



DIVISIONS:
AQUACULTURE DEVELOPMENT
PROGRAM
AQUATIC RESOURCES
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 621
HONOLULU, HAWAII 96809

APR 30 1982

REF. NO.: CPO-4991
FILE NO.: HA-3/4/82-1430
180-Day Exp. Date: 9/1/82

Mr. Harold S. Masumoto
Vice President for Administration
University of Hawaii
2444 Dole Street
Honolulu, Hawaii 96822

Dear Mr. Masumoto:

Conservation District Application for Subdivision and Construction
of Hale Pohaku Mid-Level Facilities with Right-of-Entry Use
at Hale Pohaku, Hamakua, Hawaii

We are pleased to inform you that the Board of Land and Natural Resources, at its meeting of April 23, 1982, approved your application subject to the following recommendations:

- A. That this application for subdivision of Conservation District, and construction of Hale Pohaku Mid-Level Facilities at TMK: 4-4-15: 1 (por.) at Hamakua, Hawaii, Hawaii be approved, and,
- B. That the Board of Land and Natural Resources grant the University of Hawaii right-of-entry for construction purposes, at TMK: 4-4-15: 1 at Hale Pohaku, and,
- C. That approval of this Conservation District Use Application shall be subject to the following conditions:
 1. That the applicant comply with all applicable statutes, ordinances, rules and regulations of the Federal, State and City and County governments, and applicable parts of Section 13-2-21 of Title 13, Chapter 2, Departmental Administrative Rules, as amended;
 2. The applicant, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim or demand for property damage, personal injury and death arising out of any act or omission of the applicant, its successors,

assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;

3. Other terms and conditions as prescribed by the Chairman;
4. In that this approval is for use of conservation lands only, the applicant shall obtain appropriate authorization through the Division of Land Management, State Department of Land and Natural Resources for the occupancy of State lands;
5. In the event any unanticipated sites or remains such as shell, bone or charcoal deposits, human burials, rock or coral alignments, pavings, or walls are encountered during construction, the applicant shall stop work and contact the Historic Preservation Office at 548-7460 or 548-6408;
6. That the applicant comply with all applicable Public Health Regulations;
7. A fire contingency plan, acceptable to the Division of Forestry and Wildlife shall be implemented during and after the construction of the Hale Pohaku Mid-Level Facilities; should relocation or demolition of the existing temporary buildings be required, a fire contingency plan shall be implemented during the process;
8. The use shall be compatible with the locality and surrounding areas, and appropriate to the physical conditions and capabilities of the specific parcel(s) of lands;
9. The existing physical and environmental aspects of the subject areas, such as natural beauty and open space characteristics, shall be preserved or improved upon, whichever is applicable;
10. All buildings, structures and facilities shall harmonize with physical and environmental conditions stated in this Regulation;
11. Use of the area shall conform with the program of the appropriate Soil and Water Conservation District, or plan approved by and on file with the Department;
12. When provided and/or required, potable water supply and sanitation facilities must have the approval of the Department of Health and the Board/Department of Water Supply;

13. The construction, alteration, moving, demolition and repair of any building or other improvement on lands within the Conservation District, shall be subject to the building codes of the respective counties in which the lands are located; provided that prior to the commencement of any construction, alteration or repair of any building or other improvement, four (4) copies each of the final location map, plans, and specifications shall be submitted to the Chairman, or his authorized representative, for approval, provided however, that any alteration or repair which does not change or expand on the existing land use shall not be subject to the above;
14. Provisions for access, parking, drainage, fire protection, safety signs, lighting and changes in the landscape must have the approval of the Chairman or his authorized representative;
15. Where any interference, nuisance, or harm may be caused or hazard established by the use, the applicant shall be required to take measures to minimize or eliminate such interference, nuisance, harm, or hazard;
16. Obstruction of public roads, trails and pathways shall be minimized. If obstruction is unavoidable, the applicant shall provide roads, trails or pathways acceptable to the Department;
17. Except in the case of public highways, access roads shall be limited to a maximum of two lanes;
18. Overloading of off-site roadways, utilities and public facilities shall be minimized;
19. Clearing areas for construction purposes shall require prior approval by the Chairman. Ground cover of slopes over 40% shall not be removed unless specifically authorized by the Chairman;
20. Cleared areas shall be revegetated within thirty (30) days, unless otherwise provided for in a plan on file with and approved by the Department;
21. Upon approval of a particular use by the Board, any work or construction to be done on the land shall be initiated within one (1) year of the approval of such use, and, all work and construction must be completed within three (3) years of the approval of such use;

22. That no hunting equipment, including rifles, shotguns, bows and arrows shall be allowed to be brought to or stored at the Hale Pohaku Mid-Level Facilities area;
23. The University of Hawaii shall be responsible for litter control in all areas under the University's jurisdiction;
24. Approval of this CDUA is only for development of the Mid-Level Facilities and does not imply approval of other future actions proposed for Hale Pohaku or for the summit of Mauna Kea;
25. That the mid-level facilities shall be used only by Observatory staff and those individuals whose work, research, or technical support is directly related to science reserve activities at the summit of Mauna Kea;
26. That the University of Hawaii develop proposals for maintenance and management of all facilities to be constructed, and present these proposals to the Board of Land and Natural Resources before September 1982;
27. That the University of Hawaii develop a proposal for an agreement between the University and the Department of Land and Natural Resources for the provision of personnel and funding for operation of the Visitor Information Center and present these proposals to the Board of Land and Natural Resources before September, 1982;
28. That the University also develop proposals for regulating the number of 4-wheel drive vehicles allowed to proceed to the summit of Mauna Kea and present these proposals to the Board of Land and Natural Resources before September 1982;
29. That the original Hale Pohaku stone buildings be retained and proposals developed by the University for their use by the public. Proposals shall be presented to the Board of Land and Natural Resources before September 1982;
30. That the University of Hawaii shall remove all construction and other human litter from the Hale Pohaku area under their jurisdiction and shall continue to maintain this area to ensure that no litter will be evident in the future;

31. That no pets shall be kept housed by Hale Pohaku users at the facility or at the summit or Mauna Kea;
32. That the applicant submit a phasing plan for construction and demolition (if required) to the Department of Land and Natural Resources Planning Office for review within 30 days of the date of this meeting and the approval of this Conservation District Use Application;
33. That final construction plans shall be reviewed by the Planning Office and presented to the Board of Land and Natural Resources for their approval. Authority for approval shall be delegated to the Chairman of the Board of Land and Natural Resources;
34. That all conditions of the Mauna Kea Plan be met by the applicant;
35. That this approval does not set precedent on any future request and in no way is a restriction or an indication that this Board would approve similar facilities in the future; also, the Board shall have opportunity to discuss and assess any future plans for expansion, keeping in mind that facilities to be developed there, are to be minimal.

Should you have any questions on any of these conditions, please contact Mr. Roger C. Evans of our Planning Office at 548-7837.

Very truly yours,

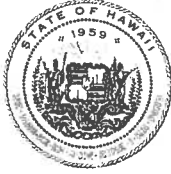
SUSUMU ONO, Chairman
Board of Land and Natural Resources

cc: Dr. John Jefferies
Mrs. Mae Nishioka/W. Muraoka
Mr. Tamotsu Sahara
County Board Member
County Land Agent
County Planning Department

bxc: Land Management
DOWALD
Fish & Game
Historic Sites
Forestry
State Parks
OEQC
Dept. of Health
DPED

SS:gt

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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DIVISIONS:
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FISH AND GAME
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WATER AND LAND DEVELOPMENT

April 23, 1982

Board of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

Gentlemen:

Conservation District Use Application for
Subdivision and Construction of Hale Pohaku Mid-Level Facilities
with Right of Entry for Construction Purposes
at Hamakua, Island of Hawaii

APPLICANT: Mr. Harold S. Masumoto
Vice-President for Administration
University of Hawaii
2444 Dole Street, Room 202
Honolulu, Hawaii 96822

LANDOWNERSHIP: State of Hawaii

LOCATION: Hamakua District, Hawaii
TMK: 4-4-15: 1(por.)

AREA OF PARCEL/USE: 50,600.946 acres/
Present Revocable Permit No. S-5537 - 4 acres
Subdivision - 7 acres

SUBZONE: Resource

DESCRIPTION OF AREA:

Hale Pohaku facilities are located on the slopes of Mauna Kea between 9,200 and 9,300 feet. Access to Hale Pohaku from Hilo or Kona is via the Saddle Road (State Route 20) to Puu Huluhulu. From this location, the Summit Road begins and continues mauka past the Huumula Sheep Station through the Hale Pohaku Facility and on to the summit. The site is located 37 miles from Hilo. Two photos are provided for reference as Exhibit F.

The existing access road crosses over State-owned and Hawaii Homes Commission land. The road was constructed by the State, but between the Saddle Road and Hale Pohaku is maintained by the County of Hawaii, and above Hale Pohaku, by the University.

CURRENT USE:

The existing facilities at Hale Pohaku include 10 buildings, 5 water tanks and 3 cesspools. These facilities are being used to support the operations of the three University installations (two 24-inch telescopes and the 88-inch telescope) as well as the Infrared Telescope (UKIRT) on Mauna Kea.

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Existing facilities are utilized under a Revocable Permit No. S-5537 - a four (4) acre area shown on Exhibit C, and were built to house construction crews working on Mauna Kea facilities at higher elevations.

Upon completion of construction, use of the facilities was requested by and granted to the University of Hawaii for use by astronomers and researchers. The University was also given permission to use the Stone Buildings at Hale Pohaku.

It should be noted that under a Revocable Permit issued to the University (5-27-77), should any of the existing buildings be no longer required, the University shall offer these buildings to the Division of State Parks. Should the Division of State Parks have no need for the structures, the University is then required to remove the buildings or destroy them and restore the site to its original condition.

PROPOSED USE:

This Conservation District Use Application is for subdivision of land and transfer of that land to the University of Hawaii under a general lease, and construction of facilities, including Right of Entry for construction purposes.

Subdivision: The University is requesting the subdivision and transfer of 7 acres of land shown on Exhibit C. The University has requested the Department of Accounting and General Services to provide a survey to define actual subdivision boundaries.

Mid-Level Facility Construction: The proposed Hale Pohaku Mid-Level Facilities will be located north of the existing facilities and within 1/8 mile of the access road (Exhibit C).

The proposed facilities include Support Services and Common Area building, dormitory buildings, maintenance building/area, sewage disposal cesspools, water storage tanks, solar panel bank and 2 hot water storage tanks.

A visitor information center is also proposed, however, this facility will be outside the seven acre subdivision. As shown on Exhibit D, the information center will have picnic, camping areas and an arboretum. No time table is indicated for development of the adjacent picnic, camping, and arboretum areas.

Operation and maintenance of this facility remains under discussion although the University and the DLNR generally agree that UH will provide funding and DLNR will provide a staff person for that purpose. The agreement will be fully worked out in the future.

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that it will start before or after the nesting season of the Palila bird which is reported to be from April through August. The project will be confined to the seven acres to be designated for the mid-level facilities.

All buildings, except for the generator shelter, will be of wood frame construction. The generator shelter will be constructed with hollow tile.

Following are the buildings and floor areas as currently planned for construction.

1. Support Services and Common Area Building

Total assignable floor area - 12,913 sq. ft.
The Master Plan EIS Described this building as having a gross floor area of 14,800 square feet.

All of the rooms and spaces as described in the Master Plan EIS will be included in the building. The addition of the second story will add less than four feet to the height of the building. It will also require less land grading and fewer piers for the foundation which will reduce construction cost.

2. Dormitory Buildings

As proposed, the three dormitory buildings will have a total assignable floor area of 13,938 square feet with 59 bed capacity. The addition of the second story to two of the dormitory buildings will increase building heights by less than four feet. All buildings will be connected by elevated walkways.

The single story Building A will have 7 bed capacity, Building B will have 32 bed capacity and Building C will have 20 bed capacity for a total of 59 beds.

3. Maintenance Building and Area

The maintenance area, consisting of the fuel storage, vehicle inspection shop, maintenance workshop, storage room, covered vehicle storage, open storage and generator shed, is essentially the same as described in the Master Plan EIS. The buildings are relocated so that they will lie east to west instead of north to south.

The maintenance building will be about 2,500 square feet and generator shelter will be about 800 square feet in floor area.

4. Others

The sewage disposal cesspools will be located at the lowest elevation of the site to enable all sewage to flow by gravity.

There will be water storage tanks with a total capacity of up to 80,000 gallons. Tanks will be partially buried, landscaped and painted to lessen the visual impact. The tanks will be located above the maintenance area so that there will be enough head for gravity flow.

A bank of 60 solar panels, each measuring 3' x 6' will be located to the east of the parking area. This installation of 1,080 square feet of solar panels will be used to heat water for the Common Area building and the dormitories. If an alternate location for the installation is necessary, it will be between dormitories A and B.

The solar panels will be placed about four feet above the ground and arranged so that the panels will follow the contour of the land. Panels will be facing east. To reduce the adverse visual impact of this installation and to provide protection to the panels, a fence six feet in height will be built around the installation. The materials for the fencing will be similar to that used on the exterior of the buildings. As the reflection from the glass covering can be seen at great distances, black glass that is known to reduce reflection will be used.

The solar panels will be used to heat up to 3,000 gallons of water that will be stored in two 1,500 gallon tanks located in the Common Area building. There is a twenty-five per cent overage in the hot water storage tanks to provide hot water when the solar panels are not functioning. Use of the solar panels is intended to reduce the need to use fuel that must be hauled from Hilo.

5. Visitor Information Center

This building will be located south of the mid-level facilities. It will have about 1,181 square feet of floor area, which is slightly more than 200 square feet larger than earlier proposed. The uses within the building are unchanged. The parking area has been moved from the south side of the building to the north. Water and electricity will be provided by the mid-level facility. Sewage will be discharged into a cesspool.

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ENVIRONMENTAL CONCERNS:

Although there will be an increase in the number of buildings, the total bed capacity and support services and common areas will not increase. The second story added to the Common Area building and two dormitory buildings will increase building heights by less than four feet, since much of the attic space will be utilized. The additional height is not expected to increase adverse visual impact. The roof will be of earth tone to blend with the surrounding area. No overhead utility lines will be used. All lines will be placed under the elevated walkways.

The most pronounced environmental impacts will occur during the construction phase. Site preparation will involve earth moving that will cause dust and noise. To a degree, water will be sprinkled to suppress the dust, however, as water needs to be hauled from Hilo, it will be used sparingly. During periods of high winds, earth moving and grading will cease.

The construction project will be restricted to the seven acres that are designated for the mid-level facility. This is to confine occupancy to a limited area so that interference to the Palila is minimized. Construction work will not commence during the nesting season which is said to be from the beginning of April through August. Once construction starts, work will continue to completion and will not be stopped during the ensuing nesting seasons. It is estimated that construction will be completed within two years. This may involve, at the most, two nesting seasons that the Palila may seek other locations for their nests. Once completed, the normal operations and occupancy at the mid-level facilities will not be unduly loud or disturbing. With the reduction of numbers of sheep and goat on the slopes of Mauna Kea the volunteer growth of the mamane seedlings may increase. This could enlarge the areas that the Palila could utilize to nest in the future.

The operations of the mid-level facilities will require the continued use of the diesel-powered generator for electricity until such time as the power transmission lines are available. This will necessitate frequent and regular delivery of diesel fuel. Water supply will have to be replenished regularly. All of the sewage and liquid wastes will be discharged into cesspools. No adverse environmental impacts are anticipated from this sewage disposal system. There appears to be no ground or surface source of potable water that may be contaminated by the use of cesspools.

To control any increase in rodents, insects and feral animals, all solid wastes will be stored in covered containers and hauled to Hilo for disposal.

The operations of the mid-level facilities and the Visitor Information Center are discussed in the Master Plan EIS.

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Present plans call for the construction of the mid-level facilities to start by March 1982. If not started by March, construction must be delayed tyo September so as not to interfere with the nesting of the Palila. However, once started, construction is to continue to its completion--which is estimated to last two years.

The cost of the mid-level facilities construction is estimated at \$5 million. Interim financing will be provided by the State with permanent financing to be from the sale of revenue bonds based on repayment by the users of the facility.

SUMMARY OF COMMENTS:

The application was sent out for review and comment to the following agencies: the United States Fish and Wildlife Service; Division of Ecological Services; the County of Hawaii Planning Department; Department of Public Works, Department of Parks and Recreation, Department of Water Supply; the State of Hawaii Department of Health, Office of Hawaiian Affairs, Office of Environmental Quality Control; Environmental Quality Commission; and the following Department of Land and Natural Resources' Divisions: Aquatic Resources, Forestry and Wildlife, State Parks, Land Management, Water and Land Development, Historic Sites, Natural Area Reserves System and the Division of Conservation and Resources Enforcement.

The County of Hawaii Planning Department comments:

For your information, the subject area, also identified as the Mauna Kea Science Reserve, is not situated within the County's Special Management Area (SMA). Consequently, development of this area is not subject to review under the County's Rules and Regulations (Planning Commission Rule No. 9) governing the SMA or under Chapter 205A, Section 29(d), HRS.

The Department of Public Works comments:

We reviewed the Conservation District Use Application for Amendment to the Hale Pohaku Mid-Level Facilities Master Plan Environmental Impact Statement.

We have no objections to this application.

The Department of Parks and Recreation comments:

We have reviewed the subject application and have no adverse comments to offer.

The Hawaii County Department of Water Supply has no objections to the request inasmuch as the proposed facilities will not affect any of the County's public water systems.

The Division of Aquatic Resources indicates there are no aquatic resources concerns.

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The Division of Forestry and Wildlife comment:

I believe the approval of the facilities is a foregone conclusion. I have nothing to add to my previous comments regarding Hale Pohaku and the mid-level facilities.

Our comments are reflected in our submittal on the EIS. We have nothing more to add.

The Division's submittal for the EIS is as follows:

April 1, 1981

Subject: Mid-Level Facilities at Hale Pohaku - DAGS
Job No. 01-31-2406.

You are very familiar with my repeated concerns regarding the "loss" of Hale Pohaku for outdoor recreational use. With reference to the plans for Hale Pohaku, I guess astronomy won.

Regarding the General Review, page 62 of the Hale Pohaku Master Plan:

1. Responsibilities

- A. I am assuming that "forest camping areas" mean isolated campsites on other parts of Mauna Kea and not the proposed development at Hale Pohaku which would appropriately be a State Parks responsibility.
- D. We do not have the responsibility of building and maintaining any boundary fence around Mauna Kea. Adjacent ranches have the responsibility. The Division of Conservation and Resources Enforcement, to whom our Forest Rangers were transferred, should do the patrolling as enforcement is their responsibility and the patrolling is for the purpose of enforcing cattle trespass laws.
- F. Again, Division of Conservation and Resources Enforcement responsibility.

- 2. Forestry does not and never had an office in the Administration Building at Pohakuloa.
- 3. We definitely want to develop an arboretum at Hale Pohaku.
- 4. I don't know about hiking trails extending around Mauna Kea but we do have proposals for loop trails in the Hale Pohaku vicinity included in our CIP

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requests. Also don't know where the "....if adequate public facilities are provided...." came from although I did state that hiking trails in the area would complement public recreational development by State Parks.

Due to the last minute "RUSH" request on this, I am asking Ron Bachman to comment separately and return all the material back with his comments.

The Division of Land Management comments:

Land Management Division has no objection. Recommend that the Chairman sign the CDUA. Also recommend that construction Right of Entry be granted UH on CDUA approval.

The Division of State Parks comments:

Although the State Parks Division was responsible for the Hale Pohaku area when it was used for public recreation, there are no existing state park interests in the Hale Pohaku area. The area has no particular recreation value except to provide a staging area for recreation activities such as hunting or making trips to the summit area. The State Parks Division has no plans to operate the proposed Visitor Information Center. It is assured the University of Hawaii will operate the information center.

The Historic Sites section comments:

A review of our records indicates that this project does not occur on historic properties that are listed on the Hawaii Register or the National Register of Historic Places, or that have been determined eligible for inclusion on the National Register of Historic Places.

Due to the lack of archaeological surveys in the vicinity, we are not aware that significant resources exist in the project area; this does not confirm the absence of historical, cultural, architectural and/or archaeological resources on the property. In the event that any previously unidentified sites or remains such as artifacts, shell, bone, or charcoal deposits; human burials; rock or coral alignments, pavings, or walls are encountered, please inform the applicant to stop work and contact our office at 548-7460 immediately.

The agency coordinating our department's response under the Chairman's signature should add "State Historic Preservation Officer" to his title as Chairman when the undertaking has any federal involvement including responses to a federal agency, A-95 responses, or involving federal funding, loan guarantee, permit or license.

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The Division of Water and Land Development comments:

We have reviewed the subject request and as indicated in our previous memorandum have no objection to the expansion of the Hale Pohaku Mid-Level Facilities. We are in support of the new plan which calls for a grading reduction of some 2000 square feet, as well as a reduction in the number of mamane tree clusters to be relocated.

The Natural Area Reserves System comments:

The proposed land use or boundary amendment in land use will have no effect on the existing Natural Area Reserves Program.

The Division of Conservation and Resources Enforcement provides the following report:

During the construction of the telescope on Mauna Kea in 1978, the Division of Conservation and Resources Enforcement had received numerous complaints relating to the construction workers hunting illegally. A week after the University of Hawaii assured Mr. Al Inoue of the fact that no firearms were in the area, we arrested a construction worker on Mauna Kea for hunting. The defendant, Dean Spangler, a member of the construction company, was found guilty in the Hilo District Court for illegal hunting.

In view of this incident we are concerned that the problem of illegal hunting may reoccur. We would like to have a condition stating that no hunting equipment (includes rifles, shotguns, bows and arrows) be allowed to be stored or to be on the premises.

In addition, in response to our Public Hearing notice, an adjacent landowner, the Department of Hawaiian Home Lands indicates they have no objections to the proposed use.

SUMMARY OF PUBLIC HEARING:

A public hearing is authorized by the Board of Land and Natural Resources in that the proposed action is a subdivision of Conservation District land.

The public hearing was held on March 24, 1982 at the State Office Building Conference Room, Hilo, Hawaii.

At that time, ten (10) individuals indicated they wished to testify on the matter. Six indicated they were testifying for the proposal, a seventh individual, for the proposal with conditions, also testified; three other individuals were against the proposal.

The following concerns were expressed at this public hearing, responses are also provided (response to questions 1 through 9 are from the Environmental Impact Statement):

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1. Hale Pohaku is an unsuitable site for a permanent mid-level facility since major development at that location is likely to have a harmful impact on the critical habitat of the endangered Palila.
2. Urban expansion at this site would enroach further on the threatened mamane forest ecosystem, and its rare/endangered birds, plants and invertebrates.
3. Other sites, such as the Hawaiian Homes Commission (HHC) site at 8,000 feet elevation, below the forest reserve fence line and outside the Palila critical habitat, and long used for grazing, would result in significantly less impact.
4. The proposed visitor information center, restrooms, and ranger station would be more appropriately located at the HHC site.

Response: The location for the Astronomy's facilities was chosen after careful consideration of alternative sites in the Hale Pohaku area and elsewhere. Hale Pohaku was also specified as the location of these facilities in the Mauna Kea Plan, February 1977. The site layout presented in the plan was coordinated with the U.S. Fish and Wildlife Service, Office of Endangered Species, to minimize adverse impacts on the Palila and its critical habitat. Formal consultation between NASA and the U.S. Department of Interior, Fish and Wildlife Service was concluded on November 2, 1979.

5. The old stone buildings at Hale Pohaku could be restored for use by Hawaii residents with 4-wheel drive vehicles, as an unimproved picnic and rest stop.
6. Accommodations for 59 persons seems unnecessary in light of the Mauna Kea Plan directive for minimum research/support facilities.
7. Support personnel working at Hale Pohaku need not live there.

Response: Astronomers and support services personnel are currently occupying 8100 square feet of floor area for dormitory purposes. The proposed dormitory building will encompass approximately 11,200 assignable square feet, an increase of 3,100 additional square feet. (The size of a dormitory has been reduced since publication of the EIS). By the time the new facility is completed, the day crew who work at the summit will also be required to reside at Hale Pohaku during their on-duty periods because they must also remain acclimatized.

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Accommodations are being provided for Mauna Kea Support Services personnel who work long shifts (from 11 to 18 hours) at Hale Pohaku. (These personnel currently sleep in the large stone cabin during their on-duty days.) It is not acceptable to ask staff in this position to further extend their long workdays by requiring them to commute daily to and from work, over an hour's drive each way. The quality of the staff is important to the efficiency of the operation. In addition, certain of these personnel will be required to make periodic trips to the summit during their on-duty periods.

Approximately 52 research personnel will be travelling on a regular daily basis to the summit to work. The others will make occasional trips as required.

8. Persistent attention to keeping human use areas free of litter must be strongly emphasized.

Response: This is an excellent point and will be stressed in the development criteria and recommendations.

9. The negative long term impact of encroaching urban facilities on the critical habitat of species threatened with extinction must be addressed in this section. We are dealing here with a beleaguered forest ecosystem that exists nowhere outside of Mauna Kea.

Response: If additional facilities are required at the Mid-Level in the future, an environmental assessment and possibly an EIS will be required prior to their construction and prior to the awarding of a Conservation District Use Permit. In concluding its consultation with NASA, the U.S. Department of Interior, Fish and Wildlife Service stated that... "The total area involved is not of such magnitude as to constitute a severe threat to the species or its critical habitat. The Hale Pohaku Mid-Level site is at the upper limits of the tree line where the mamane forest is sparse. The architect has been instructed to lay out the buildings in such a manner as to require a minimum removal of mamane trees. Possible disturbance to palila may be more than compensated for by reduction in feral sheep numbers in this portion of palila critical habitat through increased human activity and better access for hunting, and its beneficial effect on regeneration of mamane. It is, therefore, our opinion that NASA's participation in funding the use and operation (no construction) of the Mid-Level Faci-

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lity at Hale Pohaku on Mauna Kea, Hawaii, is not likely to jeopardize the continued existence of the palila and its critical habitat."

10. Are kitchen facilities included in the current proposal?

Response: Yes, in common area and in two studio accommodations located in Dormitory A.

11. Sequence of events for disposition of land - how will this be accomplished?

Response: Should the CDUA be approved for subdivision and construction of facilities and with right of entry for construction purpose, a general lease for the 7 acres will be given to the University. The University has applied to the Division of Land Management for this lease.

12. Is the University the holder of the present revocable permit on the 4 acres?

Response: Yes

13. Disposition of buildings outside the subdivision?

Response: These are actually the temporary buildings and are to be offered to State Parks for their use; if declined, the University is to demolish the structures and restore the area to its natural conditions. These buildings will be retained until permanent structures are completed. The Stone Buildings are not included; these are to remain.

14. If structures were to be relocated who would pay?

Response: Structures were not designed to be relocated. To do so would be costly. University maintains cost would be DLNR's to bear.

15. Is this proposal consistent with the Mauna Kea Plan?

Response: See Analysis section which follows.

16. The Visitor Information center was enlarged by 200 feet; was the parking lot also to be enlarged?

Response: No.

17. Who will be responsible for monitoring traffic that goes up to the summit; travel during the winter months, such as skiers? Will there be any change in the functional responsibility? Also enforcing regulation of 4-wheel drive vehicles only?

Response: This requires more discussion between University and DLNR.

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18. If Board approves this CDUA in April, is the University going to begin construction immediately?

Response: Yes. Regarding the Palila, the U.S. Fish and Wildlife Service has requested U.H. throughout the day, at intervals, to drive a tractor or truck through and around the proposed construction site to discourage the Palila from nesting.

19. If you do not begin in April will you have to readvertise the bid?

Response: Extensions will be sought.

20. The projected facilities, as proposed here, are these also for future projected users?

Response: No, present users only.

21. Is there a possibility that some of the existing telescopes may be deactivated due to federal cutbacks?

Response: 1) NASA is willing and Congress has appropriated \$1.7 million for construction.
2) NASA Infrared Telescope - funding had been cut, but has been restored and assured.

22. Responsibility for maintaining road?

Response: Saddle Road to Hale Pohaku by agreement with State and Hawaiian Homes Lands is maintained by County. Upper portion of road is responsibility of University who grades and snow plows as required.

23. Will the University maintain the facilities overall, the mid-level UH facilities, the visitor information center, area used by public?

Response: UH is prepared to do so, but will require guidance from DLNR, i.e. rules and regulations.

24. Will the University provide the necessary personnel to do this?

Response: Yes. (Per Matsumoto statement at Public Hearing)

25. Ultimate use of old stone buildings? i.e. Hale Pohaku.

Response: Buildings are intermittently used by the public to store ski equipment, ultimate use shall be determined by State Parks and Board of Land and Natural Resources.

26. Does the Land Board propose to limit facilities at Hale Pohaku?

Response: Yes, in keeping with the Mauna Kea Plan.

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27. Can the current CDUA be amended to expand facilities at Hale Pohaku should additional observatories at the summit be approved?

Response: Yes, per ultimate long range plan; see EIS and Program Summary and Development Plan.

28. Is there going to be a limit to the size of the mid-level facilities?

Response: Yes, see EIS; Program Summary and Development Plan.

29. What proposals are there for use of Hale Pohaku by residents?

Response: Visitor Information Center, picnic facilities and primitive overnight camping facilities. In addition an arboretum is planned.

ANALYSIS TO DATE:

Following review and acceptance of the application, for processing, the applicant, by letter dated March 15, 1982, was notified that:

1. The proposed use is a conditional use in the Resource Subzone of the Conservation District according to Title 13, Chapter 2, Departmental Administrative Rules, as amended;
2. A public hearing pursuant to Chapter 183-41, Hawaii Revised Statutes, as amended, will be required; and
3. An Environmental Impact Statement is required in accordance with Section 1:31 of the EIS Regulations has been determined for the proposed use and written clearance from the City and County of Hawaii regarding SMA requirements has not been obtained.

An amended Environmental Impact Statement was approved by the Governor of the State of Hawaii on October 22, 1980, in satisfaction of the above noted requirement.

The objective of the Resource Subzone is to develop, with proper management, areas to ensure sustained use of the natural resources of those areas.

Subchapter 21 relating to standards requires all applications be reviewed in such a manner that the objective of the subzone is given primary consideration.

CONCERNS TO BE ADDRESSED:

Staff finds that a number of concerns have been raised which will be addressed in the analysis of this CDUA. These include the following:

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1. Scope of University of Hawaii responsibilities for areas under their control ensuring that such areas do not become management problems.
2. Construction Timing and Palila bird nesting.
3. Minimal Facilities, consistency, of the University's "Program Summary and Research Development Plan for the Mauna Kea Science Reserve and Related Facilities" (Appendix A) with the State Department of Land and Natural Resource's "Mauna Kea Plan" (Appendix B).
4. Temporary Buildings, relocation or disposal of existing buildings, and terms and conditions applying to these buildings.
5. Underground Lines, consistency of U.H. long term proposal with State Mauna Kea plan.
6. Relocation and replanting of mamane trees.

UNIVERSITY OF HAWAII RESPONSIBILITIES:

UH responsibilities are delineated in the lease for the Science Reserve, and the subdivision and lease of a seven acre parcel for Hale Pohaku clearly places responsibility for this area with the University.

Operation and maintenance of the Visitor Information Center, as noted under the proposed use section of this submittal, will possibly be a joint effort with the University providing funding and the Department of Land and Natural Resources, providing staff to man the center. This agreement is yet to be worked out in detail and finalized.

While responsibility for the access road was previously assigned to the State Department of Transportation, Staff has been informed by University representatives that the County of Hawaii now maintains the portion of the road from the Saddle Road to Hale Pohaku. Above Hale Pohaku the road is maintained by the University, by grading and snow plowing as required.

CONSTRUCTION TIMING AND THE PALILA BIRD:

As noted in the Environmental Impact Statement, Hale Pohaku is located in the area designated as "MAMANE/NAIO Forest Ecosystem Management Area. It is also within the federally designated critical habitat of the "endangered" Palila (*Psittirostra bailleui*).

A major consideration in planning the proposed facilities was to minimize disturbance to the mamane/naio forest and to the Palila bird. While care has been taken to minimize the number of mamane trees to be relocated, the disturbance of the Palila bird during its April to September nesting seasons remains a consideration.

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In April 1981 the University of Hawaii requested information from the U.S. Fish and Wildlife Service regarding the months considered to be the Palila's nesting season.

In response the U.S. Fish and Wildlife Service indicated that the nesting season begins in April and continues through August each year and that construction activities should be avoided during this period.

In June, the U.S. Fish and Wildlife Service modified their earlier comment based on further consideration of the unique problems associated with construction contracting for Hale Pohaku. Winter construction on Mauna Kea is more difficult and therefore more costly. If construction were limited to fall and winter, the project may well require two or more years to complete.

The U.S. Fish and Wildlife Service further suggested that work not be allowed to begin between April and August. However, should construction get underway in late winter, the birds will most likely locate their nests elsewhere. Further, rapid completion of the construction activities will allow the Palila to return to the area permanently with repeated interruptions.

It is staff's understanding that tractors or trucks have been regularly started up and run in the construction site area to discourage nesting activities.

MINIMAL FACILITIES: CONSISTENCY BETWEEN THE MAUNA KEA PLAN AND THE UNIVERSITY'S PROGRAM SUMMARY AND DEVELOPMENT PLAN.

Clearly, our objective should be to acknowledge the significance of Mauna Kea for astronomical research, yet, at the same time recognize the need for proper management of the Mauna Kea's resources and uses.

Proper management of Mauna Kea's resources and uses means minimizing environmental impacts by limiting development to "minimal facilities" as directed in the Mauna Kea Plan, prepared by the Department of Land and Natural Resources, and approved by the Board on February 11, 1977, Item H-10 (see Appendix B).

Although the term "minimal facilities" is not defined in the Mauna Kea Plan, Staff is of the opinion that minimal facilities may be defined as those areas and uses required for normal human functions. Minimal may also be extended, under certain conditions, to include those facilities required for human well-being.

On March 24, 1982 the University provided to Staff a copy of the Program Summary and Research Development Plan for the Mauna Kea Science Reserve and Related Facilities prepared by the Institute of Astronomy, University of Hawaii at Manoa, in September 1981. This document is appended here as Appendix A .

Staff has outlined the objectives of the Mauna Kea Plan and then compared the University's Program Summary and Development Plan with these objectives. Only specific points are addressed as these relate directly to the question of minimal facilities.

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To proceed, in outline form, the Mauna Kea Plan provides the following guidelines:

1. Design of the mid-level facilities shall be controlled to ensure that disturbance of the Mamane/Naio Forest ecosystem will be minimal.
2. The Hale Pohaku facility will consist of mid-level facilities for necessary research personnel for the summit, a central point for management of the mountain, and a day-use destination point for visitors and primitive overnight camping facilities.
3. Development at the location will remain at a level in accordance with minimum research and public needs.
4. A master plan for the Hale Pohaku area shall be prepared by the Department of Land and Natural Resources.
5. This plan shall incorporate plans for all intended uses of Hale Pohaku, and shall be prepared in consultation with Department of Land and Natural Resources' Divisions, the University of Hawaii and the County of Hawaii.
6. Deposition of all structures at Hale Pohaku shall be as order by the Board (BLNR).

Outside of Hale Pohaku, the guidelines cover Pohakuloa State Park, the Summit Access Road, facility power requirements and additional future uses other than those associated with astronomy research.

In outline form, these are as follows:

SUMMIT ACCESS ROAD

1. The summit access road from Hale Pohaku shall not be paved but shall have road safety devices.
2. Vehicular use shall be limited to four-wheel drive vehicles from the picnic area above Hale Pohaku to the summit.
3. Portions of the old access road not incorporated in the new road to the summit shall be obliterated to reduce the unsightly scar on the mountain, as well as to prevent erosion.
4. Management, improvement and upkeep of the summit access road from Hale Pohaku to the summit shall be the responsibility of the State Department of Transportation.

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POWER PROVISION

5. On-site generators shall be used to supply electrical power for the observatories and support facilities on Mauna Kea. These generators shall have emission control devices to reduce air pollution to the lowest practicable level.
6. Alternatively, underground powerlines may be installed.
7. All applications for facility development shall contain a statement indicating method to be used in providing power.
8. The Board may require the use of underground facilities on land not under its jurisdiction, as a condition for approval of a proposal.
9. Any installation of generators or powerlines shall be subject to Board approval under laws relating to the Conservation District.

FUTURE USES

10. Future uses, such as communication facilities, TV relay stations, etc. and their locations will be reviewed on an individual basis at the time their specific requirements are known, under Conservation District Laws, provided that the proposal is consistent with the policies set forth in this Plan (the Mauna Kea Plan).

REVIEW OF UH PROGRAM SUMMARY AND RESEARCH DEVELOPMENT PLAN

POINTS CONSIDERED:

- Point 1: UH proposals for multi use objectives (pg. ii, Critical Issues)
- Response: DLNR - Mauna Kea Plan incorporates multi use. We have no problem in accepting the objective of multi use. Our concerns address limiting those uses, so as to minimize impact on resources. Essentially, our objective is to develop or accommodate development of Mauna Kea (and also the Resource Subzone), with proper management, so as to ensure sustained use of the natural resources present.
- Point 2: Modification of the Mauna Kea Plan, to allow paving the summit access road. The Program Summary and Research Development Plan assumes that a revision of the Mauna Kea Plan to allow paving will be approved and that safety features will be installed (pg.26).

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Response: The Mauna Kea Plan does not presently allow for paving of the road from Hale Pohaku to the summit. The need to do so is explained on page 16 of the Program Summary and primarily deals with hazardous conditions inherent in the road's present state. The University makes an assumption at this point that the road will be paved above Hale Pohaku. While this aspect is not the concern of the subject CDUA, Staff is of the opinion that the issue must ultimately be resolved.

The Mauna Kea Plan apparently has its objectives minimizing impact by limiting access. The University maintains, apparently, that this can still be accomplished with the road paved and, by limiting access to 4-wheel drive vehicles to be checked in at the Hale Pohaku Information Center.

Point 3: Under Infrastructure/Mid-Level Facility, pg. 23 it is stated "... some 6 million has been appropriated for completion of the mid-level facilities necessary to support the existing telescopes on Mauna Kea..."; it is further stated that "...with an increased number of telescopes, there would be an additional requirement for space at the mid-level facility." It is also noted that the requirement is not expected to increase in proportion to the number of telescopes, since it is expected that in the future, equipment will be remotely operated with only technicians and engineers actually present on site.

However, an estimate is given for mid-level facility occupancy and total area required. The permanent mid-level facility (to serve existing summit facilities) will require 25,000 square feet of area and will accommodate 59 persons. The ultimate planned mid-level facility would require 36,000 square feet and would accommodate 102 persons.

Response: The Mauna Kea Plan states "Development at this location (Hale Pohaku) will, however, remain at a level in accordance with minimum research and public needs." On page 24 of the Program Summary, it is stated that a precise prediction of the added space requirement (11,000 square feet) at the mid-level facility is highly speculative.

Staff can only hope that the above noted estimate of a minimum of 59 persons/25,000 square feet and a maximum of 102 persons/36,000 square feet, reflects an honest effort to abide by the Mauna Kea Plan directive of limiting development to that required for minimum research and public needs.

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The University goes on to note on page 24 of the Program Summary that the additional space required in the future could easily be accommodated in an area which adjoins the planned permanent mid-level facility and where minimal disturbance to the terrain, vegetation and fauna would result from construction.

The area requested in the current CDUA is subdivision of an area of seven acres. The ultimate development will require less than one acre, 36,000 square feet maximum. Staff notes that all requests for additional facilities will be reviewed carefully to assure that only those facilities required are considered, in keeping with the intent of the Mauna Kea Plan.

REVIEW OF CURRENT CONSTRUCTION PLANS AS MINIMAL FACILITIES:

Staff has been requested to review the construction plans to determine if the plans are consistent with the "minimal facility" directive of the Mauna Kea Plan.

Frankly, a review of facility plans, for consistency with the Mauna Kea Plan, should have been done in the early design phase of this project.

To do so now, may well result in modifications or deletions of areas and possibly uses. Modifications and deletions result in added costs. However, Staff must maintain that if such is required, to achieve the "minimal facility concept" and lessen resource impacts, the added cost is acceptable.

Staff fully realizes the importance of the subject proposal to both the State of Hawaii and the University, and we are aware of the fact that the Department of Accounting and General Services has proceeded to request bids for the subject facilities, as noted in U.H.'s letter of April 5, 1982, to the Department of Accounting and General Services.

Staff notes the University comment that it has not assumed CDUA approval. They note that alterations in design may be required per conditions required by the BLNR should approval be forthcoming (see Appendix C).

We therefore, wish to outline for the Board's review, various areas found to represent facilities which go beyond "minimal" -indeed represent excesses, which may have diverse impacts not immediately evident.

Dormitory Toilet/Bathroom Facilities: We note that there are 57 toilets for 59 beds (Assumption is 2 beds per each studio in Dormitory A). All rooms contain bathtubs/shower combinations. Staff is of the opinion that these facilities are similar to University dormitories, and wonders why each room

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requires separate toilet/bath facilities. Common facilities, centrally located, do not seem unreasonable and may have represented a reduction in construction costs. Additionally, water conservation might well have been encouraged by use of showers rather than shower/bathtub units. In any case, surely as a minimum, 2 individuals could share a bathroom facility. Other alternatives include rooms with a toilet and sink and separate dressing room/showers, which may be shared.

Dormitory A, Studio Units with Kitchens: Two units have kitchen facilities which essentially duplicate kitchen facilities contained in the Common Area Building. It is Staff's opinion that this may well be considered excessive. We see no hardship imposed on Hale Pohaku staff and visiting research personnel in requiring that all individuals prepare meals and consume them in the Common Area building.

Common Area, Exercise/Emergency Room: Under Furnishings, Drawing No. F-1, Sheet 158 of 160, staff finds references to various exercise equipment - wall "LAT" machine, wall pulley, bicycle, rowing machine, manual treadmill, belt massager and roller massager. The first five items seem reasonable in that they may be used not only for exercise, but also for monitoring an individual's adjustment to conditions at higher elevations. Staff does recognize the value of maintaining physical condition, however, the massage equipment included may be considered a luxury.

Common Area - Food Service Equipment: Staff finds references to cubed ice and flaked ice machines, iced tea dispenser, ice/water dispenser, juice dispenser, milk dispenser, salad bar and ice cream cabinet. These items are obviously available for the convenience of users; however, such conveniences appear to go beyond what may be considered minimal. The salad bar and ice cream cabinet may also be considered luxuries. Most of such equipment is electrical and does not represent an effort to conserve energy. While we do not expect Hale Pohaku users to exist under primitive conditions, we also do not believe that the convenience appliances noted are in keeping with the Mauna Kea Plan directive of "minimal facilities".

Staff recommends that final review of the subject plans shall follow the CDUA, if approved by the Board, and that the Board of Land and Natural Resources shall be given the opportunity to review, and if necessary, request amendments to the proposed facility plans.

Point 4: Reception of Visitors - Under the current proposal and the subject CDUA, a visitor information center is proposed. The Program Summary and Research Development Plan indicates that additional space for visitor facilities may be required as awareness of the role of the Mauna Kea Science Reserve

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in international astronomy increases. The Summary further indicates that adequate facilities to receive visitors will be essential "in order to guard them, as far as possible, against hazards of the cold and rarified atmosphere on the summit, as well as to inform them of the many facets of the mountain." (page 27, Program Summary and Research Development Plan)

Response:

A visitor information center is considered a reasonable use, provided it does not go beyond what the Mauna Kea Plan refers to as minimum public needs.

The statement quoted above indicates a need for adequate facilities to protect visitors from the harsh summit environment. This statements tends to imply a need for visitor facilities at the summit, a need which Staff understood to be satisfied by the provision of an Information Center as contained within the current CDUA proposal located outside the 7 acre subdivided area. The proposal as shown on Exhibit D provides for picnic, camping and an arboretum. No time schedule is indicated for development of areas indicated adjacent to the proposed Visitor Information Center.

The University, as stated in their Hale Pohaku EIS, assumes the Department of Land and Natural Resources will operate and maintain this facility. However, the DLNR State Parks Division maintains in their review that the University will be responsible for these duties. The question of responsibility for this facility must be resolved. As noted earlier, the University is willing to fund personnel, but requests DLNR to provide an individual to fill the position.

RELOCATION/REMOVABLE OF EXISTING TEMPORARY BUILDINGS

By previous agreement and as a condition to an earlier BLNR decision on a Revocable Permit and CDUA (Board Meetings, May 27, 1977, Item F-1-p and May 10, 1974, Item H-7), the existing temporary Hale Pohaku buildings excluding the Stone Buildings, when no longer required for University use, will be offered to the Department of Land and Natural Resources, Division of State Parks. Should the Division of State Parks decline the offer, it is then the responsibility of the University of Hawaii to demolish the temporary buildings and restore the site to its original natural condition (see Appendix D).

There has been some discussion and consideration of relocating the temporary buildings. The University indicates that these structures were designed and constructed as temporary buildings and were never

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intended to be relocated. While it may be possible to do so, relocation would be costly.

The University has also indicated that relocation and the costs incurred were not part of the earlier agreement and condition and therefore would become the responsibility of DLNR, State Parks Division should they decide to retain the buildings.

However, as stated in the Mauna Kea Plan, disposition of all structures at Hale Pohaku shall be as ordered by the Board of Land and Natural Resources.

UNDERGROUND POWER LINES:

As outlined under the Mauna Kea Plan guidelines in this submittal, on-site generators shall be used to supply electrical power for the observatories and support facilities on Mauna Kea. The generators are to be provided with emission control devices to reduce air pollution to the lowest practical level. Alternatively, underground powerlines may be installed.

The current proposal calls for two-250 KW diesel generators, fuel storage tanks and shelter. A powerline is not part of the current proposal, but has been discussed in the Program Summary and Research Development Plan for the Mauna Kea Science Reserve and Related Facilities. Therein, basic guidelines are provided, and construction of a powerline to service both mid-level and summit facilities is indicated.

Under the Current Program the following information is provided:

- . Electrical Power. The Mauna Kea Plan allows for electric power to be generated on the mountain or to be provided via a powerline connecting the summit facilities with Hawaiian Electric Company (HELCO), the public utility system. A powerline has been envisaged since the initiation of the astronomy projects in 1966, but continued delays have necessitated the generation of electricity on-site. Accordingly, the University has installed an 850-KW generator at the base of the summit cinder cone as the prime source of electrical power for the Mauna Kea Science Reserve. This generator is connected to the summit via an underground line. However, on-site power generation is unsatisfactory as it is relatively unreliable, extremely expensive and environmentally undesirable.

Under the Planned Program, the following statement is made:

- . Electric Power. As discussed earlier, it is unacceptable to continue indefinitely the on-site generation of electric power. Estimates of power consumption, both at the mid-level facility and at the summit, indicate that a line capacity of 2500 kilowatts would satisfy the needs for

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peak power use for the current and estimated activities. More detailed estimates of this powerline, the estimated cost and the methods to equitably charge the mid-level and summit users are being prepared.

Under Management and Resources we note the following statement:

- . Power. The University plans to construct, with funds from the State and the users, a powerline from Humuula to service the mid-level facility and a central distribution point at the summit. Users can connect at this distribution point at their own expense. Also, users shall be assessed a "buy-in" charge to distribute the construction costs amongst all users. The UH will charge users at a unit rate, established on a cost-reimbursable basis, which will include the basic cost of electrical energy together with any such additional charges and maintenance of the central distribution system, maintenance and operation of an auxiliary power plant and administration of these services.

Although the Program Summary does not determine the type of powerline to be provided, the Mauna Kea Plan states that only underground lines will be permitted.

RELOCATION/TRANSPLANTING OF MAMANE TREES:

As stated in the Revised Environmental Impact Statement, for Hale Pohaku, development of Hale Pohaku will involve removing some mamane trees, possibly 3 to 10 trees. If possible, only younger trees will be removed leaving the mature mamane, the food source for the Palila. An attempt will be made to transplant any mature trees that must be removed. Also a planting program for mamane will begin as soon as construction is completed.

CONSERVATION DISTRICT USE ANALYSIS:

The objective of the Resource Subzone, as well as the Mauna Kea Plan is to develop, with proper management areas to ensure sustained use of natural resources of the area.

Subdivision of the Hale Pohaku site is considered by Staff to be consistent with the Resource Subzone objective in that subdivision will more clearly define the area of University responsibility and enable the University to proceed to develop the Hale Pohaku Mid-Level Facilities within the seven acre set aside specifically for the proposed use.

Staff finds that the replacement of the existing facilities is a reasonable request in that the existing facilities were built as temporary structures and the need for more adequate and permanent facilities in becoming necessary since there are now six observatories with telescopes at the Mauna Kea Summit and interest has been expressed in constructing additional facilities.

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Staff finds that the University has attempted to minimize impact by locating the proposed facility adjacent to the existing temporary structures, and has reconfigured the original buildings to minimize visual impact, lessen the area to be graded and in turn, reduce the number of mamane trees to be relocated.

As such, Staff recommends as follows:

RECOMMENDATION:

- A. That this application for subdivision of Conservation District, and construction of Hale Pohaku Mid-Level Facilities at TMK: 4-4-15: 1 (por.) at Hamakua, Hawaii, Hawaii be approved, and,
- B. That the Board of Land and Natural Resources grant the University of Hawaii right-of-entry for construction purposes, at TMK: 4-4-15: 1 at Hale Pohaku, and,
- C. That approval of this Conservation District Use Application shall be subject to the following conditions:
 1. That the applicant comply with all applicable statutes, ordinances, rules and regulations of the Federal, State and City and County governments, and applicable parts of Section 13-2-21 of Title 13, Chapter 2, Departmental Administrative Rules, as amended;
 2. The applicant, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim or demand for property damage, personal injury and death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;
 3. Other terms and conditions as prescribed by the Chairman;
 4. In that this approval is for use of conservation lands only, the applicant shall obtain appropriate authorization through the Division of Land Management, State Department of Land and Natural Resources for the occupancy of State lands;
 5. In the event any unanticipated sites or remains such as shell, bone or charcoal deposits, human burials, rock or coral alignments, pavings, or walls are encountered during construction, the applicant shall stop work and contact the Historic Preservation Office at 548-7460 or 548-6408;
 6. That the applicant comply with all applicable Public Health Regulations;

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7. A fire contingency plan, acceptable to the Division of Forestry and Wildlife shall be implemented during and after the construction of the Hale Pohaku Mid-Level Facilities; should relocation or demolition of the existing temporary buildings be required, a fire contingency plan shall be implemented during the process;
8. The use shall be compatible with the locality and surrounding areas, and appropriate to the physical conditions and capabilities of the specific parcel(s) of lands;
9. The existing physical and environmental aspects of the subject areas, such as natural beauty and open space characteristics, shall be preserved or improved upon, whichever is applicable;
10. All buildings, structures and facilities shall harmonize with physical and environmental conditions stated in this Regulation;
11. Use of the area shall conform with the program of the appropriate Soil and Water Conservation District, or plan approved by and on file with the Department;
12. When provided and/or required, potable water supply and sanitation facilities must have the approval of the Department of Health and the Board/Department of Water Supply;
13. The construction, alteration, moving, demolition and repair of any building or other improvement on lands within the Conservation District, shall be subject to the building codes of the respective counties in which the lands are located; provided that prior to the commencement of any construction, alteration or repair of any building or other improvement, four (4) copies each of the final location map, plans, and specifications shall be submitted to the Chairman, or his authorized representative, for approval, provided however, that any alteration or repair which does not change or expand on the existing land use shall not be subject to the above;
14. Provisions for access, parking, drainage, fire protection, safety signs, lighting and changes in the landscape must have the approval of the Chairman or his authorized representative;
15. Where any interference, nuisance, or harm may be caused or hazard established by the use, the applicant shall be required to take measures to minimize or eliminate such interference, nuisance, harm, or hazard;

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16. Obstruction of public roads, trails and pathways shall be minimized. If obstruction is unavoidable, the applicant shall provide roads, trails or pathways acceptable to the Department;
17. Except in the case of public highways, access roads shall be limited to a maximum of two lanes;
18. Overloading of off-site roadways, utilities and public facilities shall be minimized;
19. Clearing areas for construction purposes shall require prior approval by the Chairman. Ground cover of slopes over 40% shall not be removed unless specifically authorized by the Chairman;
20. Cleared areas shall be revegetated within thirty (30) days, unless otherwise provided for in a plan on file with and approved by the Department;
21. Upon approval of a particular use by the Board, any work or construction to be done on the land shall be initiated within one (1) year of the approval of such use, and, all work and construction must be completed within three (3) years of the approval of such use;
22. That no hunting equipment, including rifles, shotguns, bows and arrows shall be allowed to be brought to or stored at the Hale Pohaku Mid-Level Facilities area;
23. The University of Hawaii shall be responsible for litter control in all areas under the University's jurisdiction;
24. Approval of this CDUA is only for development of the Mid-Level Facilities and does not imply approval of other future actions proposed for Hale Pohaku or for the summit of Mauna Kea;
25. That the mid-level facilities shall be used only by Observatory staff and those individuals whose work, research, or technical support is directly related to science reserve activities at the summit of Mauna Kea;
26. That the University of Hawaii develop proposals for maintenance and management of all facilities to be constructed, and present these proposals to the Board of Land and Natural Resources before September 1982;
27. That the University of Hawaii develop a proposal for an agreement between the University and the Department of Land and Natural Resources for the provision of personnel and funding for operation of the Visitor Information Center and present these proposals to the Board of Land and Natural Resources before September, 1982;

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28. That the University also develop proposals for regulating the number of 4-wheel drive vehicles allowed to proceed to the summit of Mauna Kea and present these proposals to the Board of Land and Natural Resources before September 1982;
29. That the original Hale Pohaku stone buildings be retained and proposals developed by the University for their use by the public. Proposals shall be presented to the Board of Land and Natural Resources before September 1982;
30. That the University of Hawaii shall remove all construction and other human litter from the Hale Pohaku area under their jurisdiction and shall continue to maintain this area to ensure that no litter will be evident in the future;
31. That no pets shall be kept housed by Hale Pohaku users at the facility or at the summit or Mauna Kea;
32. That the applicant submit a phasing plan for construction and demolition (if required) to the Department of Land and Natural Resources Planning Office for review within 30 days of the date of this meeting and the approval of this Conservation District Use Application;
33. That final construction plans shall be reviewed by the Planning Office and presented to the Board of Land and Natural Resources for their approval.

Respectfully submitted,

Sherrie Samuels.

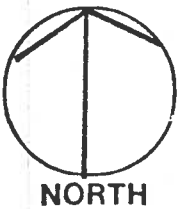
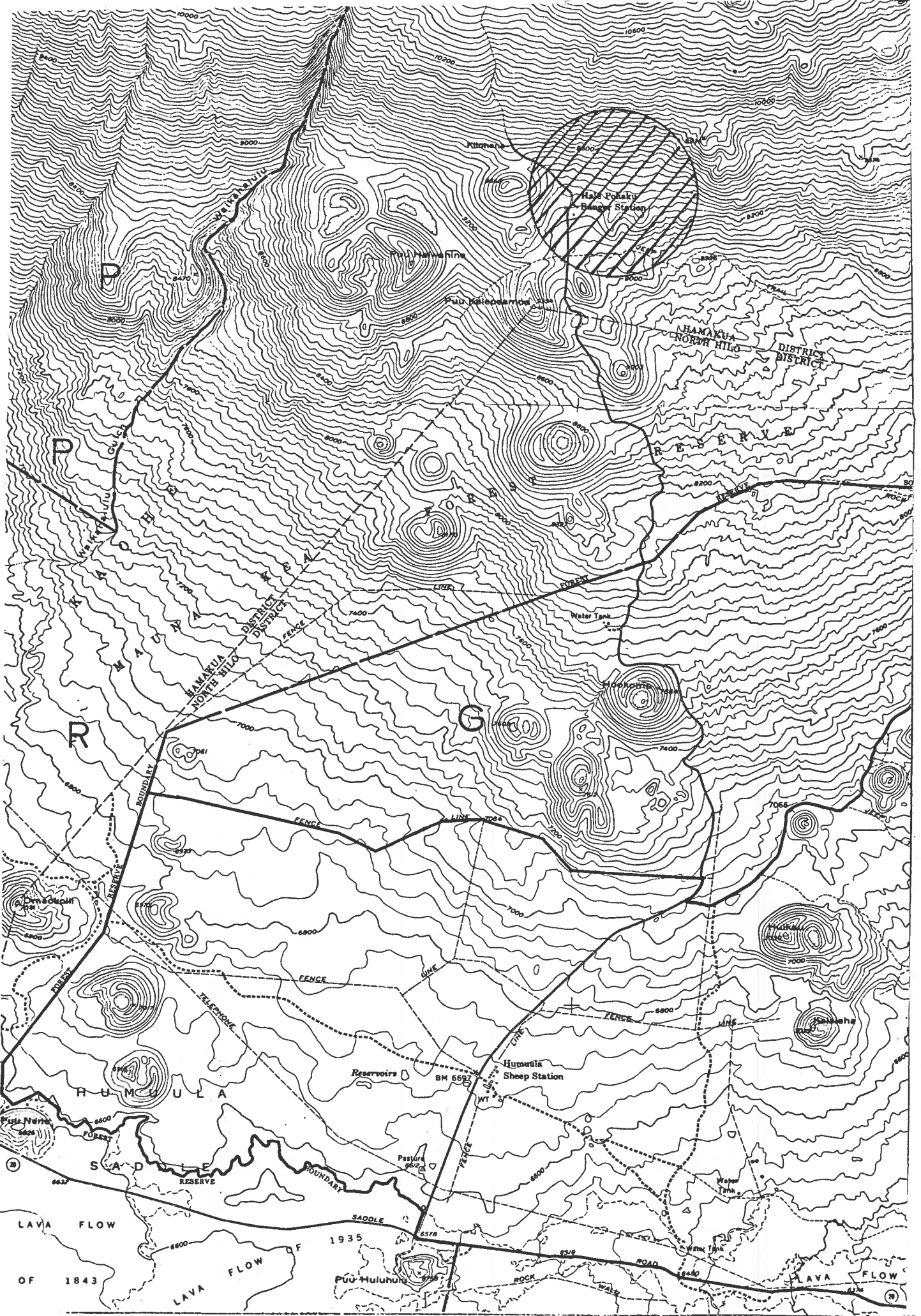
SHERRIE SAMUELS
Staff Planner

Attachments

APPROVAL FOR SUBMITTAL:

S. Ono

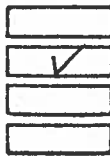
SUSUMU ONO, Chairman
Board of Land and Natural Resources



NORTH

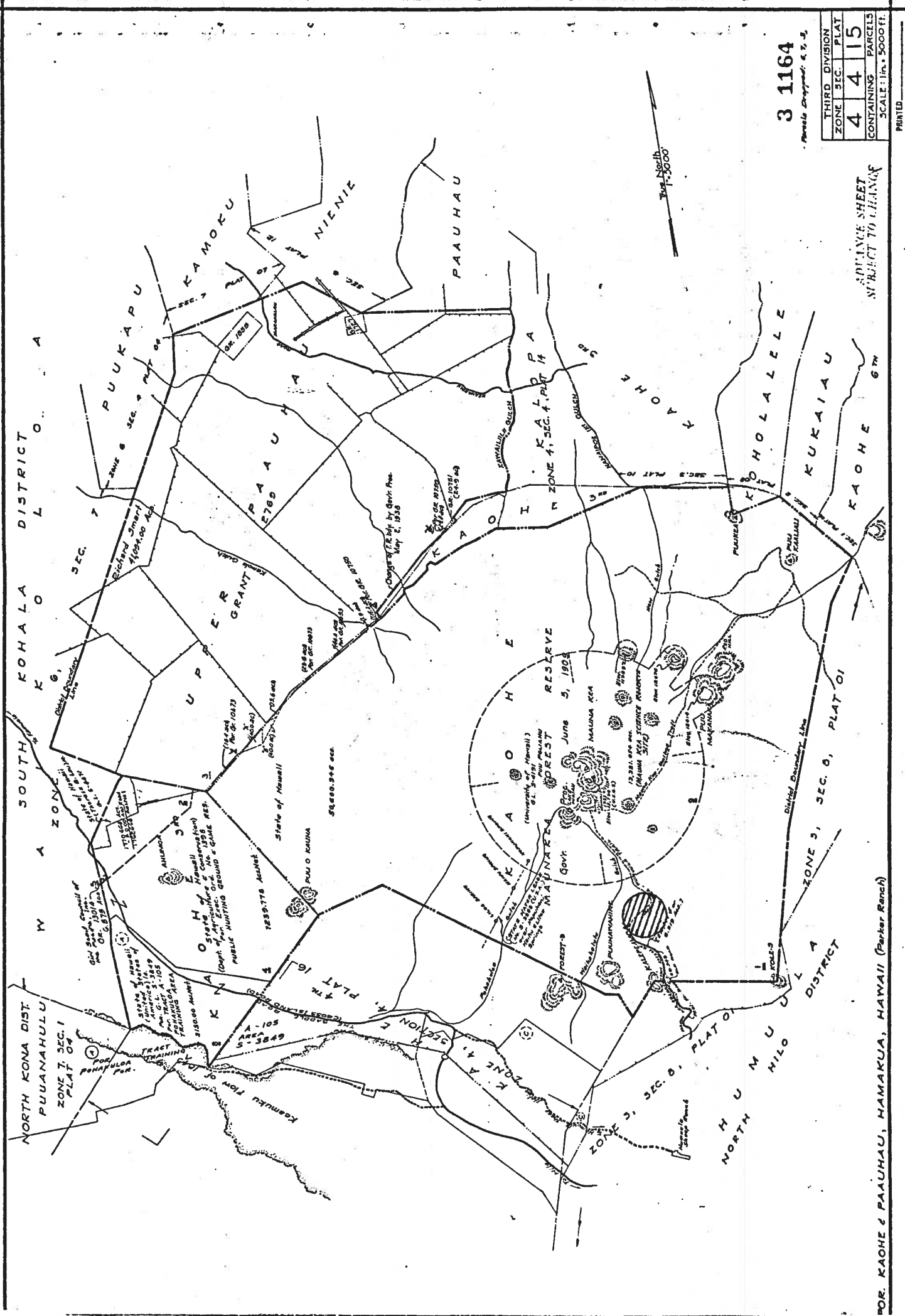
CDUA no. HA-1430, Exhibit A
 APPLICANT University of Hawaii
 AGENT none
 TMK 4-4-15: 1 (por.)
 SCALE _____

SUBZONE



PROTECTIVE
 RESOURCE
 LIMITED
 GENERAL
 PROJECT AREA

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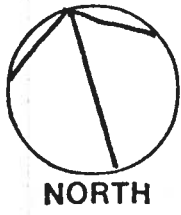
Parcels changed: 4, 2, 3.

THIRD DIVISION	PLAT
ZONE SEC.	4 4 15
CONTAINING PARCELS	
SCALE: 1 in. = 5000 FT.	

PRINTED

ADJACENT SHEETS
SUBJECT TO CHANGE

FOR: KAOHE & PAAUHAU, MAHAKUA, HAWAII (Parker Ranch)

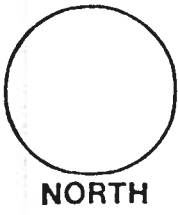
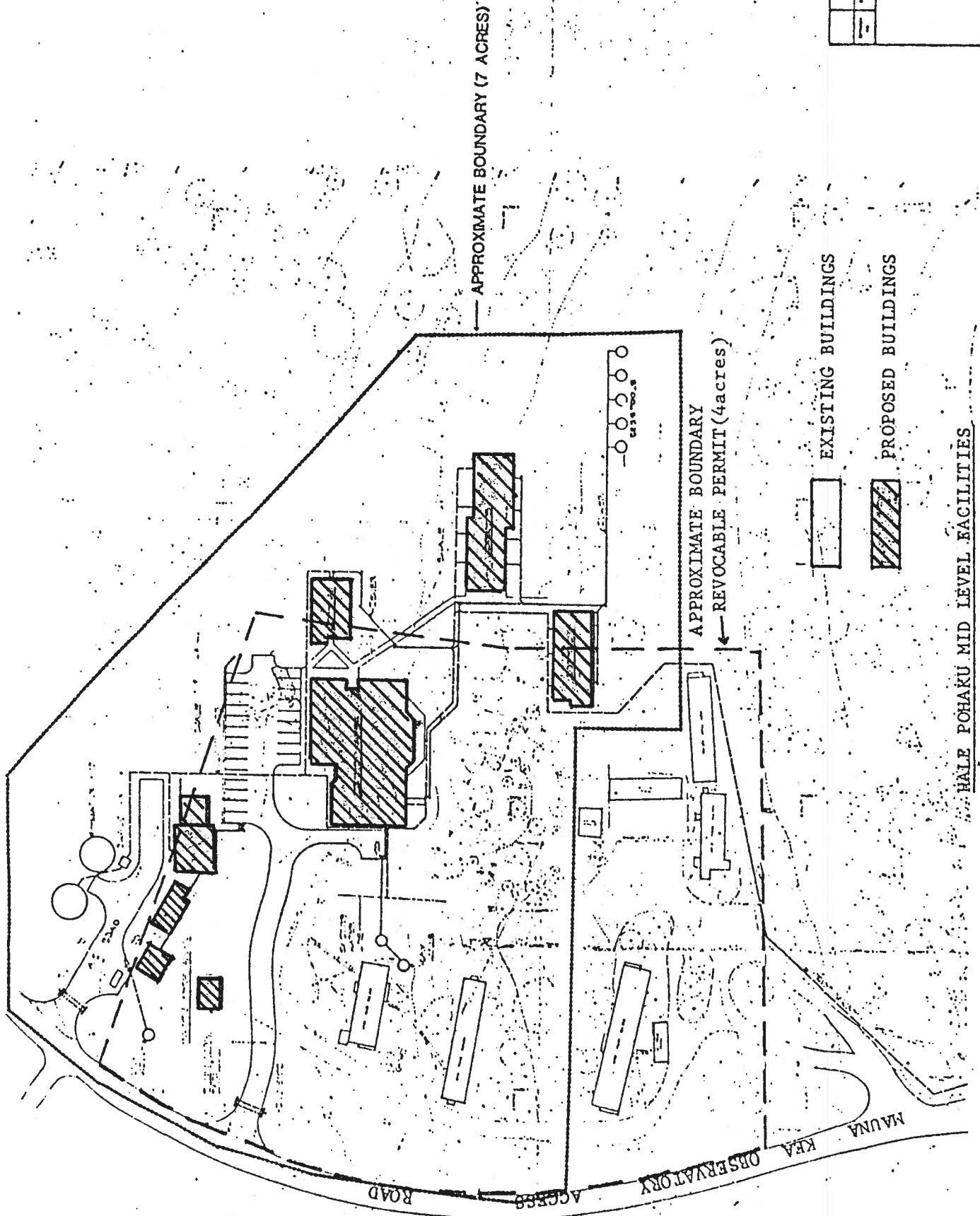


NORTH

CDUA no. HA-1430, Exhibit B
 APPLICANT University of Hawaii
 AGENT none
 TMK 4-4-15: 1 (por.)
 SCALE _____

SUBZONE	<input type="checkbox"/>	PROTECTIVE
	<input checked="" type="checkbox"/>	RESOURCE
	<input type="checkbox"/>	LIMITED
	<input type="checkbox"/>	GENERAL
	<input type="checkbox"/>	PROJECT AREA

DEPT. OF ACCOUNTING & GENERAL SERVICES	
GRADING PLAN	

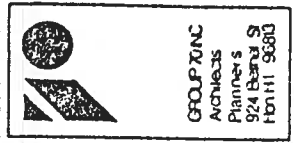


CDUA no. HA-1430, Exhibit C
 APPLICANT University of Hawaii
 AGENT none
 TMK 4-4-15: 1 (por.)
 SCALE _____

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	<input checked="" type="checkbox"/>	RESOURCE
	<input type="checkbox"/>	LIMITED
	<input type="checkbox"/>	GENERAL
	<input type="checkbox"/>	PROJECT AREA

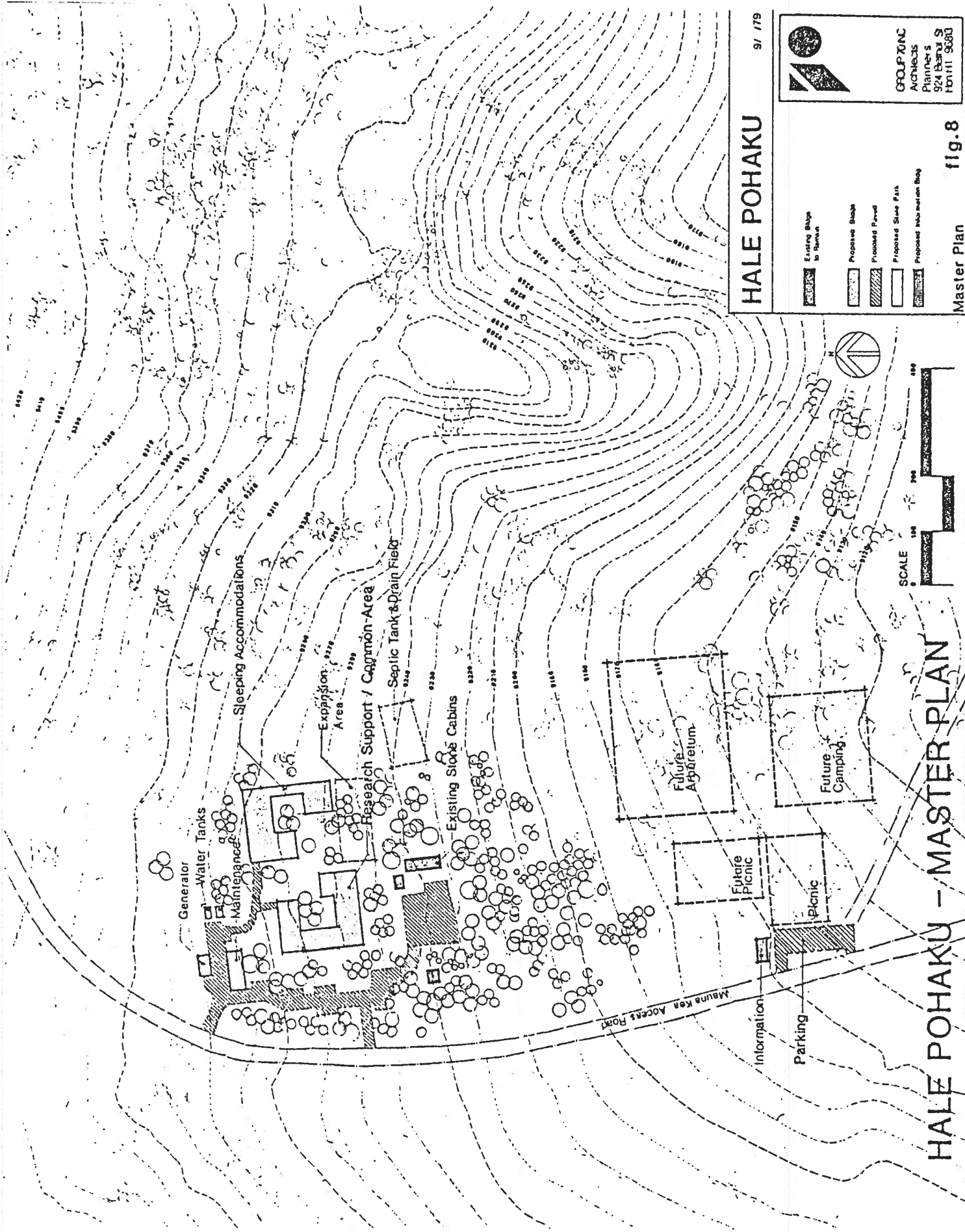
HALE POHAKU

9/179

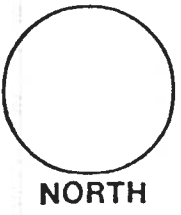


- Existing Shale to Remove
- Proposed Shale
- Proposed Pavement
- Proposed Stone Path
- Proposed Substation Bays

Master Plan fig. 8



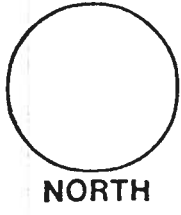
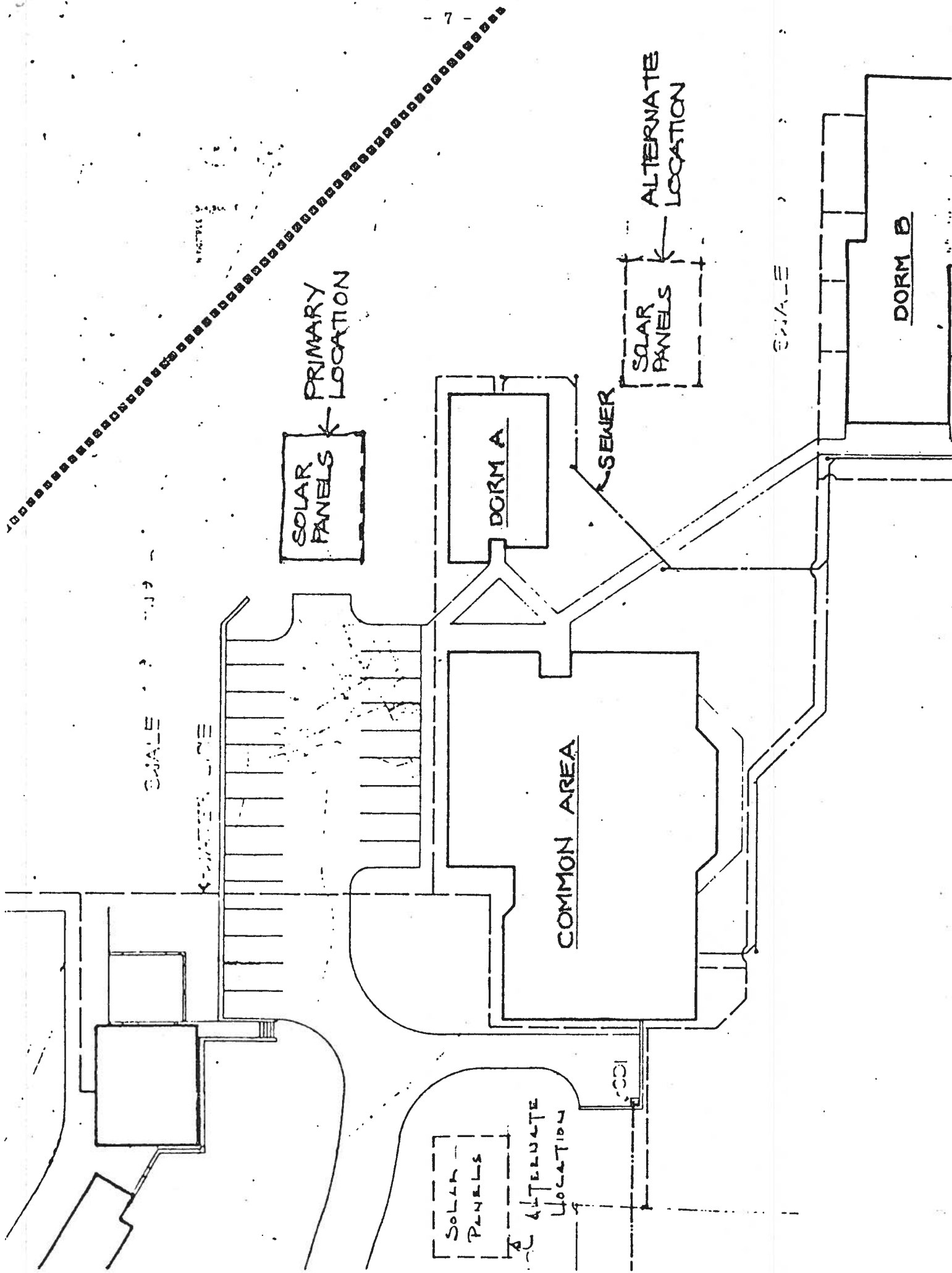
Note: Proposed facility buildings shown are those prior to the plan revision.



CDUA no. HA-1430, Exhibit D
 APPLICANT University of Hawaii
 AGENT none
 TMK 4-4-15: 1 (por.)
 SCALE _____

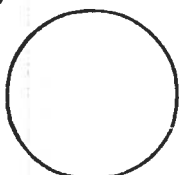
- PROTECTIVE RESOURCE LIMITED
- GENERAL PROJECT AREA

HALE POHAKU - MASTER PLAN



CDUA no. HA-1430, Exhibit E
 APPLICANT University of Hawaii
 AGENT none
 TMK 4-4-15: 1 (por.)
 SCALE _____

SUBZONE	<input type="checkbox"/>	PROTECTIVE
	<input checked="" type="checkbox"/>	RESOURCE
	<input type="checkbox"/>	LIMITED
	<input type="checkbox"/>	GENERAL
	<input type="checkbox"/>	PROJECT AREA



NORTH

CDUA no. HA-1430, Exhibit F
 APPLICANT University of Hawaii
 AGENT none
 TMK 4-4-15: 1 (por.)
 SCALE _____

SUBZONE

PROTECTIVE
 RESOURCE
 LIMITED
 GENERAL
 PROJECT AREA