Stephen K. Yamashiro Mayor



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## County of Hawaii

PLANNING DEPARTMENT 25 Aupuni Street, Room 109 • Hilo, Hawaii 96720-4252 (808) 961-8288 • Fax (808) 961-9615

June 7, 1996

Mr. Blaine W. Ito, LPLS True North Surveys, Inc. P. O. Box 421 Paauilo, HI 96776

Dear Mr. Ito:

Variance Permit No. 754 (VAR 96-12)
Applicant: Arthur Cody
Request: Variance From Chapter 23, Subdivisions, Div. 2,
Improvements Required, Sec. 23-84, Water Supply
Tax Map Key: 4-4-11:40, Lot 4

After reviewing your application and the information submitted on behalf of it, the Planning Director certifies the approval of your variance request to allow the creation of a four (4) lot subdivision without a water system meeting with the minimum requirements of the Department of Water Supply (DWS) as required by Division 2, Section 23-84 (1) of the Subdivision Code.

The Planning Director has concluded that the subject variance be approved based on the following findings.

## SPECIAL AND UNUSUAL CIRCUMSTANCES

There are special and unusual circumstances that exist which would warrant consideration of and necessitate a variance from the minimum water requirements to the proposed 4-lot subdivision:

- The subject property is Grant 4248, situated at Kalopa Homesteads, Hamakua, Island and County of Hawaii. The subject property is commonly identified by the tax map key (TMK) parcel number (TMK: (3) 4-4-011:040) and contains 22.5 acres +/-.
- 2. The subject parcel was zoned Agricultural (A-5a) by the County in 1967 and is designated Agriculture "A" by the State Land Use Commission (LUC). The Zoning Code requires all subdivided lot size to be a minimum 5.000 acres.

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> 3. The owner/subdivider, Mr. Arthur Cody, submitted a preliminary plat map dated November 5, 1995, prepared and certified by True North Surveys, Inc., and subdivision application for a 4-lot subdivision of Grant 4248. Further action on the proposed 4-lot(s) subdivision application (SUB 95-149) has been deferred pending resolve of the water system subdivision requirements.

The Department of Water Supply (DWS) memorandum dated November 1, 1995 in (SUB 95-149) states in part:

"Please be informed that the Department's existing water system facilities cannot support the proposed subdivision at this time. Extensive improvements and additions, including source, storage, transmission, booster pump, and distribution facilities, must be considered. Currently, sufficient funding is not available and no time schedule is set."

4. The State Department of Health (DOH) memorandum dated April 22, 1996 in (VAR 96-12) states in part:

" The Department of Health's authority on drinking water quality is based on the definition of a "public water system". A "public water system" means a system for the provision to the public of piped water for human consumption, if such system has at least fifteen (15) service connections or regularly serves an average of at least sixty (60) days out of the year.

Past episodes of water quality concerns for lead, copper, algae and microbial contaminations in private rain catchment systems have identified the need for design standards. Without these control standards the Department of Health would not be able to support the use of these private rain catchment systems for drinking purposes."

5. The following extracts are taken from the letters received from the applicant/owner/subdivider, Mr. Arthur Cody, dated April 16, 1996 and May 7, 1996 in subject file: Mr. Blaine W. Ito, LPLS True North Surveys, Inc. Page 3 June 7, 1996

> April 16, 1996: "According to record kept of yearly rainfall in the immediate area of the subject property, the usual rainfall is approximately 158 inches per year. More specifically, the range has been over a given five year period a high of 173.11 to a low of 77.84 with an average of 144.6. However, using a five year low of 78 inches and a catchment roof area of 2500 square feet, the resultant yearly available water is 121,550 gallons per year. Assuming a family of 4 and use of 50 gallons per day per person, the expected requirement is 73,000 per year. Therefore, even in the driest year, the catchment capacity exceeds demand by a reasonable factor."

> May 7, 1996 (Letter 1): "Using the figure from the minimum rainfall over the period covered from 1956-1983, a yearly figure of 29.3 inches, I calculate that, given the same assumptions as in my earlier letter, the daily gallonage available to each member of a family of four would be 32. I have used a roof area of 2500 square feet yielding a total of 46,750 total gallons per year; hence, 11,688 gallons for each of four people per year, or 32 gallons per day. Assuming that a 5,000 gal. water storage tank was full at the beginning of the year, that would yield an additional 3.42 gal. per person a day, thus bringing the total from 32 to 35.42 gallons per day per person. Obviously this is not the optimum number, but it is more than enough for the domestic needs of drinking, cooking, and bathing. There should be enough for judicious clothes washing, too, but some plant watering might have to be curtailed. This capacity remains even for the most severe drought since 1956 (other sources indicate that no drought of that magnitude has occurred since 1983 when the WRM figures conclude). This extreme case seems to impose acceptable requirements of water economy on the family, and it could e alleviated altogether by the construction of a slightly larger Note "WRM" rainfall figures cited in letter roof." above were from an extract obtained from the State Water Resource Management office on Oahu. May 7, 1996 (Letter 2): "...As nearly as I can make it out, my property is at 20 Degrees 2 Minutes 0 Seconds by 155 Degrees 26 Minutes 20 Seconds; that's is not

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> dead on, but close enough. At the top of the page from WRM which I sent you a station listed as "Airport -P" is at 20 Degrees 2 Minutes 42 Seconds by 155 Degrees 27 Seconds 0 Minutes. This is much closer than the station listed as "Kalopa" despite the name. And the altitude of my property is close to 2,000 feet. "Airport-P" is at 2,075', whereas "Kalopa" is at 900'; again a closer match.

The draught year at "Airport-P" was 39.2 inches of rain. This figures out to be 42 gallons of water per person, given the same assumptions as before. And again with a full tank, one adds 3.42 gal per day per person to the above figure. Thus about 45-46 gal per person is available in the driest year studied since 1957 ("Airport-P" starts with 1957). This amount of water is almost the 50 gallons usually taken to be normal average usage; therefore, even in the worst year, little adjustment in water consumption would be required.

I believe that even the figures I supplied you with in my previous letter using "Kalopa" station would meet water usage of an average family comfortably for all their vital needs--drinking, cooking, bathing. The above figures are an improvement, however, and I think more nearly representative of actual rainfall in the particular area of TMK 3/4-4-11:040, my property, now being considered by you for a water variance."

Therefore, considering the above facts and rainfall information submitted, the Planning Director has determined that there are special or unusual circumstances applying to the subject property which exist either to a degree which deprive the applicant or owner/subdivider of substantial property rights that would otherwise be available, or to a degree which obviously interferes with the best use or manner of development of the subject property. Mr. Blaine W. Ito, LPLS True North Surveys, Inc. Page 5 June 7, 1996

## **ALTERNATIVES**

There are no other reasonable alternatives in resolving the difficulty of the petitioner. The first alternative, requires the petitioner/subdivider/owner of the proposed subdivision application to pay appropriate facilities charges and fees to the DWS and improve the existing water system and provide the necessary dedicable water system improvement in accordance with the Rules and Regulations and the Standards prescribed by DWS. The second alternative would be to plan, explore, design, and drill private wells and install the necessary water system improvements in accordance with the Rules and Regulations and the Standards prescribed by the DWS.

The prorata cost per lot for the water system design and construction of an approved dedicable or private water system is economically cost prohibitive. As such, the imposition of requiring a public or private water system for the proposed subdivision would be putting excessive demands upon the petitioner/subdivider/owner when a more reasonable alternative is available.

## INTENT AND PURPOSE

The intent and purpose of requiring a water system within a subdivision is to assure that adequate water is available for human consumption and fire protection.

The analysis of and comparison of the rainfall data information submitted by the petitioner/owner/subdivider and official maps and rainfall summaries in the DWS appear to support the data and information submitted by the owner/subdivider. The analysis of private and public information appears to indicate there is adequate rainfall within the subject property and the surrounding areas to support a private roof water catchment system for portable uses. The State Department of Health has no building regulations, specific rules or regulations relating to the utilization and construction of private water catchment systems, and inspection of private roof catchment water systems.

The subject property is zoned (A-5a) by the county requiring the proposed four (4) lots be a minimum of 5.000 acres or more. The zoning and minimum five (5) acre lot size exceeds one (1) acre, and, therefore, pursuant to Section 4-3, (b) Rules and

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Regulations of the Department of Water Supply (DWS), effective June 1, 1984, fire protection (fire hydrants) are not a mandatory water standard requirement. The analysis of private and public information appears to indicate there is adequate rainfall within the subject property and the surrounding area to support a private roof water catchment system for fire fighting uses. Provisions for fire protection will be privately addressed by the petitioner/owner/ subdivider and provided by the petitioner/owner/subdivider on the subject property.

The DOH comments and objection cited above will be addressed in the conditions of the variance approval. Otherwise, there were no other objections received from other participating government agencies or surrounding property owners.

Based on the foregoing findings, this variance request would be consistent with the general purpose of the zoning district, the intent and purpose of the Zoning and Subdivision Codes and the County General Plan; will not be materially detrimental to the public's welfare; and will not cause substantial adverse impact to the area's character and to adjoining properties.

This variance request is approved subject to the following conditions:

- 1. The applicant/owner/subdividers, his assigns or successors shall be responsible for complying with all stated conditions of tentative subdivision approval.
- 2. The approval of this variance shall be included in the conveyance document for the subject property, and a copy of the recorded conveyance document shall be submitted to the Planning Department within one (1) year from the effective date of approval of this variance.

The applicant/owner/subdivider, his assigns, or successors shall file a written agreement or approved written document with the Planning Department prior to receipt of final subdivision approval containing the following deed language, being covenants, condition, and restrictions which shall be duly recorded at the Bureau of Conveyances of the State of Hawaii by the Planning Department at the cost and expense of the applicant/owner/subdivider: Mr. Blaine W. Ito, LPLS True North Surveys, Inc. Page 7 June 7, 1996

- a. The applicant/owner/subdivider agrees and accepts the fact that a County dedicable public water system is not now or in the foreseeable future able to service the subdivision.
- b. The applicant/owner/subdivider agrees and accepts the fact that the County will not, at any time, bear the responsibility of supplying public water to the subdivision.
- c. The permitted dwellings, accessory structures and permitted uses not serviced by a County water system constructed on the property shall have a minimum 6,000-gallon water storage tank or equivalent facility for domestic consumption for water catchment. This catchment system shall adhere to the Department of Public Works, Building Division's "Guidelines for Owners of Rain Catchment Water Systems" as well as the State Department or Health requirements related to water testing and water purifying devices.
- d. Provide a water supply system sufficient for firefighting consisting of a minimum 3,000 gallons of water per future farm dwellings on the property meeting with the approval of Hawaii County Fire Department. If dwellings are space closer than 50 feet apart, 4,000 gallons of water per farm dwelling will be required.
- In the event that there are any amendments or e. changes to the subdivision after the agreement is signed, the petitioner/owner/subdivider shall be responsible for informing the County Planning Department of the amendments or changes so that the agreement can reflect the amendments or Further, the written agreement shall be changes. considered as a condition and covenant running with the land and shall be binding upon the applicants/owners/ subdividers, his successors, and assigns and shall be incorporated as an exhibit and made part of each agreement of sale, deed, lease, or other similar documents affecting the title or ownership of each subdivided lot.

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- f. In the event that any of the lots are provided by a water service (individual meter) from the Department of Water Supply or and an approved water system, the recorded conditions and covenants will no longer be in effect.
- g. Comply with all other applicable State and County rules and regulations.
- 3. All other applicable State and County rules and regulations shall be complied with.

Should any of the foregoing conditions not be complied with, the Planning Director may proceed to declare this Variance Permit null and void.

VIMA MANA

VIRCINIA GOLDSTEIN Planning Director

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