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Office of the Director

May 27, 1981

RG:0044

Mr. Michael McElroy, Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. McElroy:

Coastal Engineer's Certification Report to
Construct Seawalls at 10 and 14 Namala Place
Kailua, Oahu

In response to your request of March 20, 1981 (81/SV-2(LC), 81/SV-4)) for our review of the above cited Coastal Certification report, we have sought the assistance of the following members of the University: J. Frisbee Campbell and Dennis Hwang, Hawaii Institute of Geophysics; Jacquelin Miller, Garret Kawamura, and Alexis Cheong Linder, Environmental Center. Our reviewers have found the report to be accurate and in general to adequately describe the existing and projected conditions at the site. We do have serious reservations, however, with regard to the impacts of the proposed structure and its high potential for major effects on adjacent properties and the beach front.

If a seawall is constructed at north Kailua Beach to combat the erosion problems at 10 and 14 Namala Place, a situation similar to what now exists at Lanikai Beach may soon develop. North Lanikai Beach is presently spanned by long stretches of seawalls. As stated in the Certification Report, a seawall at North Kailua Beach may cause erosion to adjacent properties. Homeowners who wish to protect their properties would be obliged to construct similar seawalls and this process would propagate along the beach. With each established seawall would come the problem of wave energy reflection, blocked access along the shore and reduced recreational usage and value of the beach. Reducing access along Kailua Beach would impinge upon the rights of those who walk and jog along the beach and thus, the rights of the public at large in addition to the adjacent property owners.

There are some critical physical facts which need to be recognized in consideration of the proposed seawall. It appears that the structures in question were constructed on accreted land that has an historical record of instability. As shown on the attached graph developed during the course of an historical beach erosion study by Dennis Hwang, North Kailua Beach has an alternating history of erosion and accretion. In the last 32

years, however, accretion has dominated erosion in both net change and in total number of years. The erosion effects, as stated in Bob Rocheleau's report, occur briefly during periods of heavy winter storms. For this particular beach, erosion was heavy during the 1969-1970 period and between 1980 and 1981.

The discussion of alternative solutions in the report is somewhat limited. Although accretion appears to be more likely in the future, there is no guarantee that erosion will not occur. If the houses at 10 and 14 Namala Place are threatened again, then the use of sandbags could be considered for protecting the property. While sandbags would not offer as much protection as a seawall, the problems associated with wave reflection off a vertical structure would be reduced and the littoral processes of the beach system are less likely to be altered. The sloping rock revetment is probably correctly eliminated on the basis of impeding long shore beach access. Yet the vertical wall proposed will have the same effect.

Other alternatives should be considered. One possibility would be to alter (raise) or move the structures on the subject properties. The costs of such, more expensive, alternative actions should be weighed against the long-term value of the beach as a recreational resource, along with the future costs incurred by neighboring homeowners who otherwise would be forced to protect their properties should a seawall be constructed.

At this point, the question arises as to who should absorb the costs or bear the responsibility of expensive alternatives intended to protect not only the two properties at Namala Place but also the long-term use of a public resource and prevent future impacts to neighboring properties. This is a legal issue which we are attempting to address through assistance from our UH Law School contacts. The following questions would appear to require consideration by your department:

1. Who was given title to the accreted land and how was title determined?
2. Were all the proper setback and building permits obtained by the homeowners?
3. If all necessary building permits were obtained and title to the accreted land appropriately recognized, can the city be held liable for financial assistance in mitigating the present hazard?
4. What can be done to prevent future building on unstable shoreline frontage?

Perhaps shoreline setback Rules and Regulations are too restrictive, in that only structural alternatives are considered remedies to erosion-related problems.

We hope that our comments are of assistance in the Department of Land Utilization's review of the subject application, pursuant to section 14.2. In light of the fact that the structures in question extend seaward considerably more than the structures on adjacent properties and that a structural solution to the erosion problem may have even greater long term costs and serious environmental ramifications, it may be appropriate to seriously consider other solutions to the problem than the proposed seawall.

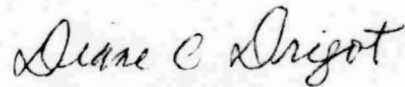
Mr. Michael McElroy

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We appreciate the opportunity to assist in your review of this project. If we may be of further assistance to you, please give us a call.

Sincerely,



Diane C. Drigot, Ph.D.
Acting Director

KMK

cc: OEQC
J. Frisbee Campbell
Dennis Hwang
Jacquelin Miller
Garret Kawamura
Alexis Cheong Linder