



DEPARTMENT OF PLANNING
AND ECONOMIC DEVELOPMENT
* * *



LAND USE COMMISSION

250 South King St. / Honolulu, Hawaii 96813 / P. O. Box 2359 / Honolulu, Hawaii 96804

May 5, 1975

George R. Ariyoshi

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Executive Officer

Planning Commission
County of Hawaii
25 Aupuni Street
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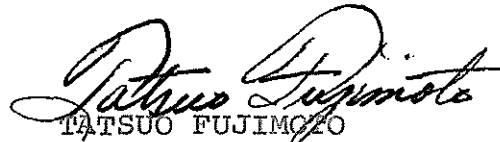
Attention: Mr. Raymond Suefuji
Planning Director

Gentlemen:

At its meeting on May 1, 1975, the Land Use Commission voted to approve the request by Shield-Pacific, Ltd./Kapoho Land and Development Company (SP75-202) to establish quarrying and related operations on approximately 65 acres of land located in the Agricultural District at Puua-Kapoho, Puna, Hawaii, described as Tax Map Key 1-4-01: 10; subject to the 11 conditions imposed by the Hawaii County Planning Commission.

A copy of the staff memorandum is enclosed for your information.

Very truly yours,


TATSUO FUJIMOTO
Executive Officer

Encl.

cc: Shield Pacific, Ltd.
Kapoho Land Dev. Co.
Dept. of Taxation, Hawaii
Property Technical Office, Dept. of Tax.
Tax Maps Administrator, Dept. of Tax.
Real Property Tax Assessor, Dept. of Tax.

STATE OF HAWAII
LAND USE COMMISSION

MEMORANDUM

May 1, 1975
7:00 p.m.

TO: Land Use Commission

FROM: Staff

SUBJECT: SP75-202 - SHIELD-PACIFIC, LTD./KAPOHO LAND AND
DEVELOPMENT COMPANY

A special permit application has been submitted by C. Arthur Lyman of Kapoho Land and Development Company, Ltd., and John W. Walker of Shield-Pacific, Ltd., to utilize approximately 65 acres of land located in the Agricultural District at Puua-Kapoho, Puna, Hawaii for quarrying operations. The property under consideration is a portion of a 287 acre parcel owned by Kapoho Land and Development Company, Ltd., described as Tax Map Key 1-4-01: 10. Shield-Pacific, Ltd. intends to do the quarrying.

The following statement was submitted in support of the special permit:

"The subject property is an abandoned old quarry site. The quarry site was in use in the 1920's and provided rock aggregates and boulders for the breakwater at Hilo Bay, beddings of railroads and roads constructed by the sugar plantations.

"The quarry is located on a rift zone and is covered with volcanic cinders. It is presently zoned 'Agriculture 3 Acres' and is designated as extensive agriculture on the 'Land Use Allocation Map', County of Hawaii. Its intended use to being pasturage and range lands is nil. It cannot in its present state be used except as a quarry.

"The developer intends to quarry the material into aggregates to be used on all types of construction. The impact on the surrounding area shall be negligible as in the 1920's when the quarry was operating at a much fuller capacity. The impact shall, in fact, be less as Board of Health with its new air pollution and noise pollution regulations oversee the quarry operations.

"An old abandoned railroad and a network of roads provide several routes to and from the quarry. These roads are in existence and are used sparsely by farmers. (Road network can be seen on the accompanying map.)

"The use of the land as a quarry site shall be the highest and best use and shall benefit the public by providing aggregates needed for the Construction Industry."

The petitioner has further indicated that: "There are no permanent structures required or planned at this time. Type of operation is open pit (existing type). Equipment storage area will be within the quarry site. Stockpiling area within quarry site as close to crusher as possible. The length of operations is at least five (5) years."

At public hearings held before the Hawaii County Planning Commission, the petitioner testified that approximately 10 to 15 persons will be utilized during the "few days of the year" that crushing operations are in progress, and that only truck drivers and loaders will be there the rest of the time; approximately 10,000 tons of material will be quarried per year; there is a difference in cost of \$15 a yard for people living in Hilo and those in the Puna area; the extent of operation is not as large as indicated by the 65 acre request since only 2 to 3 months a year will be spent in actually quarrying the material; and that a batching plant will be established as part of the proposed use.

The subject property lies approximately 1 mile to the northwest of Kapoho Crater. The sparsely developed Kapoho Urban District is over 2 miles away to the east, while the Pahoa Urban District lies approximately 6.5 miles away to the west. Lands in the immediate area of the subject property include papaya and vanda orchid farms, vacant lands, small diversified farms and a few scattered residential dwellings. The parcel itself contains the remnants of a papaya farm and is presently vacant and overgrown. Access is provided by an unimproved 40 foot right of way owned by Kapoho Land Company, Ltd. The elevation is between 200 to 275 feet above sea level and rainfall averages between 100 to 125 inches annually.

The USDA Soil Conservation Service's "Soil Survey of the Island of Hawaii" indicates that the subject property is classified "cinder land", a miscellaneous land type "of bedded cinders, pumice and ash. These materials are black, red, yellow, brown, or variegated. The particles have jagged edges and a glassy appearance and show little or no evidence of soil development. Cinder land commonly supports some grass, but it is not good pasture land because of its loose consistency and poor trafficability. This land is a source of material for surfacing roads."

The Land Study Bureau classification for the major portion of the subject property is "E" or very poor suitability for overall agricultural use. The land consists of aa, including pumice

deposits; contains slopes ranging from 0 - 35%; contains no soil material; is excessively drained; unsuited for machine tillage; but suited for orchards if rolled and smoothed.

Hawaii County's General Plan designates this area for Extensive Agricultural uses which are chiefly pasture, range or waste lands. County zoning is Agriculture 3 acres (A3a).

COMMENTS RECEIVED BY THE HAWAII COUNTY PLANNING DEPARTMENT:

A. Puna Soil and Water Conservation Service:

"1. Depending on routes selected for quarry operation, the dust raised by truck traffic could seriously affect agricultural operations in the area. Cinder particles on vanda orchids causes rust-like spots thus making the blossom to be unmarketable. Its affect on papaya production is not known at this time. In any case, routes chosen for quarry operation should not interfere with agricultural operations.

"2. The district board disagrees with the petitioner's reasons for request. They state that land in its present state cannot be used except for quarrying. However, with a little work the land would be suitable for papaya production. This fact is clearly seen as the proposed site is surrounded by papaya orchards and is located on the same type of soil media."

B. The State Department of Transportation, Highways Division had no objection but stated that roadways should be improved to accommodate anticipated usage.

C. The Department of Health stated that in accordance with Public Health Regulations, Chapter 43, Air Pollution Control, the applicant is required to obtain an Authority to Construct from the Health Department.

D. All other cooperating agencies had no comments or objections to the subject request.

The following attachments were transmitted by the Hawaii County Planning Department:

Attachments

1. Hawaii County Planning Department background information.
2. Letter dated November 2, 1974 from Delan Perry, adjacent

landowner opposing the petition since the reasons submitted by the developer are misleading, inaccurate and/or incorrect. The 1920 quarry operation encompassed only 2 to 3 acres of the 65 acres now under consideration and the subject property is suitable for agricultural uses. Further, the Department of Health has no regulations to control noise pollution and although air pollution regulations are more specific, the Department of Health has not yet established ambient air quality standards for this area.

3. Letter dated November 3, 1974 from Ray Hill, President of Ray Hill Co. of Florida, owner of Tax Map Key 1-4-01: 35, to "officially register a strong protest" against the subject petition, and to indicate that Lesley and Richard Higgins will be in attendance at any proceedings.
4. Letter dated November 5, 1974 from Manfred and Dora Parijs of Kula, Maui, requesting that the petition be denied as the quarry operation will impair the health and welfare of their children, Jennifer Parijs and Delan Perry.
5. Letter dated November 2, 1974 from Delan Perry requesting the Hawaii County Planning Commission to postpone the public hearing to allow time to prepare data to address the adverse effects of the quarry operation.
6. Letter dated November 7, 1974 from Delan Perry requesting the Hawaii County Planning Commission to require the developer to submit an environmental impact statement pursuant to Act 246 since the subject special permit "is a defacto and real amendment to the County General Plan from a designation of A-3a to Urban-industrial usage". Further, the quarry would be in conflict with the General Plan of the County of Hawaii.
7. Letter dated November 7, 1974 from Jenny Parijs indicating that her property and her family would be adversely affected by the proposed quarry. She submitted a list of questions which she felt should be answered before a decision is rendered.
8. Letter dated November 7, 1974 from Leland Anderson of Polynesian Orchids, Inc., serving notice to the Hawaii Planning Department that he should be reimbursed fully for any damages to his vanda orchid crop caused by the quarry operation.
9. Petition signed by 34 "neighboring residents, farmers, and

concerned citizens" in the area of the subject property opposing the special permit because the proposed quarry would have adverse effects; be in violation of the Land Use Law; and remove needed agricultural lands.

10. Letter dated November 7, 1974 from Delan Perry abutting resident and farmer, indicating that an estimated 90 to 95% of the subject property is now in papaya or lying fallow; that there is a shortage of land needed for papaya cultivation; that the agricultural potential of the subject property is similar to his land on which he has an acre of banana in addition to several varieties of pasture grasses which were recently planted; and that the quarry operation would adversely affect surrounding properties, crops and residents.
11. Letter dated November 12, 1974 from Warren S. and Antionette Brown opposing the quarry operation.
12. Letter dated November 14, 1974, from Harrison Ward, resident farmer in the area, adding his objections to the proposed quarry operation.
13. Letter dated November 16, 1974 from Donald W. Reeser, President of the Conservation Council for Hawaii, expressing opposition to the quarry project because of potential adverse impacts upon agricultural interests in the area.
14. Letter dated November 21, 1974 from Donald W. Peterson, Scientist in Charge, Hawaii Volcano Observatory, U.S. Department of the Interior Geological Survey advising that the subject site lies in the east rift zone of Kilauea Volcano; that it lies in the proximity of previously active fissures, but that the possibility of future eruptions or earthquakes would be unaffected by the quarry; that other factors such as cracks, fissures, lava tubes, distribution of unconsolidated deposits and strength of lava in or near the site are difficult to evaluate but that quarrying activities may induce increased ground instability; and that to properly evaluate the risks involved, a study by competent engineering geologists is needed.
15. Letter dated December 17, 1974 from Andy Hayashi, President of Puna Fruit Packers of Hawaii, Ltd., indicating that the firm is one of the largest papaya growers in Kapoho with 300 acres presently in papaya and 2,000 acres under lease for future production; that the quarry operation

will not adversely affect the papaya crops but instead, would be beneficial as the overburden would be available to farmers and costs for concrete would be reduced.

16. Letter dated December 30, 1974 from Benjamin Klingenstein of Dayton, Washington, owner of 105 acres in the area opposing the request as it will devalue his property.
17. Letters dated January 9, 1975, and December 19, 1974, from Peter Hauanio, member, Board of Directors of the Big Island Papaya Growers Association supporting the subject request. Eleven papaya farmers presently farming within 1,500 feet of the subject quarry site voted unanimously to support the quarry operation.
18. Petition containing 7 signatures of "owners or lessees most directly affected" by the proposed quarry supporting the special permit request.
19. Letter dated January 29, 1975 from John Farias, Jr., Chairman of the Board of Agriculture indicating that papaya and vanda production are the principal agricultural activities in Kapoho; that increased agricultural production is possible in the area; that the Department of Agriculture is opposed to the Special Permit unless the following conditions are met:
 - a. Paving the roadway to control fugitive dust. Frequent watering is acceptable if this is sufficient to control dust.
 - b. The use be limited to a 5 year period.
 - c. The soil amendment by-product be made available to farmers at reasonable cost.
 - d. The Departments of Health and Agriculture will monitor the quarry operation.
20. Letter dated January 30, 1975 from Amy Hamane of the American Lung Association, indicating that Mr. Morrow, the Association's Environmental Health Director has noted that the quarry operation may result in violation of State and/or Federal ambient air quality standards if substantial efforts are not made to reduce particulate emissions. His paper further notes that wind directions vary throughout the year and that about 70% of the time, winds coming from the Northeast and Northwest tend to predominate.

21. Letter dated November 17, 1974 from Delan Perry and Jennifer Parijs to then State Attorney General George Pai requesting clarification of the special permit provisions in the Land Use Commission regulations.
22. Letter dated November 5, 1974 from Delan Perry and Jennifer Parijs to Dr. Walter Quisenberry, then Director of the Department of Health voicing concern over the possible violation of noise and air quality standards regulations and urging that these be enforced and requesting information on such regulations.
23. Letter dated December 17, 1974 from Delan Perry and Jennifer Parijs to the Environmental Protection Agency at Washington, D. C. requesting information on dust and noise control regulations.
24. Letter dated November 19, 1974 from Delan Perry and Jennifer Parijs to then Mayor-Elect Herbert Matayoshi of Hawaii requesting information as to the applicability of any existing laws requiring an environmental impact statement for the quarry project.
25. Letter of reply dated November 26, 1974 from Mayor-Elect Herbert Matayoshi indicating that the above request was referred to the Corporation Counsel.
26. Letter dated November 9, 1974 from Delan Perry to Colonel Leonard Edelstein, U.S. Corps of Engineers inquiring about the need for rock for the Kaimu breakwater project.
27. Letter of reply from Colonel F. M. Pender, U.S. Corps of Engineers giving specifics of the Kaimu Beach project and indicating that the contractor for the proposed Shield-Pacific quarry site will have to demonstrate that the stone will meet the specifications of the agency.
28. Letter dated December 2, 1974 from U.S. Representative Spark Matsunaga to Colonel Pender urging the Corps of Engineers to explore alternative sites for rock extraction in order to avoid interference with agricultural production.
29. Letter dated December 17, 1974 from Delan Perry and Jennifer Parijs to Colonel Pender requesting that an E.I.S. be required if the subject site is chosen to provide material for the Kaimu project.

30. Petition with 59 signatures opposing the quarry project since it would destroy productive agricultural land and endanger the health, crops and life styles of surrounding farmers. However, it appears that the great majority of those signing the petition reside in Hilo, Kona, and other areas which are not in the immediate vicinity of the subject property.
31. Letter dated May, 1973 apparently from Citizens Against Noise to the U.S. Environmental Protection Agency stating reasons for asking careful consideration of proposed bills on noise regulations.
32. Letter dated December 12, 1974 from the Hawaii County Planning Department to Lesley and Richard Higgins acknowledging receipt of their request for a geological survey of the subject site.
33. Letter dated December 8, 1974 from Lesley and Richard Higgins requesting a geological survey of the subject site because of possible disastrous results if quarrying is permitted.
34. A 6 page petition with approximately 80 signatures opposing the request for quarry use of the subject property.
35. Letter dated December 19, 1974 from Alfred Kumalae requesting denial of the quarry operation.
36. Letter dated December 19, 1974 from Delan Perry noting that his property will be affected by dust; that he has requested that a federal E.I.S. be required if the material from the quarry is used for the Kaimu project, and that data on crop and livestock damages from rock or cement dust has been requested from the U.S.D.A. and will be presented to the Planning Commission.

Additional correspondence from persons opposed to the Special Permit has been received by our office on this matter subsequent to the transmittal of the records by the Hawaii County Planning Commission.

COUNTY RECOMMENDATIONS:

By letter dated March 7, 1975, Mr. Arthur W. Martin, Chairman of the Hawaii County Planning Commission advised that:

"The Planning Commission at duly advertised public hearings

held on November 7, 1974 and January 30, 1975 in the County Councilroom, County Building, South Hilo, Hawaii, discussed the subject request. The advertised public hearing of December 19, 1974 was postponed. The Commission on March 6, 1975, voted to recommend the approval of the special permit to the Land Use Commission as it was found:

- "1. That the proposed use would not be contrary to the objectives sought to be accomplished by the State Land Use Law and Regulations. The request is also not in conflict with County of Hawaii land use policies, as expressed in the Zoning Code. Quarrying operations and the commercial excavation or removal of natural building materials are permitted uses within the County Agricultural Zone. Such operations need not interfere with agricultural activities in areas of marginal capability and when they are conducted on a limited scale with adequate controls.

The requested use is deemed a reasonable one in that the area under consideration is suitable for quarrying activities. Quarrying activities constitute an unusual use inasmuch as they must locate in areas which have the appropriate geological raw materials for the products which will eventually be produced. At the same time such activities must be located in areas within which they will not cause significant disruption to nor have significantly adverse impacts on surrounding land uses.

- "2. That the proposed use would not adversely affect surrounding property. Surrounding lands are either in agricultural uses or are vacant. The Department of Agriculture has stated that the reopening of the quarry site, to their knowledge, would not adversely affect surrounding agricultural activities and could, in fact, complement agricultural activities in the Kapoho area if certain conditions are met. Adverse effects which might occur can be minimized by taking a number of mitigating measures. The effects of fugitive dust on agricultural activities can be controlled at the source through Federal and State regulations.

The type of operation proposed would be an open pit one and no permanent structures will be required. The equipment storage and stockpiling areas will be within the quarry site. The expected amount of material to be extracted will not necessarily constitute major quarrying activities. The size and frequency of blasts are to be such that noise and tremors can be minimized. An analysis

of wind data and the proposed use by the American Lung Association revealed that adverse effects can be minimized.

Furthermore, an Authority to Construct permit must be obtained from the Department of Health in accordance with Public Health Regulations, Chapter 43, Air Pollution Control. The Department of Health has the responsibility of enforcing the Air Quality standards to assure that the proposed use will not diminish the air quality.

- "3. That the proposed use will not substantially alter or change the essential character of the land and the present use. Although the land is presently overgrown and vacant, it was used as a quarry site in the 1920's. During that time rock aggregates and boulders were extracted for the breakwater at Hilo Bay and for beddings and foundations of railroads and roads constructed by the sugar plantations. The requested use is thus a reactivation or continuation of a previously utilized quarry site. Furthermore, upon completion of the quarrying activities which are now proposed, the applicant will be required to restore the site to as natural a state as possible to alleviate any visual impact. He will also be required to correct any conditions which may be deemed hazardous.

- "4. That although the land can be used for agricultural activities as evidenced by surrounding lands, it is determined that the proposed use will make the highest and best use of the land involved for the public welfare. The intent of quarrying operations is to extract materials which can be used in all types of construction. It is therefore determined that the result of the quarrying operation would benefit the general public by providing materials needed for the construction industry. Further, the General Plan land use pattern allocation guide map designates the area for extensive agricultural uses. Lands in this category are basically those with poor soil conditions and are used primarily for pasture, range or waste lands. However, the Soil Conservation Service report classifies the area in question as cinder land, which is a miscellaneous land type consisting of bedded cinders, pumice, and ash. The report further states that cinder land commonly supports some grass but it is not good pasture land because of its loose consistency and poor trafficability. This substantiates that this land type may be a source of material for surfacing roads.

"The favorable recommendation was also subject to the following conditions:

- "1. That every precaution be taken by the applicant so as not to create any inconvenience to surrounding properties in regard to traffic, noise, and dust problems during the quarrying operations. Should the quarrying operations have an adverse effect on surrounding agricultural uses, such as vandas and papaya, sufficient and documented evidence may be submitted to the Planning Director to support any claims which are made that the applicant is creating an inconvenience to surrounding properties. If the Planning Director finds that the evidence submitted shows sufficient cause to reevaluate the special permit, he shall transmit such evidence to the Planning Commission who shall hold a public hearing to gather evidence relative to the impact of the quarrying operations on surrounding lands. Upon receiving any complaint which is accompanied by documented evidence relative to the impact of the quarrying operations, the applicant shall cease operations until a determination is made as to whether operations can continue or the special permit is to be revoked.
- "2. That the quarrying operations and its allied uses be terminated five (5) years after the date of approval of the special permit.
- "3. That the operation, including loading and hauling during regular working hours, be limited to between 7:00 a.m. and 5:00 p.m. on Monday through Friday only.
- "4. That the operation be in compliance with all State and County regulations governing air, noise, drainage, and safety. The Planning Department and other related governmental agencies shall assist the Department of Health in monitoring the subject operations.
- "5. That the access road leading to the quarry site shall be improved with an oil-treated surface to a width of 10 feet with sufficient shoulder widths so two cars may pass, subject to the approval of the Planning Director and the Chief Engineer. The roadway shall be maintained by the applicant throughout the life of the special permit. Should the oil-treated surface prove insufficient in alleviating fugitive dust problems, the applicant can be required to pave the roadway. Further, should the Department of Health, in their review of the quarrying and related activities, impose a stricter condition, that condition shall prevail.

- "6. That a metes and bounds description indicating the exact boundaries of the area to be quarried shall be submitted to and filed with the State Land Use Commission and the County Planning Department, prior to the commencement of quarrying activities. The area to be quarried shall be limited to a total of 25 acres. Should the applicant subsequently find that it is necessary to quarry in an area outside of the original 25 acres, he may submit a new metes and bounds to the Planning Department for consideration. Any additional area to be quarried shall be within the 65-acre area authorized by the Special Permit.
- "7. That a minimum setback of 700 feet be maintained from the adjacent properties.
- "8. That facilities be limited to: (a) portable crusher, (b) portable office and toilet, and (c) small storage building.
- "9. That upon termination of the operations, the land shall be graded to blend with the surrounding areas and revegetated. Further, the site shall be left in a nonhazardous condition, subject to the approval of the Planning Director.
- "10. That the applicant shall enter into a bond and agreement with the County of Hawaii for maintenance of the access road and also to assure that the site shall be restored to a condition acceptable to the County.
- "11. That all other applicable rules and regulations of the State and County be complied with."

It is interesting to note that under Hawaii County's Zoning Ordinance, commercial excavation or removal of natural building material or minerals is a permitted use within the Agricultural District designation of the County.

It is also significant to note that under Section 2.14 of the State Land Use Regulations of August, 1964, a number of uses were expressly permitted in the State's Agricultural District which are no longer allowed except by review under the special permit process. Upon the recommendation of the Commission's consultants during the 1969 Five Year Comprehensive Review to delete all uses not specifically mentioned in the statutes, the Land Use Commission deleted such uses as golf course, country clubs, public institutions and buildings not necessary for agricultural practices, churches and temples, and commercial excavation or extraction of natural

building materials or minerals from Section 2.14 relating to Permissible Uses within the "A" Agricultural District. As a result, all such uses are now reviewed under the Special Permit provisions of Section 205-6, Hawaii Revised Statutes, as amended, and the guidelines for determining "unusual and reasonable" uses contained in Section 2.91 of the Land Use District Regulations.

Staff evaluation of the Special Permit under the seven guidelines contained in Section 2.91 of the District Regulations reveals that:

1. Such use shall not be contrary to the objectives sought to be accomplished by the Land Use Law and Regulations. It is obvious that, unlike many other uses, quarry locations are determined by the actual location of quality rock resources. The petitioner has indicated that the subject property was utilized as a quarry in the 1920's to supply rocks for the construction of the Hilo break-water, and that he desires to reactivate the quarry operation. A portion of the subject property was previously used for papaya cultivation but this has been abandoned as evidenced by the heavy overgrowth of weeds. According to the Land Study Bureau, the subject property is very poorly suited for overall agricultural uses; although it is suited for orchard use if the land is rolled and smoothed. Further, the USDA Soil Conservation Service report designates the subject property as cinder land which commonly supports some grass but is not good pastureland. Moreover, it is a source of material for surfacing roads.

The protection of prime agricultural land is one of the basic objectives of the Land Use Law and Regulations. Another pertinent objective is to encourage the development of the lands in the State for those uses to which they are best suited for the public welfare. It appears from the above that the uses proposed in this petition are not contrary to these basic objectives since the subject property is not prime agricultural land and the land is well suited for the proposed use because of the resources present on the subject property. Further, the proposed use is a permitted use within the Agricultural District established by the County of Hawaii.

2. That the desired use would not adversely affect surrounding property. The major complaint expressed in opposition to the special permit appears to be addressed to the problem of air and noise pollution. These are valid concerns

which are inherent in all quarry operations, particularly when the surrounding area is developed to any great extent. The lands surrounding the site under consideration, however, are predominantly in agricultural use or vacant. Population and residential development in the immediate vicinity are very sparse. To protect those who do reside in the area who may be adversely affected by the proposed use, the Hawaii County Planning Commission has imposed a total of 11 stringent conditions to closely monitor and regulate any adverse impacts which may result. Moreover, condition No. 7 relating to the 700 foot setback imposed by the Hawaii County Planning Commission appears to remove over 50% or approximately 33 acres of the subject 65 acres from the actual quarry operations.

3. Such use would not unreasonably burden public agencies to provide roads and streets, sewers, water, drainage and school improvements, and police and fire protection. No unreasonable burdens would apparently be placed upon public agencies to provide services and facilities. The access to the site will be oiled, and if necessary, paved at the expense of the petitioner. The services of certain Governmental agencies will be required to monitor and control the quarrying activities.
4. Unusual conditions, trends and needs have arisen since the district boundaries and regulations were established. Within the Puna District in the past several years, the Hawaiian Beaches, Parks, and Shores non-conforming residential subdivisions represent one of the fastest growing areas in the County of Hawaii. Even more substantial growth is anticipated in these subdivisions in the future. The demand for concrete and related products from these subdivisions and other developing areas in the Puna District will increase accordingly.
5. That the land upon which the proposed use is sought is unsuited for the uses permitted within the District. The discussion contained under guideline No. 1 is applicable under this guideline.
6. That the proposed use will not substantially alter or change the essential character of the land and the present use. The petitioner has noted that the quarrying operation is not as extensive as the 65 acre request would indicate. The Hawaii County Planning Commission has limited quarrying to a total of 25 acres, and has further required that upon termination of the use, the area be graded and revegetated.

Following the 5 year period of the special permit, the essential character of the land and the present use will not be substantially altered.

7. That the proposed use will make the highest and best use of the land involved for the public welfare. The discussion under guideline No. 1 is also applicable here.

Based on the above, staff concludes that the special permit request appears to substantially comply with the guidelines for determining "unusual and reasonable" uses in the Agricultural District contained in Section 2.91 of the District Regulations.