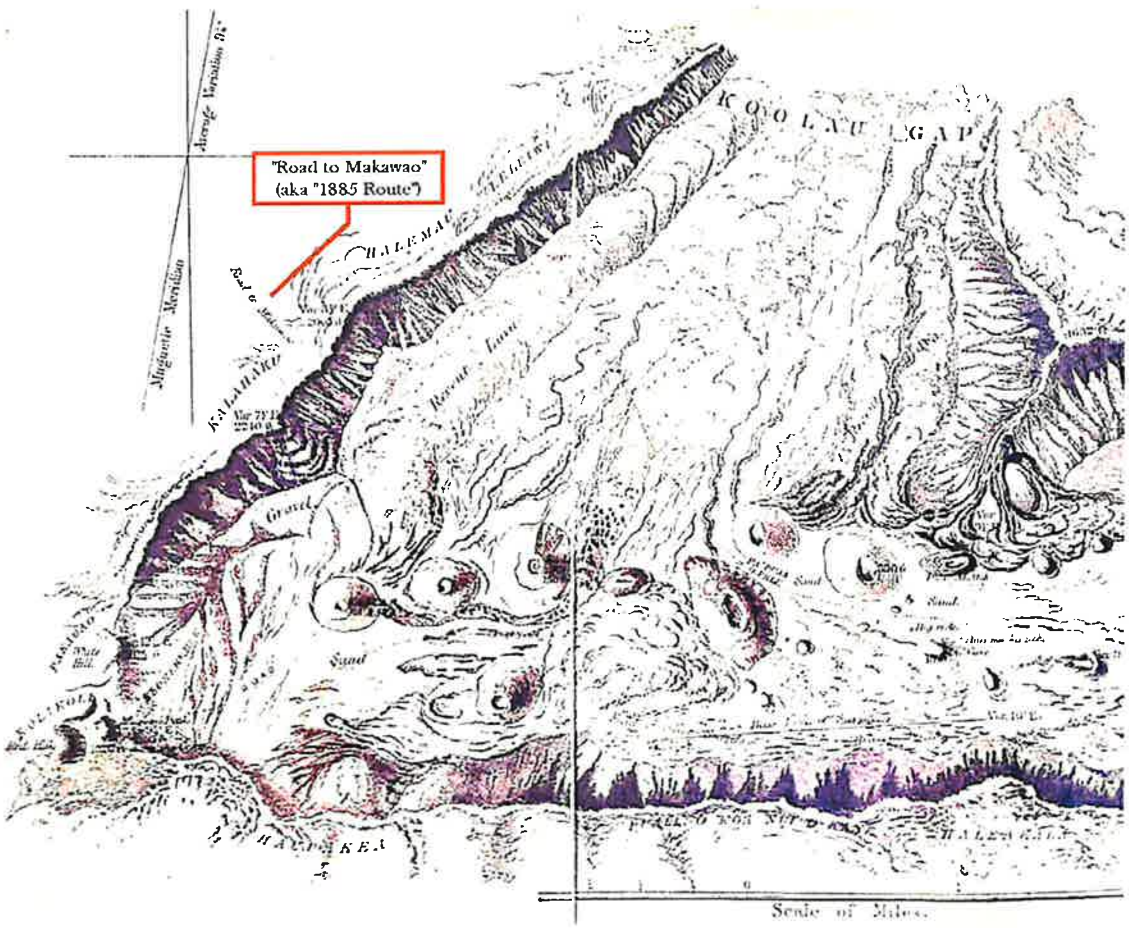
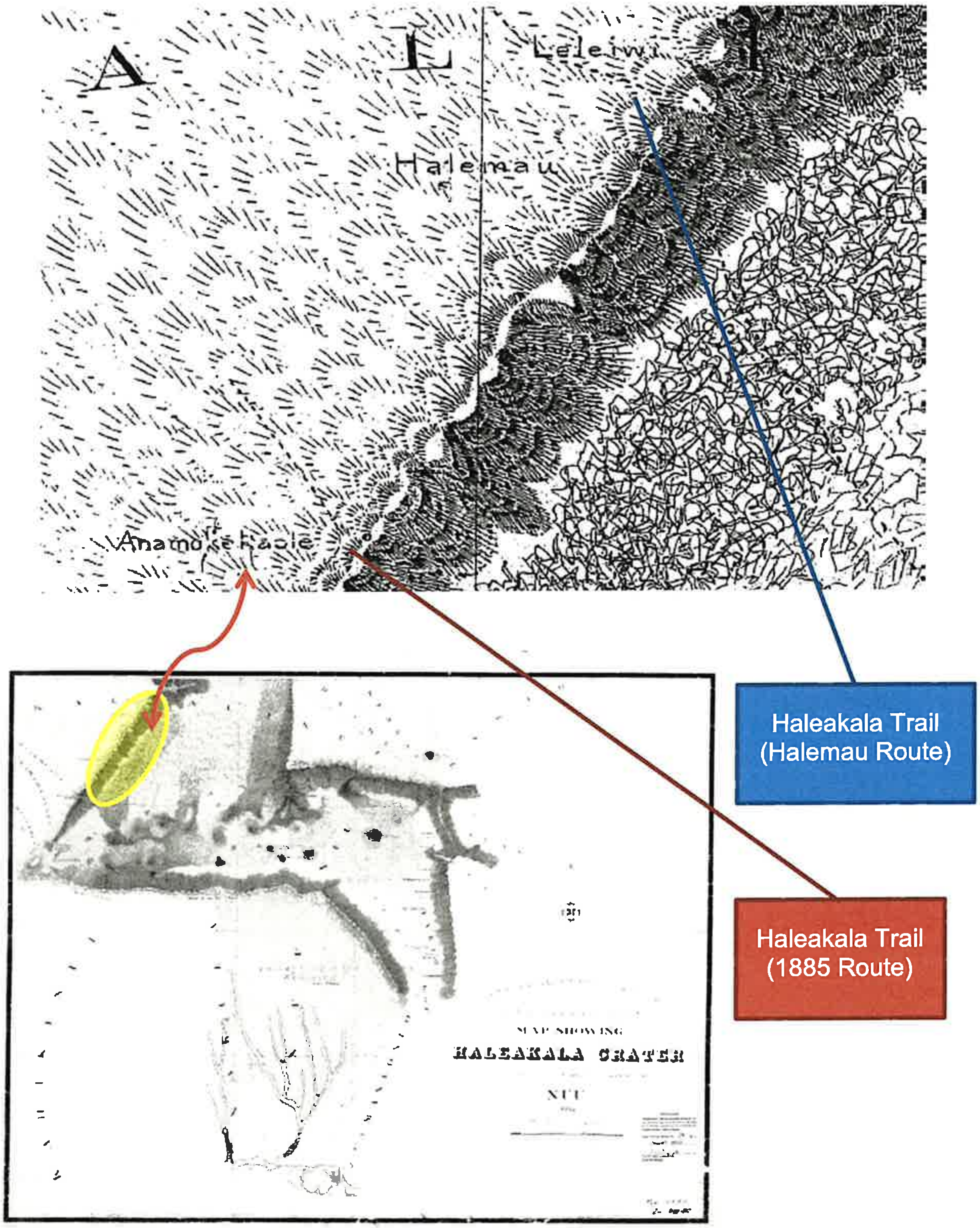


EXHIBIT AC-18

1884 Map



A
L
Leleiwi
Halemau
Haleakala Trail (Halemau Route)
Haleakala Trail (1885 Route)
HALEAKALA CRATER

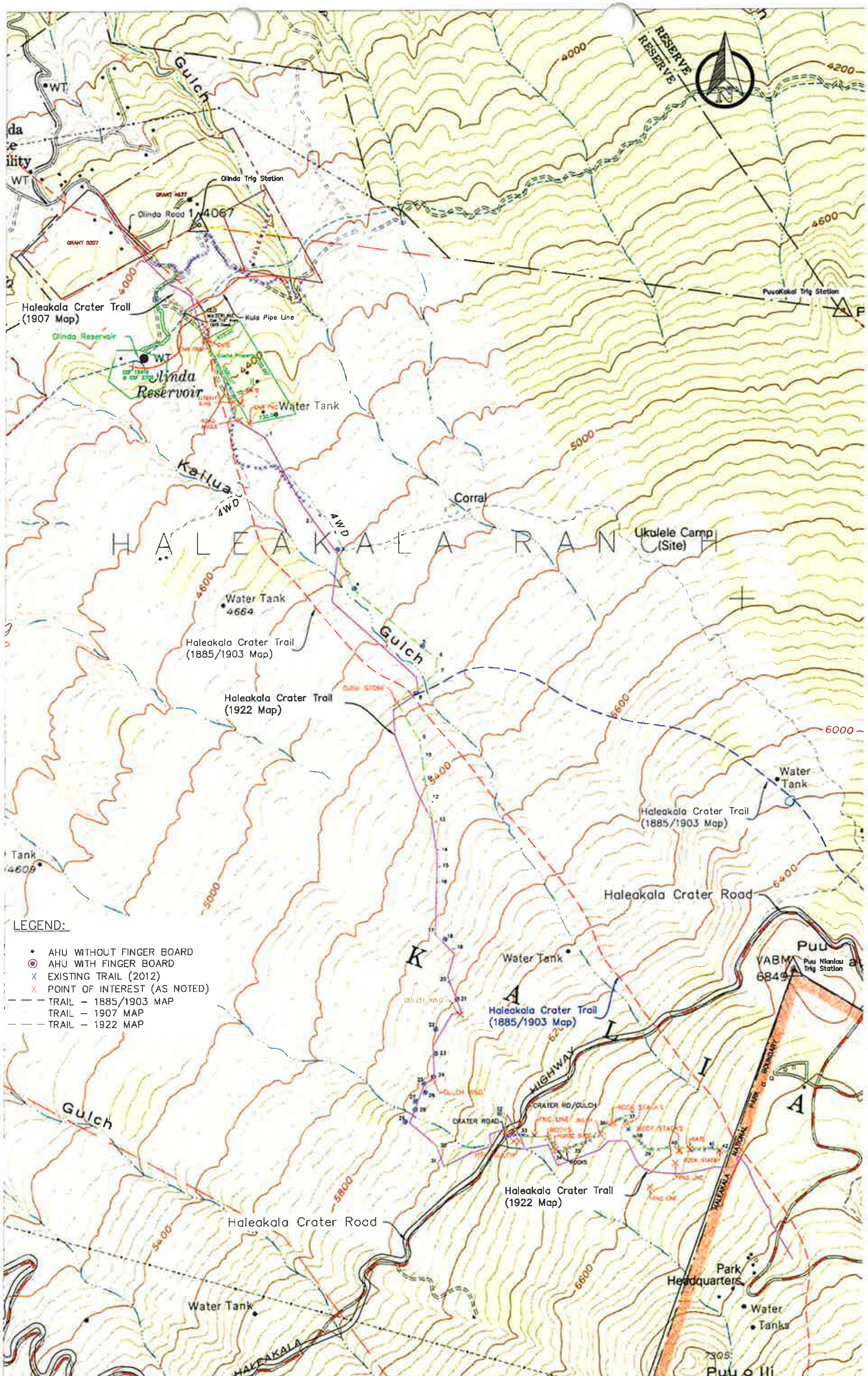


EXHIBIT "AC-20"

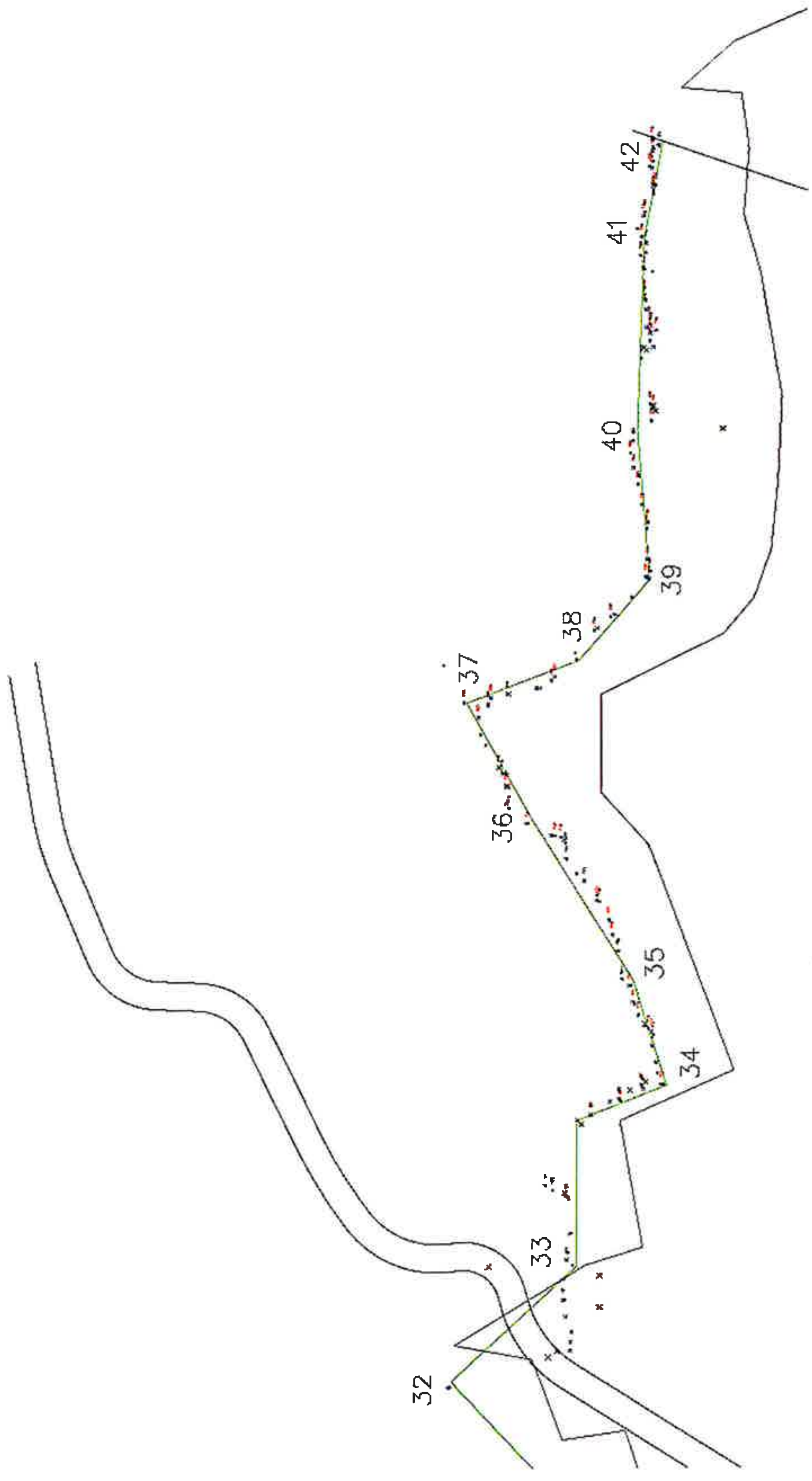


EXHIBIT AC-20

PUBLIC ACCESS TRAILS HAWAI'I, a Hawai'i Nonprofit Corporation, and DAVID BROWN, JOE BERTRAM, III; KEN SCHMITT; for themselves individually, and on behalf of the certified class members, Plaintiffs, vs. HALEAKALA RANCH COMPANY, a Hawai'i Corporation; et al., Defendants.	CIVIL NO. 11-1-0031(3) (Other Civil Action) SUPPLEMENTAL DECLARATION OF LICENSED SURVEYOR ANTHONY CROOK; EXHIBIT AC-20
DEPARTMENT OF LAND AND NATURAL RESOURCES, STATE OF HAWAI'I, Cross-Claimant vs. HALEAKALA RANCH COMPANY, a Hawai'i Corporation, Cross-Claim Defendant.	

SUPPLEMENTAL DECLARATION OF LICENSED SURVEYOR ANTHONY CROOK

Anthony Crook, states as follows:

1. I am over 18 years of age, and have knowledge of the matters set forth in this Declaration, and, if called upon to testify, I could and would competently testify thereto.

2. Abbreviations set forth in my declaration, dated July 17, 2013, are incorporated herein by reference.

3. I have not testified as an expert in any other cases during the last four years.

4. My compensation rate is $150.00 per hour for field and computer work, and $200 per hour for testimony time.

5. In March 2013, trail expert Richard Stevens inspected the 1905 Route *mauka* of Crater Road to the Haleakala National Park boundary. I was not present on that inspection. During his inspection, he caused to be placed small flags along the route identifying evidence of trail, including curb stone, stacked rock, trail bed and rock cairns or *ahu.*

6. In April 2013, using my survey equipment, I located the flags that Mr. Stevens had caused to be placed. Later, I plotted the data obtained from Mr. Stevens against the route that I had previously determined was the 1905 Route.

7. Attached hereto as **Exhibit AC-20** is a map showing the line I delineated as the 1905 Route and the data I collected from Mr. Stevens' field inspection. The map shows good correlation between my inspection and Mr. Stevens' inspection regarding the location of the 1905 Route in this area.

I, Anthony Crook, declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

DATED: Kula, Maui, Hawai'i, July 19, 2013.

ANTHONY CROOK