

CERTIFIED MAIL

October 27, 1981

Ms. Irma Lai
P. O. Box 284
Hawi, HI 96719

Dear Ms. Lai:

Variance Application (V 81-27)
Heights Limits Restrictions
TMK: 5-7-01:16

After reviewing your application and the information submitted in behalf of it, the Planning Director by this letter hereby certifies the approval of your variance request to construct a one hundred (100) feet high wind energy unit (windmill) in lieu of the maximum allowable height of fifty-five (55) feet in an Agricultural zoned district.

The approval is based on the following:

1. A special circumstance exists on the subject property not generally applying to surrounding properties in conjunction with the request for a height exception. The topography of the land is hilly and undulating coupled with 70-foot +- stands of windbreak and shade trees which block or interfere with the otherwise smooth flow of wind. Additionally, hills in excess of 100 feet high on the adjacent mauka lands further affect the existing wind flow pattern. The request, construction of a windmill tower, is completely dependent on the flow and speed of the wind to operate. In order to obtain an effective wind speed to turn the windmill blades, a "clear" zone approximately 30 feet above treetops or other obstructions in the vicinity needs to be available. For this reason, windmill heights will generally depend on local wind flow, the specific site conditions and its topography. (Reference: "A Siting Handbook for Small Wind Energy Conversion Systems--U.S. Dept. of Energy 3/80)

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The applicant intends to use the power generated by the windmill to be the main supply source for her residential/ranching electrical demands. The facility must be sited relatively close to the existing structures for efficiency purposes, and thus alternate locations throughout the subject property are limited. If the subject terrain were level, smooth and "unobstructed," the necessary height calculation would have determined that the present maximum 55-foot height would suffice.

2. This set of circumstances (topography, trees and localized wind patterns) exist to a degree which would not permit the establishing of an alternate energy system (the windmill) on the subject property without exceeding the district height limit of fifty-five (55) feet. With the continuing local and national emphasis on utilizing alternate energy sources, the denial of this request would thus interfere with the most efficient manner of developing the subject property.
3. Due to the special circumstances involved with this request, approval of the Variance will not constitute a grant of special privilege inconsistent with limitations upon other properties under identical district classifications.
4. Approval of the Variance request would be consistent with the County General Plan and with local and national goals which encourage the development and use of alternate energy sources. Its approval will also be consistent with the district purposes which allow for agricultural and very low density residential use. In this particular case, the height request would not infringe upon existing or potential development rights of surrounding properties, which are currently open pasture for cattle grazing.

This Variance request is approved subject to the following conditions:

1. Precise siting of the windmill tower shall abide by a minimum of one (1)-foot setback from all property lines for every one (1) foot in height of the total structure including blades at their highest point. (1:1 setback/height ratio).
2. Plans and construction of the total structure must be approved by a structural engineer or architect registered in the State of Hawaii.

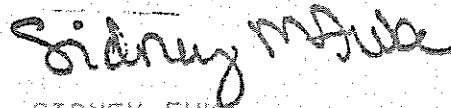
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3. A certificate of "no obstruction of air space" or its equivalent shall be obtained from the Federal Aviation Agency to accompany the application for a building permit.
4. The applicant shall submit plans for the proposed development and obtain a building permit for the structure within one year of the date of this letter.
5. Granting of this Variance request does not construe or imply the County's preserving for the applicant any upwind easement by restricting, in whole or in part, future development on other properties in the vicinity.
6. The applicant shall comply with all other applicable State and County rules, regulations and requirements.

Should any of the foregoing conditions not be met, the Variance Approval may be deemed null and void.

If you have any questions on this matter, please feel free to contact us.

Sincerely,



SIDNEY FUKU
Planning Director

DT:lrp

cc: Public Works
John Crouch

bcc: Masa Onuma