State of Hawaii
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

FINAL

ENVIRONMENTAL IMPACT STATEMENT

for the proposed

KAPIOLANI COMMUNITY COLLEGE
at Fort Ruger

MASTER PLAN

February 1981

STATE OF HAWAII

DEPARTMENT OF ACCOUNTING & GENERAL SERVICES

EXECUTIVE CHAMBERS

HONOLULU

GEORGE R. ARIYOSHI
GOVERNOR

April 10, 1981

Mr. Donald A. Bremner, Chairman
Environmental Quality Commission
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Bremner:

Subject: Environmental Impact Statement for the Proposed Kapiolani Community College at Fort Ruger, Master Plan

Based upon the recommendation of the Office of Environmental Quality Control, I am pleased to accept the subject document as satisfactory fulfillment of the requirements of Chapter 343, Hawaii Revised Statutes. This environmental impact statement will be a useful tool in the process of deciding whether or not the action described therein should or should not be allowed to proceed. My acceptance of the statement is an affirmation of the adequacy of that statement under the applicable laws, and does not constitute an endorsement of the proposed action.

When the decision is made regarding the proposed action itself, I expect the proposing agency to weigh carefully whether the societal benefits justify the environmental impacts which will likely occur. These impacts are adequately described in the statement, and together with the comments made by reviewers, provide a useful analysis of alternatives to the proposed action.

With warm personal regards, I remain,

Yours very truly,

George R. Ariyoshi

George R. Ariyoshi

cc: Honorable Hideo Murakami

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1. SUMMARY

1.A. Project Location. The 51.628-acre site is located at Fort Ruger, in the Kaimuki District of Honolulu. The site has a quadrilateral shape and is bordered by Kilauea Avenue, Makapuu Avenue, 18th Avenue, and Diamond Head Road. The site is identified by Tax Map Key 3-1-42:9, 31, and 33.

1.B. Identification of the Proposed Action. Since September, 1975, a portion of KCC's student body has been taking classes at the Fort Ruger site in temporary, renovated facilities. In the last few years, this has amounted to approximately 28 percent of KCC's student body. Before the entire student body can be transferred to the site, additional buildings and facilities must be built. To provide these facilities and a pleasant surrounding for KCC at Fort Ruger, a Master Plan was prepared. This EIS reviews the Master Plan and discusses the environmental impacts of this Plan.

1.C. Statement of Need for Relocation. In 1972, the University of Hawaii Board of Regents approved combining the programs of the then Kapiolani Community College and those of the planned East Honolulu Community College, and relocating the total campus to the Fort Ruger site through a phased transition process.

Since 1970, Kapiolani Community College's programs have increased from curriculum offerings including five (5) associate degree programs to twenty-two (22) in 1980; and an enrollment from some 2,900 to 5,000. However, development of facilities has not kept up with the growth in curricula and enrollment. The development of permanent facilities at Fort Ruger is essential for the proper operation of Kapiolani Community College as one of the campuses of the University of Hawaii System.

1.D. Selection of the Master Plan. The Master Plan was selected by a tiering method which is discussed in more detail in Section 2.F.2. In this method, the architectural consultant first reviewed site utilization schemes (concept of grouping KCC's programs), after one grouping was selected, four alternative site plans were prepared and evaluated. (See Section 2.F.3.) Scheme 4, a consolidated cluster concept was selected. Basically, this scheme called for the educational facilities to be situated around the existing activity field. Also, the clustering of one-, two-, and three-level structures would create many courtyards and outdoor activity areas.

1.E. Planning Concepts. The development of the Master Plan (also called Ultimate Site Plan) was accomplished by adhering to a list of basic planning concepts. These concepts are listed in Section 2.G.1.

1.F. Architectural Style and Character. The following guidelines relating to the architectural style and character of the College were adopted. The style and character of the educational facilities will be low in profile, residential in scale, and natural in earth-tone colors. The flat roof with sloping overhangs will cover the walkways, activity areas and open lanais.

1.G. Incremental Construction. The Master Plan for KCC will be implemented incrementally. The actual facilities and construction time for each phase will be determined by the needs of the Community College and by the availability of funding. The construction of permanent facilities at the Fort Ruger campus will provide adequate facilities, implement the relocation of programs from the Pensacola campus, and help meet the projected increase in enrollment.

The total cost of the proposed project in 1980 dollars is estimated to be $44 million.

1.H. Description of the Affected Environment. Existing Conditions: The proposed project is located on an old military installation, which was organized in 1898. In 1947, the army support subpost started phasing out their operations at Fort Ruger. Today, there are several military buildings remaining. Six renovated buildings are currently being used by the college as classrooms and administrative facilities. Other buildings have been demolished and the site cleared.

Topography: The project site, located on the northeastern slope of Diamond Head Crater, consists of gradual, sloping areas separated by relatively steep areas. The elevation of the site ranges from 90 feet to 240 feet above mean sea level.

Climate: The predominant wind direction for the project site is from the northeast, locally called the tradewinds. The average annual temperature is approximately 76°F., and the annual rainfall is approximately 25 inches.

Historic and/or Archaeological Significance: A portion of the Fort Ruger site is being considered by the Hawaii Historic Places Review Board for placement on the Hawaii Register of Historic Places and nomination to the National Register of Historic Places. However, the nomination papers have been referred back to the staff for more study.

Existing Uses: The Fort Ruger site was acquired by the State from the Federal Government in 1974. Presently, the Fort Ruger site is being used by CBS television (which has a conditional permit with the State) Leahi Hospital (parking), Board of Water Supply (easements through the site), and Kapiolani Community College. Classes have been conducted in several existing facilities, since September, 1975.

1.I. Minor or Short-Term Impacts. Impacts on the following areas were found to be non-existent, minor, or short-term:

(1) Impact on Topography and Soils: it was found that the impact of grading and excavation will be minor and not affect the topography of the site. The steep slopes will be left in their natural state while the flatter areas will be graded for the building pads and athletic facilities. Although some soil conditioners and pesticides would be used as in the case of other urban landscaped areas, soils will not be adversely affected.

(2) Impact on Water Quality: some chemicals from soil conditioners and pesticides are expected; generally the water quality will not

significantly differ from other urban runoff in chemical quality. Increased surface runoff is expected based on the increased amount of hard surfaces on the project site.

(3) Impact on Air Quality: The College will have impact in the form of fugitive dust during the construction period and indirectly in form of vehicular emissions. In the case of the former, a number of mitigative measures can be taken to reduce fugitive dust. In the case of the latter, the Federal governnment has already mandated that new cars have greater emission controls. Taking into consideration these new emission controls and the more economical use of gasoline, the microscale carbon monoxide calculations indicate that ambient air quality of the project site will remain in a relatively high quality level in 1995.

(4) Noise Impact: Noise will be generated during construction. This noise can be mitigated and various governmental regulations and statutes require adherence to set standards. Noise from vehicles traveling along the roads will be increased. However, the Federal mandated law for quieter automobiles will offset this potentially adverse impact.

(5) Flooding Impact: The site is not located in a flood hazard district.

(6) Impact on Flora and Fauna: The flora and fauna on the project site will not be significantly effected; the types of flora and fauna found on the project site are exotic species and/or pests. Landscaping plans call for additional ornamental plants and trees.

(7) Land Use Impact: The land use is consistent with the County's zoning and State's Urban designation of the project site and the the Hawaii State Plan for education. The purpose of the Community College is consistent with the County's General Plan and the Comprehensive Zoning Code (CZC).

(8) Impact on View Planes and Aesthetics: the Master Plan utilizes the slope of the site to envelope the two- and three-story structures. Their height appearance will be equal to the surrounding residental uses. No adverse impacts are anticipated.

(9) Impact on the Transportation System: There will be an increase in vehicular traffic; however, the existing roadways serving the site, except a segment of Diamond Head Road, can adequately accommodate the projected increase in traffic.

1.J. Major Impacts and Unresolved Issues. An obstacle that appears to be adverse, and unavoidable is opposition from some parts of the community to the project. The major stated reasons for this opposition are traffic and concerns on the adequacy of the infrastructures. As stated above, with the exception of a portion of Diamond Head Road, the existing roadways can accommodate the projected increased in traffic. Diamond Head Road between Monsarrat and 18th Avenues should be widened to accommodate the present peak traffic volume. If it is not widened, the additional traffic may cause traffic delays on Diamond Head Road.

Some of the buildings and a portion of the site are being considered by the State Parks, Outdoor Recreation and Historic Sites Division for placement on the Hawaii Register of Historic Places.

Benefits to the community include: (1) closeness to higher education facilities for residents of East Honolulu; (2) benefits to students from the community enrolled in KCC; (3) sharing of facilities. The EIS process will allow review of the Master Plan by community groups.

The following infrastructures require specific coordination with and review by the appropriate regulatory agency before their uses are committed: water, sewage, and drainage systems. The consultants are coordinating plans with the respective agencies to insure that improvements will be made and that use of these infrastructures will not create inadequacies for existing users.

I.K. Preparers of the EIS Document.

EIS document: Environmental Communications, Inc.

Traffic consultant (prepared Traffic Impact Statement): Henry T. Au, Consulting Engineer

Air Quality consultant (prepared Air Quality Study): Barry D. Root

Architectural consultant (prepared Master Plan): Robert M. Matsushita and Associates, Inc.

Civil Engineering: Imata and Associates, Inc.

This EIS document is prepared pursuant to Chapter 343, HRS, and the Environmental Impact Statement Regulations. The proposing agency is the Department of Accounting and General Services (DAGS), State of Hawaii. The accepting authority for the Revised (or Final) EIS is the Governor.

2. PROJECT DESCRIPTION

2.A. Project Location. The proposed Kapiolani Community College at Fort Ruger is located within the Kaimuki District as shown in Figure 1. The 51.628-acre parcel is situated immediately north of Diamond Head Crater and is identified by Tax Map Key 3-1-42: 9, 31, and 33. The project site is bordered on the northeast by Kilauea Avenue and residential homes; on the northwest by Makapuu Avenue, Fort Ruger Theatre, and Leahi Hospital; on the southeast by 18th Avenue, Kaimuki Intermediate School, some residential homes and Diamond Head Memorial Cemetery; on the southwest by a parcel of State-owned land adjacent to Diamond Head Road (Diamond Head State Monument).

2.B. Identification of the Proposed Action. A portion of the educational programs and administrative facilities has been relocated to the Fort Ruger site from the existing Kapiolani Community College at Pensacola Street and Kapiolani Boulevard. Before the entire facilities and student body can be relocated to the Fort Ruger site, there must be construction of permanent facilities at Fort Ruger. In order to achieve an orderly growth and organization of physical facilities a Master Plan for the Kapiolani Community College at Fort Ruger has been prepared. The EIS reviews the proposed Master Plan and evaluates the probable environmental consequences of implementing the Master Plan.

2.C. Statement of Need for the Relocation. The 5.3-acre site at the corner of Pensacola Street and Kapiolani Boulevard was never intended to be used as the permanent location of Kapiolani Community College in its present size and scope of operation. The Board of Regents of the University of Hawaii in its earliest policy statement regarding the development of the Univeristy of Hawaii Community College system (1970), indicated that Kapiolani Community College, as it was then, would be developed at the Pensacola site to an enrollment limited by the restrictions of its physical environment. At the same time, the Board indicated plans to launch an East Honolulu Community College to emphasize allied health and liberal arts programs and to provide an educational access to the Kaimuki-to-Koko Head community.*

However, in 1972, at the direction of the State Legislature, and based on a feasibility study, the Board altered its original plans. The Board approved combining the programs of the then Kapiolani Community College and those of the planned East Honolulu Community College and relocating the total campus to the Fort Ruger site through a phased transition process.

Since 1970, Kapiolani Community College's programs have increased from curriculum offerings including five (5) associate degree programs to

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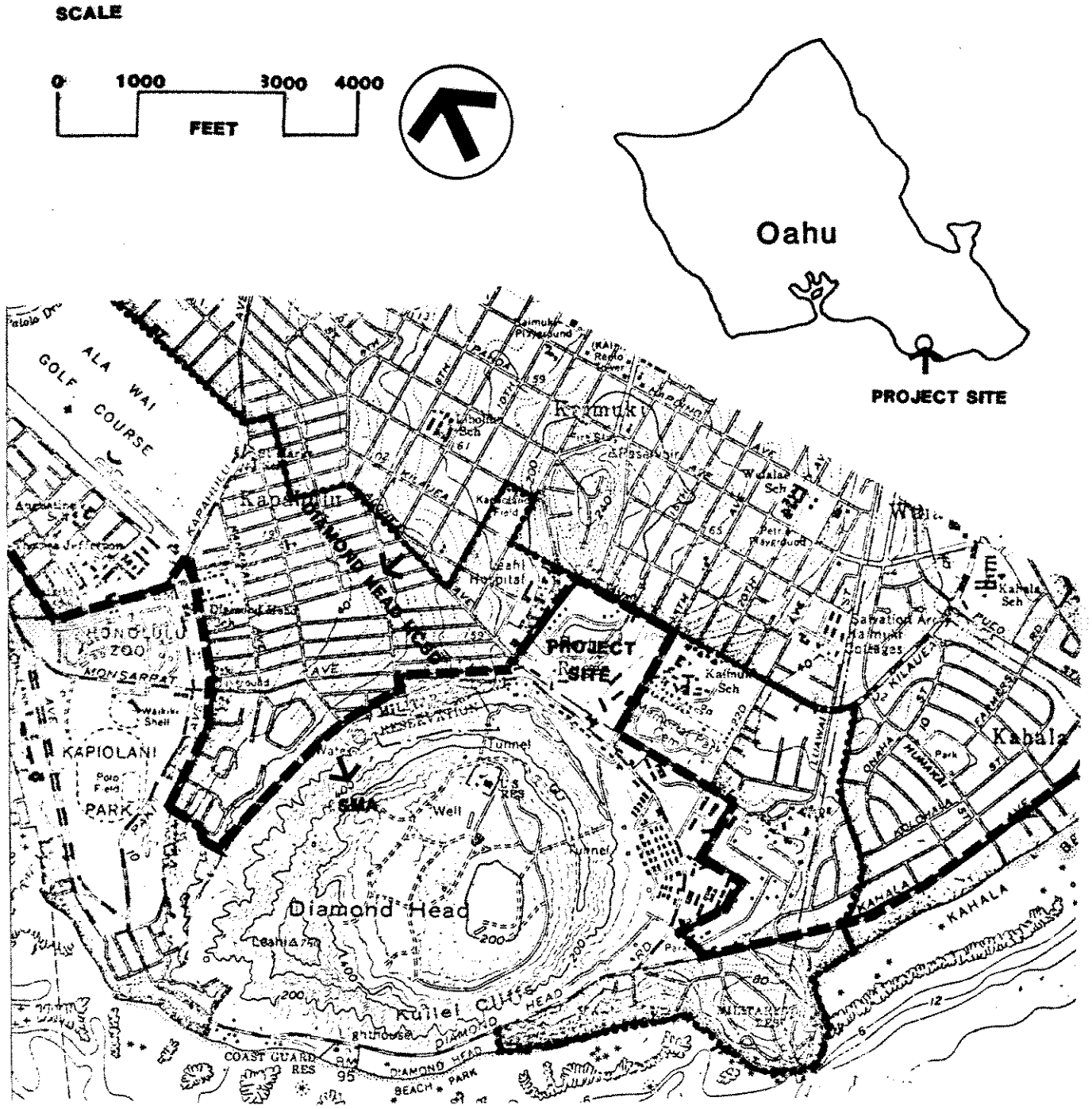
*A site selection study (1965) found that Fort Ruger was the most suitable location for a community college. A portion of this study is contained in Appendix I. Of the available sites within the city limits of Honolulu, only the Fort Ruger site was found to have the 50 acres required, the use of which did not entail mass relocation of existing residents or businesses. The State negotiated with the federal government which owned the Fort Ruger site and completed the purchase of the property for $5.3 million in 1974.

FIGURE 1

Kapiolani Community College

Site Location Map



SPECIAL MANAGEMENT AREA (SMA)

DIAMOND HEAD HCSD

twenty-two (22) in 1980; and an enrollment from 2,900 to 5,000. However, the development of facilities has not kept up with the growth in curricula and enrollment. The development of permanent facilities at Fort Ruger is essential for the proper operation of Kapiolani Community College as one of the campuses of the University of Hawaii System.

The Comprehensive Zoning Code (CZC) of the City and County of Honolulu limits the amount of facilities that can be constructed at the 5.3 acre Pensacola site. Thus, even if the facilities were to be constructed in a massive air-conditioned building, the site would not accommodate all of the facilities required for the College.

Assuming that the provisions of the CZC limiting development of the College at the Pensacola site were eliminated, there would still be the problems of how to construct a massive high-rise in a crowded site in incremental phases, and to do so without displacement of existing facilities and disruptions of on-going educational activities.

2.D. Need for Kapiolani Community College - A Background. The Community College System in Hawaii was established by the Hawaii State Legislature through Act 39, SLH 1964. This Act mandated the Board of Regents of the University of Hawaii to develop a system of community colleges "to provide two-year college transfer and general education programs, semi-professional, technical, vocational and continuing education programs, and such other programs as are appropriate to such institutions." The basis for this legislative action was a report prepared by Dr. Richard Kosaki, "Feasibility of Community Colleges in Hawaii." In this report, which included a comprehensive survey of the population and employment trends, past and future high school graduates, and community interests beyond a high school education, Dr. Kosaki recommended the establishment of a system of community colleges to serve the post high school educational needs of the citizens of Hawaii. With the transfer of technical schools from the State Department of Education to the University of Hawaii, community colleges were established on the islands of Kauai, Maui, and Oahu.

The growth of the Community College System over the past fifteen years since its creation has surpassed the most optimistic projections. To meet growing enrollment and higher education needs, Leeward Community College was established in 1967 and Windward Community College in 1972. Major capital improvements have been made to expand facilities at Honolulu Community College and Maui Community College. Temporary facilities at Kapiolani Community College and Kauai Community College were provided while studies were being made to select alternate sites for these campuses. The enrollment projections for KCC are contained in Appendix V.

Harlan Cleveland, past president of the University of Hawaii, described the community colleges in his "Prospectus for the Seventies" as follows:

> "Our community colleges are in five different kinds of educational business at once. They are junior colleges, offering lower-division and pre-professional courses designed for students who will continue at

a four-year college or university campus. They prepare students for employment in technical, vocational and semi-professional skills. They conduct short courses to upgrade skills and enrich the lives of adults in their communities. They stress guidance and counseling, to match people and skills with organizations and jobs. They add cultural and educational events to what the community offers its citizens at large."

The Policy Statements by the Board of Regents of the University of Hawaii in the Fall of 1970 further state:

> "The goals of the community colleges of the University of Hawaii are comprehensive programs, low tuition, open-door admission, education guidance, quality teaching, and responsiveness to the community which each college serves."
>
> "Career programs which may serve a limited number of students and which are expensive in terms of equipment, faculty, and space will be assigned to one campus, particularly so on Oahu where it is possible for students to commute to a campus which does serve their needs."
>
> "The Community Colleges have an open-door admission policy--any high school graduate or anyone 18 years or older may be admitted to a community college in Hawaii."
>
> "One of the stengths of the University of Hawaii Community Colleges is that they need not compete for identical programs but can emphasize particular occupational programs. The over-all Community College open-door policy will direct students to colleges which can accommodate them in programs, career or liberal arts, of their interest and capability. Present estimates project a 1976 enrollment of 21,000 students for the Community Colleges. Current national studies suggest that an individual community college should not have in excess of 5,000 FTE students. Larger numbers of students compound unnecessarily parking and commuting problems; too many students in large colleges must be drawn from outside the immediate community."

An open door admissions policy is being practiced by the community colleges. However, due to restrictions caused by enrollment ceilings and available work stations an applicant may not be admitted to the college or programs of his or her choice.

Kapiolani Technical School and Honolulu Technical School became the first community colleges to be established (1965) on the island of Oahu. The community colleges on Oahu have been established as a system of colleges to serve the entire Island, in selected vocational-educational programs. However, in the Liberal Arts program, each college draws a majority of their students from nearby communities altough students are given the option to attend the college of their choice.

Accordingly, the major programs given emphasis at Kapiolani Community College (KCC) are Business Education, Hotel and Restaurant Training, Health Education, Legal Assisting, and College Transfer or Liberal Arts program. KCC draws students from the entire Island for their Business Education, Hotel and Restaurant Training, and Health Education programs.

The only permanent buildings on the KCC Pensacola Street campus are the Practical Nursing building constructed in 1957, the Business Education building constructed in 1964, and the Hotel and Restaurant Training building constructed in 1968. The remaining facilities at the existing Pensacola Street campus consists of temporary wooden classrooms and administration buildings.

2.E. History of Fort Ruger. Fort Ruger, originally designated as Camp McKinley, was established as a temporary military installation in 1898. In 1906, an area of 755 acres on the slopes of Diamond Head became one of five Army subposts established on Oahu. It was first manned on a permanent basis as a Coast Artillary Post in 1909. Construction of permanent buildings at Fort Ruger commenced in 1911. In the period between World War I and World War II, an anti-aircraft unit was added to the Sea Coast Artillery Mission. It served in this function until 1947. With the phasing out of the Coast Artillery Mission, Fort Ruger became the location of an Area Headquarters. From that time on, regular army activities at this location lessened. Eventually the relationship to the active Army remained only as a location of dependent housing and supporting activities.

The last active uses of the site under the Army included:

1. Military dependent housing and supporting recreational activities (along Kilauea Avenue, Makapuu Avenue and in the central portion of the parcel).

2. Hawaii National Guard Headquarters' activities (southwest corner of the parcel).

3. Hawaii National Guard Motor Pool (southeast corner of the parcel), and a parking lot used by Leahi Hospital (northwest corner of the parcel).

Military housing supported 31 commissioned and warranted families. Housing and support areas (i.e., fields, parking, playground, school) represented the major use of the land. This housing function is no longer active.

Several of the old military buildings existing on the campus site have been converted to classrooms and administrative offices by the Community College. Others have been demolished due to their deteriorated condition. The military chapel located on Diamond Head Road is temporarily being used by the College for the dance and drama program. However, this facility is not within the campus site, and will be returned to the State Department of Land and Natural Resources after the revocable permit expires. The CBS facilities for television production will be turned over to the College after the conditional use permit expires. In addition to these uses, the Board of Water Supply and the United States of America have

four existing easements extending through the campus site. They are:

(1) Tunnel Easement No. 1, with a 20-foot right-of-way (ROW);

(2) Portal Easement No. 2, with dimensions of 158 feet by 215 feet (BWS);

(3) Roadway and Pipeline Easement No. 3, with a 38.73-foot ROW (BWS);

(4) Military Cable System from 16th Avenue to Diamond Head Road.

These easements cover a land area of approximately two acres.

2.F. Development of the Master Plan.

2.F.1. Educational Specifications. Prior to the development of a Master Plan, the Educational Specifications for KCC were prepared. These Educational Specifications describe the space and special facilities required for each of KCC's educational program and serve as a guideline for the architect in establishing organizational and functional interrelationships within a site plan.

A. Educational Development Plan

(1) Organization: The KCC organizational charts taken from the Educational Development Plan IV and the Educational Specifications describe a standard hierarchical structure beginning with the Office of the Provost and branching into major operational areas of Instruction, Student Services, Community Services, and Administrative Services each headed by a dean or a director.

(2) Educational Programs: The Educational Programs at KCC fall into the categories as indicated in Table 1.

(3) Staffing and Student Enrollment: Based on the Organization Chart from the Educational Development Plan IV, the total staff required for the 1977-1979 biennium is 198 people of whom 114 are instructors, and 84 support personnel including administrative, operational, and maintenance. This staff requirement is for an estimated head count enrollment of 5,140 students. In 1979, the student/faculty ratio was 45:1, and the student/staff ratio was 26:1. The absolute maximum enrollment to be accommodated on the Fort Ruger campus shall be 5,000 students (full-time equivalent)* with a head count of 6,000 (maximum) as stated in the Educational Specifications.

B. Based on the Educational Specifications, the programs will be grouped and assigned to an educational facility, according to their functional needs and relationships. Programs and groupings are as follows:

* For explanation on FTE (full-time equivalent) students, see item 13, page 88 of EIS.

TABLE 1

EDUCATIONAL PROGRAMS AT KAPIOLANI COMMUNITY COLLEGE

General and Pre-Professional Education:

Humanities

Art
Asian/Pacific Languages
Drama
English
English Language Institute
European Languages
History
Humanities
Journalism
Music
Philosophy
Religion
Speech/Communication

Other
Physical Education

Business Education:

Accounting
Business Operations
General Clerical
Bookkeeping
Stenography
Data Processing
Merchandising
Sales and Marketing
Sales and Cashier Training
Hotel Operations
Secretarial Science

Food Service Education:

Food Service Management
Dining Room Service
Culinary Arts (General Cook)
Short Order Cooking
Waiter/Waitresses
Cold Food Pantry
Storeroom Operations
Dishmachine Operator

Health Education

Dental Assisting
Medical Assisting
Medical Lab Technology
Nursing
Occupational Therapy Assistant
Radiologic Technology
Respiratory Therapy

Legal Assistant Program

Natural Sciences

Biology
Botany
Chemistry
Mathematics
Microbiology
Oceanography
Physics
General Science
Zoology

(1) Administration and Student Services: Administrative and College Services (13,880 Assignable Square Feet). Reasons for consolidation: administrative links, office type functions, and public access.

(2) Learning Resource Center: Library, Educational Media Center and Individual Study Facilities (54,990 Assignable Square Feet). Reasons for consolidation: central location important for all activity and functional needs, parking provided adjacent to the facility for student, faculty and public access convenience. This facility will be air-conditioned.

(3) Campus Center: Food Service, Dining Room, Bookstore, Student Health Service, Student Government, Lounge, Recreation Room and Public Service (32,205 Assignable Square Feet). Reasons for consolidation: functions are non-academic, but necessary in college life, central location important for all activity and functional needs, service to food service and bookstore. About 76 percent of this facility will be air-conditioned.

(4) Maintenance: Maintenance Shop and Workroom (2,460 + garage 1,080 Assignable Square Feet). It is segregated, but close to campus, and is accessible to public service.

(5) Group I and II: Classrooms - General and Pre-Professional (Social Sciences, Natural Sciences, Humanities, Administrative Offices), Business Education (Accounting, Business Operations, Data Processing, General Classrooms, Administrative Offices), and Health Education (Dental Assisting, Radiologic Technology, Medical Laboratory Technology, Occupational Therapy Assistant, Nursing Respiratory Therapy, Medical Assisting, Administrative Offices) - (68,859 Assignable Square Feet). Reasons for consolidation: all labs are grouped adjacent to each other, due to their utility demands for gas, water, electricity, sewage, and ventilation, intermixing of these programs is desirable, health facilities can be used by science programs, administrative offices adjacent to classes, and business education equipment can be used by math and science programs. About 87 percent of the facility will be air-conditioned.

(6) Group III: Classrooms - General and Pre-Professional (General Classrooms, Lecture Rooms and Administrative Offices) - (32,165 Assignable Square Feet); and Future Business Education (Administrative Offices), Legal Assistance (Classrooms), and Health Education (Clinical Aide and Physical Therapy Assistant) - (5,795 Assignable Square Feet). Reasons for consolidation: classes have no special requirements and utility and mechanical requirements are minimal.

(7) Group IV: Classrooms - General and Pre-Professional (Humanities and Administrative Offices), Business Education (Clerical, Mid-Management, Secretarial Science and Administrative Offices), and Legal Assistance (Special Classroom and Administrative Offices) - (38,454 Assignable Square Feet). Approximately 90 percent of the facility will be air-conditioned.

(8) Group V: Food Service - Food Service Program (General Classrooms, Special Classrooms, Food Service Division and Administrative Offices), Health Education (Dietetics) and Business Education (Hotel Training Lab, Travel Agency and Offices) - (38,235 Assignable Square Feet). Reasons for consolidation: the food service programs form a functional unit, the health lab is functionally related to the food service program. This facility will be air-conditioned.

(9) Group VI: Physical Education - Gymnasium, Swimming Pool, Paved Courts and Fields (Gymnasium - 20,000 Assignable Square Feet; Outdoor facilites - 163,778 Assignable Square Feet). Reasons for consolidation: natural grouping for athletic activities, isolation from educational facilities required for noise control.

2.F.2. Site Utilization Schemes. The Master Plan was developed through a tiering process. Initially, three site utilization schemes were reviewed. In this phase the project site is divided into two major parts; first is the upper campus which is located between Makapuu Avenue and the interior circulation road, and second is the lower campus which is located between 18th Avenue and the interior circulation road. The basic plans were:

(1) Scheme A: In this scheme, the academic facilities would be located on the upper campus. This location would utilize the surrounding views, trees and open space for the design concept. The academic facilities would be surrounded by dispersed perimeter parking to serve each educational program. The athletic facilities would be located on the lower campus. This part of the site would contain the noise generated by various activities.

(2) Scheme B: In Scheme B, the academic and athletic facilities would be located on the upper campus with the parking areas situated on the lower campus. This orientation would eliminate any pedestrian/vehicular conflicts on campus.

(3) Scheme C: Scheme C located the academic facilities on the lower campus, and the athletic facilities and parking on the lower upper campus.

Based on the Evaluation of the Site Utilization Schemes, as shown in Table 2, Scheme A was selected.

2.F.3. Alternative Site Plans. The selected site utilization, Scheme A, was then used to create four alternative plans.

TABLE 2

EVALUATION OF SITE UTILIZATION SCHEMES

	Evaluation	Scheme A	Scheme B	Scheme C
(1)	Educational Program & Functional Requirements	+	+	+
(2)	Academic facilities adjacent to primary parking areas	+	–	–
(3)	Athletic facilities adjacent to secondary parking areas	+	+	+
(4)	Academic facilities adjacent to athletic facilities	–	+	0
(5)	Traffic circulation	+	–	–
(6)	Disburses traffic	+	0	+
(7)	Minimizes on-street parking	+	–	+
(8)	Promotes accessibility by bus	+	+	+
(9)	Feasibility of campus site	+	+	+
(10)	Minimizes disturbance of existing trees	0	–	0
(11)	Reduces site work	0	0	+
(12)	Safety & security	+	+	+
(13)	View planes utilized	+	+	–
(14)	Minimizes visual intrusions	+	0	+
(15)	Adaptable to surrounding land uses	+	+	+
(16)	Minimum environmental impacts	+	+	+
(17)	Reduces construction cost	+	0	–
(18)	Facilitates incremental development	+	+	+
	TOTAL (+) Good	15	10	12
	(0) Fair	2	4	2
	(–) Poor	1	4	4

(1) Scheme 1: in this scheme, all of the educational facilities would be low, single-story structures. The mass and size of the buildings would utilize the majority of the upper campus area minimizing open areas and maximizing tree loss. These buildings would incorporate many interior corridors and courtyards.

(2) Scheme 2: would be composed of all two-level structures. The massing and height of the educational facilities would create a condensed campus, providing larger areas for open space and courtyards.

(3) Scheme 3: would be a dispersed cluster concept, evolving the campus around the existing activity field and open spaces. The clustering of these one-, two-, and even three-level structures would create many open courtyards and outdoor activity areas.

(4) Scheme 4: would be a consolidated cluster concept. The educational facilities would be situated around the existing activity field. Also, the clustering of one-, two-, and three-level structures would create many courtyards and outdoor activity areas.

All of these alternative schemes were evaluated as shown in Tables 3 through 9. The summary of the evaluation in Table 10 indicates Scheme 4 had the highest score. It was selected for implementation of the Ultimate Site Plan (Master Plan).

Briefly the advantages and disadvantages of each alternative scheme were:

(1) Scheme 1

Advantages: The single-story buildings would not require elevators or overpasses. The handicapped would be able to have convenient accessibility to each educational facility. These low-rise buildings would not obstruct the prominent view planes towards Diamond Head.

Disadvantages: This Scheme would require extensive land excavation and tree loss, due to the mass and size of the buildings. Also, the existing activity field would be eliminated because of building placement. Construction cost would be high, due to the amount of site work.

(2) Scheme 2

Advantages: This all two-level building concept would promote convenient accessibility to each educational facility. Land excavation and tree loss would be minimized in this Scheme.

Disadvantages: In this Scheme, the buildings would be compressed together providing minimum interior open spaces, courtyards

TABLE 3

EVALUATION OF ALTERNATIVE PLANS-FACILITIES

Facilities	Scheme 1	2	3	4
(1) All Natural Science classrooms provided.	+	+	+	+
(2) All Humanity classrooms provided.	+	+	+	+
(3) All Legal Assistance classrooms provided.	+	+	+	+
(4) All Social Science classrooms provided.	+	+	+	+
(5) All Language Art classrooms provided.	+	+	+	+
(6) All Business Education classrooms provided.	+	+	+	+
(7) All Health Education classrooms provided.	+	+	+	+
(8) All Food Service classrooms & restaurant provided.	+	+	+	+
(9) All Physical Education classrooms & Gymnasium provided.	+	+	+	+
(10) Football field.	+	+	+	+
(11) Baseball field.	+	+	+	+
(12) Archery Range.	+	+	+	+
(13) Volleyball courts.	+	+	+	+
(14) Tennis courts.	+	+	+	+
(15) Swimming Pool.	+	+	+	+
(16) Learning Resource Center provided.	+	+	+	+
(17) Administration provided.	+	+	+	+
(18) Student Services provided.	+	+	+	+
(19) Campus Center provided.	+	+	+	+
(20) Maintenance Center provided.	+	+	+	+
(21) Parking stalls provided.	+	+	+	+
(22) Vehicular access to Gym, Administration, Food Service, Learning Resources & Campus Center.	0	+	+	+
(23) Loading/Unloading area provided.	0	+	+	+
(24) Existing structures to be demolished - Retained until replacement facilities are completed.	-	+	+	+
SUBTOTAL (+) Good	21	24	24	24
(0) Fair	2	0	0	0
(-) Poor	1	0	0	0

TABLE 4

EVALUATION OF ALTERNATIVE PLANS-FUNCTIONAL REQUIREMENTS & PROGRAM

	Functional Requirements & Program	Scheme 1	2	3	4
(1)	Parking adjacent to main school entrance.	+	+	+	+
(2)	Administration adjacent to main school entrance.	+	0	-	0
(3)	Administration adjacent to parking areas.	+	+	+	+
(4)	Administration close to Student Services.	+	+	+	+
(5)	Administration close to Campus Center.	+	+	+	+
(6)	Administration close to Learning Resource.	+	0	+	0
(7)	Administration close to Maintenance.	-	0	0	-
(8)	Student Services close to Learning Resources.	+	0	+	0
(9)	Student Services close to Campus Center.	+	+	+	+
(10)	Student Services close to Classrooms.	0	-	0	0
(11)	Campus Center adjacent to parking areas.	-	+	+	+
(12)	Campus Center close to Learning Resources.	+	+	0	+
(13)	Campus Center close to Athletic facilities.	0	0	-	0
(14)	Campus Center close to Food Service.	+	+	+	+
(15)	Learning Resource adjacent to parking areas.	+	+	+	+
(16)	Learning Resource close to Classrooms.	-	0	+	+
(17)	Learning Resource close to Food Service.	-	0	-	0
(18)	Food Service adjacent to parking areas.	-	-	+	+
(19)	Food Service close to Classrooms.	+	+	-	0
(20)	Athletic facilities adjacent to parking areas.	+	0	+	+
(21)	Athletic facilities close to Classrooms.	-	-	-	-
(22)	Classrooms adjacent to parking areas.	+	+	+	+
(23)	Classrooms consolidated.	+	+	+	0
(24)	Athletic facilities consolidated.	+	+	+	+
(25)	Minimizes on-street parking.	0	+	+	+
(26)	Joint use with Leahi Hospital.	+	+	+	+
SUBTOTAL	(+) Good	17	15	18	16
	(0) Fair	3	8	3	8
	(-) Poor	6	3	5	2

TABLE 5

EVALUATION OF ALTERNATIVE PLANS-SITE UTILIZATION

	Site Utilization	Scheme 1	Scheme 2	Scheme 3	Scheme 4
(1)	Existing trees retained.	-	0	0	+
(2)	Building shape and mass provides good ventilation.	0	-	+	+
(3)	Building sited to utilize natural ventilation.	0	-	+	+
(4)	Air Conditioned Buildings sited to minimize heat gain.	0	-	+	+
(5)	Building oriented to prevailing wind direction.	0	0	+	+
(6)	Buildings separated at least 15 feet for each story of adjacent buildings.	+	+	+	+
(7)	Grading and excavating minimized to prevent erosion.	-	-	+	+
(8)	Buildings located away from objectionable noise, odor or air pollutants from outside school site.	+	+	+	+
(9)	Classrooms not downwind of Food Service facility.	+	+	+	+
(10)	Classrooms not downwind of athletic facilities.	+	+	+	+
(11)	Football field aligned to minimize sun glare.	+	+	+	+
(12)	Baseball field aligned to minimize sun glare.	+	+	+	+
(13)	Paved courts aligned to minimize sun glare.	+	+	+	+
(14)	Athletic facilities accessible to community.	+	+	+	+
	SUBTOTAL (+) Good	8	8	13	14
	(0) Fair	4	2	1	0
	(-) Poor	2	4	0	0

TABLE 6

EVALUATION OF ALTERNATIVE PLANS-AESTHETICS AND VIEW

	Aesthetics and View		Scheme 1	2	3	4
(1)	Natural beauty of the site retained.		-	-	+	+
(2)	Good visual composition of major school building masses from surrounding areas.		+	-	+	+
(3)	Plan affords a view of community & campus from appropriate major areas.		+	0	+	+
(4)	Low Roof Lines.		+	0	0	0
(5)	Building mass.		-	-	+	+
(6)	Open space & Courtyards.		0	0	+	+
	SUBTOTAL	(+) Good	3	0	5	5
		(0) Fair	1	3	1	1
		(-) Poor	2	3	0	0

TABLE 7

EVALUATION OF ALTERNATIVE PLANS-TRAFFIC IMPACT

Traffic Impact		Scheme 1	2	3	4
(1) Safe pedestrian access.		+	+	+	+
(2) Safe Vehicular ingress and egress.		+	0	+	+
(3) Traffic congestion minimized on access roads.		+	0	+	+
(4) Safe & smooth bus & vehicular circulation on campus.		0	-	0	0
(5) Adequate auto loading area.		+	+	+	+
(6) Separate Bus Loading area.		0	0	+	+
(7) Parking & Roadways located on the periphery of the campus.		+	+	+	+
(8) Pedestrian Vehicular crossings minimized.		+	+	+	+
(9) Sheltered walkways between related structures.		0	0	0	0
(10) Architectural barriers for the Handicapped eliminated.		0	0	0	0
(11) Walking distance between facilities not excessive.		0	+	0	+
SUBTOTAL	(+) Good	6	5	7	8
	(0) Fair	5	5	4	3
	(-) Poor	0	1	0	0

TABLE 8

EVALUATION OF ALTERNATIVE PLANS-COST CONSIDERATIONS

	Cost Considerations	Scheme 1	Scheme 2	Scheme 3	Scheme 4
(1)	Buildings sited to minimize Grading cost & building height.	0	-	+	+
(2)	Buildings located in areas with good foundation & drainage.	-	0	0	+
(3)	Play fields sited to minimize Grading cost.	0	0	0	0
(4)	Deed for temporary structures minimized.	-	+	+	+
(5)	Cut and fill balanced.	-	0	0	+
(6)	Off-site development cost minimized.	0	0	0	0
(7)	On-site utility cost minimized.	-	0	0	0
(8)	Site plan developed to limit required retaining walls, ramps & pavings.	-	0	0	0
(9)	Facilities arranged to minimize costs for making Facilities for handicapped.	0	0	0	0
(10)	Play fields located in flatter areas of the site.	0	0	0	0
	SUBTOTAL (+) Good	0	1	2	4
	(0) Fair	5	8	8	6
	(-) Poor	5	1	0	0

TABLE 9

EVALUATION OF ALTERNATIVE PLANS-INCREMENTAL DEVELOPMENT

	Incremental Development		Scheme 1	2	3	4
(1)	First increment buildings grouped in same area.		+	+	+	+
(2)	First increment buildings near main school entrance.		+	0	0	0
(3)	First increment buildings adjacent to athletic fields.		-	-	-	-
(4)	First increment utilities located within area graded to ultimate plan.		0	0	0	0
(5)	First increment utilities connected directly to off-site utilities.		+	+	+	+
(6)	Incremental development will move downward on the site.		-	0	0	+
(7)	Incremental development does not interfere with use of existing facilities.		-	+	+	+
	SUBTOTAL	(+) Good	3	3	3	4
		(0) Fair	1	3	3	2
		(-) Poor	3	1	1	1

TABLE 10

EVALUATION SUMMARY

Evaluations		Scheme 1	Scheme 2	Scheme 3	Scheme 4
(1) Facilities	Good	21	24	24	24
	Fair	2	0	0	0
	Poor	1	0	0	0
(2) Functional Requirements and Progam	Good	17	15	18	16
	Fair	3	8	3	8
	Poor	6	3	5	2
(3) Site Utilization	Good	8	8	13	14
	Fair	4	2	1	0
	Poor	2	4	0	0
(4) Aesthetics and View	Good	3	0	5	5
	Fair	1	3	1	1
	Poor	2	3	0	0
(5) Traffic Impact	Good	6	5	7	8
	Fair	5	5	4	3
	Poor	0	1	0	0
(6) Cost	Good	0	1	2	4
	Fair	5	8	8	6
	Poor	5	1	0	0
(7) Incremental Development	Good	3	3	3	4
	Fair	1	3	3	2
	Poor	3	1	1	1
TOTAL	(+) Good	58	56	72	75
	(0) Fair	21	29	20	20
	(-) Poor	19	13	6	3

and natural ventilation (if necessary). The existing activity field would be eliminated in this Scheme. The mass and height of the educational facilities would obstruct the view planes toward Diamond Head. The construction cost would be high, due to the large educational buildings. This scheme would be incrementally feasible, if the program were in clusters of smaller buildings.

(3) Scheme 3

Advantages: This multi-level building concept would utilize the existing activity field to link the educational programs and functions. These buildings would be nestled into the sloping site, which would provide a multi-level appearance. Also, this Scheme minimizes tree loss and land excavation. The proposed buildings would not obstruct the view planes towards Diamond Head.

Disadvantages: The building clusters would be dispersed, creating some distance between the programs.

(4) Scheme 4

Advantages: This Scheme utilizes a consolidated cluster concept, which would locate the educational facilities around the existing activity field creating a park-like area. Each program would be conveniently accessible to the users. Also, this Scheme would nestle the buildings into the sloping site. Tree losses and land excavation would be minimized.

Disadvantages: The maintenance and administrative facilities would be far apart.

2.G. Description of the Proposed Master Plan.

2.G.1. Master Plan - Planning Concepts. The development of the Master Plan (also called Ultimate Site Plan) was accomplished by adhering to the following basic planning concepts:

(1) Creating building clusters (instead of larger massive buildings) with courtyards and activity centers interconnected by ramps, walkways and malls;

(2) Developing low-roof profiles (residential-type roofing);

(3) Nestling the two- or three-story facilities into the sloping site, creating a low building profile;

(4) Providing perimeter parking around the campus for convenient accessibility and service to each facility;

(5) Providing an interior circulation system on the campus, to minimize traveling on the public streets;

(6) Incorporating the existing open and natural spaces into the Master Plan;

(7) Provide convenient accessibility for the handicapped to each facility by ramps, elevators and natural slopes;

(8) Preserving the majority of the existing trees.

The Ultimate Site Plan (also called Master Plan in the EIS text) is shown in Figure 2.

2.G.2. Grading and Drainage Plan. Generally, the grading of the project site shall conform to the Master Grading and Drainage Plan (see Figure 3) to accomplish the level changes between the buildings and to provide surface drainage away from the structures. Temporary imbalances due to the placement of the incremental breaks will occur. In these cases, borrowing of insufficient material or stockpiling of excess material in adjacent areas will be instrumental in minimizing earthwork costs and adverse environmental impacts (i.e. fugitive dust).

Vehicular and pedestrian access to the site will be provided through openings to adjacent perimeter streets. The level changes between and within building groups will be accomplished by stairs because of the steep natural topography. The handicapped will negotiate these level changes through elevators within the buildings. During incremental construction, temporary ramps will be incorporated to avert any problems for the handicapped.

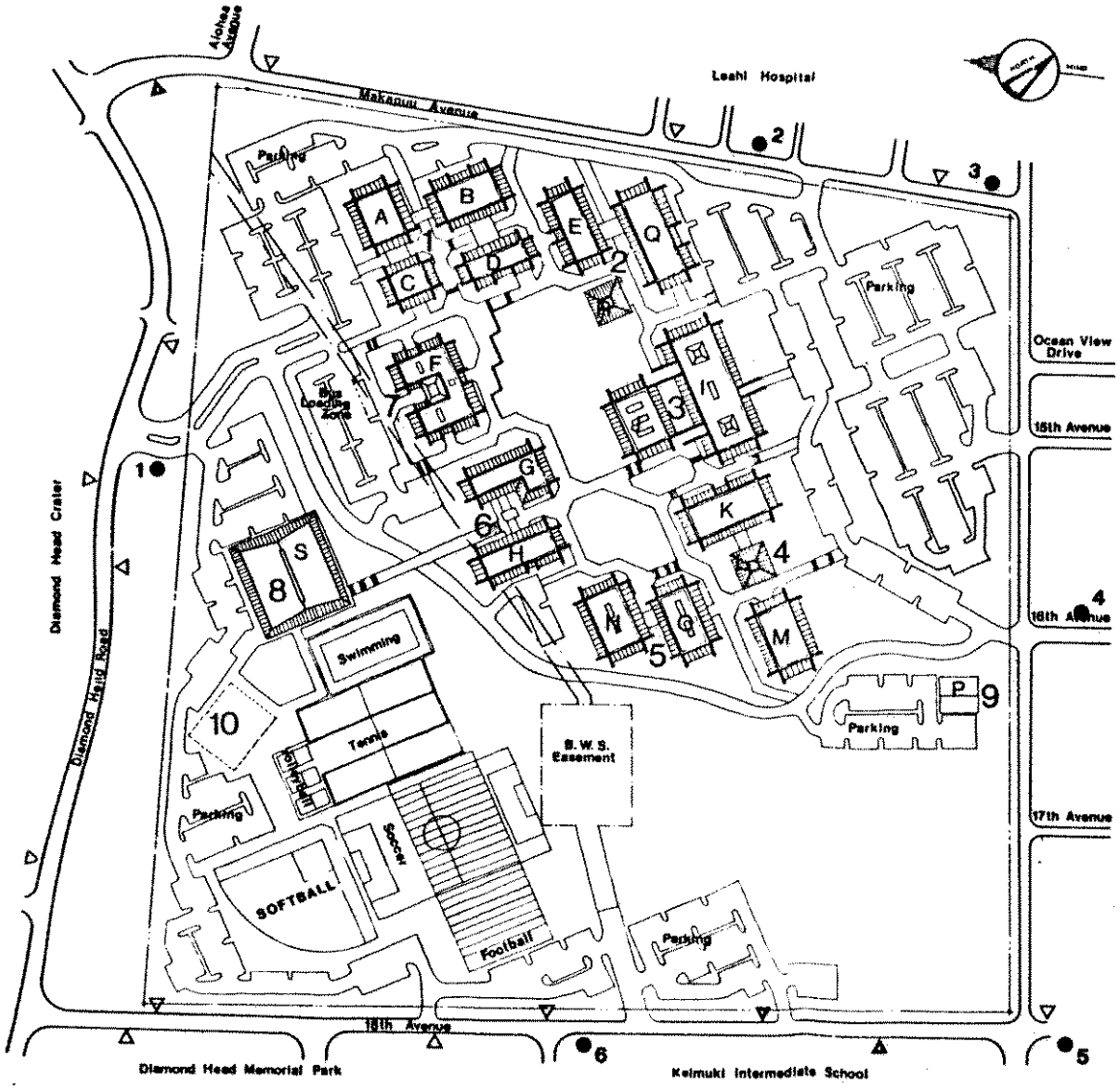
2.G.3. Master Utilities Plan. The site utilities will be implemented as shown in the Master Utilities Plan (see Figure 4) and the Master Electrical Plan (see Figure 5). The utility services to the educational facilities shall conform to the development of the incremental construction described in subsection 2.H. During the incremental development of the college, electrical services will be implemented, according to the needs and related functions of the building groups.

2.G.4. Architectural Style and Character. The style and character of the educational facilities will be low in profile, residential in scale, and natural in earth-tone colors. The flat roof with sloping overhangs will cover the walkways, activity areas and open lanais.

2.G.5. Landscape Master Plan. See Figure 6. The majority of the existing trees will be retained on the site. Any additional landscaping will be compatible with the existing conditions. The following landscape items illustrate the existing and future development of the site:

(1) Existing trees to be retained, removed or relocated. A survey was taken of the existing trees over six (6) inches in trunk diameter. These trees were categorized as either good, fair or poor, in reference to their general condition. A summary of the survey and the proposed disposition of these trees is provided in Table 11.

(2) The new trees will be compatible with the existing landscape. The spread, height and color of the new trees will



Legend:

1 - Group I & II Classrooms
2 - Group III Classrooms
3 - Learning Resource Center
4 - Group IV Classrooms
5 - Group V Food Service
6 - Campus Center
7 - Administration/Student Services
8 - Group VI Gymnasium
9 - Maintenance
10 - 5-0 Studio
△ Bus Stop
▲ Bus Stop w/Shelter

● CARBON MONOXIDE RECEPTOR SITES

FIGURE 2

Kapiolani Community College
Ultimate Site Plan

200 0 200 400
Scale in Feet

Legend:

---160--- Existing ground contour

—120— Finished grade contour

928 Finished spot elevation

—D— New drain line

SDMH New storm drain manhole

CB New catch basin

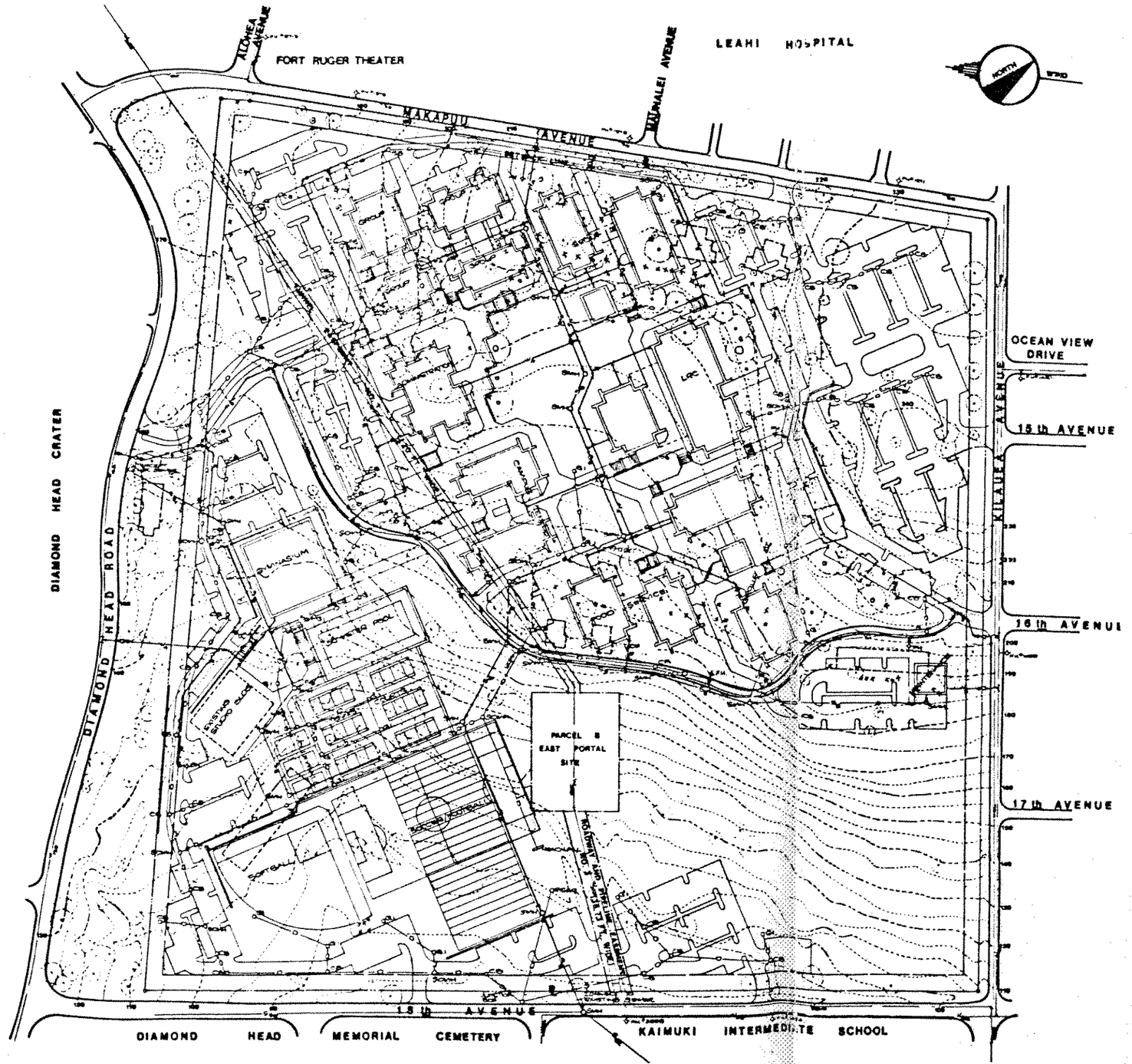
GI New grated inlet

FIGURE 3

Kapiolani Community College
Master Grading and
Drainage Plan

200 0 200 400

Scale in Feet



Legend:

- —W— Existing water lines
- —S— Existing sewer lines
- —160— Existing ground contours
- —W— New water lines
- —S— New sewer lines
- —D— New drain lines
- FH New fire hydrant
- SMH New sewer manhole
- SDMH New storm drain manhole
- CB New catch basin
- GI New grated inlet
- CO New cleanout
- Existing fire hydrant

FIGURE 4

Master Utilities Plan

200 0 200 400

Scale in Feet

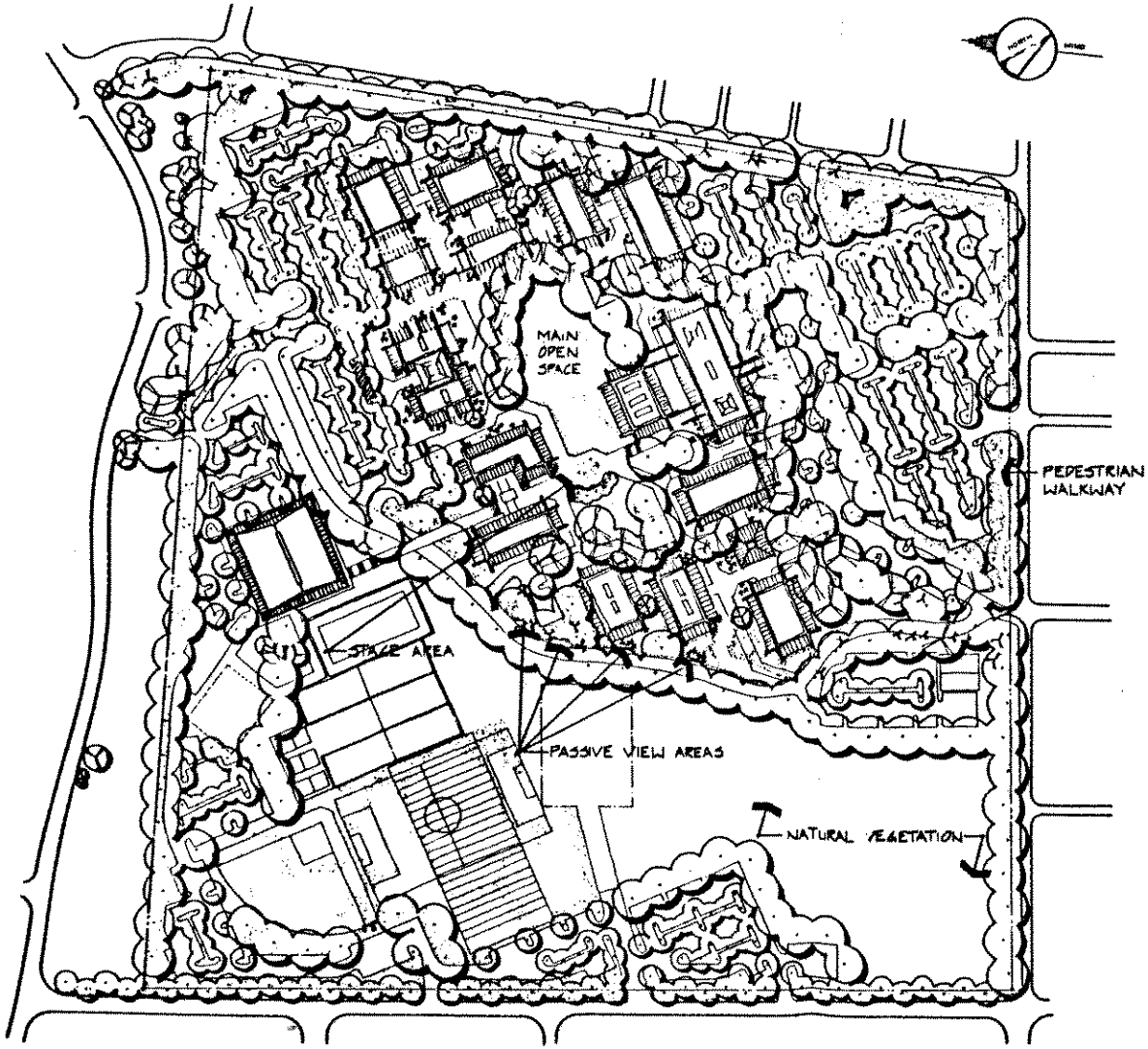
Legend:

- Handhole group
- Substation & distribution center
- Roadway light
- Parking light
- Underground primary duct line
- Secondary feeder

FIGURE 5

Kapiolani Community College
Master Electrical Plan

200 0 200 400
Scale in Feet



Legend:

- Existing trees
- Large broad domed trees
- Small broad domed trees
- Palms
- Ground cover and shrubs
- Turf

FIGURE 6

Landscape Master Plan

200 0 200 400

Scale in Feet

TABLE 11

CONDITION OF THE EXISTING TREES & TREES THAT WILL BE RETAINED OR RELOCATED ON THE KCC FORT RUGER SITE

Condition of the Existing Trees:*

Good	253
Fair	13
Poor	29
TOTAL	295

* Trees on the site with a trunk diameter of 6 inches or more.

Trees in good condition will be treated in the following manner:

Palms to remain	15
Other trees to remain	101
TOTAL	116
Palms to be relocated	76
Other trees to be relocated	41
TOTAL	117
Palms to be removed	2
Other trees to be removed	18
TOTAL	20

The trees in fair condition will be treated in the following manner:

To remain	9
To be removed	4
TOTAL	13

The trees in poor condition will be treated in the following manner:

To remain	2
To be removed	27
TOTAL	29

be similar to the existing trees. A list of new trees incorporated into the Landscape Master Plan is provided in Table 12.

(3) The types of shrubs to be planted and/or existing on the campus, include: Hibiscus, Ixora (Mixed Colors), Red Ixora, Yellow Ixora, Tiare, Privet, Mock Orange, Monstera, Rhaphiolepis, Bird of Paradise, Heliconia, Dracaena, Croton, Bougainvillea, Naupaka, Snow Bush, Agapanthus, Daylily, Double Crepe Gardenia, Gardenia, Natal Plum, Pinwheel Gardenia, Pittosporum, White Madagascar Periwinkle, Nadina.

The types of ground cover to be planted and/or existing on the campus include: Alamanda, Red Ginger, Mondo Grass, Akulikuli, Pothos, Wedelia, Laua'e Fern, Bermuda Grass, Mascarene Grass, Asparagus Fern, Waipahu Fig, St. Augustine Grass.

(4) An irrigation system will be installed for the landscaped areas on the campus. In the grassed areas, the large open spaces will be watered by a quick-coupling system or by impact pop-up watering heads, whereas the confined areas will be watered by spray heads. In the shrub areas, the large areas will be watered by impact heads on risers and the confined and steep areas will be watered by stream spray heads on risers.

2.G.6. Architectural Guidelines. The following architectural guidelines were established to guide individual architectural consultants in the planning of the KCC Fort Ruger campus.

(1) Architectural Design Guides

(a) Site: The project site will be excavated in accordance with the basic grading concept. During the land excavation all of the uncovered moss rocks shall be stockpiled on a portion of the site, for its use in constructing retained walls. Also, specified existing trees shall be preserved as shown on the Landscape Master Plan (Figure 6). All of the designated, undeveloped areas shall remain in their natural condition.

(b) Landscaping: The existing trees will be complemented by additional landscaping. Landscaping will be provided around activity areas, educational facilities and open spaces.

(c) Building Concept: The educational facilities will be integrated with the surrounding environs. The buildings will be residential in character and scale, modular in construction, and have an exterior finish in natural earth-tone colors. The building facades will have a deep overhang, which incorporates the covered walkways and activity areas. The incorporation of reinforced and precasted concrete members, scored, split faced concrete

TABLE 12

LIST OF NEW TREES TO BE INCORPORATED INTO THE LANDSCAPE MASTER PLAN FOR KCC AT FORT RUGER

Types of New Trees	(In Feet) Ultimate Height	(In Feet) Ultimate Spread
Weeping Banyan	50	70
Monkeypod	80	80
Coco Palms	60	30
Queen Palms	60	25
Rainbow Shower	40	40
Golden Shower	45	50
Mahogany	60	50
Formosan Koa	60	40
Fiddle-Leaf Fig	35	40
Hong Kong Orchid	40	30
Royal Poinciana	50	50
Oriental False Olive	40	30
Wiliwili	35	25
Autograph	50	40
Dwarf Date Palm	8	8
Allspice	40	30
Mock Orange	20	20
Camphor Tree	30	50
Octopus Tree	40	50
Kamani	60	50
Hala	20	40
Common Bamboo	50	Clump
Coral Tree	40	40
MacArthur Palm	30	20
Madagascar Olive	25	20
Rhapis Palm	15	20
Sea Grape	30	25
Singapore Plumeria	25	25
Weeping Podocarpus	40	25
Royal Palms	60	20

masonry units, and hipped, gabled or shed type roofing system shall be the basic construction concept throughout the project.

(d) Ventilation System: The educational facilities are master planned to incorporate an air-conditioning system. The overall building sizes and shapes, and placement of the educational facilities on the project site reflect the incorporation of such a system. This mechanical system would enclose the educational programs from any external noise, heat and dust. Air conditioning facilities allow the building to be: clustered closer together for maximum open spaces and courtyards; convenient and accessible to each facility by the users; quiet and enclosed to provide a controlled environment for classroom and laboratory activities.

The college has determined that Buildings C, E, F, H (portion), L, P, Q, R and S will be naturally ventilated. This will reduce construction and operating costs and conserve energy. This change will involve making some adjustments to the building massing and orientation to ensure that adequate natural ventilation is provided.

(e) Pedestrian and Vehicular Accessibility: Kapiolani Community College at Fort Ruger is located within a community with many KCC students. Therefore, provisions should be made for users traveling by foot, bike, car or bus.

The College is master planned to accommodate 1200 cars to minimize on-street parking on surrounding streets. These parking areas should be equally available for all the College users. However, careful consideration should be given to design of the roadways and parking to minimize traffic congestion and delays. Students and faculty will be charged a nominal fee to park on-campus.

Transportation by "The Bus" will have a significant, positive impact on the college and community. This means of transportation would alleviate some of the traffic conditions and energy problems. The college will encourage ridership on the bus by charging a parking fee, providing facilities close to the bus route on Makapuu Avenue, providing bus shelters and working with City's Mass Transit Division to increase bus service to the campus. Presently, "The Bus" (Routes #3 and #57) serves the project site at various bus stops and shelters, located around the campus.

(f) Energy Conservation: Energy conservation measures such as solar energy and heat pumps will be reviewed during the detailed design stage.

(2) Design Considerations

(a) Security:

1. The interior circulation system connected by parking facilities will service all of the educational buildings on campus. Also, this system will allow access by emergency and service vehicles. The interior access road will be controlled by security gates, restricting entry only to emergency, service and staff vehicles.

2. The upper levels of the educational facilities shall be secured by locking the stairway exits and access to key-operated elevators.

3. All glass windows shall be protected by security grilles or polycarbonate materials.

4. Security guard service will be provided.

5. Activity centers, walkways, parking and buildings will be well-lighted by flood and/or vapor lamps.

6. Organized night activities shall be initiated to discourage possible mishaps.

(b) Operations: The campus will be conveniently accessible to the handicapped. They will be able to circulate throughout the campus by means of walkways, ramps, and elevators. The handicapped will be able to transverse from level to level by: entering a building, and taking the elevator to the next level; ramping to a building, then taking the elevator to the next level; or taking overpasses to each building and then taking the elevator to another level.

(c) Maintenance:

1. Landscaping of the activity areas and educational facilities will be designed for the least amount of maintenance.

2. The State Maintenance Facility will provide the necessary maintenance services for the campus except that garbage collection and disposal will be contracted out to a private firm.

(d) Safety:

1. Any conflicts between the pedestrian and vehicle will be minimized, by locating the perimeter parking areas and circulation roads in the areas surrounding the educational facilities and activity areas.

2. The building concept of the educational facilities will conform to the safety standards required for the users, especially the handicapped.

3. Security guards and equipment, and night lighting will provide additional safety for the facilities, activity areas, and parking lots.

4. Movement within the campus site will be accomplished by the interior circulation roads traveling through the parking areas. This interior road system shall facilitate vehicular movement within the project site to reduce travel on the public streets. Each facility will be serviced by the interior road system.

(3) Landscape Design Guidelines: The overall landscaping theme of the Community College campus will be banyans. The existing large banyans will be retained, with the exception of one, which will be relocated. New banyans will be planted to reinforce the existing landscape around the main open space. The large banyans will provide shade, and areas for social interaction. The courtyards shall be surrounded by transplanted palms that exist in other areas of the campus. The planting areas beneath the palms will be planted with shrubs and ground cover (see subsection 2.G.5.(3), page 32).

The parking lots will be surrounded by monkeypods and smaller domed trees.

The interior access road and walkways will be shaded by mahogany trees. This will blend with the existing mahogany trees located on 16th Avenue. The perimeter roads (18th Avenue, Diamond Head Road, Makapuu Avenue and Kilauea Avenue) will be landscaped with various rainbow shower and monkeypod trees. These trees will also blend with the existing conditions.

2.G.7. Diamond Head Road Entrance. To minimize traffic congestion on Diamond Head Road, the following proposals have been worked out with the Department of Land and Natural Resources (DLNR).

(1) Align the access roads from Diamond Head Road to KCC and Diamond Head Crater to facilitate turning movements.

(2) Widen Diamond Head Road at the intersection to minimize delays from vehicles making left-turns.

(3) Provide a deceleration lane for vehicles making a right turn into the College.

The use of a divided roadway for the College access will be reviewed during the first increment design because the increased size of the intersection at Diamond Head Road may reduce the traffic flow. Since these changes will involve land under the control of DLNR, their approval is required.

2.H. Incremental Construction. The Master Plan for KCC will be implemented incrementally. The buildings and sitework to be included in each increment will depend upon the availability of funds, the needs of the College, the timing, et cetera. This will give the College the greatest degree of flexibility in determining their increments and scheduling. Costs have been computed by buildings and sitework areas in Section 2.I. The buildings and sitework areas must be closely coordinated to implement the incremental development in an orderly manner, especially for the utility systems. The County's parking requirement will also have to be checked for each increment.

The sitework has been divided into five (5) major areas (Areas 1 through 5) as shown in Figure 7. These areas can be subdivided further or consolidated for incremental development. Work in each of these areas will be coordinated with the building plans. The sequence of sitework development will be determined by the College. A description of the work involved for each area and the cost estimates are provided below.

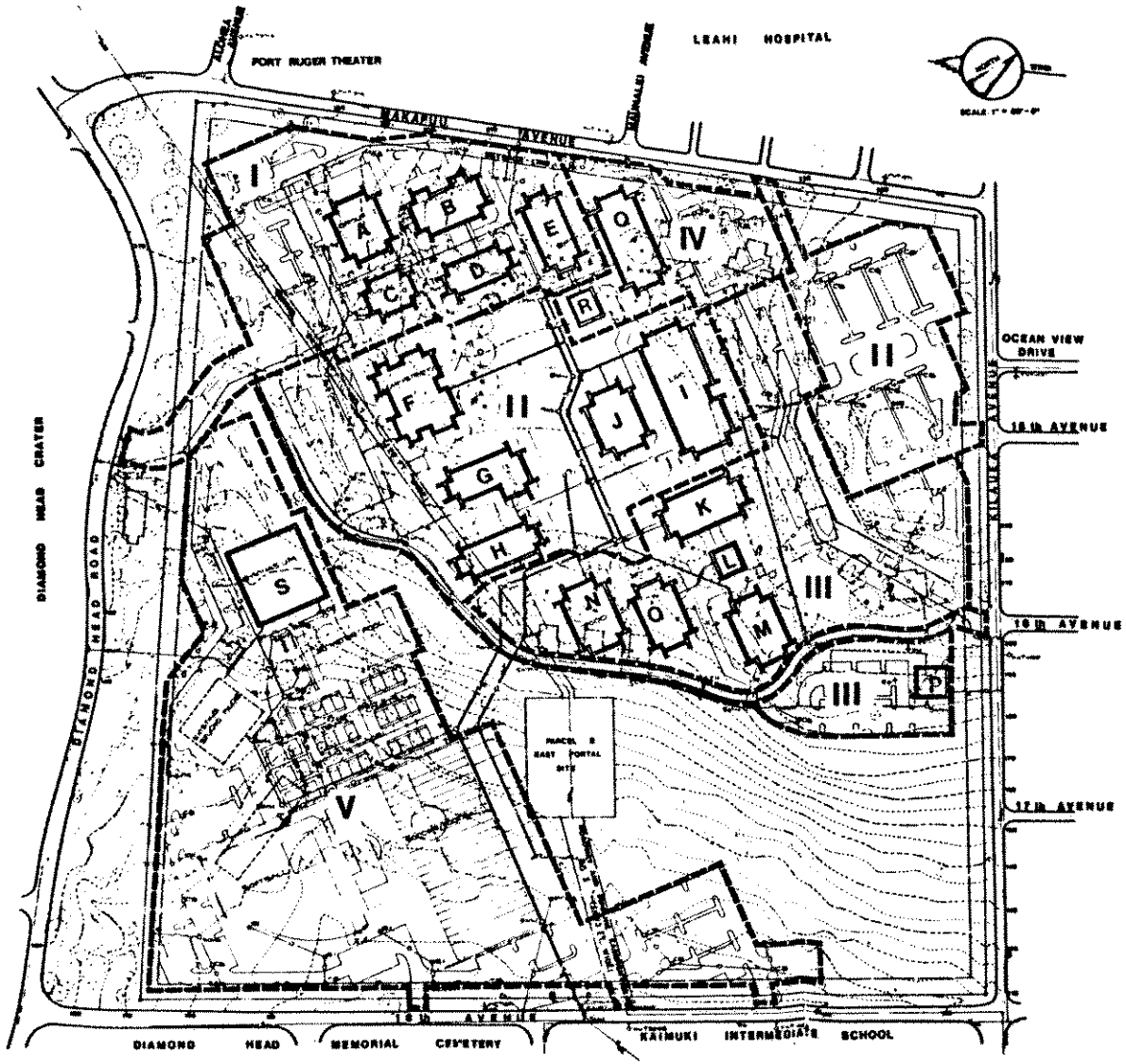
A. Area 1: It encompasses Buildings A to E, parking for about 198 stalls, the main entry from Diamond Head Road, and a portion of the circulation road as shown in Figure 7. The drainage system within the area will be completed. However, since the County system is presently inadequate, the storm waters will be discharged below the entry roadway to a temporary detention basin which will control the peak runoff from Area 1.

   A water system to provide fire protection for buildings in Area 1 will be connected to the 12-inch Board of Water Supply line in Diamond Head Road as indicated in Figure 4. The domestic system will tap into the Board of Water Supply system in Makapuu Avenue.

   The sewer system within Area 1 will be constructed. However, because of the anticipated low flows and the large costs of the sewer trunk line, cesspools are proposed to be utilized outside of Area 1. This will require approval of the Department of Health or County Department of Public Works. Grading work and landscaping will be as indicated in Figures 3 and 6, respectively.

The Electrical Site Improvements within Area 1 shown in Figure 5 will provide power for the educational facilities, parking area lights, pedestrian/vehicular circulation lighting, and provisions for future connections.

B. Area 2: This area encompasses Buildings F to J which are located in the middle of the campus, parking for about 82 cars near the administration building, parking for about 244 cars in the upper corner of the site, and the service road from the main entry road to 16th Avenue. The drainage systems within the area will be completed. The system serving the lower portion of Area 2 will discharge into the temporary detention basin provided for Area 1. If Area 2 is constructed before Area 1, the detention basin would be included as part of this area. The system serving the upper portion of Area 2 will be constructed down to another detention basin in the athletic field area. Discharge from this basin will be controlled so it does not exceed the present peak runoff. This system will be



Legend:

- I Area 1
- II Area 2
- III Area 3
- IV Area 4
- V Area 5
- — Area 2 Utilities
- --- Area 3 Utilities

FIGURE 7

Kapiolani Community College Development Areas

200 0 200 400

Scale in Feet

connected to the County system along 18th Avenue when it is able to accommodate the school's discharge.

The domestic water and fire protection systems will be extended from Area 1. If Buildings I and J are constructed before the perimeter fire protection system is completed, a temporary water line and roadway to these buildings will be required. If Area 2 is constructed as the first increment, the main entry roadway portion of the parking lot in Area 1 or Area 5, the domestic and fire protection system through Area 1, and the main electrical transformer will be included within this increment.

The sewer systems will connect to the system in Area 1 and extend downstream to connect to the County's sewer system on 18th Avenue.

Cesspools will be provided if the sewer system in Area 2 is constructed in the first increment because of the low sewage flows anticipated and the large cost of the sewer trunk line. The use of cesspools will require Department of Health or County Department of Public Works approval.

Grading and landscaping work will be as indicated in Figures 3 and 6. The electrical system will be extended to Area 2 and electrical improvements within Area 2 will be completed. The main electrical transformer should be located in this area if it is constructed as the first increment.

C. Area 3: It encompasses Buildings K to P, parking for about 79 cars near the maintenance building, remainder of the parking at the upper level for about 197 cars mauka of the buildings and major existing wooden classroom and administration buildings to be demolished. Construction of this area for the first increment is not recommended because it would displace most of the existing buildings which are being used by the College.

The drainage systems within the area will be completed by extending the drainage lines from other areas. Surface runoff from this area will be discharged into the detention basin in the athletic field area until the County system is adequate to accommodate the additional flows generated by the College.

The fire protection system will be extended farther around the upper campus buildings with an additional connection to the County water system on Kilauea Avenue. The domestic water and sewer systems will be extended to the individual buildings in the area as they are constructed. However, a separate meter will be provided for the Maintenance Building from the water line at Kilauea Avenue.

The electrical system and substations will be extended to the individual buildings to provide electrical power. The communication system will also be extended to the individual buildings.

D. Area 4: It encompasses a relatively small area containing Buildings Q and R, a parking area for about 77 cars, and major existing wooden classroom buildings to be demolished. Construction of this area

as part of the first or second increment is not recommended because it would displace facilities which are needed by the college until other permanent facilities are constructed.

The drainage, fire protection, sewer, water, electrical power and communications systems within the area will be extended from the adjacent areas.

E. Area 5: This area encompasses a large space containing Building S - gymnasium, swimming pool, paved courts, ball fields, circulation roads, and about 323 parking stalls. This area is recommended for the last increment of construction because of the lower priority of these buildings and the State expenditure ceiling. Therefore, it probably will be over ten years before this area is developed It is assumed that the County system will be adequate to handle the peak design runoffs from the College site when this area is developed. Thus the drainage system will be extended throughout Area 5 and the main lines connected to the County system along 18th Avenue. If the County system is not adequate, the detention basin will be retained. A slight shifting of the athletic fields may be necessary to accommodate the detention basin.

The fire protection system will be extended along the perimeter road from the entry driveway past the existing CBS television studio building. Water service will be provided with a new meter connection from Diamond Head Road. The water system will be extended throughout the area for irrigation. The existing sewer system from Diamond Head Road will be intercepted and connected to the main trunk line for the College. The electrical site improvements will provide power for the facilities, parking area lights, and pedestrian/vehicular circulation lighting.

2.I. Costs and Funding. The estimated cost (in 1980 dollars) of each building and sitework area plus the total implementation cost of the Master Plan are provided in Tables 13 and 14. The monies needed to implement the Master Plan and maintain KCC will come from the State. Other funding sources (i.e. Federal funds, grants) may be requested depending on the specific facility and use, and the availability of such funding. The proposed Capital Improvement Program for the 1981-1987 budget is shown in Table 15.

TABLE 13

ESTIMATED BUILDING COST

Building	Area (ASF)	Gross/Net Factor[1]	Gross Area (S.F.)[2]	Unit Cost ($/S.F.)[3]	Bldg. Cost ($1,000)[4]	Misc. Cost ($1,000)[5]	Const. Cost ($1,000)[6]	Design Cost (1,000)	Total Cost ($1,000)[7]
A	21,555	1.33	28,700	64	1,837	139	1,976	129	2,105
B	22,875	1.33	30,500	69	2,105	154	2,259	142	2,401
C	12,044	1.33	16,000	68	1,088	94	1,182	87	1,269
D	12,385	1.33	16,500	75	1,238	100	1,338	92	1,430
E	10,935	1.33	14,600	63	920	87	1,007	79	1,086
F	13,880	1.40	19,500	63	1,229	104	1,333	96	1,429
G	19,010	1.33	25,300	72	1,822	132	1,954	122	2,076
H	13,195	1.33	17,600	69	1,214	101	1,315	93	1,408
I	43,380	1.35	58,600	72	4,219	272	4,491	247	4,738
J	11,610	1.35	15,700	72	1,130	94	1,224	86	1,310
K	21,270	1.33	28,300	63	1,783	138	1,921	127	2,048
L	3,984	1.33	5,300	63	334	33	367	37	404
M	13,200	1.33	17,600	67	1,179	97	1,276	90	1,366
N	24,340	1.49	36,300	106	3,848	250	4,098	228	4,326
O	13,895	1.42	19,800	65	1,287	105	1,392	97	1,489
P	3,540	1.30	4,300	47	202	22	224	25	249
Q	21,230	1.33	28,300	63	1,783	138	1,921	128	2,049
R	5,795	1.33	7,700	64	493	47	540	50	590
S	20,000	1.00	20,000	64	1,280	102	1,382	94	1,476
Swimming Pool	9,300	1.00	9,300	119	1,107	92	1,199	84	1,283
TOTAL	317,423		419,900		30,098	2,301	32,399	2,133	34,532

[1] Revised from Educational Specifications

[2] ASF area x gross/ASF area factor

[3] June 30, 1980 prices

[4] Gross area x unit cost

[5] Estimated contingency, inspection and works of art cost

[6] Building cost plus miscellaneous cost

[7] Construction plus design costs without F and E cost estimate of $1,700,000

ASF = Assignable Square Feet

TABLE 14

ESTIMATED SITEWORK COSTS
($1,000)

Item	Area 1[a]	2[a]	3[a]	4[a]	5	Total
1) Grading	382	536	381	47	485	1,831
2) Drainage System	122	254	41	39	332	788
3) Detention Basin	20	70	0	0	0	90
4) Sewer System	50	109	17	5	53	234
5) Water Assessments	96	0	13	0	89	198
6) Water System	97	120	52	0	47	316
7) Sprinkler System	51	27	41	114	110	343
8) Roadway and Parking	182	289	139	68	296	974
9) Walkways and Walls	185	277	219	12	361	1,054
10) Electrical	79	100	76	54	51	360
11) Landscaping	43	83	41	15	167	349
12) Demolition	14	27	69	59	36	205
13) Miscellaneous [b]	96	135	92	31	132	486
14) Design	89	124	83	35	122	453
TOTAL	1,506	2,151	1,264	479	2,281	7,681

[a] Upper campus area

[b] Contingency and Inspection

TABLE 15

PROPOSED CAPITAL IMPROVEMENTS PROGRAM
FOR KCC FROM 1981 TO 1987

Item	Fiscal Year					
Site Development	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Area I	X					
Area II		X				
Area III				X		
Area IV						X
Buildings:						
B - Health Education		X				
D - Science & Gen. Education		X				
I - Learning Resource Center			X			
G - Cafeteria			X			
J - Media Center/Ind. Study				X		
H - Campus Center/Public Serv.				X		
A - Business Education				X		
K - Business Education					X	
C - Fine Arts					X	
F - Admin/Student Services						X
P - Maintenance						X

3. DESCRIPTION OF THE AFFECTED ENVIRONMENTAL SETTING

3.A. Existing Land Uses of the Fort Ruger Site. Other than those uses identified in subsection 2.E., the existing temporary College facilities on the Fort Ruger site include six (6) renovated buildings on the site, which are currently being used by the College. The other military buildings have been demolished and cleared by the State. The remaining buildings are also planned to be demolished as the College is developed incrementally.

3.B. The Natural Environment.

3.B.1. Geology. Geologically, this portion of Oahu was first shaped by a series of volcanic events when the Koolau Range was formed by volcanic eruptions approximately three million years ago. A period of fluvial and marine erosion followed, lasting approximately one million years through the Pleistocene Epoch. The Diamond Head area was created about 100,000 years ago when the Honolulu Volcanic Series erupted. Spasmodic activity produced lava flows and tuff cones that consisted mostly of nepheline basalt.

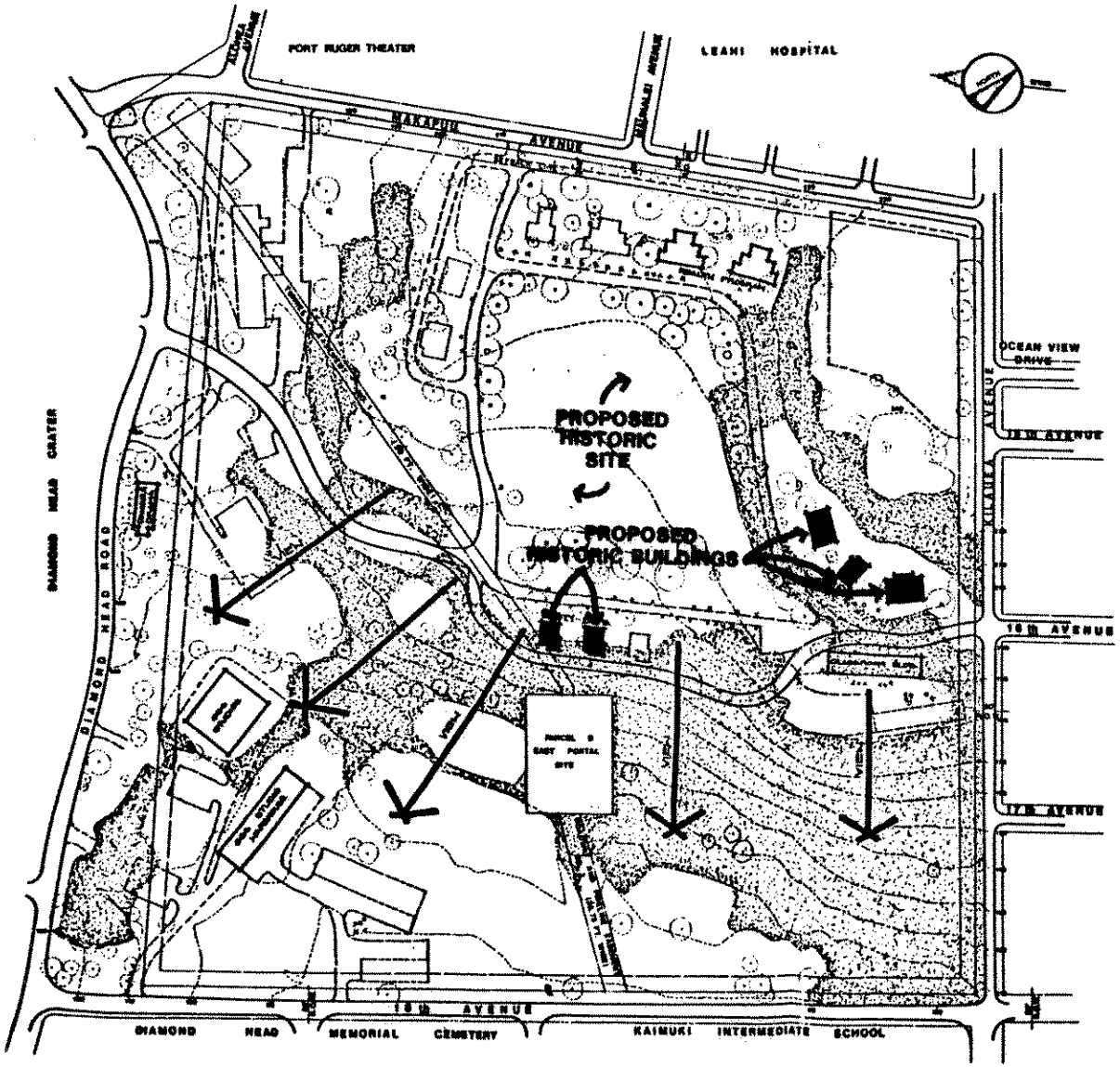
The site lies on the eastern slope of a saddle connecting Diamond Head Crater and Hill 240 (approximately 1,060 feet north of the northwest corner of the parcel). The highest point on the parcel is 240 feet above mean sea level. A finger of steeply rising land divides the parcel into two rather level land areas.

3.B.2. Topography. As shown in Figure 8, the Existing Site Plan, the site has a large upper and lower area with gradual slopes separated by relatively steep areas. The elevations of the site ranges from 90 to 240 feet above mean sea level.

3.B.3. Soils. "The Soil Survey of (the) Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii," (Reference 2), identify the soil on the site as MuD, Molokai silty clay loam, 15 to 25 percent slopes. Since the flat areas of the site are generally below 10 percent slope, the identification is appropriate only for the steep slopes separating the academic and athletic areas. Most of the steep areas will be retained in its present state. The description of the soil survey reads:

> "This soil occurs on Oahu. In most places the slope does not exceed 20 percent. Runoff is medium, and the erosion hazard is severe. Workability is slightly difficult because of the slope. Included in the mapping were small areas where boulder cores are exposed."

In another document, "Soil Classification in Hawaii - Circular 476, Cooperative Extension Service, University of Hawaii," (Reference 3), the soils are classified as Miscellaneous Land Types and Vertisols. Nearly solid basaltic material is encountered 2 to 6 feet below the surface throughout the site and is visible along the face and base of the steep rise.



Legend:

- 10% - 50% Slope
- Buildings to be demolished
- Existing buildings to be used as classrooms and offices for College

FIGURE 8

Kapiolani Community College
Existing Site Plan

200 0 200 400
Feet

3.B.4. Microclimate. The site comes under the influence of both the tradewinds and south winds. The predominant wind direction is from the northeast, that is, the tradewinds. Average annual temperature readings are not available for the immediate area, but average annual temperature should approximate those recorded at Waikiki where the average temperature for the coolest month is 71.9°F and the warmest month has an average temperature of 80.6°F. The median annual rainfall is about 25 inches, placing this parcel in one of the driest areas on the island of Oahu. Most of this rainfall probably occurs during storms.

3.B.5. Flora. The original vegetation on the site has been long cleared (late 1890's) for the previous military use of the land. The vegetation now present includes a number of trees (see Table 16, List of Specimen Trees on the Fort Ruger Site) and cultivated plants; weeds and shrubs which have taken over in the unoccupied areas of the site. The latter type of vegetation is especially noticeable along the slopes of the site. A site survey of plants undertaken in 1974 by the Division of Fish and Game, State Department of Land and Natural Resources did not reveal any known rare or endangered species.

3.B.6. Fauna. Wildlife is sparse within the project site and surrounding area. The urbanized nature of the site precludes a variety and the number of wildlife on the project site. A probable list of wildlife on the project site includes: mongoose, rats, and mice. Domestic stray cats may also find shelter on this site. No insect survey was undertaken; it is believed that the insects found on the site are probably common to the area and are exotic since the flora is exotic.

Avifauna in the area between Diamond Head Crater, Kaimuki to Paiko Lagoon, is relatively abundant for an urbanized area. Table 17 provides a list of birds seen during the annual Hawaii Audubon Society's Christmas count (1979) for this area (Reference 4). It should be cautioned that the expansiveness of the area surveyed may not be representative of the Fort Ruger site; however, the count does give an indication of the type and number of birds which may live and migrate through the area. Additional information from the State Department of Land and Natural Resources indicates that the site has a large population of songbirds.

3.C. Social Environment.

3.C.1. Land Use Designation and Zoning. The County's General Plan designation for the parcel is Public Facility, the zoning is R-3, residential, which permits governmental buildings. (Reference 5). The site and the lands around the site are designated Urban by the State Land Use Commission.

3.C.2. Surrounding Land Uses and Zoning. South of the project is Diamond Head Crater which is considered as open space. To the west of the property are the Honolulu Community Theatre, State Department of Health mental health facilities and Leahi Hospital. North of the parcel is residential housing. East of the site is Kaimuki Intermediate School, a small residential development and Diamond Head Memorial Park Cemetery. These areas are appropriately zoned.

Beyond these adjacent areas, the single-family residential homes of the Kaimuki-Kapahulu-Kahala area surrounds the parcel except on the south

TABLE 16

LIST OF SPECIMEN TREES ON THE FORT RUGER SITE

Source: "Existing Trees At Kapiolani Community College, Fort Ruger Campus, Honolulu, Hawaii," prepared by Landscape Design, Inc., April 16, 1979.

Note: Only trees over six (6) inches in caliper are listed; these tress are felt to be specimen or mature trees.

Common Name of Tree	Number of trees found
African tulip	6
Areca Palm	4
Banyan (Benjamina)	1
Banyan	59
Bauhinia	1
Bottle Palm	2
Brassaia	19
Calabash tree	1
Christmas Berry	9
Coconut	28
Date Palm	27
Duranta	1
Earpod tree	1
Ficus pandurata	1
Golden Shower	5
Ironwood	9
Jacaranda	1
Keawe	24
Kukui	2
Laula Palm	2
Lime tree	1
Macadamia	1
Mahogany	8
Mango	2
Milo	1
Mock orange	1
Monkey Pod	23
North Pine	2
Opiuma	7
Peltophorum	1
Plumeria	6
Poinciana (Royal)	3
Pride of India	2
Red Sandalwood	1
Royal Palm	32
Saga Palm	2
Sausage tree	1
Thevetia	3

TABLE 17

LIST OF BIRDS SEEN BETWEEN DIAMOND HEAD CRATER, KAIMUKI TO PAIKO LAGOON

Source: "The 'Elepaio, Journal of the Hawaii Audubon Society," Volume 40, Number 9, March, 1980.

It should be noted that the 'Elepaio records the sightings of birds by sectors; the sector from which the information is taken is identified as Sector 6: Diamond Head Crater, Kahala, Paiko Lagoon. Based on the diverse environments found in this sector, it is felt that the water-oriented birds are obviously associated with Paiko Lagoon; these birds are indicated by asterisk (*). These counts were taken during the Audubon's annual Christmas count.

Common Name of Bird	Number Sighted
Great Frigatebird*	40
Black-crowned Night Heron*	1
Golden Plover	2
Wandering Tattler*	2
Ruddy Turnstone*	7
Sanderling*	2
Hawaiian Stilt*	2
Western Gull*	1
Spotted Dove	30
Barred Dove	40
Red-vented Bulbul	15
Common Myna	20
Java Sparrow	200
House Sparrow	100
Northern Cardinal	30

(open space and part of the slopes of Diamond Head). The residential housing is zoned R-6 (Reference 6). In actuality, the residential area contains housing units on land fitting the R classifications of larger lots which, at the same time, contain a number of occupied lots of less than 5,000 square feet which fall in the R-7 classification (Reference 7). These smaller lots were built on prior to the establishment of zoning requirements and are primarily on the Kaimuki side of the site.

3.C.3. Population and Housing Statistics. The Fort Ruger site is within census tract 6 (see Figure 9). Of the residential housing in the adjacent census tracts, housing in census tract 8 is the oldest with over 50 percent of the housing built in 1939 or earlier, and 75 percent built in or prior to 1949. Tract 14, had (in the 1970 census) 45 percent of its housing built in 1939 or earlier, and 65 percent in 1949 or earlier, while tract 16 had 30 percent and 60 percent respectively. Tract 7 had 50 percent of its housing built between 1950 and 1959. (Reference 8.) Residential lands immediately adjacent to the parcel are all fee simple. (Reference 9.)

The latest housing estimate available (July 1, 1978, Reference 9) shows that housing in census tract 8 increased by 3 percent over eight (8) years from 1,237 units in 1970 to 1,273 units in 1978. Census tract 14 showed an increase of 3 percent (848 to 872) and census tract 16 showed an increase of 10 percent (1,392 to 1,531) during the same period.

The July 1, 1978 estimated population for census tract 8 was 4,113, this is -10.6% of the population in 1970 (4,599). This continues a trend of a decreasing population which is generally true of the surrounding census tracts. Even between the 1960 and 1970 censuses there was a slight decrease of population in census tracts 7, 8, 14, and 16. The age, length of home occupancy, home ownership, and declining elementary, intermediate, and high school enrollment indicates that the population in this area is a stable and aging population. Family incomes in the area rose between the two censuses, and, except for census tract 16, median family incomes for the area were slightly above the median family income for the City and County of Honolulu. In the case of tract 16, the median was slightly lower (Reference 10).

The State Department of Planning and Economic Development estimates the 1975 population of about 704,4000 for Oahu will increase to 917,4000 in the year 2000. The County's General Plan distributes this population into nine population areas. The Primary Urban Center area which extends from Waipahu to Waialae-Kahala and the Urban Fringe area which extends from Aina Koa to Hawaii Kai should provide the bulk of KCC students. The 1975 population of 421,960 and 39,374 for these respective areas are projected at 495,396 and 55,044 for the year 2000.

3.D. Historical and/or Archaeological Sites. Five existing wooden buildings plus the large open area in the middle of the campus between these buildings as shown in Figure 8 are being considered for placement on the Hawaii Register of Historic Places. The five buildings are designated as Utility Buildings, Office Building, Student Services Building and Faculty Office Building. They are two-story wood frame buildings which were used as officers quarters.

Nomination papers prepared by the State Parks, Outdoor Recreation and Historic Sites Division of the Department of Land and Natural Resources are included in Appendix VI of the EIS. At the June 9, 1980 Public Hearing, the State Historic Places Review Board received testimony and sent the nomination back for further research and justification. Part of the testimony given by the University of Hawaii is also contained in Appendix VI.

Chapter 6E-8 of the Hawaii Revised Statutes reads:

> "Before any agency or officer of the State or its political subdivisions commences any project which may affect historic property, the agency or officer shall advise the department and allow the department an opportunity for review of the effect of the proposed project on historic properties, especially those listed on the Hawaii Register of Historic Places. The proposed project shall not be commenced; or, in the event it has already begun, continued, until the department shall have given its written concurrence.
>
> If the concurrence of the department is not obtained within ninety days after the filing of a request with the department, the agency or officer seeking to proceed with such project may apply to the Governor who may request the Hawaii Advisory Council on historic preservation to report or who may take such action as he deems best in overruling or sustaining the department."

Thus, if some of the college site and buildings are placed on the Hawaii Register of Historic Places, the college has several courses of action:

1. Obtain approval from the Department of Land and Natural Resources to demolish the historical buildings and site so the college can be developed according to the master plan.

2. Obtain approval from the Governor to demolish the historical buildings and site so the college can be developed according to the master plan.

3. Revise the master plan around the historic site and buildings by using more massive and/or higher buildings. There may be problems with incremental funding and construction, aesthetics, view planes, etc.

4. Revise the master plan around the historic site and buildings by reducing the size of the facilities. The college will be in an undesirable position of having to operate on a split campus.

5. Delay indefinitely further development of the campus. The college will most likely lose its accreditation.

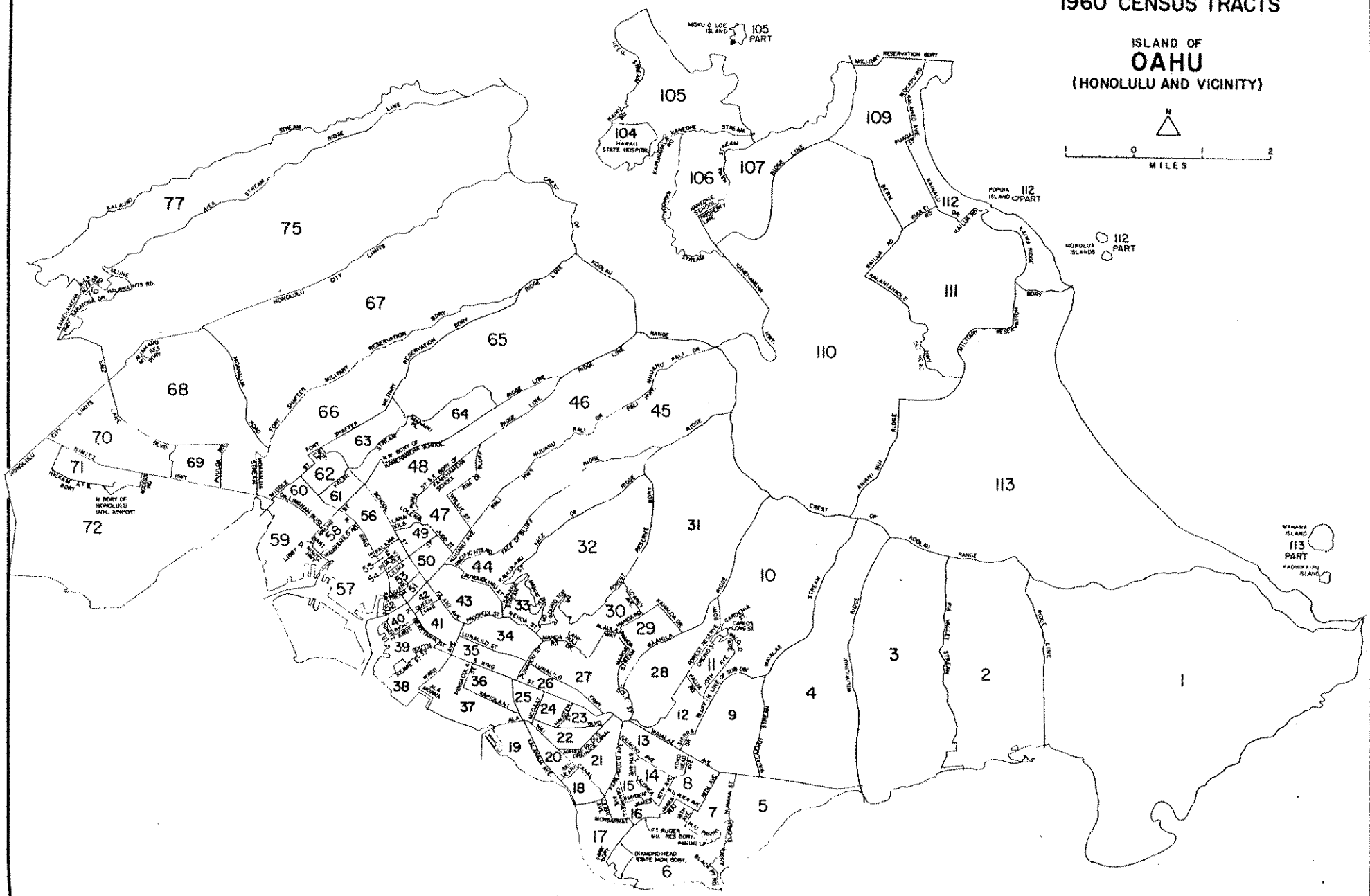
FIGURE 9

1960 CENSUS TRACTS

ISLAND OF

OAHU

(HONOLULU AND VICINITY)



4. THE RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES, AND CONTROLS FOR THE AFFECTED AREA

4.A. County-Zoning. The Fort Ruger site is designated as R-3 Residential District. In the Comprehensive Zoning Code (CZC), the minimum setbacks are 30 feet for front yard and 15 feet for side and rear yards. The maximum lot coverage of all buildings and structures should be no more than 50 percent of the site. Since the Fort Ruger site is within the Diamond Head Historic, Cultural and Scenic District No. 2 (see Figure 1), the building heights are regulated by Ordinance No. 77-123.

4.B. Diamond Head Historic, Cultural and Scenic District No. 2 - Ordinance No. 77-123. In this Ordinance, established by the City and County of Honolulu, the preservation of Diamond Head for historic, cultural and scenic purposes is the primary objective. According to this Ordinance, prominent views of Diamond Head from each of the following areas should be preserved: Ala Moana Beach Park, Magic Island, beaches extending from the Ala Wai Yacht Harbor to San Souci Beach, Diamond Head Beach Park, Kapiolani Park, Honolulu Zoo, Ala Wai Golf Course, Ala Wai Park, Kapaolono Field, Fort Ruger Park, Ala Wai Elementary School, Jefferson Elementary School, Waikiki Elementary School, Kilauea Playground, and Kaimuki Intermediate School. All facilities, structures and other obstructions are subject to the approval of the Department of Land Utilization. The design controls and procedural requirements stated in this Ordinance are as follows:

(1) The height limitation of 25 feet shall be measured vertically from the existing ground elevation at all points. The deletion of the height restriction for public facilities and structures may be acquired through a waiver from the Director of Land Utilization and then by filing for a Certificate of Appropriateness.

(2) No grading or stockpiling shall be commenced without a Certificate of Appropriateness.

(3) All yards within the district shall be landscaped, planted and maintained. A minimum of 50 percent of yard area shall be devoted to plants. Trees which are six (6) inches in trunk diameter shall not be removed without a Certificate of Appropriateness.

(4) Architectural appearance of the proposed structures shall be subject for review and approval by the City Department of Land Utilization as to their compliance to the Ordinance prior to the issuance of a building permit.

(5) Utility lines shall be placed underground within the Diamond Head District.

(6) No building permit shall be issued for the construction, alteration, repair, relocation or demolition of any structure until the Director has issued a Certificate of Appropriateness.

4.C. Diamond Head State Monument. Presently a State planning study is being prepared to determine the guidelines which will preserve and protect the views and charactor of Diamond Head. These guidelines will regulate and control any project within or surrounding Diamond Head.

4.D. Shoreline Management Area Permit (SMA) - Ordinance No. 4529. The project site is located within the Shoreline Management Area (see Figure 1) as identified in Ordinance No. 4529, City and County of Honolulu. Its purpose is to preserve, protect and where possible, to restore the natural resources of the coastal zone. The SMA Permit will be required to initiate the development of KCC. The prcedural requirements are as follows:

(1) The total process for obtaining this permit will take between four (4) to six (6) months.

(2) The first step is to file for the "Request for Assessment under the provisions of Section 5, Ordinance No 4529, Interim Shoreline Protection Ordinance," through the City's Department of Land Utilization (DLU).

(3) DLU will determine if a SMA Permit is required. (Because an EIS will have been prepared and accepted prior to this process, preparation for a State EIS will not be necessary.)

(4) An "Application Form" for the permit plus a copy of the State accepted EIS will be filed.

(5) After the application is filed, DLU will arrange the public hearing for public and private comments.

(6) DLU will then file a report to the City Council, who will approve or disapprove the SMA permit.

4.E. City and County of Honolulu - General Plan. The proposed construction of KCC is generally consistent with the County's General Plan in regards to its policy of keeping developments of this nature within appropriately zoned and designated areas in the primary urban center. It is also consistent with the following Objectives and Policies under Education:

"Objective B To provide a wide range of educational opportunities for the people of Oahu."

"Policy 1 Support education programs that encourage the development of employable skills.

Policy 2 Encourage the provision of informal educational programs for people of all age groups.

Policy 3 Encourage the after-hours use of school buildings, grounds, and facilities.

Policy 4 Encourage the construction of school facilities that are designed for flexibility and high levels of use."

"Objective C To make Honolulu the center of higher education in the Pacific."

"Policy 1 Encourage continuing improvement in the quality of higher education in Hawaii.

Policy 2 Encourage the development of diverse opportunities in higher education."

4.F. Hawaii State Plan. The Objectives and Policies of the Hawaii State Plan were reviewed. Based on the broad concepts and considerations identified, it was found that the proposed construction of KCC is consistent with the Objectives and Policies for sociocultural advancement in education.

4.G. List of Necessary Approvals. Having identified these specific land controls on the project parcel, this section identifies the governmental controls on the proposed project parcel. Having identified these specific land controls, it is felt that identification of the necessary permits and approvals is appropriate at this point in the EIS document.

(1) Environmental Impact Statement Acceptance - the Revised EIS must provide an objective and comprehensive evaluation of the environmental and socioeconomic impacts of this proposed action in accordance with the Environmental Impact Statement Regulations. The Office of Environmental Quality Control will review and forward a recommendation of acceptance of the Revised EIS to the Governor for his approval. Once the EIS is accepted, it will fulfill further requirements based on a Chapter 343 EIS document.

(2) Shoreline Management Permit (SMA) under Ordinance 4529 will be required. The procedures for this Permit have been described under subsection 4.D. above, on page 53.

(3) A Certificate of Appropriateness, as discussed in 4.B., page 52 will be required.

(4) A Grading Permit from the City's Department of Public Works will be required for all increments or specific buildings. This is a regulatory requirement for all projects.

(5) A water commitment from the Board of Water Supply for additional water usage from their system will be required.

(6) Other general permits, including the Building Permits will be obtained by the Contractor from the appropriate governmental agencies as stipulated in the contractor's specifications. Permits and approvals from private utilities will also be obtained by the building contractor as required.

(7) Because the Master Plan will be implemented over a period of several years or longer, it should be emphasized that other permits and approvals which are required in the future and that are applicable to the construction of a building or increment must also be obtained.

5. PROBABLE IMPACT OF THE PROPOSED ACTION

5.A. Physical and Chemical Characteristics.

5.A.1. Earth.

5.A.1.a. Impact on Geology and Topography. Although extensive grading will be required in specific areas of the site, the College will be constructed in several increments on the relatively level areas, maintaining the steep, sloping areas in their natural condition. Therefore, no significant or adverse impact on the topography of the site is likely to occur. Geological impact will be non-existant since no blasting, large excavation, or other significant earthwork is proposed. There are no significant or unique physical features on the project site.

5.A.1.b. Impact on Soils. Prior to the construction of any facility or building a specific soil study will be undertaken. The soil study will determine the underlying soil characteristics; based on this information a soils engineer will determine the suitability of the soil to support the proposed facility and or structure. If necessary some of the underlying soils will be removed and replaced with soils with greater stability; if this work is found to be too extensive, site adjustments may be required. However, based on the underlying basaltic material discussed in Section 3.B.3 of the EIS, no foundation problems are anticipated.

The soils now on the project site have and are supporting a wide range of plant material; it is felt that no soil importation for the enhanced growth of plantlife will be necessary. Maintenance personnel may utilize soil conditioners, fertilizers, pesticides, et cetera to maintain and enhance plant growth. This is normal in a residential yard as well as other urban landscaped areas. Chemical conditioners will result in added nutrients being discharged into the storm water system, this water in turn will be eventually discharged into the ocean. This is unavoidable, and already occurs in this area because of the residential and public facility use of soil conditioners and pesticides. It is felt that although the soils of the project site will be affected, this impact is normal and not considered to be adverse.

5.A.2. Water.

5.A.2.a. Surface Waters. There are no surface waters (e.g. streams, lakes, ponds) which are located on or adjacent to the project site.

5.A.2.b. Ocean Water. The ocean lies, at the nearest distance, 1.2 miles from the project site. Although the site is located relatively far from the ocean, impact on ocean waters will occur indirectly through the discharge of storm water runoff from the project site. As stated above in subsection 5.A.1.b, the quality of the storm water will reflect the use of chemical conditioners and pesticides on the soils. At the same time the pavement and hard surfaces on the project site will reduce suspended solids. This impact is unavoidable; however, the runoff will have characteristics similar to the surrounding urban storm water runoff. Further discussion on the impact on storm water runoff is found under subsection 5.C.4.c., relating to the drainage system.

5.A.2.c. Impact on Potable Water Sources. There are no sources of potable water under the project site or in the vicinity of the site. No impact in this area of concern will occur. Impact on the water system is discussed in subsection 5.C.4.e.

5.A.3. Atmosphere.

5.A.3.a. Impact on the Microclimate. The siting of specific buildings and facilities and trees will have two local impacts on the microclimate. The first is the change in air flows, especially noticeable at the ground level. The buildings' design, height, and mass will change the wind direction sometimes creating air turbulences in specific areas (i.e. between buildings). This change in wind pattern is not predictable and occurs whenever a structure is built. The second impact on microclimate will be the effect that the landscaping (especially the trees) will have on the ground. The shade of the trees and man-made structures will cool the ground, enhancing the temperature on the project site. The emissions from air-conditioning equipment and food odors will be quickly dispersed and will have a very limited effect on the project's microclimate.

5.A.3.b. Ambient Air Quality Standards. State of Hawaii and Federal Ambient Air Quality Standards (AQS) have been established for seven classes of pollutants as shown in Table 18. An AQS is a concentration level not to be exceeded over specified short and/or long term sampling periods which vary from pollutant to pollutant. Each of the regulated pollutants has the potential to cause some form of adverse health effect or to produce environmental degradation when present in sufficiently high concentrations. Federal AQS have also been divided into Primary and Secondary values for some pollutants. Primary AQS refer to levels above which adverse health impacts could occur while Secondary AQS refer to welfare impacts such as reduced visibility or soiling. Each Federal AQS is a level not to be exceeded more than once per year, but State of Hawaii AQS are specified as levels not to be exceeded at any time.

The Federal AQS for airborne lead has just recently been adopted. The State of Hawaii has until 1982 to develop and implement a control plan to insure that the AQS can be met by that date and maintained thereafter. For Hawaii the most likely control strategy will be to assume that Federally-mandated limits on the production of lead-containing fuels and curbs on new-car leaded-fuel usage will be sufficient to achieve and maintain airborne lead levels below the AQS.

5.A.3.c. Existing Ambient Air Quality. The most complete nearby monitoring site for which long-term readings of regulated air pollutants are available is the State of Hawaii Department of Health laboratory located at Punchbowl and Beretania Streets about 4.5 miles west northwest of Fort Ruger. A summary of pollutant measurements obtained at this station is presented in Table 19. This summary indicates that the only potential problem pollutant in the urban Honolulu area is carbon monoxide. Peak and average readings for other pollutants have been running well below allowable limits for the last several years. In fact, average carbon monoxide peak-hour readings have been steadily decreasing since 1975 at the downtown Honolulu monitoring site, and

TABLE 18

SUMMARY OF
STATE OF HAWAII AND FEDERAL AMBIENT AIR QUALITY STANDARDS

POLLUTANT	SAMPLING PERIOD	FEDERAL STANDARDS PRIMARY	FEDERAL STANDARDS SECONDARY	STATE STANDARDS
1. Suspended particulate matter	Annual Geometric Mean	75	60	-
(micrograms per cubic meter)	Annual Arithmetic Mean	-	-	55
	Maximum Average in any 24 hours	260	150	100
2. Sulfur Dioxide	Annual Arithmetic Mean	80	-	20
(micrograms per cubic meter)	Maximum Average in any 24 hours	365	-	80
	Maximum Average in any 3 hours	1300		400
3. Carbon Monoxide	Maximum Average in any 8 hours	10		5
(milligrams per cubic meter)	Maximum Average in any 1 hour	40		10
4. Hydrocarbons Non-methane	Maximum Average in any 3 hours	160		100
(micrograms per cubic meter)				
5. Ozone	Maximum Average in any 1 hour	240		100
(micrograms per cubic meter)				
6. Nitrogen Dioxide	Annual Arithmetic Mean	100		70
(micrograms per cubic meter)	Maximum Average in any 24 hours	-		150
7. Airborne Lead	Average Over 3 Months	1.5		1.5
(micrograms per cubic meter)				

Source: 40 Code of Federal Regulations, Part 50 and State of Hawaii Public Health Rule and Regulations, Chapter 42.

TABLE 19

SUMMARY OF AIR POLLUTANT MEASUREMENTS AT KINAU HALE
(DEPARTMENT OF HEALTH LAB) - PUNCHBOWL AND BERETANIA STREETS

POLLUTANT	1975	1976	1977	1978	1979
PARTICULATE MATTER[b]					
No. of Samples (24-hour)	200	74	57	60	58
Range	12-96	19-62	14-51	14-53	21-62
Average	40	34	31	29	33
No. of times State AQS Exceeded	0	0	0	0	0
SULFUR OXIDES[b]					
No. of samples (24-hour)	91	71	59	61	56
Range	5-31	5-51	5-53	5-44	5-42
Average	9	23	17	18	22
No. of times State AQS Exceeded	0	0	0	0	0
NITROGEN DIOXIDE[b]					
No. of samples (24-hour)	91	22*			
Range	16-70	5-29			
Average	33	14			
No. of times State AQS Exceeded	0	0			
CARBON MONOXIDE[c]					
No. of sampling days	169	355	359	365	207[a]
Range values (1-hour)	0.9-27.4	.5-24.2	0-19.6	0-20.7	0-17.3
Average value (1-hour)	6.6	5.4	3.5	3.1	2.9
No. of times State AQS Exceeded	35	41	22	19	10
OXIDANT (OZONE)[b]					
No. of sampling days	234	322	300	284	338
Range values (1-hour)	6-65	2-127	4-61	10-84	10-80
Average value (1-hour)	25	40	25	33	39
No. of times State AQS Exceeded	0	1	0	0	0

* Sampling discontinued 4/1/76
[a] through 8/79, Monitor Relocated To Leahi Hospital 9/79
[b] micrograms per cubic meter
[c] milligrams per cubic meter

Source: State of Hawaii Department of Health

peak readings above the allowable State of Hawaii one-hour standard occurred only 10 times during the first eight months of 1979.

Until recently there has been no long term air quality measurement site in the Fort Ruger area, but in September, 1979, a carbon monoxide monitor was placed in the Wilcox Building on the grounds of Leahi Hospital, immediately adjacent to the proposed project site. Through December 31, 1979, maximum one-hour readings at this location are available for 37 days. Of these readings 30 were zero, six were 1.2, and one was 2.3 milligrams per cubic meter. This level is about one-tenth the eight-month average previously recorded at the Department of Health building in urban Honolulu and such a level suggests that carbon monoxide levels in the project area are presently well within allowable air quality standards.

5.A.3.d. Direct Air Quality Impact of Project Construction. As older structures are demolished and dirt is moved to create building sites for new facilites it is inevitable that a certain amount of fugitive dust will be generated. Assuming medium-level activity, moderate soil-silt content, and a semi-arid climate it has been estimated that construction activity generates about 1.2 tons of dust per acre per month.

The proposed project site is rather large and the terrain is far from level. A fair amount of dirt-moving and hauling will be necessary to create level sites for building construction. It is likely that dirt excavated from one part of the project site will be usable as fill elsewhere within the project so that most dirt moving operations can be confined to the immediate project area. One major generator of fugitive dust is construction equipment moving over unpaved roadways, but many of the roadways within the Fort Ruger site are already paved, thus somewhat reducing this type of emission. Applicable control regulations and suggested mitigative measures that can be employed to curb emission of fugitive dust from construction are discussed later in this subsection.

It is also likely that construction equipment will emit some air pollutants in the form of engine exhausts. Since many of the larger construction vehicles are diesel-powered their individual carbon monoxide emission rates should be substantially less than that of the average automobile. On the other hand individual nitrogen dioxide emission rates from diesel-powered construction equipment could be as much as 15 times greater then the comparable rate for an automobile. Because building plans call for low-rise construction, the need for large diesel-powered cranes should be minimal; however, and in the end the short-term exhaust emissions from construction vehicles will not likely be anything near the magnitude of exhaust emissions from normal peak-hour traffic operating on roadways adjacent to the project site.

5.A.3.e. Indirect Air Quality Impact of Increased Traffic. Once construction is completed, KCC will not, in itself, constitute a direct source of air pollutant emissions, but by serving as an attraction for motor vehicle traffic, the campus will become an indirect source of

of increased air pollutant emissions in the Fort Ruger area. Vehicles, especially those with gasoline-powered internal combustion engines, are the major source of carbon monoxide in the project area. Motor vehicles also produce significant quantities of hydrocarbons and nitrogen oxides. These vehicles, powered by fossil fuel which contains lead as an additive produce some airborne lead as well.

The major control measure designed to reduce vehicular lead emissions is a Federal law requiring the use of unleaded gasoline in most new automobiles. As older cars are gradually removed from the vehicle fleet, lead emissions should be steadily decreasing. Federal regulations also call for increased efficiency in removing carbon monoxide from vehicle exhausts. By 1995 carbon monoxide emissions from the vehicle fleet then operating should be around half the amount now emitted. Substantial decreases in hydrocarbon and nitrogen emissions have been mandated as well. With increasing pressure to achieve greater fuel economy there will be a continued tendency on the part of the U.S. Congress to yield to pressure from automobile makers to relax or eliminate these emission reduction goals and it is thus difficult to forecast future vehicular emission rates with any degree of certainty. It seems logical, however, that even present levels of control will achieve lower future emission rates if each year's crop of new vehicles consumes less fuel to travel the same distance while at the same time older, less efficient vehicles are gradually removed from the roadways.

To gain an overview of the impact of vehicular emissions on the ambient air quality a mesoscale vehicular emissions analysis was prepared. Appendix II provides the narrative portions of the "Air Quality Impact Analysis," relating to the Mesoscale Emissions Analysis and the Microscale Carbon Monoxide Analysis; for added reviewer convenience the results of both these analyses are provided below.

5.A.3.f. Results of the Mesoscale Emission Analysis. Table 20 shows that there will be an immediate increase in vehicular emissions of carbon monoxide, hydrocarbons and nitrogen dioxide in the Fort Ruger area if relocation is completed in 1981, but, because the college-generated traffic will not change while adjacent roadway traffic continues to increase in future years, by 1995 the emission levels with the proposed relocation will be only slightly greater than would be the case if the project is not undertaken at all. (See Appendix II.)

With or without the planned relocation, daily emissions of all three pollutants are expected to decrease substantially by 1995 because mandated increases in pollution control efficiency are scheduled to occur at a more rapid pace than the traffic growth rate of the area. As shown in Table 20 carbon monoxide and hydrocarbon emissions are expected to decrease substantially by 1995, while nitrogen dioxide emissions decrease by a somewhat smaller amount. Since measurements of ambient nitrogen dioxide concentrations at the Department of Health building were well within allowable limits in 1976, it seems likely that decreasing nitrogen dioxide emissions throughout the Honolulu area (including Fort Ruger) should insure that the allowable air quality standards for this pollutant continues to be met in future years.

TABLE 20

VEHICULAR EMISSIONS ANALYSIS
FORT RUGER AREA

YEAR		24-HOUR VMT*	CARBON MONOXIDE (KG/DAY)	HYDROCARBONS (KG/DAY)	NITROGEN DIOXIDE (KG/DAY)
1981	WITHOUT KCC CAMPUS	8828	408	43	22
	WITH KCC CAMPUS	10545	487	52	26
1995	WITHOUT KCC CAMPUS	10505	168	20	17
	WITH KCC CAMPUS	12222	196	23	20

* VEHICLE MILES TRAVELED

5.A.3.g. Results of a Microscale Carbon Monoxide Analysis. Receptor sites, as shown in Figure 2, page 26, were located about one meter from the edge of the nearest traffic lane at a breathing level of 1.5 meters. All roadways were assumed to maintain their present narrow widths through 1995. Background contributions of carbon monoxide from areas or sources not directly considered in the analysis were estimated to be 2 mg/m^3 in 1981 and 1 mg/m^3 in 1995 (when more stringent emission controls will be in effect).

Results of the computations are shown in Table 21 for peak and eight-hour time periods. The eight-hour estimates were made by application of two correction factors to the peak hour values. The first factor was an adjustment to allow for the fact that during the peak eight hours of the day the average hourly traffic volume is only 6.49 percent of the average daily traffic while the morning peak hour level is 8.17 percent of this value. The second factor is a meteorological persistence factor of 0.6 recommended in EPA (U.S. Environmental Protection Agency) guidelines to provide a rough accounting for the fact that wind speed and direction are likely to be more variable over an eight-hour day than they are over a one-hour time period.

As shown in Table 21 carbon monoxide concentrations at all the selected critical receptor sites are expected to be within allowable State and Federal limits both in 1981 and 1995 whether the Kapiolani Community College is relocated to Fort Ruger or not. The values in Table 21 are based on worst case traffic and meteorological conditions and the sites selected are those likely to have the highest carbon monoxide concentrations in the area. (See Appendix II.)

From the results in Table 21, and from previous discussion, it seems reasonable to conclude that the indirect immediate and long term air quality impact of increased vehicular traffic attracted to the Kapiolani Community College at Fort Ruger will be minimal and that the relocation project will present no threat to maintenance of the high quality atmospheric environment that already exists in the area.

5.A.3.h. Mitigative Measures. As stated earlier, the only direct emissions of air pollutants that this project is likely to create are fugitive dust and heavy equipment exhausts generated by construction activities. State of Hawaii Department of Health Rules and Regulations (Chapter 43, Section 10) stipulate control measures that are to be employed to reduce fugitive dust emissions. Primary control consists of frequent wetting down of loose soil areas with water, oil or suitable chemicals. An effective watering program can reduce particulate emissions from construction sites by as much as 50 percent. Other control measures include good housekeeping on the job site and, possibly, erection of dust-catching barriers if nearby local residents are being subjected to suspended particulate levels more than 150 micrograms per cubic meter above existing background levels (as measured on a 12-hour basis). In any case, construction emissions should be a short-term or minor phenomenon.

While the foregoing analysis has shown that such increases will not jeopardize the relatively high air quality of the area, there are

TABLE 21

RESULTS OF PEAK HOUR CARBON MONOXIDE ANALYSIS
(MILLIGRAMS PER CUBIC METER)

		1981		1995	
SITE	CONFIGURATION	PEAK HOUR	8-HOUR	PEAK HOUR	8-HOUR
1	WITHOUT KCC CAMPUS	5.4	2.6	2.4	1.1
	WITH KCC CAMPUS	8.3	4.0	3.6	1.7
2	WITHOUT KCC CAMPUS	2.5	1.2	1.2	0.6
	WITH KCC CAMPUS	4.9	2.3	2.0	1.0
3	WITHOUT KCC CAMPUS	7.6	3.6	3.2	1.5
	WITH KCC CAMPUS	9.4	4.5	3.9	1.9
4	WITHOUT KCC CAMPUS	4.5	2.1	2.1	1.0
	WITH KCC CAMPUS	6.3	3.0	2.6	1.2
5	WITHOUT KCC CAMPUS	8.4	4.0	3.6	1.7
	WITH KCC CAMPUS	9.8	4.7	4.1	2.0
6	WITHOUT KCC CAMPUS	3.1	1.5	1.5	0.7
	WITH KCC CAMPUS	4.3	2.0	1.9	0.9

	1 HR	8 HR
STATE OF HAWAII AQS	10	5
FEDERAL AQS	40	10

NOTE: See Figure 2, page 26, for location of carbon monoxide receptor sites.

some mitigative measures which should be considered to keep pollutant concentrations from vehicular sources to a minimum.

Emissions from vehicles operating within the project area and on nearby roadways can be decreased if:

(1) the emission rate of each vehicle is decreased

(2) the total number of vehicles operating is decreased, or

(3) the project is designed to permit vehicle movement with as little queuing and engine idling as possible.

Addressing these points in inverse order, the following mitigative measures could be employed:

(1) In order to keep peak hour traffic flowing with the minimum queuing it would be desirable to keep incoming (or outgoing) traffic volumes divided as evenly as possible among the available entrance/exit points around the periphery of the campus. One way in which this could be achieved would be to provide some assigned faculty/staff parking in each of the several campus parking areas rather than having those vehicles all together in one lot. To further minimize travel along roadways immediately adjacent to the campus it would be desirable for example, to assign parking in such a way that the assigned lot for vehicles arriving from Waikiki or Kahala would be near the Diamond Head Road entrance while vehicles arriving via H-1 would be near the Kilauea Avenue entry points.

(2) The use of entry gates or kiosks such as those on the University of Hawaii at Manoa campus should be avoided. Such impediments to free traffic flow could cause unnecessary queuing on the narrow, two-lane roadways surrounding the project.

(3) To a certain extent the rising costs of owning and operating a motor vehicle will limit the number of students (and faculty staff) driving to the campus. Requiring sizeable semester parking fees could significantly reduce the attractiveness of the campus as a parking lot and encourage use of the ample public transportation serving the site. However, this probably would result in students parking on the streets and thus reducing the capacity of the roadways while generating additional traffic as they seek a parking space.

(4) Project planners can do little to decrease the rates of pollutant emission from individual vehicles, but it seems likely that the looming energy crisis may spawn development of non-gasoline-powered vehicles which create few or none of the pollutants that are presently of concern. The use of any alternative-energy, non-polluting vehicles could be administratively encouraged, however, by such means as

waiving parking fees or providing prime reserve slots for such vehicles. In this same vein the use of bicycles and mopeds could be encouraged by providing them with special amenities such as covered parking and exclusive-use access routes.

5.A.4. Noise. Based on peak traffic volume from the "Traffic Impact Statement" in Appendix IV and the U.S. Department of Housing and Urban Development Report No. TE/NA 172-"Noise Assessment Guidelines/Technical Background," traffic noise on streets surrounding the campus should be within the "Normally Acceptable" range.

5.A.4.a. Noise from Construction Activities. Noise will be generated by construction activities. This noise will have an impact on the surrounding residences, hospital and school. Attenuation of noise is a function of wind velocity and direction. People sensitive to noise may find construction activities to be annoying and may file a complaint. The effect of construction noise on students will depend upon distance between existing and new facilities being constructed, whether the existing facility is air conditioned or naturally ventilated, and wind velocity and direction. This impact of construction noise on students is unavoidable but could be reduced by constructing buildings sequentially in clusters moving downwind through the campus. However, this probably would not satisfy the program and operational requirements of the college.

5.A.4.b. Mitigation Measures for Construction Noise. Noise generated during construction will be restricted to normal working hours and subject to several Public Health Regulations, OSHA standards, and the Comprehensive Zoning Code. Public Health Regulations 44A and 44B relating to noise, must be complied with.

5.A.4.c. Noise from Campus Activities. Noise from campus activities is not expected to be significant or adverse. Normal classroom activities will not generate a significant amount of noise. Outdoor sport activities may generate noise; however, such activities constitute a small portion of the College's normal activities.

5.A.4.d. Noise Created by Vehicles. Indirectly, the project will result in vehicular noise increases. The adjacent roads will be more heavily utilized by vehicles traveling to and from the KCC campus. This noise is unavoidable. Mitigation for this type of noise will be provided by way of the scheduled decrease of vehicular noise by automobile manufacturers. That is, as the cars in use are replaced by newer, quieter cars, vehicular noise will decrease.

5.A.5. Processes.

5.A.5.a. Floods. Major surface runoff problems are not anticipated. The project site is not within any unbuildable flood plains as stated by the County's General Plan or within the 100-year flood prone boundaries designated by the U.S. Army Corps of Engineers.

5.A.5.b. Erosion. During the construction phases, the site will be vulnerable to the natural elements and subsequent erosion. Water quality in the receiving waters may be affected. Therefore, all measures of mitigation to minimize adverse impacts will be applied in strict adherence to the Grading, Soil Erosion and Sediment Control Ordinances. These ordinances will also be applied to any stock piled material.

5.A.5.c. Earthquakes. The entire island of Oahu is in a zone of modest earthquake potential. Building codes have incorporated design/construction materials which provides for modest earthquake potential.

5.B. Biological Conditions.

5.B.1. Flora. Little adverse impact is foreseen in this area. As indicated in the Landscape Master Plan, see Figure 6, most of the trees will remain. Others will be relocated; only a few trees will be totally removed. In addition, the landscaping will add a significant number of trees to the project site. Other plant material and ground cover will enhance the project site.

There are no known plants that are rare or endangered (or on the proposed Federal list of rare and endangered species) within the project site.

5.B.2. Fauna. The removal of the existing weeds and grasses will eliminate the habitats of mongoose and other rodents; however, their demise or displacement is not considered adverse, since they are pests. The avifauna should not be significantly affected by campus activities. It is noted that in other urban campuses, the avifauna adapt to the surrounding activity rather than migrate. Also, the trees which serve as their habitats will, for the most part, remain; new trees will also be planted and will provide future nesting potential.

There are no known rare or endangered animal species within the project site.

5.C. Socioeconomic Impacts.

5.C.1. Cultural Factors.

5.C.1.a. Land Use. The proposed land use is consistent with the State Urban land use designation. The zoning of the parcel allows public facilities. The project will change the present land use of the project site. That is, the amount of construction activity and educational activities will significantly increase over the present amount of KCC programs on the site.

The project will result in a higher day-time population density on the project site.

Overall, the land use is not anticipated to be adverse or adversely affect the surrounding land uses. This finding was based on the following considerations:

(1) The land use since the late 1890's has been in some form of residential or urban use.

(2) The surrounding land uses are well established; there are no vacant lands in the vicinity that will be influenced by the establishment of a community college.

(3) The primary factor which affects land use changes is the zoning and land use designation of the project site. The establishment of KCC at this location will not alter the zoning or land use designation of the surrounding area. Various governmental applications and procedures must be complied with prior to the rezoning or waiver of land use controls on the surrounding area.

5.C.1.b. Recreation. Implementation of the Master Plan will provide more recreational facilities than is presently available to the public.

5.C.1.c. Aesthetics and Human Interest. As described, the facilities to be built on the Fort Ruger site will be two and three story type structures. The levels of the buildings will blend into the various elevations of the project site. This will allow the buildings to appear equal to the height of the surrounding residential areas. (See Figures 10, 11, 12, and 13.) Additionally the landscape will screen the buildings and facilities from the surrounding residential areas. The low profile of the buildings conforms with the Ordinance which was promulgated to protect and preserve the view of Diamond Head as a historic and cultural landmark.

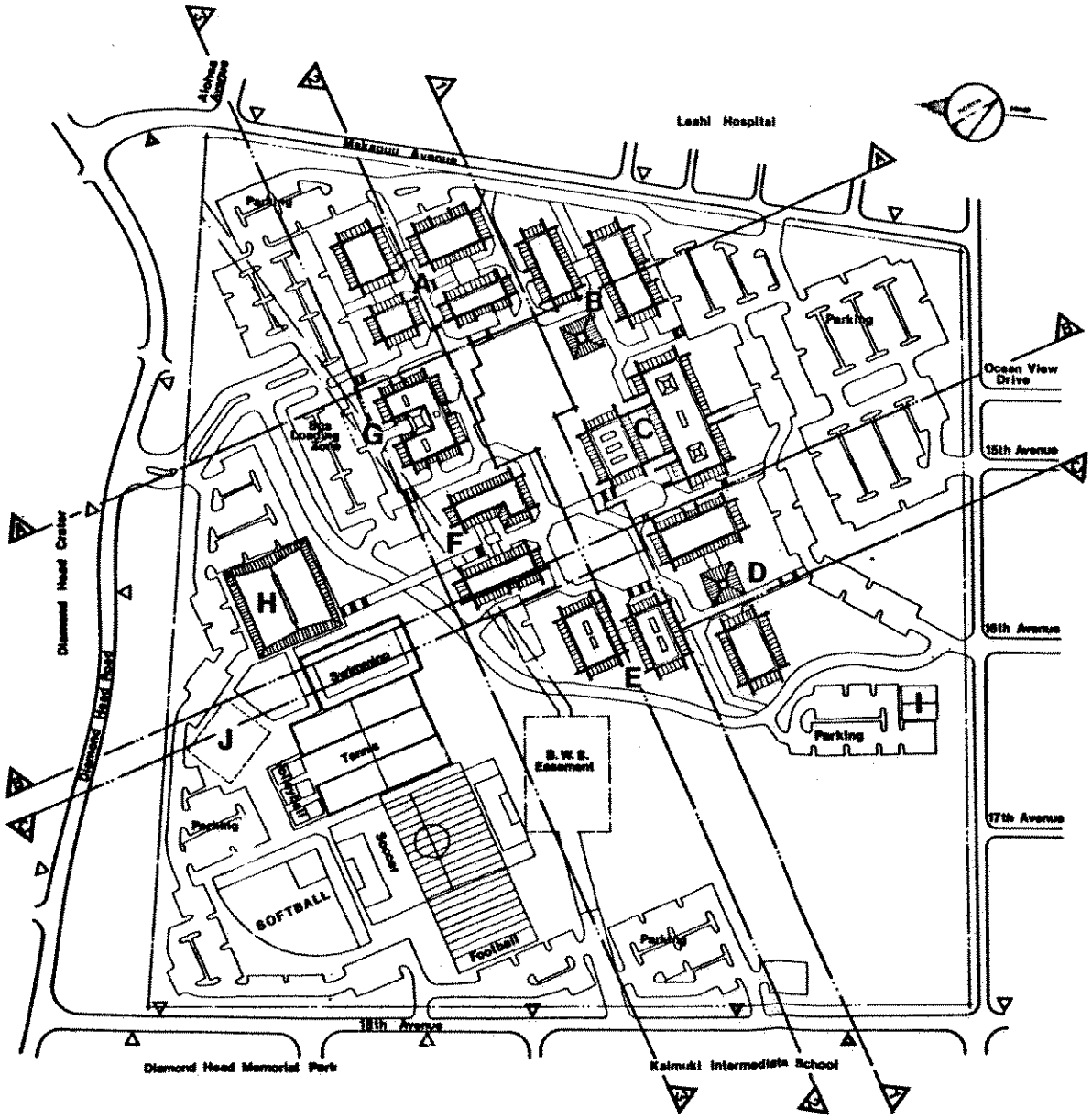
No adverse impact on views is anticipated. Benefits in the form of public recreational use of the project site will occur. Fifty (50) percent of the area will be planted in trees and will remain in a landscaped open space. The Master Plan also utilizes the views of the surrounding area so that this view will be seen from various buildings within the campus.

5.C.1.d. Historical/Archaeological Sites. Presently, there are no officially identified historical or archaeological sites and buildings within the Fort Ruger site. However, existing military structures are being reviewed by the State to determine their potential value as historical structures. The master plan calls for demolishing all of the existing military buildings on the site.

5.C.1.e. Community-Social Impacts. The impact on the community, from the standpoint of educational facilities' availability, will be beneficial.

The campus within the Fort Ruger site will be able to identify with the surrounding residential community. At present, KCC is located within a business-commercial area; because of this situation, the relationship and identification with the adjacent community has been limited. Identification with the surrounding community should be advantageous to both the College and the community. The College will offer adult education classes under its Community Service Division and the proximity of the Fort Ruger site to a large residential area is likely to increase the number of individuals enrolled in such courses. Additionally, the facilities to be developed will be available for public use when not being utilized by the College. The College may also lend itself to becoming one of the focal cultural and literary points of the community.

Another positive facet is the opportunity for interaction between the College and community. This relationship will provide greater experiences for the student which are not presented in classroom situations. This is worthy of mention despite the "commuter" character of KCC.



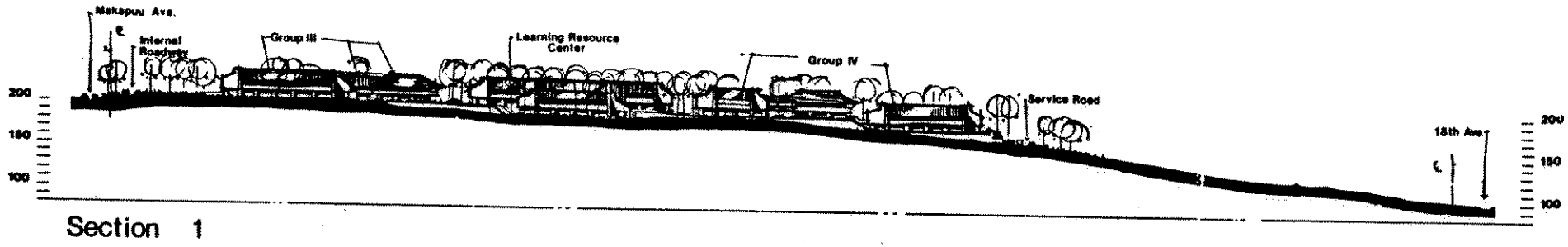
Legend:

- A - Group I & II Classrooms
- B - Group III Classrooms
- C - Learning Resource Center
- D - Group IV Classrooms
- E - Group V Food Service
- F - Campus Center
- G - Administration/Student Services
- H - Group VI Gymnasium
- I - Maintenance
- J - 5-0 Studio
- △ Bus Stop
- ▲ Bus Stop w/Shelter

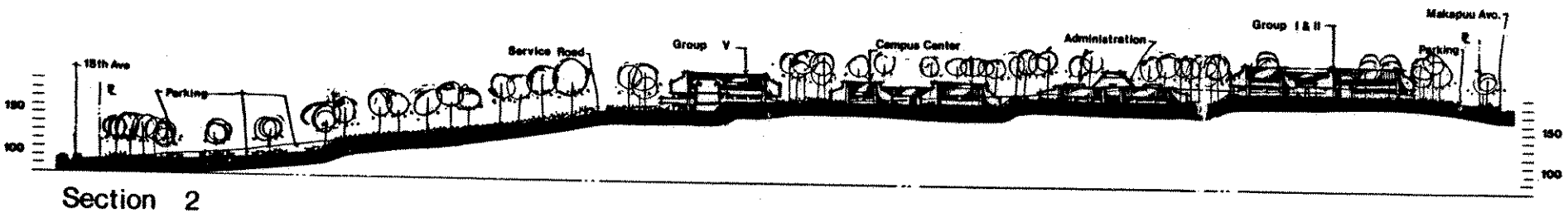
FIGURE 10

Kapiolani Community College
Key to Sections

200 0 200 400
Scale in Feet



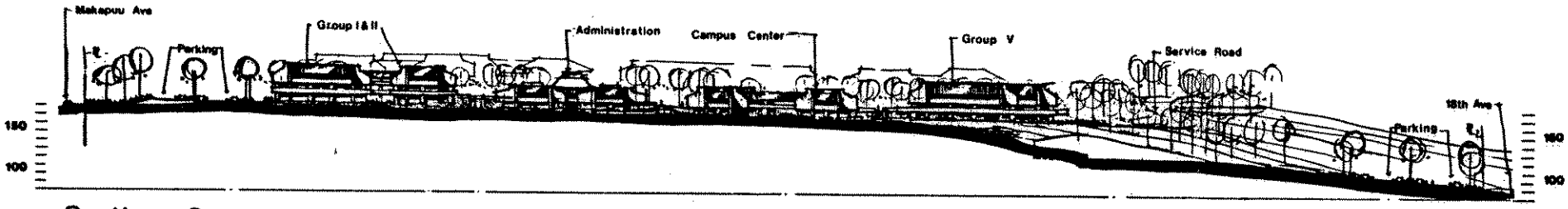
Section 1



Section 2

FIGURE 11

Kapiolani Community College
Sections



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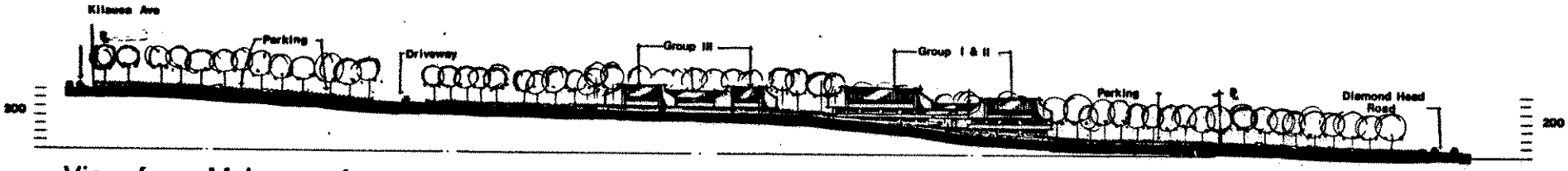
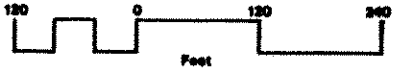


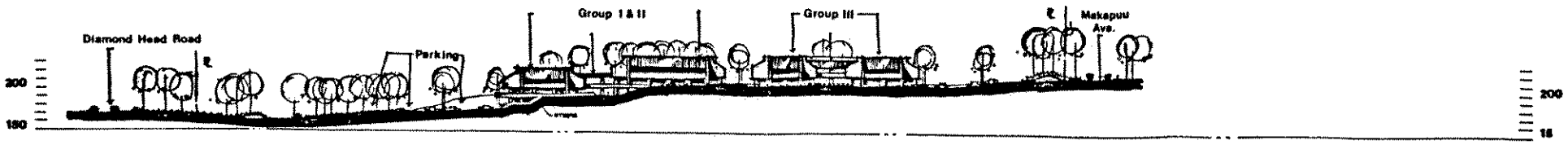
View from Makapuu Avenue

FIGURE 12

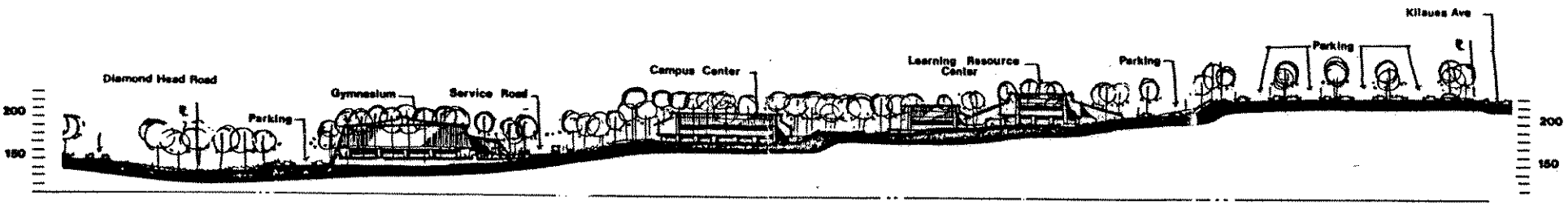
Kapiolani Community College

Sections





Section A



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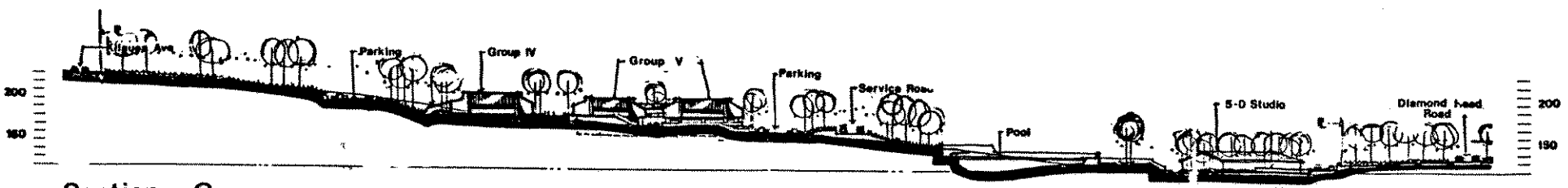


Section C

FIGURE 13 Kapiolani Community College Sections

The campus will not strain community facilities (i.e. parks, playgrounds, libraries, et cetera). Recreational facilities, instructional spaces, libraries, and a cafeteria will be included in the overall development of the College. No commercial facilities such as restaurants are foreseen as being established in nearby areas (due to the lack of space and improper zoning) nor are on-site dormitories planned for the college.

5.C.2. Health and Safety. Police and fire protection are available to the site. Response to emergency calls for police will be provided by the Honolulu Police Department. Fire calls, inspections and other such emergencies will be answered by personnel and equipment from the Waikiki Fire Station located on Kapahulu Avenue and the Kaimuki Fire Station located on Kokohead Avenue.

5.C.3. Economic Impact. The development of KCC will involve the expenditure of the University of Hawaii system, is supported by State funds, supplemented by funds including federal funds and by limited revenues such as parking fees. The capital improvement cost of KCC will be a major expense item for the University of Hawaii system and operational costs will exceed the present expenditures. Factors such as larger campus facilities and better accommodations for students will be the basis for the difference in operational expenditures.

The College will generate additional vehicular traffic in the area which may cause the road surface to deteriorate faster and thereby increase the need to repave the streets more often.

5.C.3.a. Employment. The proposed project will result in a number of construction jobs being created during the construction of KCC. In addition to these construction jobs, there may be some additional employment for personnel to service the larger campus.

5.C.3.b. Property Tax and Improvement District. The College's impact on the surrounding residential property values is unknown. Normally, property values increase when a higher educational institute is located within the vicinity. However, several factors which may offset increased land values are heavier traffic on adjacent streets, on-street parking problems, and some student activities which may disturb some residents.

Although the College itself is not generating an Improvement District project, it may accelerate its implementation. The Improvement District project, which will be paid for by property owners and/or government, will increase property values and, therefore, the property tax. An alternative to the Improvement District project is a capital improvement project with funds from the County/State and/or Federal governments.

5.C.4. Man-made Facilities and Activities.

5.C.4.a. Electrical System. Electricity is available to the project site. A complete electrical system is proposed for KCC as shown in Figure 5, page 29.

5.C.4.b. Telephone System. The military (DATS) distribution cable system which serves several of the College buildings and the Hawaiian Telephone Company cable system which serves several buildings along Diamond Head Road run through the

site. They will have to be relocated. The telephone system hook-up and relocation will be coordinated with the Hawaiian Telephone Company.

5.C.4.c. Drainage Systems. The County's drainage system appears to be operated at or near it's peak capacity with a history of localized flooding around 18th Avenue during periods of moderately high intensity rainfall. No improvements to the County system are proposed for the College. The County does not have any schedule for improvement of their drainage system.

The proposal which will meet the City's approval is one which limits the flow leaving the site to that of predevelopment levels. This can be accomplished by developing a detention basin to receive and control on-site runoff during normal flow periods. Provisions should be made to overflow runoff into and inundate the football/soccer and softball fields as a secondary ponding area during peak rainfall periods if necessary. Capacities of these storage areas will be computed by inflow-outflow flood routing method to meet County requirements.

Since construction of the athletic complex will probably be in the latter stages of the campus development, an interim ponding area can be economically developed by constructing an earth dam with excess excavated material from building sites in the upper area.

The proposed onsite drainage system is basically conventional with inlets spaced at intervals to intercept surface flow and conveyance of the runoff through an underground system of pipes to the retention basin near the outlet along 18th Avenue. Site grading should direct runoff away from buildings. Surface overflow routes should be provided for inlets in sumps prior to ponded water reaching inundation levels that threaten building floors.

5.C.4.d. Sewerage System. Discussions with the County's Public Contact, Division of Wastewater Management indicates the County's sewerage system is adequate to handle the projected flow from the future college. An existing sewer system which runs through the lower corner of the site will be rerouted and connected to the College's system.

To preclude the potential problems on deposits in the sewers, it is essential that minimum velocities are available and flows are not intermittent. Otherwise deposits in the sewers may necessitate frequent flushing or cleaning.

5.C.4.e. Water Systems. At the present time, the existing campus water system is inadequate for the ultimate campus development. Therefore, improvements to the system will be required for each increment of construction. Coordination with the Board of Water Supply has been initiated regarding future water service connections to serve the College. Although the water system plan has been adopted, "water commitments" must be obtained from the Board of Water Supply during the detailed design stage. Off-site improvements to water lines and facilities may be required by the Board of Water Supply in order to get potable water for future KCC increments. The water demand for the campus (when fully completed) is estimated at 300,000 gallons per day.

5.C.4.f. Solid Waste Collection and Disposal. The collection and disposal of solid waste will be provided by a private firm under contract with the College. Solid waste will be disposed of at the Palailai Sanitary Landfill or some other County approved disposal site.

5.C.4.g. Board of Water Supply Pipeline Tunnel. One of the buildings will be constructed over the Board of Water Supply pipeline tunnel. Therefore, appropriate construction constraints may be required to avoid any adverse effects. However, the depth to the tunnel is approximately 40 feet.

5.C.4.h. Improvement District. An Improvement District project is normally implemented by the County to revitalize older developed areas which frequently do not have curbs, gutters, sidewalks, etc. The cost for these improvements is normally split 50 percent from the County and 50 percent from the property owners benefiting from the improvements. In some cases, the State and/or federal government picks up part of the cost. Implementation of the Improvement District project requires approval of a majority of the property owners affected. As noted earlier, the College itself is not generating an Improvement District project, but it may accelerate that which is already proposed.

5.C.5. Traffic and the Transportation System. Information for this section was primarily obtained from the "Traffic Impact Statement: Kapiolani Community College at Fort Ruger," prepared by Henry Tuck Au. The report is included in the EIS as Appendix IV.

(1) Modes of Traffic: Due to the convenient location of the College within a community district, accessibility by various means of transportation (car, bus, bicycle and walking) is conceivable.

(2) Existing and Future Highway/Street Systems: The project site is surrounded by several existing secondary streets (18th Avenue, Diamond Head Road, Makapuu Avenue and Kilauea Avenue); which are linked to the primary road system, consisting of H-1 Freeway, Waialae Avenue and Kalakaua Avenue. (The secondary roads adjacent to the project site are two lanes, two-way roadways.) The primary roads will serve as the major circulation arterials for the community and College.

In the future, the existing road systems may be widened and improved by the County according to the General Plan. However, no active studies have been initiated to plan for these road improvements.

(3) Traffic Generation and Projections: The traffic generation and projections were determined by Henry T. Au, Traffic Consultant.

Trip generation or the total number of trips to and from the college is directly related to student enrollment and faculty and staff employment.

Based on a 1978 survey of students at the Kapiolani Community College, the following information was utilized to project the future traffic surrounding the Fort Ruger site:

1. Approximately 19 percent of the ultimate number of students, faculty, and staff are already utilizing the Diamond Head campus.

2. The number of persons driving to the college will be 65 percent of the total number of students plus faculty and staff.

3. The average number of daily trips (two per round trip) will be 1.5 times the number of persons driving to the College.

4. The percentage of the total vehicles arriving and departing each hour between 7:00 a.m. and 6:00 p.m. was 27.6, 24.2, 11.9, 19.9, 16.6, 24.2, 25.1, 12.7, 10.5, 4.7 and 2.9.

The distribution of the additional College traffic is shown in Table 22.

(4) Traffic Volumes and Projections: Traffic volume data and information similar to that shown in Figure 14 were received from the City and County of Honolulu, Department of Transportation Services. In 1979, the traffic counts were computed at various critical points in 15 minutes intervals, as were the 1971 count. The peak hours, remaining the same as the 1971 survey are generally from 6:00 - 8:00 a.m. and 4:00 - 6:00 p.m.

Development of the college will increase the vehicluar traffic in the area. However, due to the relatively low traffic volume levels presently existing and with the various roadways, the existing street system should be able to accommodate all of the anticipated traffic volumes within the desirable capacity for 2-lane roadways, except for Diamond Head Road. The existing traffic on Diamond Head Road already exceeds this desirable capacity.

The effect of the additional traffic on the surrounding streets and Diamond Head Road is increased driving time for motorists. The greater the increase, the greater the additional driving time due to slower traffic. Proposals to reduce the anticipated delays on Diamond Head Road at the college entrance are included in Section 2.G.7. of the EIS.

The maximum number of construction workers on the site at one time probably will not exceed 100 on the upper campus based on the proposed incremental building construction plan. During this construction phase, the workers and students attending classes will be less than the peak college traffic projected in the Traffic Impact Statement. Construction of the athletic fields as the last increment probably will not involve more than 20 construction workers on the site at one time. This may cause a minor short-term negative impact on traffic. Some of these workers may meet at designated locations to form car pools and drive to the site in company or private vehicles.

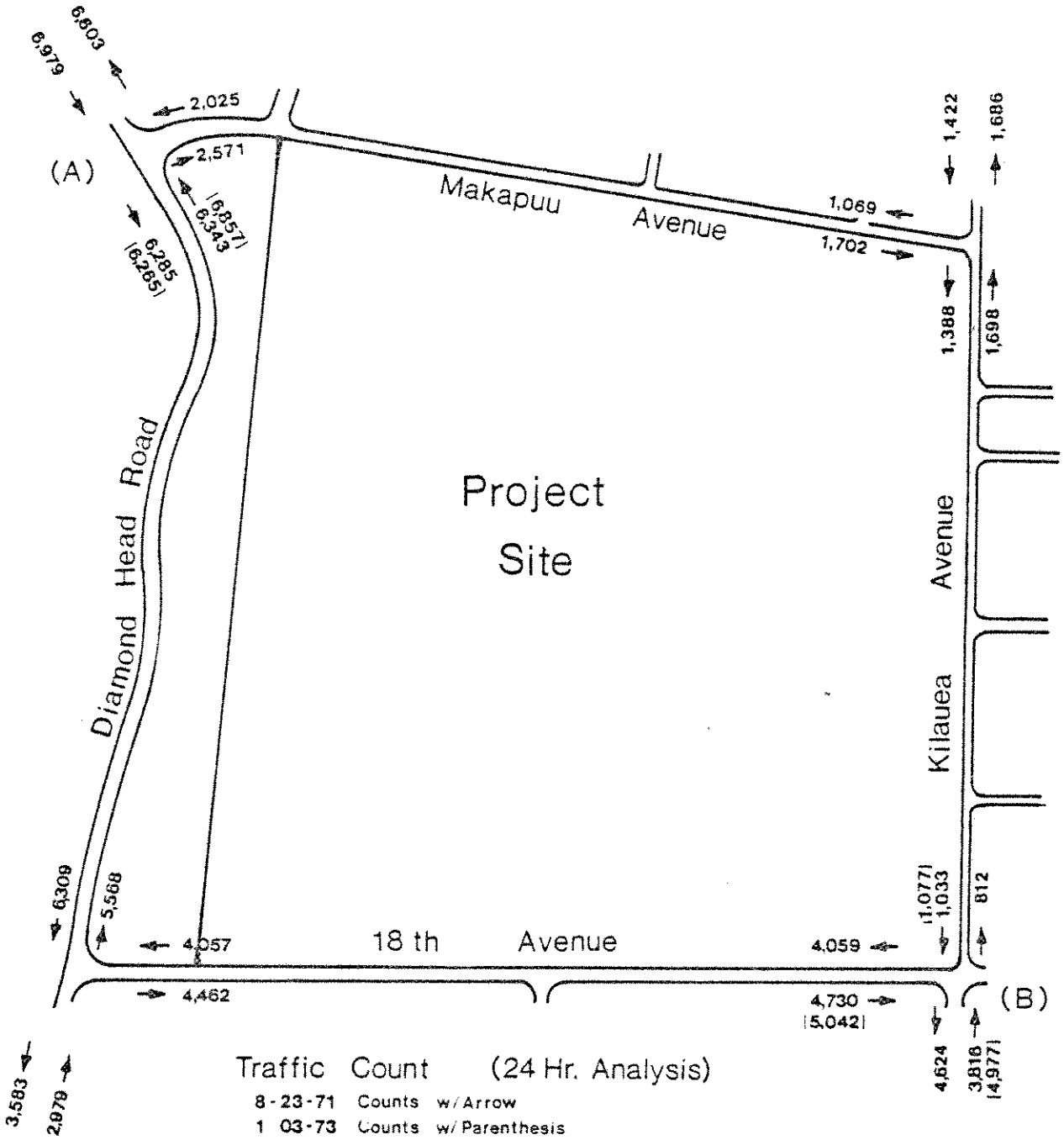
TABLE 22

College Traffic Distribution

Vehicular Trips Generated by College

Time	Total a/ In	Total a/ Out	Increased Over 1979 b/ In	Increased Over 1979 b/ Out	On One Trip c/ In	On One Trip c/ Out	On One Trip c/ Total
7:00 A.M.	848		687		250		250
8:00 A.M.	743		602		219		219
9:00 A.M.	255	111	207	90	75	33	108
10:00 A.M.	353	258	286	209	104	76	180
11:00 A.M.	221	289	179	234	65	85	150
12:00 Noon	264	479	214	388	78	141	219
1:00 P.M.	160	611	130	495	47	180	227
2:00 P.M.		390		316		115	115
3:00 P.M.		322		261		95	95
4:00 P.M.		144		117		43	43
5:00 P.M.		89		72		26	26
6:00 P.M.							
Totals	2844	2693	2305	2182	838	794	1632

a/ 6300 x 65% x 0.5 x 1.5 trips x % of students, faculty and staff
b/ 81% x total column
c/ Increased traffic 11 approaches x 4 times average



Peak Traffic

(A) 582 cars/hr. at 6 - 8 a.m.
1,018 cars/hr. at 4 - 6 p.m.

(B) 247 cars/hr at 6 - 8 a.m.
615 cars/hr at 4 - 6 p.m.

FIGURE 14

Kapiolani Community College
Traffic Volume Count

5.C.5.a. Parking Requirements. The County parking requirements for KCC at Fort Ruger are as follows:

(1) 1 space per 5 seats in the Main Auditorium; or

(2) 5 spaces per classroom;

Based on this, about 600 stalls are required to meet the CZC parking requirements. However, the Master Plan is based on providing approximately 1200 parking stalls for KCC.

5.C.5.b. Bus and Mass Transit. Presently, the project site is serviced by Route 57 (services the site every 30 minutes) and Route 3 (services the site every 7 minutes during the morning and afternoon peak periods and every 15 minutes during off-peak periods). The site is serviced by six (6) bus stops located around the property.

Presently the buses provide adequate service to KCC. However, as the student body is transferred to the Fort Ruger site, added bus services would be desirable. The requirements as stated by the Department of Transportation Services, Mass Transit Section, for receiving additional bus routes and shorter time intervals to service the College depends on the following: the number of buses available, request for additional service, and ridership in the existing bus routes.

5.C.5.c. Proposed Solution to Potential Traffic Problems. As indicated earlier in the Traffic Impact Statement, the College will generate an increase in vehicular traffic; however, any potential traffic problems created by the College will be minimal. Parking restrictions during certain daytime hours should be implemented for the roads immediately surrounding the campus so the capacities of these roads are not reduced. To minimize delays on Diamond Head Road, where the present volume already exceeds the Service Level C capacity, the roadway at the College and crater entrances will be widened to provide turning lanes.

Entrances will be provided around the perimeter of the campus so vehicles can enter as soon as possible and thereby reduce traffic on the surrounding streets. Parking for about 1,200 vehicles, which is about double the number required by the County Comprehensive Zoning Code, will be provided to minimize the need for students to park on the surrounding streets. These stalls will be dispersed around the sampus so that, in conjunction with access roads, they do not concentrate the College's traffic.

There will be a nominal parking fee per semester that will be very small compared to the cost of owning and operating a vehicle. However, there may be some students who will not want to or cannot afford to pay the fee, that will park in the surrounding neighborhood. Since it is recommended that parking be restricted during certain daytime hours on the roadways immediately surrounding the campus, these students will probably have to walk some distance to reach their classrooms.

The streets recommended for the parking restrictions would be the surrounding streets out to one or two blocks from the campus. Enforcement of the restriction would be by the County Police Department. In addition to the above, the County will be requested to consider some one way streets as the college is developed.

5.C.5.d. Accidents and Pedestrian Safety. Vehicular accidents and pedestrian safety are difficult to predict. Oftentimes the increased volume of cars will cause the drivers to be more cautious, avoiding an accident. Also, driver awareness and attitude must be taken into account. Pedestrian safety (or accidents) are also difficult to predict because often times pedestrians do not cross in marked crosswalks and instead choose to cross where it is the most convenient in his/her route. Considering the number of additional cars in the vicinity, mitigative measures to assure safe driving speeds and minimum pedestrian accidents include the posting of warning signs, lowering speed limits, and providing curbs and sidewalks, and providing marked crosswalks.

5.C.6. Community Attitude. Over the past several years, community concerns have been recognized. Their principal concerns are (1) the incompatibility of the College with the dominant residential use of the surrounding area; (2) the increase in traffic; (3) the inadequacy of the water, drainage, and roadways to provide for KCC. These concerns are discussed in this EIS.

KCC recognized that it was vital to have community input and assistance in order to build a responsive and widely supported community college. Therefore, the College in cooperation with Kaimuki Neighborhood Board No. 4 developed and conducted a community needs assessment study during the summer of 1978. Its purpose was to better inform the planners of the Fort Ruger campus about the nature, needs, resources and concerns of the surrounding community. A portion of the resultant report Diamond Head - Community Input to the Planning of the Diamond Head Facilities of Kapiolani Community College is included in Appendix III.

Based on the community response to Question 10 regarding a community group to advise on the use of the Diamond Head facilities and other considerations, the KCC Provost formed the KCC Advisory Committee. It was composed of community representatives from Neighborhood Boards and community associations to assist in planning the campus. The individuals who served as members of the committee and their affiliation at the time of appointment are listed in Table 23.

A recent survey conducted by the Waialae/Kahala Neighborhood Board No. 3 asked the question: "Are you in favor of Fort Ruger as the locaton of Kapiolani Community College?" The results from 430 survey responses were:

63% - Yes
21% - No
15% - No Opinion
1% - No Response
100% - Total

Another recent survey conducted by the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board No. 5 asked the question: "The State may build a new campus for Kapiolani Community College at Fort Ruger, on Diamond Head Road. Do you approve of building a college campus in this area?" The results from 1,163 survey responses were:

58% - Approve
29% - Disapprove
9% - No Opinion
4% - No Response
100% - Total

Based on these surveys it can be concluded that there is support from the surrounding community for placement of the College at Fort Ruger.

TABLE 23

KAPIOLANI COMMUNITY COLLEGE ADVISORY COMMITTEE

Individual	Affiliation
Yvonne Ambrose	Kapahulu Community Association; Kaimuki High School PTA
Nancy Bannick	Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board No. 5
Karen Bond	Kuliouou/Kalani Iki Neighborhood Board No. 2
Peyton Carroll	East Diamond Head Community Association
Albert Feirer	Kaimuiki Neighborhood Board No. 4
Louise Meadows Kato	Waialae/Kahala Neighborhood Board No. 3
Richard Kinji Kimball	Council of Community Association Presidents; Waialae Kahala area resident
Earnest Lamb	Kapahulu Community Association
Aaron Levine	Oahu Development Council
Robin Loomis	Hawaii Kai resident
Wendell Marumoto	East Diamond Head Community Association
Bertha Nahoopii	Kapahulu Community Association; Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board No. 3
Craig Nakamura	Waialae/Kahala Neighborhood Board No. 3
Clyde Preece	Neighborhood Board No. 5
C.E. "Rags" Scanlan	Kaimuki resident; Waialae/Kahala Neighborhood Board No. 3
Rodney Shinkawa	22nd Avenue Association
Charles "Stu" Skiff	Kaimuki Businessmen and Professional Association

6. ALTERNATIVES TO THE PROPOSED ACTION

The possible alternatives to adoption of the Master Plan for Kapiolani Community College shown in Figures 2 to 6 are as follows:

a. Do nothing

b. Develop the campus without a Master Plan

c. Select another of the site utilization schemes discussed in Section 2.F.2.

d. Select another of the alternative site plans discussed in Section 2.F.3.

The above alternatives were considered but rejected for the following reasons:

a. This would leave KCC in the situation of indefinitely operating at two sites with inadequate facilities. Kapiolani Community College was reviewed for reaffirmation of accreditation status by the Western Association of Community and Junior Colleges in November, 1979 and accreditation was granted on the basis of existing plans to develop the Fort Ruger campus.

b. Without the Master Plan, development of the College may be chaotic and result in educational and environmental problems which could have been lessened or eliminated with a Master Plan. An environmental impact statement would probably be required for each increment of development.

c. Site Utilization Scheme A which was selected for development of the alternative site plans provides the best basic plan to meet the needs of the College and community. Adoption of Schemes B or C would entail development of a alternative site plans with major deficiences in meeting the needs of the College and community.

d. Selection of another alterative site plan may be acceptable but would not represent the best plan feasible to meet the needs of the College and community. The alternative site plan selected has already been reviewed by community groups, the KCC Advisory Committee, College personnel and the Board of Regents.

7. THE RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Kapiolani Community College will be able to continue its function of providing higher education programs and activities at the Fort Ruger site. The Master Plan calls for the construction of buildings and facilities which will provide space allocations designed for each specific program. The physical and educational development of the College will be evaluated from time to time; and options to change policies, growth, physical structures, and educational programs will be duly considered.

Therefore, it is felt that the short-term and long-term use and productivity of the site will be beneficial from the standpoint of increasing the educational opportunities to the people of Hawaii. Some construction impacts will occur periodically as increments are built. These impacts will be mitigated by complying with the applicable standards, statutes, ordinances, codes, and regulations relating to environmental protection.

8. ANY IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION

The economic commitments will be in (1) construction of new buildings and facilities; (2) site work; (3) equipment and materials for the operation of the College; (4) planning and engineering work; (5) operating costs of the College. These costs are unavoidable and must be spent to fulfill the educational objectives and to implement the Master Plan. Once spent, the labor, construction materials, and school equipment and supplies, are for all intent and purposes, irretrievable. The site, developed for the College's specific use would be committed for a long-term period.

9. SUMMARY OF UNRESOLVED ISSUES

The principal concerns of adequate potable water, drainage and traffic will need to be coordinated with the respective County department responsible for these specific areas. (These were discussed in subsections 5.C.4.e., 5.C.4.c., and 5.C.5., respectively.)

If the existing military buildings and parade grounds are placed on the Hawaii Register of Historic Places, the master plan for the College will probably have to be revised. This is discussed in Sections 3.D. and 5.C.1.d.

10. LIST OF NECESSARY APPROVALS

The list of necessary approvals (also refer to Section 4.G., page 54) are:

Approval/Permit	Approving Agency	Status/Timing
Environmental Impact Statement	Governor of Hawaii	In Process
KCC Master Plan	Board of Regents	After Completion and Acceptance of EIS
Land Acquisition	Department of Land and Natural Resources	To be Requested
Shoreline Management Area permit	Department of Land Utilization	Permit to be Filed after approval of the Master Plan and Acceptance of EIS
Diamond Head Historic, Cultural, Scenic District	Department of Land Utilization	Same as above
Water Commitment	Board of Water Supply	To be obtained after abovementioned approvals/permits
Construction Plans	Department of Accounting and General Services	Final review prior obtaining building permits
Building Permit(s)	Building Department State Department of Health State Department of Labor Board of Water Supply Department of Public Works Department of Transportation Services	Prior to Construction

11. ENVIRONMENTAL ASSESSMENT COMMENTS

The Environmental Assessment for the relocation of KCC to the Fort Ruger site was prepared in October 1974; it was circulated and comments received. At that time, the "Environmental Impact Statement Regulations" were not prepared, therefore, the guidelines applicable at that time were followed in preparing the Environmental Assessment.

The circulation of the document was similar to the EIS Consultation Period process; therefore, the proposing agency, the Department of Accounting and General Services elected to prepare and process the EIS on the Master Plan.

Provided below are comments (in summary form) received during the circulation of the Environmental Assessment in 1974. After each comment, a disposition (or an indication where the subject is addressed in this EIS) is provided.

1. Comment: The Assessment stated that KCC receives the greatest number of applications of all community colleges. Why is this true? Is it because of its location? Or curriculum? Or a combination of both?

   Disposition: Basically the high number of applications is felt to be a result of the College's curricula. Its convenient location at Pensacola may also be an added factor for the high number of enrollment applications received by the College. The type of subjects offered are popular especially in view of the employment potential for skills such as nursing, dental assisting, cooking, secretarial, et cetera.

2. Comment: Consideration should be given to innovative schemes for the parking areas, rather than setting aside 12 acres for parking.

   Disposition: The EIS addresses these concerns on parking by indicating that the parking lots will be scattered throughout the site in order to distribute the traffic and create smaller lots so that landscaping can be used in and around these parking areas. No multiple story parking garage is planned since this type of building would be inconsistent with the design criteria. A parking structure is also more expensive and requires larger increments of construction.

3. Comment: Further information on the large population of songbirds should be provided.

   Dispostion: These songbirds are common species of birds which have been identified in the text of the EIS.

4. Comment: Drainage should be coordinated with the City and County's Department of Public Works. The present facilities reportedly are inadequate.

   Disposition: As indicated in the text, the Department of Public Works was consulted. Information on the proposed action as it

relates to the drainage facilities is provided in subsection 5.C.4.c.

5. Comment: Solid waste collection will not be provided by the City; solid waste collected (by the State or privately) should be disposed of at the Palailai Sanitary Landfill.

   Disposition: Solid waste collection and disposal will be provided by the State. The final disposal site shall be a sanitary landfill certified by the City.

6. Comment: A General Plan change (from Military use to Public Facilities use) is required.

   Disposition: An application processed in 1974 changed the General Plan designation of the Fort Ruger site from Military to Public Facilities.

7. Comment: Community opposition to the project should be assessed and disclosed.

   Disposition: Several meetings with the community and various other groups have been held since the circulation of the Assessment (1974). Section 5.C.6., on pages 78 and 79, identifies community attitudes toward the project. Further, the EIS process is another mechanism through which comments from the community can be attained.

8. Comment: A cost-benefit analysis for the college should be provided. The objectives fo the KCC should be reviewed to determine if they are presently being met. The economic impact on the community (e.g. tax increases) should be addressed.

   Disposition: A cost-benefit analysis was not prepared since the net benefits (i.e. an educational benefit which differs in individual situations) are difficult to analyze in monetary form. Instead the objectives of the university system (in total) were considered worthwhile and provides the type of higher education system the State requires. The objectives of KCC at the present site are not fully being met; therefore, the development of the Fort Ruger site will meet the objectives of KCC as cited in the EIS.

   Because the College will be built in increments, no severe economic impact to the State will likely occur.

9. Comment: Consider the alternative of using Fort Ruger as a satellite campus and utilize the existing campus as the main campus. This would allow portions of Fort Ruger to be developed for a public park, or a use of lesser density.

   Disposition: The splitting of the College into two campuses is not practical. It would result in (1) more traffic generated between the two campuses by students and staff; (2) create two campuses and not one which the student can readily identify with, and (3) possibly result in a duplication of services and/or equipment needed to serve two campuses.

10. Comment: Courses and programs offered to the community should be addressed.

Disposition: KCC will, as facilities become available, provide night time courses and programs oriented to the population in the surrounding communities. The nature and extent of these courses and programs will be based on the need, availability of funds and faculty, space, enrollment projections, et cetera.

11. Comment: Economic impact on the community such as increase in property value should be discussed.

Disposition: The College's impact on the surrounding residential property values is unknown. Normally, property values increase when a higher educational institute is located within the vicinity. (Source of information: Mr. Roy Fukumoto, Department of Taxation, telephone conversation, January 10, 1975). However, several factors must be considered: factors increasing land value, such as the proximity of a community college, and student rental and/or leasing opportunities; simultaneously other "unattractive" elements, which may offset increased land values would include heavier traffic on adjacent streets, on-street parking problems, and student activities disturbing some residents.

Although a college itself is not generating improvement project, it may accelerate its implementation for road widening, curbs, sidewalks, drainage system, et cetera. A portion of these improvements should increase the property values and therefore the property tax.

12. Comment: Vehicular traffic and safety, air and noise pollution, should be addressed in the EIS.

Disposition: These subjects were addressed in the EIS in subsections 5.C.5, 5.A.3., 5.A.4.

13. Comment: There was confusion on the reviewers' part over the 5,000 FTE figure used in the Assessment and the 6,000 headcount figure used in the 1974 traffic study.

Disposition: The FTE figure represents full-time equivalent students attending a college. The figure is calculated by taking the total credit hours of all student (per semester) and dividing that figure by 15 (15 credits represents a full-time student). In the case of KCC, the FTE enrollment normally runs 75 percent of the total enrollment of students (headcount). The recent traffic study prepared (1979) is based on a 5,000 FTE figure or a maximum of 6,000 students.

14. Comment: How will the parking area for Leahi Hospital be affected?

Disposition: Staff and visitors of Leahi Hospital presently share the parking lot at the corner of Kilauea and Makapuu Avenues. However, in June 1978, the University gave the Department of Health a Notice to Vacate in January 1982. The Department of

Health is considering a parking lot on the site occupied by the Bottomley and Spalding Buildings which are now vacant and proposed for demolition.

15. Comment: The 6-acre park area within the Fort Ruger site should be preserved and used for an urban park by the surrounding community.

    Disposition: The neighborhood is already served by the following parks and playgrounds which are within one mile of the campus: Kaimuki Recreation Center (2.7 acres), Kapaolono Field (5.5 acres), Kaimuki Reservoir Park (2.3 acres), Petrie Playground (4.8 acres), Kahala Field (8.8 acres), Kilauea Field (4.7 acres), Fort Ruger Park (3.2 acres), Diamond Head Beach Park (1.1 acres), Diamond Head Park A (0.7 acre), Diamond Head Park B (1.3 acres), Kuilei Cliffs (10.6 acres), Queen Kapiolani Park (96.5 acres), Waikiki Playground (3.0 acres). The area will also be served by the Diamond Head State Monument which contains over 145 acres.

16. Comment: Other uses of the Fort Ruger site should be addressed.

    Disposition: Many alternative uses for the Fort Ruger site can be discussed; however, it was the purpose of this EIS to specifically review the Master Plan for the College.

17. Comment: Street widening and phasing should be included in the EIS discussion.

    Disposition: Street widening was reviewed by the traffic consultant. His review indicated that street widening was not required. Instead, he recommends that the streets be repaved and that no parking be permitted on the perimeter roadways. The streets have adequate capacity to accommodate the additional traffic generated by the College with the exception of Diamond Head Road which is already serving more that it design capacity at Service Level C.

18. Comment: Adequate off-street parking must be provided.

    Disposition: Approximately 1200 parking spaces will be provided. No off-street parking problem is expected. Should this become a problem off-street parking during school hours can be restricted. Use of mass transit, walking, or bicycling to school will be encouraged.

19. Comment: Will the State-owned land adjacent to the project site be included in the development of the College?

    Disposition: No; that parcel is part of the Diamond Head State Monument.

Prior to the preparation of this EIS, a Pre-Draft EIS was circulated to various agencies and individuals (identified on page 90 through 95); this informal consultation provided a number of comments which were responded to by DAGS. Pages 96 though 196 contain reduced-size copies of the letters received and the replies from DAGS to comments.

12. EIS CONSULTATION PHASE COMMENTS AND RESPONSES
LETTER OF INQUIRY DATED JUNE 17, 1980 OR JUNE 20, 1980

FEDERAL AGENCIES	Comments	Response
1. Department of Agriculture Soil Conservation Service P. O. Box 50004 Honolulu, Hawaii 96850	07/07/80	10/09/80
2. Department of the Air Force Headquarters 15th Air Base Wing (PACAF) Hickam Air Force Base, Hawaii 96853	--	--
3. Department of the Army U.S. Army Engineer District Honolulu Building 230 Fort Shafter, Hawaii 96858	07/08/80	--
4. Department of the Army Headquarters U.S. Army Support Command, Hawaii Fort Shafter, Hawaii 96858	07/03/80	10/09/80
5. Environmental Protection Agency Pacific Island Contact Office Prince Kuhio Federal Building Room 1302 Honolulu, Hawaii 96813	--	--
6. Department of the Interior Fish and Wildlife Service 300 Ala Moana Boulevard P. O. Box 50167 Honolulu, Hawaii 96850	07/10/80	--
7. Headquarters Fourteenth Naval District Box 110 Pearl Harbor, Hawaii 96860	07/09/80	--

STATE AGENCIES		
1. Department of Agriculture	06/25/80	--
2. Department of Defense	07/07/80	10/09/80
3. Department of Education	06/26/80	10/10/80
4. Department of Health	07/09/80	10/09/80
5. Department of Land and Natural Resources	07/22/80	10/09/80

STATE AGENCIES (continued)	Comments	Response
6. Department of Planning and Economic Development	07/11/80	--
7. Department of Social Services and Housing	--	--
8. Department of Transportation	06/26/80	--
9. Office of Environmental Quality Control	07/11/80	10/10/80
10. University of Hawaii Water Resources Center	07/16/80	--
COUNTY AGENCIES		
1. Department of General Planning	07/14/80	10/10/80
2. Department of Land Utilization	07/14/80	10/10/80
3. Department of Parks and Recreation	06/27/80	--
4. Department of Public Works	06/24/80	--
5. Department of Transportation Services	07/14/80	10/10/80
6. Board of Water Supply	07/15/80	10/16/80
PUBLIC UTILITIES		
1. Gasco, Inc. (Pacific Resources Inc.)	06/27/80	--
2. Hawaiian Electric Company	07/09/80	--
3. Hawaiian Telephone Company	07/23/80	10/09/80
K.C.C. ADVISORY COMMITTEE 1977-1979		
1. Yvonne Ambrose 1017 6th Avenue Honolulu, Hawaii 96816	--	--
2. Nancy Bannick 871 Kapiolani Boulevard, Room 3 Honolulu, Hawaii 96813	--	--
3. Karen Bond 78 Niuiki Circle Honolulu, Hawaii 96821	--	--
4. Peyton Carroll 3721 Poka Place Honolulu, Hawaii 96816	--	--

K.C.C. ADVISORY COMMITTEE 1977-1979 (continued)	Comments	Response
5. Albert Feirer 3730 Mariposa Drive Honolulu, Hawaii 96816	--	--
6. Louise Meadows Kato 4300 Waialae Avenue, B-1201 Honolulu, Hawaii 96816	--	--
7. Richard Kinji Kimball 307 Lewers Street, Room 505 Honolulu, Hawaii 96815	--	--
8. Earnest Lamb 3631 McCorriston Street Honolulu, Hawaii 96815	--	--
9. Aaron Levine 119 Merchant Street, Room 508 Honolulu, Hawaii 96813	--	--
10. Robin Loomis 250 Kawaihae Street, #10-D Honolulu, Hawaii	--	--
11. Bertha Nahoopii 3216 Winam Avenue Honolulu, Hawaii 96816	--	--
12. Craig Nakamura 4952-2 Kilauea Avenue Honolulu, Hawaii 96816	--	--
13. Clyde Preece 2049 St. Louis Drive Honolulu, Hawaii 96816	--	--
14. C.E. "Rags" Scanlan 2265 Aha Niu Place Honolulu, Hawaii 96821	--	--
15. Rodney Shinkawa 4140 Malapua Place Honolulu, Hawaii 96816	--	--
16. Charles E. (Stu) Skiff 1143 12th Avenue, Suite 103 Honolulu, Hawaii 96816	--	--

LEGISLATORS AND COMMUNITY ORGANIZATIONS	Comments	Response
1. Honorable Neil Abercrombie Senator State Capitol, Room 227 Honolulu, Hawaii	07/14/80	10/16/80
2. Honorable Jack Larsen Representative State Capitol Honolulu, Hawaii	--	--
3. Honorable Tom Nekota P. O. Box 10435 Honolulu, Hawaii 96816	--	--
4. Honorable Patricia Saiki Senator State Capitol, Room 218 Honolulu, Hawaii	--	--
5. American Lung Association of Hawaii c/o Mr. James W. Morrow Director 245 North Kukui Street Honolulu, Hawaii 96817	--	--
6. East Diamond Head Community Association c/o Mr. Peyton Carroll, President 715 Palekaua Place Honolulu, Hawaii 96816	06/28/80 07/07/80	10/16/80 10/16/80
7. Kahala Community Association c/o Mr. Wendell Martin, Sr., President P. O. Box 10404 Honolulu, Hawaii 96816	07/12/80	10/16/80
8. Kaimuki Business and Professional Association c/o Mr. Patrick O'Malley, President 1148 12th Avenue Honolulu, Hawaii 96816	06/23/80	10/16/80
9. Life of the Land c/o Ms. Dee Dee Letts, Executive Director 404 Piikoi Street Room 209 Honolulu, Hawaii 96814	07/14/80	10/10/80
10. Neighborhood Board No. 3 Waialae Kahala Attn: Mr. Howard Y. Fukuda P. O. Box 10435 Honolulu, Hawaii 96818	07/10/80	--

LEGISLATORS AND COMMUNITY ORGANIZATIONS (continued)	Comments	Response
11. Neighborhood Board No. 4 Kaimuki c/o Mr. Paul Haraguchi 725 Luawai Street Honolulu, Hawaii 96816	--	--
12. Neighborhood Board No. 5 Attn: Mr. Clyde Preece c/o Kapahulu Library 402 Kapahulu Avenue Honolulu, Hawaii 96815	--	--
13. Neighborhood Board No. 6 Palolo c/o Ms. Barbara Ryan 2801 La-I Road Honolulu, Hawaii 96816	--	--
14. The Outdoor Circle 200 North Vineyard Street Honolulu, Hawaii 96817	--	--
15. Puu Panini Community Association c/o Dr. S. W. Glynn 4360 Puu Panini Avenue Honolulu, Hawaii 96816	--	--
16. Save Diamond Head Association c/o Mr. Sidney Snyder 119 Merchant Street Room 508 Honolulu, Hawaii 96813	--	--
17. Twenty-second Avenue Community Association c/o Mr. Paul Haraguchi 725 Luawai Street Honolulu, Hawaii 96816	--	--
OTHERS		
1. Mr. Kip Knight Johnson Hall, Room 120 2555 Dole Street Honolulu, Hawaii 96822	Undeliverable	
2. Mr. Stan Koltsch 4495 Sierra Drive Honolulu, Hawaii 96816	Undeliverable	
3. Mrs. H. D. Kroh 836 Oceanview Drive Honolulu, Hawaii 96816	--	--

OTHERS (continued)	Comments	Response
4. Miss Malama Maunupau 3131 Noela Drive Honolulu, Hawaii 96815	--	--
5. Mr. Wallace Sakuma 989 Waimanu Street Honolulu, Hawaii 96814	--	--
6. Mrs. Adeline Schutz 251 Kaalawai Place Honolulu, Hawaii 96816	--	--
7. Fukunaga and Associates, Inc. 2615 South King Street Honolulu, Hawaii 96826	--	--

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1672.0

JUN 20 1980

To Whom It May Concern:

Subject: Kapiolani Community College at Fort Ruger
EIS Consultation Phase for the Master Plan

Transmitted herewith for your review and comments is a copy of the Draft Environmental Impact Statement for the Master Plan of the Kapiolani Community College at Fort Ruger. We would appreciate those comments especially within your area of responsibility, expertise and/or concern. Please send your comments by July 14, 1980 to Mr. Rikio Nishioka, State Public Works Engineer, P.O. Box 119, Honolulu, Hawaii, 96810.

If you have no comments to offer relative to the project, we would appreciate your response to that effect. Should you have specific questions or need additional clarification on the EIS, please direct your inquiries to the project coordinator, Mr. Edwin Tani, of the Division of Public Works at 548-5742.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

Attach.

United States Department of Agriculture
Soil Conservation Service
P. O. Box 50004
Honolulu, Hawaii
96850

July 7, 1980

Mr. Rikio Nishioka
State Public Works Engineer
Department of Accounting
and General Services
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Subject: Kapiolani Community College at Fort Ruger
EIS Consultation Phase for the Master Plan

We have reviewed the subject draft environmental impact statement and have the following comments:

This land has been in urban use for almost 100 years. If grading is done with proper erosion control measures, there should be no adverse effects. The area does not have a flood hazard. Slopes are moderate where grading is planned. If earth moving is done incrementally and it is followed immediately with revegetation efforts, erosion should be minimal. Effective establishment of vegetation will require irrigation.

Thank you for the opportunity to review this document.

Sincerely,

JACK P. KANALZ
State Conservationist

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119 HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1979.0

OCT 9 1980

Mr. Jack P. Kanalz
State Conservationist
Soil Conservation Service
U. S. Department of Agriculture
P. O. Box 50004
Honolulu, Hawaii 96850

Dear Mr. Kanalz:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 7, 1980 on the draft EIS for the above-mentioned project. Our responses to your comments are:

(1) Erosion - Since grading and erosion control measures will be implemented according to applicable Department of Health and City and County requirements, erosion should be minimal.

(2) Irrigation - An appropriate irrigation system will be provided for the landscaped areas.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jnt 2-7

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
BUILDING 230
FT SHAFTER, HAWAII 96858

PODED-PV

8 July 1980

Mr. Hideo Murakami
State Comptroller
Department of Accounting
and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Murakami:

We have reviewed your "Revised Draft Environmental Impact Statement" (REIS) for the proposed Kapiolani Community College at Fort Ruger Master Plan, forwarded to us on 20 June 1980. We have prepared the following comments.

The REIS for subject project does not affect any U. S. Army Corps of Engineers Civil Works program. There are no Corps regulatory requirements that are applicable to the project. According to the flood insurance study for the island of Oahu prepared by the Federal Insurance Administration, the proposed campus site is not situated in a designated flood plain area and therefore is not subject to the 100-year flood, which is a flood having a 1% chance of being equalled or exceeded in any given year. The site is designated as an area of minimal flooding. Thank you for the opportunity to comment on your REIS.

Sincerely,

KISUK CHEUNG
Chief, Engineering Division

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY SUPPORT COMMAND, HAWAII
FORT SHAFTER, HAWAII 96858

REPLY TO
ATTENTION OF:

APZV-EHE-E

03 JUL 1980

Mr. Rikio Nishioka
State Public Works Engineer
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

The Revised Draft Environmental Impact Statement (DEIS) for the Master Plan of the Proposed Kapiolani Community College (KCC) at Fort Ruger has been reviewed and the following comments are offered:

a. There are several Army activities in the vicinity of the proposed campus. We concur with the conclusion that without adequate water supply and drainage, KCC could not be developed as anticipated by the Master Plan.

b. Page 37 of the DEIS states that a portion of the Fort Ruger site is being considered for nomination to the Hawaii and National Registers of Historic Places. Should this occur, further limitations would be placed on the Master Plan.

Sincerely,

ADOLPH A. HIGHT
COL, EN
Director of Engineering and Housing

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1971.0

OCT 9 1980

Colonel Adolph A. Hight
Director of Engineering
and Housing
Department of the Army
Headquarters U. S. Army
Support Command, Hawaii
Fort Shafter, Hawaii 96858

Dear Colonel Hight:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 3, 1980 on the above-mentioned draft EIS. Although an adequate water supply is needed for development of the campus, please note that an adequate County drainage system is not required. Section 5.C.4.c. of the EIS discusses the use of detention basins.

Discussion with the Historic Preservation people indicates the University has two basic alternatives if a portion of the site is placed on the Hawaii and National Registers of Historic Places:

(1) Honor the registration and replan the college around the historic portion.

(2) Proceed with the college as planned.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jnt 2-2

United States Department of the Interior

FISH AND WILDLIFE SERVICE
300 ALA MOANA BOULEVARD
P. O. BOX 50167
HONOLULU, HAWAII 96850

IN REPLY REFER TO:
ES
Room 6307

July 10, 1980

Mr. Hideo Murakami
State Department of Accounting
and General Services
P.O. Box 119
Honolulu, Hawaii 96810

Re: Revised Draft EIS
for Kapiolani Community
College at Fort Ruger,
Oahu, June 1980

Dear Mr. Murakami:

We have reviewed the subject draft Environmental Impact Statement and believe that the proposed action will have little, if any, adverse impact on fish and wildlife in the area.

We appreciate this opportunity to comment.

Sincerely yours,

Nevin D. Holmberg
Deputy Project Leader for
Ecological Services

cc: NMFS
HDF&G
EPA, San Francisco

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

HEADQUARTERS
NAVAL BASE PEARL HARBOR
BOX 110
PEARL HARBOR, HAWAII 96860

IN REPLY REFER TO:
00ZA:amn
Ser 1394

9 JUL 1980

Mr. Rikio Nishioka
State Public Works Engineer
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Kapiolani Community College at Fort Ruger
EIS Consultation Phase for the Master Plan

The Navy has reviewed the Draft Environmental Impact Statement for the Master Plan of the Kapiolani Community College at Fort Ruger, forwarded by DAGS letter No. (P) 1672.0 of 20 June 1980, and has no comments to offer.

The opporunity to review the subject EIS is appreciated.

Sincerely,

R. D. EBER
CAPT, CEC, USN
FACILITIES ENGINEER
BY DIRECTION OF THE COMMANDER

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF AGRICULTURE
1428 SO. KING STREET
HONOLULU, HAWAII 96814

JOHN FARIAS, JR.
CHAIRMAN BOARD OF AGRICULTURE
YUKIO KITAGAWA
DEPUTY TO THE CHAIRMAN

June 25, 1980

MEMORANDUM

To: Mr. Hideo Murakami, State Comptroller
Department of Accounting and General Services

Subject: Kapiolani Community College at Fort Ruger
EIS Consultation Phase for the Master Plan

The Department of Agriculture has reviewed the subject application and has no comments to offer.

Thank you for the opportunity to comment.

JOHN FARIAS, JR.
Chairman, Board of Agriculture

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
3949 DIAMOND HEAD ROAD, HONOLULU, HAWAII 96816

VALENTINE A. SEPERMANN
MAJOR GENERAL
ADJUTANT GENERAL

THOMAS S. ITO
BRIGADIER GENERAL
DEPUTY ADJUTANT GENERAL

HIENG

07 JUL 1980

Mr. Rikio Nishioka
State Public Works Engineer
Department of Accounting and General Services
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Kapiolani Community College at Fort Ruger
EIS Consultation Phase for the Master Plan

We have no objections to the proposed project, however, we are deeply concerned on the increase in traffic on Diamond Head Road that will be generated by the Kapiolani Community College at Fort Ruger.

Presently, we have access from the Diamond Head Crater area at the intersection of the Crater Road and Diamond Head Road and at times it is difficult to turn either left or right. With the additional traffic generated at Fort Ruger and the increase in usage of 18th Avenue, we feel a detailed traffic analysis be conducted and traffic signals warrants be evaluated at the intersections of 18th Avenue and Diamond Head Road and at the Crater Road and Diamond Head Road.

Thank you for this opportunity to provide our comments.

Yours truly,

JERRY M. MATSUDA
Captain, HANG
Const & Engr Officer

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119 HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P) 1974.0

OCT 9 1980

Captain Jerry M. Matsuda
Office of the Adjutant General
Department of Defense
State of Hawaii
3949 Diamond Head Road
Honolulu, Hawaii 96816

Dear Captain Matsuda:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 7, 1980 on the above-mentioned draft EIS. The following information is provided regarding your concerns about traffic:

(1) The EIS and Planning Report for the Diamond Head State Monument indicate the crater access road will be aligned with the proposed college access road and their intersection with Diamond Head Road shifted towards 18th Avenue.

(2) Diamond Head Road, at the intersection with the proposed crater and college access roads, is planned to be widened to provide turning lanes to minimize traffic delays.

(3) The need for traffic signals will be determined according to the County Department of Transportation Services' standards during the design of the Crater Monument and college access roads.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jnt 2-4
cc: Mr. S. Ono

101

GEORGE R. ARIYOSHI
GOVERNOR

CHARLES G. CLARK
SUPERINTENDENT

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P. O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

June 26, 1980

MEMO TO: Honorable Hideo Murakami, Comptroller
Department of Accounting & General Services

FROM: Charles G. Clark, Superintendent
Department of Education

SUBJECT: Kapiolani Community College at Fort Ruger
EIS Consultation Phase

We have reviewed the subject EIS and would like to offer the following comments.

1. The design of the drainage system for KCC at Ruger is of concern to us because of a history of flooding and storm run-off problems at our Kaimuki Intermediate School. We note that the discussion of the drainage design assumes the County system will be adequate to handle the runoff. The other point is that the City will approve the drainage proposal if it limits the flow leaving the site to that of the predevelopment level.

   We believe that further study should be initiated followed by design changes if necessary to insure that the County system is adequate and that the runoff from KCC is less than predevelopment levels. Maintaining the status quo condemns Kaimuki Intermediate to a future of flooding and run-off problems.

2. The data cited for traffic volume on 18th Avenue was taken during the month of August for both 1971 and 1979. That data does not reflect the traffic volume when Kaimuki Intermediate School is in session.

   Although the departure volume of vehicles is not a problem in the afternoon period, the arrival volume of vehicles between 7:00 a.m. and 8:00 a.m. will create traffic congestion if one considers 100 percent arrival of Kaimuki Intermediate's and 50 percent arrival of KCC's staff and students.

   The exception to the afternoon traffic congestion is during storm conditions. 18th Avenue is completely blocked by parents picking up their children.

AN EQUAL OPPORTUNITY EMPLOYER

Honorable Hideo Murakami
June 26, 1980
Page 2

4. It is suggested that the improvement of 18th Avenue be advanced ahead of schedule. The widening of 18th Avenue could be initiated together with Pearson Road Road which the study indicates requires widening to handle the volume of traffic. The County storm drainage system improvement could be tied in with the road improvement project.

Coordination of these improvements with the KCC Master Plan would resolve the problems cited earlier.

Your consideration of these comments is appreciated.

CC:BL:jl

cc: Mr. Louis F. Edington
Honolulu District

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOM JIAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1977.0

OCT 10 1980

Honorable Charles G. Clark
Superintendent
Department of Education
State of Hawaii
Honolulu, Hawaii

Dear Mr. Clark:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

We have received and reviewed your letter of June 26, 1980, on the abovementioned draft EIS. In response to your concerns on drainage and traffic, we provide the following information:

DRAINAGE

1. The EIS states the County's drainage system is inadequate to serve the proposed development of the college. Therefore, detention basins must be utilized.

2. The college is not in a position to finance improvements to the County drainage system. We would therefore recommend that an improvement district be initiated for the improvements.

TRAFFIC

1. Traffic volume counts were also made by the Department of Transportation Services of the City and County of Honolulu in 1973 during the month of January when Kaimuki Intermediate School and other schools in the vicinity were in session. An analysis of the 1973 traffic data indicated that the peak hour volumes were generally lower than either the 1979 or 1971 peak hour volumes. Therefore, only the 1971 and 1979 traffic volume data were used for the traffic impact analysis on 18th Avenue.

2. The traffic impact statement did take into account the arrival volume of vehicles between 7:00 a.m. and 8:00 a.m. As indicated in Table 4 of Appendix IV, the arrivals between 7:00 a.m. and 8:00 a.m. is estimated at about 28% of the total for each day.

   Table A-2 of Appendix IV indicates that the peak hour morning and afternoon traffic of 634 and 860 vehicles respectively on 18th Avenue is about 27% and 73% more than the 497 vehicles during the after school traffic.

3. We would recommend that an improvement district be initiated by the County for both the roadway and drainage improvements on 18th Avenue and Diamond Head Road. Please note that the County does not have any schedule for these improvements.

Thank you for your letter; we appreciate your comments regarding the draft EIS.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

GEORGE A. L. YUEN
DIRECTOR OF HEALTH

HENRY N. THOMPSON, M.D.
DEPUTY DIRECTOR FOR ENVIRONMENTAL HEALTH

July 9, 1980

In reply, please refer to
File: EPHS-SS

MEMORANDUM

To: Mr. Hideo Murakami, State Comptroller
Department of Accounting & General Services

From: Deputy Director for Environmental Health

Subject: Environmental Impact Statement (EIS) for the Proposed Kapiolani Community College at Fort Ruger

Thank you for allowing us to review and comment on the subject EIS. On the basis that the project will comply with all applicable Public Health Regulations, please be informed that we do not have any objections to this project.

We submit the following comments for your information and consideration:

1. The facility must be designed to comply with the provisions of Public Health Regulations Chapter 44B, Community Noise Control for Oahu. Noise from equipment such as air conditioning/ventilation units and exhaust units, must be attenuated to meet the allowable noise levels of the regulations based on zoning districts.

2. Noise from activities associated with the use of the recreational facilities, including the gymnasium, swimming pool, athletic courts and fields, can have an adverse effect, in terms of annoyances, on neighboring residents. The proposed site selection and landscape buffering/screening plans may provide some reduction in disturbances.

3. Construction activities must comply with the provisions of Public Health Regulations Chapter 44B, Community Noise Control for Oahu:

   a. The contractor must obtain a noise permit if the noise levels from the construction activities are expected to exceed the allowable levels of the regulations.

   b. Construction equipment and on-site vehicles or devices requiring an exhaust of gas or air must have a muffler.

   c. The contractor must comply with the conditional use of permit as specified in the regulations and the conditions issued with the permit.

4. Traffic noise from heavy vehicles traveling to and from the construction site must be minimized in residential areas and must comply with the provisions of Public Health Regulations Chapter 44A, Vehicular Noise Control for Oahu.

We realize that the statements are general in nature due to preliminary plans being the sole source of discussion. We, therefore, reserve the right to impose future environmental restrictions on the project at the time final plans are submitted to this office for review.

For MELVIN K. KOIZUMI

cc: OSPC

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE M. TOMIMAGA
DEPUTY COMPTROLLER

LETTER NO (P)1978.0

OCT 9 1980

Mr. Melvin K. Koizumi
Deputy Director
Department of Health
State of Hawaii
Honolulu, Hawaii

Dear Mr. Koizumi:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 9, 1980 on the above-mentioned draft EIS. Please be assured the design, construction and operation of the school will be in compliance with Public Health Regulations 44A and 44B, as indicated in Section 5.A.4 of the EIS.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

SUSUMU ONO, CHAIRMAN
BOARD OF LAND & NATURAL RESOURCES

EDGAR A. HAMASU
DEPUTY TO THE CHAIRMAN

DIVISIONS:
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

July 22, 1980

REF NO.: APO-1876

Honorable Hideo Murakami
Comptroller
Department of Accounting and
General Services
P. O. Box 119
Honolulu, HI 96810

Dear Sir:

We have reviewed the draft EIS (June 1980) for Kapiolani Community College.

We are very much interested in the campus entrance and in ensuring that it be kept safe, attractive and uncluttered. We also urge that construction in and over the BWS tunnel easement be planned and executed with great care.

Very truly yours,

SUSUMU ONO, Chairman
Board of Land and Natural Resources

GEORGE R. ARIYOSHI
GOVERNOR

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOMINAGA
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96810

LETTER NO. (P)1975.0

OCT 9 1980

Honorable Susumu Ono
Chairman
Department of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

Dear Mr. Ono:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 22, 1980 commenting on the above-mentioned draft EIS. Relative to your comments, we provide the following responses:

(1) Campus Entrance - We will continue to work with your State Parks, Outdoor Recreation and Historic Sites Division towards planning and constructing an entrance that is not only safe, but distinctive and aesthetically pleasing.

(2) BWS Tunnel - Please be assured that construction in and over the BWS tunnel easement will be planned and executed with appropriate care.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT

GEORGE R. ARIYOSHI
Governor

HIDETO KONO
Director

FRANK SKRIVANEK
Deputy Director

GEORGE R. ARIYOSHI
Governor

Kamehameha Building, 250 South King St., Honolulu, Hawaii • Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

July 11, 1980

Ref. No. 1750

Mr. Rikio Nishioka
State Public Works Engineer
Department of Accounting and
General Services
State of Hawaii
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Subject: Revised Draft Environmental Impact Statement for the Proposed Kapiolani Community College at Fort Ruger, Oahu

We have reviewed the above document and find that it has adequately identified the major environmental impacts which can be anticipated to result from the proposed project.

Thank you for the opportunity to review this matter.

Sincerely,

Hideto Kono

cc: Mr. Richard L. O'Connell, Director
Office of Environmental Quality Control

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION

STP 8.6348

June 26, 1980

MEMORANDUM

TO: HIDEO MURAKAMI, COMPTROLLER
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

FROM: DIRECTOR OF TRANSPORTATION

SUBJECT: KAPIOLANI COMMUNITY COLLEGE AT FORT RUGER
EIS CONSULTATION PHASE FOR THE MASTER PLAN

Thank you for the opportunity to review and comment on the draft EIS for the Kapiolani Community College. The project has no direct impact on our State highway facilities. In this regard, we have no substantive comments to offer which could improve the document.

Ryokichi Higashionna
Ryokichi Higashionna

GEORGE R. ARIYOSHI
GOVERNOR

RECEIVED
JUL 14 1 57 PM '80
DAGS

RICHARD O'CONNELL
DIRECTOR

TELEPHONE NO.
548-6915

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

550 HALEKAUWILA ST
ROOM 301
HONOLULU, HAWAII 96813

July 11, 1980

MEMORANDUM

TO: Hideo Murakami, Comptroller
Department of Accounting & General Services

FROM: Richard L. O'Connell, Director
Office of Environmental Quality Control

SUBJECT: Kapiolani Community College at Fort Ruger EIS
Consultation Phase for the Master Plan

In response to the EIS preparation notice we have reviewed the subject document and offer the following comments for your consideration in preparing the EIS.

Parking

The discussion on parking should be expanded. Will parking be equally available to student, faculty and staff? It is unclear whether parking will be free or if a semester fee will be established. If a fee is established how will it be assured that only "stickered" cars park in lots since entry gates and kiosks are not recommended? Establishment of fees may encourage many students to seek nearby free and readily accessible on-street parking. This could lead to major conflicts between the community and students. This possibility should be thoroughly discussed in the EIS.

Cesspools

Current sewage disposal systems are adequate to handle the increased wastes generated by the expanded community college. Soils found on the site have severe limitations

for spetic tank and cesspool systems. In light of this, other means of handling the anticipated low flows should be considered.

Geology

The ages given for the Koolau Range and Diamond Head appear to be incorrect. More reasonable approximations should be given.

Erosion

Soils in the area are subject to severe erosion. What impact will this have on the surrounding areas? A detailed discussion should be included in the EIS.

Noise

Noise will be a significant problem during construction. Increased vehicle traffic will also substantially increase ambient noise levels. Expected noise levels both during and after construction should be discussed in the EIS.

Water

How much water will be needed by K.C.C.? What impact will this have on existing water supplies and systems? Will additional water lines be necessary?

Solid Waste

Where will solid waste be disposed? Can existing facilities handle increased waste generated by the community college?

Traffic

Although a large number of streets surround the proposed site, only a few feeder roads lead into Fort Ruger from other areas. These roads experience heavy congestion that will be magnified by expansions at the Fort Ruger site. What are the capacities of H-1, Monsarrat Avenue, and Kapahulu Avenue in the vicinity of Fort Ruger? What are the peak traffic volumes? The EIS should include a detailed discussion of current and future problems on these feeder roads.

Historic Sites

Fort Ruger is currently being nominated as a State historic site. Several buildings, former officers quarters and the parade ground appear to be most affected by developments at K.C.C. Has consideration been given to these areas if they do become registered historic sites? What mitigative measures will be adopted to assure that these potential sites are not destroyed? A discussion of K.C.C. expansion effects on these sites should be included in the EIS.

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119 HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOFUHAGA
DEPUTY COMPTROLLER

LETTER NO (P)2032.0

OCT 10 1980

Mr. Richard O'Connell, Director
Office of Environmental Quality Control
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. O'Connell:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 11, 1980, on the EIS for the subject project. In response to your concerns we would like to provide the following information:

Parking:

1. Parking will be equally available for all college users.

2. Students and faculty will be charged a fee to park on campus.

3. A security force can be employed to enforce parking regulations as is now the case for other community colleges.

4. The college plans to set a parking fee rate consistent with the low community college tuition and fee rates.

5. The traffic consultant has recommended that on-street parking on immediate streets be restricted, especially during the peak traffic times to facilitate traffic flow. This should restrict conflicts between students and the community.

Cesspools:

The use of cesspools will be discussed with the State Department of Health during the first increment design. If approval is not received, the sewer connection will be made in the first increment.

Geology:

The figure will be changed to "approximately 3 million years."

Erosion:

Since the flat areas of the site which are to be developed are below 10% slope, the soil identification in the EIS is appropriate only for the steep areas separating the academic and athletic areas. These areas will be left in their existing state.

Noise:

Construction noise is controlled by State Public Health Regulations as discussed in the EIS. A statement will be included on traffic noise.

Water:

The engineer estimates that KCC will require approximately 300,000 gallons per day for a 5,000 FTE enrollment. The engineer feels that the existing BWS system can accommodate KCC. However, each time a new facility is to be constructed, a BWS commitment for additional water service must be obtained. New waterlines on campus will be necessary to serve the school.

Solid Waste:

The solid waste will be collected and disposed of by a private firm under contract with the State. It will be disposed of at the Palailai Sanitary Landfill or some other County approved disposal site.

Traffic:

Discussion of current and projected traffic problems for the Fort Ruger site is set forth in the detailed study entitled "Traffic Impact Statement" which is included in the EIS as Appendix IV. It should be reiterated that there are 11 separate approaches to the campus and that these 11 approaches should distribute the traffic flow throughout the area.

The request for detailed discussions of current and future problems on roadways such as the H-1 and Kapahulu Avenue are beyond the scope of this EIS. To even attempt to provide this information would require data on the total future development of the East Honolulu area.

Historic Sites:

None of the facilities were thought to have historic significance according to the environmental assessment study the U. S. Army prepared prior to sale of the land and facilities to the State. Therefore, historic significance of existing structures on the site is a recent issue.

The nomination of certain facilities to the Hawaii and National Register of Historic Places was referred back to the staff by the Historic Places Review Board for additional research. Based on discussions with the staff of the State Parks, Outdoor Recreation and Historic Sites Division, if these facilities were places on the above Registers, the college has two alternatives:

1. Honor the nomination and replan the college around the historic site; or

2. Proceed with the college as planned.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:ck

UNIVERSITY OF HAWAII
Water Resources Research Center

16 July 1980

Mr. Rikio Nishioka
State Public Works Engineer
P. O. Box 119
Honolulu, HI 96810

Dear Mr. Nishioka:

SUBJECT: Kapiolani Community College at Fort Ruger

We have reviewed the Draft Environmental Impact Statement and have no comments to submit.

Thank you for allowing us to review and comment on the document.

Sincerely,

Henry K. Gee

Henry K. Gee
Acting WRRC EIS Coordinator

HKG:jm

cc: E. Murabayashi

2540 Dole Street · Honolulu, Hawaii 96822

110

DEPARTMENT OF GENERAL PLANNING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

GEORGE S. MORIGUCHI
CHIEF PLANNING OFFICER

DGP6/80-1805(CT)

July 14, 1980

Mr. Rikio Nishioka
State Public Works Engineer
Department of Accounting and
General Services
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Kapiolani Community College at Fort Ruger
EIS Consultation Phase for the Master Plan
Comments Requested June 20, 1980
DAGS Ref. No. (P)1672.0

We offer the following comments.

Statement of Need

The EIS should justify the new campus development with more recent and detailed information as to the place of residence of students presently enrolled in existing educational programs, such as Hotel and Restaurant Training, and Practical Nursing. Also, there should be some indication as to the expected enrollment from the immediate vicinity in the Liberal Arts and other programs. Street address coding guides are available for determining census tracts of residence from street addresses.

Such data would counter the feeling in some parts of the surrounding community that much of the expected enrollment will be from other areas, and that location of the full campus here will involve additional travel to school, with all its attendant problems.

Proposed intramural and other sports programs should be described in relation to the proposed recreation facilities. Is inter-campus competition envisioned?

Recreation Facilities

A benefit to the community listed in the impact statement is ". . . sharing of recreational facilities" (p. 4). The location of the proposed gymnasium and swimming pool, however, may make sharing of facilities with the community and the intermediate school difficult.

The baseball field measures about 200 feet to the left field and right field lines rather than 300 to 325 feet recommended for college baseball.

The orientation of the proposed football and baseball fields could make the sun and the prevailing wind a tremendous factor in game strategy. These fields should be oriented as normally recommended, with the end zones and centerfield-home plate in a north-south orientation.

The provision of only one pedestrian access from the upper campus to the recreation facilities on the lower campus by way of the student center and gymnasium may encourage use of the automobile.

Mowing equipment will have to be trucked around from the upper level to the lower level for maintenance of the playing fields.

Site Utilization

Consideration should be given to provisions of some distinguishing entrance or focal point which provides campus identity as you pass by.

The internal circulation system should provide easy access to buildings and parking areas but minimize driving through the parking areas. If possible, a separate entrance should be provided for service trucks.

Air conditioning is programmed for all of the facilities, except the maintenance shop and workroom, and the outdoor recreation facilities (pp. 13-14). Energy costs for air conditioning should be estimated. Inflationary costs for energy may warrant a reconsideration of natural ventilation, and thus a different orientation of the campus buildings, consistent with State energy conservation policies.

Sewage Disposal

Inasmuch as the sewerage system is adequate to handle the projected flow from the future college, the proposed use of cesspools outside of Area 1 should be carefully reconsidered. With the proper design (i.e., slope of sewer lines), deposits in the sewer lines can be avoided.

Drainage

The EIS should indicate present drainage flows and the ultimate fate of drainage after leaving the site. Interim and ultimate drainage plans should also be mapped and described, in conjunction with County plans for drainage offsite. For instance, what will be the capacity of the temporary detention basin? What are the plans for improving the County drainage system along 18th Avenue, and when are the improvements scheduled for completion?

Traffic

Existing traffic counts in Tables A-1 through A-11 should identify which particular streams of traffic are those presently going into and out of the campus (pp. 142-152). Table 4 (p. 126) shows the hourly percent distribution of campus traffic from 7:00 a.m. to 6:00 p.m. but does not indicate the 24-hour traffic volume.

How the traffic projections and projection factors were derived should be completely explained. In a 1978 survey, 76 percent of the students and 94 percent of the faculty/staff indicated they drove to the Diamond Head campus (p. 125, Table 3). In the traffic projections, 65 percent of the total students and faculty/staff are expected to drive to school (p. 130).

It is estimated that the number of students attending classes at the Diamond Head campus in 1978 was 27.3 percent of the 4,200 students enrolled, but the percentages cited (19.7% plus 7.6%= 27.3%) were faculty/staff responses to the survey (p. 125, Table 2).

Hourly traffic volumes were calculated as follows:

6300 x 65% x 0.5 x 1.5 trips x % from Table 4 (p. 131, Footnote a)

or

enrollment x % driving x 0.5 x trips/day/driver x hourly distribution

There is some question as to whether the 0.5 factor should be 2.0 for two vehicular trips per round trip (p. 130).

The distribution of trips equally to all eleven streets to the campus may be true within the immediate vicinity of the campus, but should be limited to the major streets (8 or less) as you approach the campus, taking into account the potential enrollments from the various major directions from enrollment projections by geographic areas.

The traffic projections of the consultant indicate that the "street system will have sufficient capacity to accommodate all of the traffic generated by the college except Diamond Head Road which already has a peak hour traffic over over 900 vehicles" (p. 117), but it is noted that active studies have not been initiated to plan for widening of any of the roadways (p. 62). This may account for much of the opposition to the proposed campus development. Some drivers from Koko Head now find it convenient to use Kilauea Avenue, 18th Avenue and Diamond Head Road to get to Waikiki and the Ala Moana area, even though the latter two are only 2-lane roadways. Without improvements, the proposed campus development will make traffic conditions worse for them.

Thank you for affording us the opportunity of reviewing your proposed impact statement.

Sincerely,

GEORGE S. MORIGUCHI
Chief Planning Officer

GSM:ws

GEORGE R. ARIYOSHI
GOVERNOR

HIDEO MURAKAMI
COMPTROLLER

MIKE M. TOMIMAGA
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

LETTER NO. (P)2025.0

OCT 10 1980

Mr. George S. Moriguchi
Chief Planning Officer
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Moriguchi:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 14, 1980 on the subject project. The following responses are provided to your comments and concerns:

Statement of Need:

1. The statement of need for relocation was included in the EIS to provide the reader with a brief background to better understand the next step in development of the campus. Please note that a site selection study was conducted, the land acquired, and classes have been held at the Fort Ruger campus for several years. Thus, the EIS is for the master plan of the campus.

2. Since certain career programs are held only at KCC, it will draw students from the entire island. The liberal arts program which is duplicated at other community colleges will basically serve the residents in the surrounding area. Thus, a large portion of the students will probably come from other areas of the island.

3. A study on intramural and other sports programs is being conducted by the Chancellor's Office for Community Colleges. There presently is informal campus competition in various sports.

Recreation Facilities:

1. The location of the proposed swimming pool and gymnasium was based on program and operational requirements plus present site conditions. We do not believe this siting will deter community or school use.

2. This facility is incorrectly labeled and will be changed. It should be designated as a softball field as indicated in some of the other figures.

3. The softball field is essentially aligned with the home plate-centerfield axis in a north-south orientation. Overlapping the football and soccer fields reduces area requirements and grading costs.

4. It does not appear that additional pedestrian access between the upper and lower campus would discourage use of the automobile. However, this item can be reviewed as the campus is developed.

5. We have no comment on trucking of the mowing equipment.

Site Utilization:

1. The entrance to the community college will be given careful consideration to provide an identification as well as a distinguished appearance.

2. We concur with your comment on the internal circulation system; however, separating the driveway from the parking lot increases the paved area on campus as well as the construction cost. We do not feel there is adequate justification to provide a separate entrance for service trucks.

3. The college has decided that natural ventilation should be utilized for most of the facilities. This probably means that some adjustments must be made during the detailed design of the building.

Sewage Disposal:

1. Cesspools will be used only if approval from the State Department of Health is provided.

Drainage:

1. The ultimate and incremental drainage plans are shown in Figures 3 and 7, respectively. Since the downstream drainage pattern and the peak runoff are not being changed, we do not see the need to provide off campus drainage plans.

2. The County presently does not have any plans or schedule to improve the drainage system for this area.

3. The present and projected peak runoffs for the college are estimated at 77 and 230 cfs, respectively. The exact size of the detention basin will be determined during the detailed design phase after the drainage system is laid out.

4. The college does not have any plans for improving the County drainage system along 18th Avenue.

Traffic:

1. The data in Tables A1 through A11 are used to determine the loading on the roadways. We, therefore, do not see any useful purpose in determining which particular streams of traffic are going in and out of the campus.

2. The section on College Traffic Generation indicates that the 24-hour traffic volume is computed at 6300 x 65% x 1.5 trips = 6,142 vehicular trips.

3. The derivation of traffic projections and projection factors are explained in the sections on Leeward Community College Survey, Kapiolani Community College Survey and College Traffic Generation.

4. The number of students attending the Fort Ruger campus was estimated at 1,150 based on the percentage of survey responses. The college estimated the number of students at 1,200 based on the number of classes held and the average number of classes a student takes.

5. The total estimated number of persons driving to college is 6,300 x 65% or 4,095. Although each of the 4,095 persons must make two trips--one going to and one coming from, not all of them go to school everyday. Thus, each of them makes an average of 1.5 trips per day. Stated

another way: 4,095 x 75% or 3,071 persons would make two trips each day. Thus, the 0.5 factor is used to determine the traffic going to or from the campus so that their hourly distribution can be computed separately.

6. Rather than use a tedious origin-route approach which would require a computer and still be difficult to justify, the consultant selected a simple and effective method which assumes each roadway would carry 36% (4 x 100%/11) of the projected college traffic.

7. Since Diamond Head Road is a County roadway and the present traffic volume indicates it should be widened, we believe the County should widen the roadway through the improvement district process.

   To lessen the impact of college traffic on Diamond Head Road, the access road for the Crater and college will be aligned and shifted towards 18th Avenue and turning lanes will be provided at this intersection.

   If any impact is foreseen, it will be the opposition from the property owners to an improvement district project for roadway and drainage improvements because they will have to pay for part of the cost.

We appreciate your comments on the EIS for the project.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • (808) 523-4411

FRANK F. FASI
MAYOR

TERUOKI T. YOSAG
DIRECTOR

78/EC-3(SE)

July 14, 1980

Mr. Rikio Nishioka, State Public Works Engineer
Department of Accounting and General Services
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Draft Environmental Impact Statement
for the Proposed
Kapiolani Community College at Fort Ruger
Master Plan Consultation Phase

We have reviewed the above document and offer the following comments:

1. Reference: Pedestrian and Vehicular Accessibility, Page 23.

   Comment: The text states that the college will encourage ridership on the BUS. How will this be done, when the master plan calls for 1200 parking spaces?

2. Reference: 5.C.4.e., Potable Water, Page 62.

   Comment: What are the anticipated water demands for the campus site and at what stage of the EIS process will the extent of off-site improvements be known?

3. Reference: 5.C.5., Traffic and the Transportation System, Page 62.

   Comment: It is stated that existing roads should be improved to meet future traffic demands, yet there is no anticipated target date for these improvements. Have any funds been appropriated for the studies which will be required?

Will there be any attempt to insure that these proposed improvements will be implemented prior to the completion of the KCC relocation?

We believe that the traffic projections and anticipated volumes should reflect the supplemental traffic to be generated by the Diamond Head State Park, both during and after construction phases.

-. Reference: 4.C. and 4.E., Page 40.

Comments: 1. The Diamond Head Design Ordinance is not a separate ordinance as the subsection implies. 4.C. should be incorporated into 4.B.

2. Since this EIS document is being prepared under provisions of Chapter 343, HRS, the "Request for Assessment" step may be waived.

3. A copy of the accepted EIS should accompany the SMA Permit application form.

Please contact Mr. Scott Ezer of our staff at 523-4077 if you should have any questions.

Very truly yours.

TYRONE T. KUSAO
Director of Land Utilization

TTK:sl

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)2031.0

OCT 10 1980

Mr. Tyrone T. Kusao
Director
Department of Land Utilization
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Kusao:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 14, 1980 commenting on the EIS for the subject project. The following responses are provided to your comments and concerns:

1. Bus ridership. The master plan calls for 1,200 parking spaces to reduce the morning rush for parking stalls and minimize onstreet parking which would probably increase and impede the traffic on surrounding streets. This was one of the major concerns of the community. The bus ridership will be encouraged by charging a parking fee, providing facilities close to the bus route on Makapuu Avenue, providing bus shelters and working with the City's Mass Transit Division to increase bus service to the campus.

2. Potable water. The water demand for KCC at the Fort Ruger site is estimated to be 300,000 gallons per day when fully completed (5,000 FTE). The wording will be revised to indicate the off-site improvements referred to are for the BWS.

3. Traffic and transportation system. The wording will be revised as follows: "In the future, the existing road systems may be widened and improved by the County according to their General Plan. However, no active studies have been initiated to plan for these road improvements."

The Traffic Impact Statement indicates the surrounding roadways are adequate except for Diamond Head Road and recommends that only the portion of Diamond Head

Letter No. (P)2031.0

Road between 18th Avenue and Monsarrat Avenue be widened and improved. Since Diamond Head Road is under the County's jurisdiction and the present peak traffic volume exceeds the capacity of the road, we believe the County should improve the roadway. We will be requesting that the County implement this improvement before the campus development is completed.

Of all the traffic generation characteristics, the most important is the traffic which will affect the highway at the time of the highway's peak loading condition. All other traffic occurring during off-peak hours will not affect the capacity of a highway since highways are designed to meet peak hour commuting demand. Thus, if a highway is able to accommodate the traffic during the morning and afternoon peak commuting hours, the highway will have more than adequate capacity during all other hours of the day. The traffic generated by the Diamond Head State Park will occur during off-peak hours and should not affect the capacities of the highways.

4. Diamond Head Ordinance. Sections 4.B. and 4.C. will be combined as suggested. A copy of the accepted EIS will be submitted with the SMA Permit application form.

Your comments on the EIS for the subject project are appreciated.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:ck

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

RAMON D. DURAN
DIRECTOR

June 27, 1980

Mr. Rikio Nishioka
State Public Works Engineer
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE MASTER PLAN OF KAPIOLANI COMMUNITY COLLEGE AT FORT RUGER

We have no comments to offer on the draft EIS for the Master Plan of Kapiolani Community College.

Thank you for the opportunity to review the draft EIS.

Warm regards.

Sincerely,

RAMON DURAN, Director

RD:lm

DEPARTMENT OF PUBLIC WORKS

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813

WALLACE MIYAHIRA
DIRECTOR AND CHIEF ENGINEER

FRANK F. FASI
MAYOR

ENV 80-189

June 24, 1980

Mr. Rikio Nishioka
State Public Works Engineer
Department of Accounting
and General Services
State of Hawaii
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Subject: Draft EIS for Kapiolani Community College at Fort Ruger, Honolulu, Oahu

The use of retention ponds is satisfactory in controlling stormwater flows at the proposed Fort Ruger campus. However, we cannot overemphasize the need for pond maintenance throughout the life of the installations.

Very truly yours,

Wallace Miyahira

WALLACE MIYAHIRA
Director and Chief Engineer

117

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

TEE/80-1866

July 14, 1980

Mr. Rikio Nishioka
State Public Works Engineer
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Subject: Revised Draft Environmental Impact Statement for the Proposed Kapiolani Community College at Fort Ruger Master Plan (Ref: P-1672.0)

We have reviewed the draft EIS for the project and present the following comments:

1. Page 127, Survey question No. 1, "Would you ride the bus if the service were improved?" Question is trying to steer the respondent to a "yes" response. The level of improvement to bus service is different for each person. A fairer question would be, "Would you ride the bus?"

2. Page 66, section 5.c.5.b., first paragraph, and page 128, second paragraph, states Route 3 provides 15 minute service. Actually, Route 3 provides 7 minute AM and PM peak service and 15 minute off peak service.

3. Page 132, third paragraph, states, "Traffic heading in the southwest direction on Lunalilo Freeway may exit at Sixteenth Avenue or Koko Head Avenue." There is no off ramp at Sixteenth Avenue.

4. Page 132, sixth paragraph, states, "Traffic from Maunalani Heights/ Wilhelmina Rise will use Waialae and Harding Avenues and cross the freeway at Koko Head Avenue, Sixteenth Avenue or Seventeenth Avenue." Page 134, first paragraph contains a similar statement. Seventeenth Avenue does not cross the freeway.

5. Page 128, third paragraph, states, "In order to provide better bus service for the students and community, provisions have been made in the master plan for the buses to enter the campus from Diamond Head Road, and stop in front of the Administration Building." City buses will not necessarily travel onto the campus as stated.

6. Pages 116 and 135, The methodology used to determine the 1.25% projected increase in traffic volumes is not shown.

7. Page 134, There is a statement on peak traffic on the 11 approaches that utilizes a "four times" factor that needs to be verified.

8. Page 124, A 27.3% factor times the 4,200 KCC students is used to estimate the present community college traffic. We believe that a check of present enrollment at the Ruger site should be used to verify this figure.

9. Most of the intersections have only single lane approaches. We believe that the intersection capacity analysis should be shown. We recommend that a table of intersection capacities versus assignment be included in the traffic study to facilitate review.

10. Roads to parking lots should be aligned to meet existing streets and/or driveways.

11. Consideration should be given to providing an access at the Alohea Avenue corner.

12. The amount of parking seems inadequate when compared to what is provided at Leeward College. It should be noted that the CZC only sets "minimum" requirements. In addition, we noted that Leahi Hospital also utilizes parking space (page 3) on this site.

13. We question the validity of the traffic distribution used to the 11 access points.

14. The traffic report does not discuss the need for traffic signalization and the removal of curbside parking which may be necessary on the surrounding street system.

15. Page 117, We do not agree with statement 8 that says street widening is not needed. Our experience with school uses indicates that there will be an increased demand for curbside parking on nearby streets. We believe that a majority of the two lane streets in the area needs to be widened to provide services to abutting properties.

16. Page 117, statement 9 indicates that Diamond Head Road needs to be widened but gives no indication on who is going to be responsible for implementing this widening. There is also no mention of the scope of the widening.

17. Traffic impact should address all modes including pedestrian and bicycle activities of a community college facility as related to the existing and future transportation system. The master plan should provide for all modes of transportation.

Very truly yours,

Akira Fujita

AKIRA FUJITA
Acting Director

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)2024.0

OCT 10 1980

Mr. Akira Fujita
Acting Director
Department of Transportation
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujita:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

We have received and reviewed your letter of July 14, 1980 on the subject project. The following responses are provided to your comments:

1. Appendix IV - Table 5. One of the questions asked to obtain the information in Table 3 was "Do you ride the bus to college?" Therefore, asking "Would you ride the bus?" for Survey Question No. 1 in Table 5 would have been redundant. This question was to determine what effect improving the bus service might have on bus ridership.

2. Section 5.C.5.b. Bus and Mass Transit. This more detailed information on bus service will be included in the EIS.

3. Appendix IV - Highway Systems. "Sixteenth" Avenue is a typographical error and will be corrected to read "Sixth" Avenue.

4. Appendix IV - Highway Systems. The paragraphs will be corrected to eliminate the wording "Seventeenth Avenue."

5. Appendix IV - College Traffic Generation. To clarify this statement, the sentence "However, this routing will have to be approved by MTL" will be added.

6. Appendix IV - Traffic Volumes. The 1.25%/year projected increase in traffic volume is based on the average increase, not compounded, which occurred between 1971 and 1979.

7. Appendix IV - Highway Systems. This statement will be moved to the section on Traffic Volume. See Item 13 below for response.

8. Appendix IV - Kapiolani Community College Survey. There is no exact count available but based on previous data regarding the average number of classes a student takes and the number of classes held at the Diamond Head campus, the college estimated there were 1,200 students at the Diamond Head campus. Thus, the figures are quite close.

9. Appendix IV - Roadway Capacities. We believe the roadway capacity analysis is adequate in determining the traffic impact at this point in time.

10. Access Roads. We concur. This has been done when feasible and will be reviewed during the detailed design stage.

11. Alohea Avenue Access. Comments from the KCC Advisory Committee indicated they wanted to see this corner retained in landscaping. However, another access can be considered at this location during the detailed design stage.

12. Parking. The parking for Leeward Community should represent the maximum condition as discussed in "Leeward Community College Survey" of Appendix IV. KCC will be providing up to 1,200 stalls which is double that required by the County C&C. The Department of Health will be providing their own parking facilities on the hospital site.

13. Traffic Distribution. The last paragraph of the section on "Highway Systems" in Appendix IV states that to simplify evaluation, it was assumed that the peak traffic on any of the 11 approaches would be four times the average increase in college traffic. This means that each of the 11 approaches would carry about 36% of the total increase in college traffic for the evaluation.

We believe this to be a conservative estimate but do not have the means of justifying this or any other assumed distribution of the college traffic.

14. Traffic Signals and Curbside Parking. It should be pointed out that the installation of a traffic signal is warranted only when abnormal vehicular or pedestrian delay is created by the physical inability of traffic to flow smoothly at an intersection. Analysis of the traffic volumes of the surrounding street system indicate that due to the relatively low traffic volumes presently existing, signalization is not warranted at any of the intersections except possibly at the intersection of 18th Avenue and Diamond Head Road. The need for traffic signals will be reviewed during the design of the first increment of the college.

    The following statement will be added to the section on Roadway Capacities: "To maintain maximum capacity for the roadways surrounding the college site, curbside parking should be banned." The need to restrict curbside parking during peak traffic times for other roadways is not anticipated but should be evaluated periodically as the college is developed.

15. Appendix IV - Summary. Recognizing that the college will generate increased demand for curbside parking if adequate campus parking is not provided, Kapiolani Community College has been planned to provide a maximum of 1,200 parking stalls. This is 600 parking stalls more than required by the CZC.

    The traffic analysis by Mr. Henry Tuck Au indicates that most of these roadways do not have to be widened.

16. Diamond Head Road Widening. We feel the County should be responsible for widening Diamond Head Road because it is a County roadway and the Traffic Impact Statement indicates present peak traffic volume already exceeds the capacity of this roadway. Based on the Traffic Impact Statement, the widening should be from the end of Monsarrat Avenue to 18th Avenue.

17. Modes of Transportation. The Traffic Impact Statement states that adequate transportation facilities, including access, parking and safe movement of vehicles and pedestrians are a prerequisite for efficient operation of the college. The Master Plan for Kapiolani Community College, therefore, included provisions for

the automobile, bicycles and pedestrians. For instance, buildings will be located close to Makapuu Avenue for bus users and bicycle racks will be provided in strategic locations throughout the campus to encourage bike usage. Besides accessibility through the roadways, additional pedestrian access to the campus facilities will probably be provided.

Thank you for your letter. We appreciate your concerns and comments on the draft EIS for this project.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA
HONOLULU, HAWAII 96843

July 15, 1980

Mr. Rikio Nishioka
State Public Works Engineer
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Nishioka:

Subject: Kapiolani Community College at Fort Ruger EIS Consultation Phase for the Master Plan

We have the following comments:

1. Section 2.H.A. Area 1

   Although the entire project area is in the "Pass Zone," the area should be entirely sewered for the following reasons:

   a) The surrounding areas are sewered and cesspools should not be used if this area can be sewered.

   b) Cesspools are expected to fail if they are constructed in the relatively impermeable soil material.

2. Section 3.B.1. Geology

   This section should be revised to correct the implication that the island of Oahu was formed through erosion.

3. Section 5.C.4.e. Potable Water

   The total water demand should be indicated.

4. Approval of a water master plan does not constitute water commitment. Commitment will be made, if water is available, at the time the project is referred to us.

5. Because our pipeline tunnel is within the bounds of the project, the construction contractor must apply

   construction constraints to avoid adverse effects on the tunnel facility.

6. Construction plans must be submitted for our review and approval.

In addition, the comments, contained in the attached letter of August 22, 1979 to Imata and Associates, Inc., are also applicable.

Should you have questions or require additional information, please call Lawrence Whang at 548-5221.

Very truly yours,

KAZU HAYASHIDA
Manager and Chief Engineer

Attach.

August 22, 1979

Mr. Gordon Y. Imata
Imata & Associates, Inc.
Room 3A
2615 South King Street
Honolulu, Hawaii 96826

Dear Mr. Imata:

Subject: Your Letter of July 11, 1979 on the Proposed Kapiolani Community College Relocation to Port Ruger
Tax Map Key 3-1-42: 9

Thank you for sending us your site plan for the proposed Kapiolani Community College. We have the following comments:

a. We will not allow any new structures to be constructed over our easements. However, we have no objections to having roadways and driveways constructed over our easements.

b. The State will have to pay for any relocation of the improvements within Parcel B and Easement 1. The pipeline, however, must be maintained near its current elevation to insure flow between the Diamond Head and Waialae Iki "180" reservoirs.

c. Realignment of roadway and pipeline easement No. 3 is acceptable provided all costs are borne by the State.

d. The width of Parcel B may be reduced to 60 feet±.

e. Construction plans for all changes to existing conditions must be submitted for our review and approval.

When you complete your water master plan for the college, please submit it for our review and approval. The water master plan should indicate the following:

a. Street, lot, and building layout;

b. Property elevations and contours;

c. Mass grading work;

d. Service connections;

e. Estimated water demands;

f. Location and sizes of all proposed water facilities;

g. Development/construction schedule;

h. Supporting calculations which show that the proposed water facilities are adequate to provide fire flows and peak hour demands to our Water System Standards.

The State will be required to pay its share for our development of a source and storage and transmission facilities that are necessary to provide water service to the school. The charge will be determined when we review your water master plan indicating the total water requirement for the school.

Should you have questions or require additional information, please call Albert Koga at 548-6122.

Very truly yours,

KAZU HAYASHIDA
Manager and Chief Engineer

AO:am

cc: K. Hayashida
Customer Service
Engineering
L. Whang
A. Koga

79-2999

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)2022.0

OCT 16 1980

Mr. Kazu Hayashida
Manager and Chief Engineer
Board of Water Supply
P. O. Box 3410
Honolulu, Hawaii 96801

Dear Mr. Hayashida:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 14, 1980, commenting on the draft EIS for the subject project. In regards to your concerns, the following responses are provided:

1. Section 2.H.A. Area 1. Cesspools will be used only if approved by the State Department of Health. If cesspools are not allowed, the area will be sewered in the first increment.

2. Section 3.B.1. Geology. This section will be rewritten to provide a clearer description of the geology of the area.

3. Section 5.C.4.e. Potable Water. The water demand for the completed campus (5,000 FTE) is estimated to be 300,000 gallons per day.

4. Approval of a Water Master Plan. It is recognized that approval of a water master plan does not constitute a water commitment. As your letter states: "Commitment will be made, if water is available, at the time the project is referred to us." This information will be included in the EIS.

5. BWS Pipeline Tunnel. Section 5.C.4.g. will be included in the EIS on this item.

6. Construction Plans. This will be noted in the EIS.

The following responses are also provided to your comments in the August 22, 1979 letter to Mr. Gordon Imata:

1. Construction Over Easement. The Attorney General's Office has rendered an opinion that the State can construct a building over the tunnel easement provided that such construction does not unreasonably interfere with the BWS's easement.

2. Changes to BWS System. We have no response to Items b-e since the master plan did not change any existing BWS easement or facility.

3. Water Master Plan. BWS's submission requirements will be met when a request for water service is made.

4. Water Development Changes. The State will pay the BWS water development charges as the campus is constructed.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm

Pacific Resources, Inc.

PRI Tower 733 Bishop Street
P. O. Box 3379 Honolulu, Hawaii 96842
Telephone 808 547-3111 Telex 0634238

June 27, 1980

Mr. Hideo Murakami
State Comptroller
State of Hawaii
Department of Accounting and
General Services
Post Office Box 119
Honolulu, Hawaii 96810

Dear Mr. Murakami:

Subject: Kapiolani Community College at Fort Ruger
EIS Consultation Phase for the Master Plan

Thank you for allowing us the opportunity to review your Draft Environmental Impact Statement for the above mentioned subject.

We have no comments at this time.

Very truly yours,

Francis T. Tanaka
Government Affairs Coordinator

FTT:skk

HAWAIIAN ELECTRIC COMPANY, INC.
Box 2750 / Honolulu, Hawaii / 96840

JOHN C. McCAIN, Ph.D.
MANAGER, ENVIRONMENTAL DEPARTMENT

July 9, 1980

ENV 2-1,
NV/G

Mr. Hideo Murakami
State Comptroller
State of Hawaii
Department of Accounting and General Services
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Murakami:

Subject: Comments on Kapiolani Community College at Fort Ruger
EIA Consultation Phase for the Master Plan

Thank you for the opportunity to review the draft environmental impact statement for "Kapiolani Community College at Fort Ruger EIS Consultation Phase for the Master Plan." Several members of the staff of Hawaiian Electric Company have reviewed this document and we feel that the project should not have any adverse impact on Hawaiian Electric Company's transmission, distribution, and substation facilities in the area of the project and that the project will present no special service problems.

Yours truly,

John C. McCain

JCMc:cm

HAWAIIAN TELEPHONE

July 23, 1980

State of Hawaii
Rikio Nishioka
State Public Works Engineer
P.O. Box 119
Honolulu, Hawaii 96810

Attention: Mr. Rikio Nishioka

Subject: Kapiolani Community College at Fort Ruger
EIS Consultation Phase for the Master Plan

We have completed our review of the Draft EIS for the proposed Kapiolani Community College at Fort Ruger.

There are existing Hawaiian Telephone Company and Defense Administration System (DATS) cable facilities in the area which will be affected by the proposed development:

1. Military (DATS) Distribution Cable System
This cable is being utilized by Hawaiian Telephone Company to serve several school buildings in the area. It is our understanding that construction work will be done on an incremental basis and during the construction period, services must be maintained to the buildings. In order to maintain these services, relocations may be required and the costs is expected to be borne by the State.

2. Hawaiian Telephone Company Cable System
Originating at 16th Avenue and passing through the KCC Development, an HTCo. feeder cable serves several buildings outside the boundaries of KCC along Diamond Head Road between the stone guard houses at Monsarrat Avenue and Fort Ruger Park. This cable must be relocated for the proposed development and the cost will also be charged to the State.

We will be working closely with your consultants in designing the new telephone system and will inform them on the extent of damages and costs.

Should you have any questions regarding this matter, please call Mr. G. Yamada at 836-6120.

Very truly yours,

George Kaneko
Oahu Engineering &
Construction Manager

P. O. BOX 2200 • HONOLULU, HAWAII 96841 • TELEPHONE (808) 537 7111 • CABLE TELHAWAII

125

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1980.0

OCT 9 1980

Mr. George Kaneko
Oahu Engineering and
Construction Manager
Hawaiian Telephone Company
P. O. Box 2200
Honolulu, Hawaii 96841

Dear Mr. Kaneko:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 23, 1980 on the subject project. The additional information provided on the existing Hawaiian Telephone Company and Defense Administration System (DATS) cable facilities in the area will be included in the EIS.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jnt 2-5

The Senate
The Tenth Legislature
of the
State of Hawaii

HONOLULU HAWAII
July 14, 1980

ROOM 227
548-7513

TO: Mr. Rikio Nishioka
State Public Works Engineer

FROM: Senator Neil Abercrombie
Committee on Higher Education

RE: Comments on DRAFT EIS for the proposed Kapiolani Community College at Ft. Ruger

p. 1
1.B. The "small portion" of students referred to represents approximately 21-23% of the students enrolled at KCC (headcount between 1975-79).

The past tense is utilized in reference to the preparation of a Master Plan. It is my understanding that a preliminary draft of the Master Plan has been submitted, however, major changes to the report were being discussed as recently as the latter part of April.

When will the final copy of the Master Plan be released?

1.C. Where is the justification for the various statements contained in this section?

A 1965 site selection, as noted, bears no relation to present conditions whether they be fiscal, educational or locational (i.e., Kakaako/downtown/Kapiolani/Ala Moana/Waikiki development.

What does "pragmatically expand" mean?

Why is there a "need" to expand?

University figures indicate (Dec., 1979) a leveling-off and subsequent decline of enrollment in the 1980s (see attachment 1).

1.E.(5) What is the relationship, if any, of on-campus circulation to off-campus vehicular travel on streets?

p. 2
1.F. It should be noted that the proposed facilities are to "be low in profile," not low-rise.

Further, there is no mention of anything with respect to an energy saving/efficient orientation.

1.G. If the availability of funding is a key question, why is there no cost/benefit analysis?

Based on availability also indicates no actual time-table for construction.

What increase in student enrollment? (As previously noted, University figures indicate a decline in the 1980s).

A total cost of $44 million is unrealistic because this figure does not include: (1) all of the necessary on-site improvements; (2) any of the off-site improvements; (3) interest to be paid by the State on the indebtedness of this project; or (4) the cost of relocation of parking for Leahi Hospital. Additionally, this "total cost figure" cited is based on 1980 dollars.

1.H. Why are "structurally sound buildings" renovated at taxpayers expense (of more than $1 million) to be demolished? According to a letter from the State Comptroller, dated March 13, 1980, he indicates that with proper maintenance the buildings could be used at least another 10 years (see attachment 2).

When will the decision on the Hawaii/National Register of Historic Places be made?

What will be the effect of placing any portion of the Ft. Ruger site on the Hawaii/National Register?

p. 3
1.I.(1) How was it determined that "the impact of grading and excavation will be minor?"

(2) How much "increased surface runoff is expected" and how will this affect the surrounding residential area?

(3) Emission controls on new automobiles are almost insignificant because of the small number of cars affected (i.e., statements in this section assume that people will be driving new cars). What does this section actually mean (i.e., more buses, mopeds, etc.)?

(4) Noise can be mitigated, but will it and will this cost more?

Does Federal law regarding noise control for automobiles apply to construction-related vehicles?

Noise would be much less a factor during construction if the college was rebuilt at its present location.

What is the Development Plan designation for the Ft. Ruger site?

p. 4.
1.I.(9) On what basis can this statement be made?

The City and County Department of Transportation Services has informed me that the four streets surrounding the Ft. Ruger site will need to be widened to accommodate the increased traffic. Also, the anticipated demand for on-street parking will necessitate improving most streets located within a two-block radius of the site to the Development Plan standards (see attachment 3).

1.J. How does the University of Hawaii plan to address the three areas of community opposition?

Is this a plan to construct a community college for a community who is opposed to such a project?

If such opposition exists, why is the justification of community support utilized, constantly?

Under benefits to the community: (1) and (4) are and would be available without a college and (2) and (3) neglects to point out that KCC is program-specific; not region-specific.

With respect to potable water and drainage - listed as Major Impacts and Unresolved Issues - (emphasis added), there is no citation as to the amount of these costs or who will pay for such improvements.

What are the costs involved, who will be responsible for such improvements and when (i.e., time frame) are these unresolved issues to be resolved?

What agencies are the architectural consultants "coordinating plans" with?

p. 5
2.B. Is reference being made to the draft of the Master Plan or the final document? If this Plan is a final document, was the EIS prepared subsequent to its completion? Is Environmental Communication, Inc. a sub-contractor of the company who was preparing the Master Plan? If so, there is a conflict of interest in terms of its contents.

Why has a phase-out of the Pensacola Campus been determined?

What was the outcome/conclusions concerning a two-campus operation?

What does the University plan to do with the Pensacola site if KCC moves to Ft. Ruger?

2.C. Are over 1,000 students turned down each Fall semester "because of a lack of physical facilities" or because of enrollment limitations, lack of teaching positions (and attendant lack of courses), concentration of courses and students in certain time periods, etc.?

There is no analysis of the liklihood of a continuing decline in student numbers and/or hours taken due to inflation pressures requiring the necessity for students to work.

Why is the number 12 utilized to ascertain FTE? The formula for computing FTE was changed in 1974-75 and replaced the number 12 with 15. An accurate definition of FTE must be included.

How much square footage is required for a community college library (according to appropriate library standards)? How much additional space is required to meet such standards?

What "campus atmosphere" is required? Community colleges, by definition, are not oriented toward "student activities" - this is a grade/high school concept hopelessly dated. In the real world of 1980, the average age of a community college student is in their mid-twenties. These students, of today, work and are career/craft oriented.

What makes anyone think that students will no longer leave school when their classes are over? Is the State of Hawaii to spend tens of millions

of taxpayer's dollars to promote "informal discussions?"

p. 8
2.D.

Act 39, SLH 1964 (as cited) focuses exclusively on program - not on region. The Legislative intent is clear in this respect. With the transfer of the technical schools, there is no regional imperative. Cleveland's points are all program oriented - also; no regional imperative.

The 1970 Policy Statements by the Board of Regents emphasizes career programs and an open-door policy. These statements stress that community colleges "will direct students. . .to colleges. . .of their interest and capability."

It should be noted that community colleges on the island of Oahu. . .serve the entire island." This is evidenced by the fact that "KCC draws students from the entire island. . ."

It is the liberal arts curriculum which attracts the immediate community as well as adult education and non-credit courses. This can and is being offered at all community colleges. In this regard, the Pensacola site would be more sensible.

If, as indicated, national studies suggest that an individual community college should not have an excess of 5,000 FTE students, (also a policy adopted by the University of Hawaii Board of Regents), why is a move to Ft. Ruger planned (as the 1979 FTE for KCC is approximately 3,130 and, as previously noted, enrollment is projected, at best, to level off)? (see attachment 4)

p. 10
2.E.

What plans exist for the use of the Hawaii 5-0 facilities? When does the conditional use permit expire?

p. 11
2.F.

How was it determined that horizontal expansion is impossible? How was this official decision reached?

The McKinley High School land adjacent to KCC at Pensacola consists of a junk yard/storage area for the State Farm Fair, rifle range, broken-down tennis courts and storage-area for someone's private boats. The football field is for practice only as it is not maintained and the "track" surrounding that field is a bad joke.

High density does not necessarily denote high high rise construction.

What height is considered "high-rise"? A building of how many floors?

Outright dismissal of high-rise and adverse aesthetics does not make sense - a high-rise structure exists across the street from the Pensacola campus. Further, this dismissal neglects to consider a courtuard concept in high/middle rise design.

If a high-rise is "felt to be inappropriate for KCC" at Pensacola, what is the University's objection to a medium-rise campus (i.e., 4 to 8 stories?

2.G.1.

The Educational Specifications are astoundingly inflated and bear no relation to the "needs" of the school. (see analysis of Educational Specifications - attachment 5). It should be obvious that the "threat" of high-rise construction at Pensacola is directly related to inflated square footage "needs" of the Educational Specifications.

Why do the Educational Specifications call for "space and special facilities" for each of KCC's programs? Outside of laboratories and highly-specialized classrooms (e.g., shops) don't various programs at other campuses within the UH system share classroom facilities? If so, what is the rationals for separate facilities at KCC-Ft. Ruger? Does this involve the filling of unnecessary/unrequired acreage?

What is the 5,000 FTE and 6,000 headcount based on? It has been determined in analysis by my staff that, based on the Educational Specifications and by utilizing standard conversion factors, the KCC campus at Ft. Ruger (as proposed) could support a headcount enrollment of approximately 8,000-9,000 students. The Educational Specifications are based on a 32-hour week. How does KCC plan to offer day, evening and weekend classes in only a 32-hour week?

There is no analysis of actual travel times between students' homes and KCC. If insistence is to be made on where students come from, is the State to spend millions of dollars on on/off-site improvements, alone, to save five or six minutes of driving time? Further, would time actually be saved?

KCC at Ft. Ruger is relatively isolated from major traffic thoroughfares. However, Pensacola is conveniently located. One-way streets make the current Pensacola site much easier to reach.

p. 13 What is the current net square feet at the Pensacola campus for each of the programs outlined (in Section B)? Why is there no comparison of these two sets of figures?

Why is "net square feet" utilized in the EIS when the Educational Specification used assignable square feet and estimated gross square feet? Why do differences exist in square feet requirements for various areas based on the EIS and Educational Specifications (e.g., Administration/Student Services and Campus Center)?

p. 14-16
2.G.2 Why will parking be constructed to be convenient "to each facility?" Is this the practice at other campuses within the UH system? If not, what is the rationale at KCC?

What type and length of construction will be involved with "providing an interior circulation system on the campus?

p. 16
2.G.3 What does "generally conform" to the Master Grading and Drainage Plan" mean?

What about costs of incremental grading/drainage? Won't all of this have to be done prior to any construction? If not, won't the costs be higher?

If elevators are to be needed due to the "steep natural topography" for use by the handicapped, then what is the difference if the campus were to be at Pensacola. The high-rise concept is based upon 384,000 square feet as contained in the Educational Specifications. If this figure is reduced, the necessity for high-rise is also reduced.

p. 16-18
2.G.4. What does the utilities master plan involve in terms of work to be done?

What is the associated cost with such work?

Is my understanding correct from the EIS that the utilities are to be implemented on a partial basis? If so, what are the cost implications?

What is the "catch basin" referred to?

p. 23
2.G.7.(d) Why is this facility master planned for an air conditioning system? Is this because of the construction noise that will be in evidence for years at the Ft. Ruger site if this project proceeds? What will be the cost of an air conditioning system which is spread over approximately three dozen acres? There is not a word on energy saving/conservation.

(e) How many students attending KCC live within the Ft. Ruger community?

There is no indication of how present bus routes relate to student travel/work needs. With respect to bicycle travel, it is overly optimistic to expect much of this mode of travel given the unimproved, hilly roads and the competition with automobiles and buses for space.

Why is the campus master planned to accommodate 1,200 cars? No other UH campus has such a low student/parking ratio - why should KCC (according to information supplied by University officials)?

How is the college encouraging ridership on the bus when it is offering free, on-campus parking?! Current bus routes to Ft. Ruger are not all that convenient.

What percentage of the day will these 1,200 parking spaces be empty?

It is not clear in the EIS whether students and/or faculty members will be required to pay for parking.

p. 24 What are to be costs of the security guard services? What cost increase will this represent in a change from five to fifty acres?

What level of maintenance represents "the least amount" on a 52-acre campus? Will this "least amount" be adequate to see that the facilities and grounds are adequately maintained?

p. 27
A. With respect to the storm waters, how will the County system be made adequate for this purpose? What are the costs involved and who will be responsible for payment of those costs?

If parking is to be constructed in increments, where will students/faculty park if only 198 spaces are available after the first increment?

p. 29 If an athletic field can be shifted to accommodate a "detention basin", why can't the field at McKinley High School be shifted so that KCC-Pensacola can expand, if absolutely necessary, at its present site and save money on the project?

Who is responsible for payment of the fire protection system, water system extension, etc.? What are the associated costs?

2.I. The estimated building cost plus estimated site work costs equal $42,597,000 or $1,403,000 less than previously cited in this document. Why?

It is noted that monies needed to implement the Master Plan will come from the State. Does this mean that the State will pick up any improvement costs under County jurisdiction?

Are the residents in favor of such improvements? Will improvements be financed through the improvement district process? If not, how?

What are the costs in Table 4, 5 if work proceeds in increments along lines recommended starting from a base of 1980 dollars? What is the time-frame at maximum completion speed - no hitches - in relation to dollars with inflation projections?

It must be remembered, and emphasized, that we now have a constitutional spending limit, a debt ceiling, a three-year lapsing requirement on unencumbered CIP and a requirement that revenue in excess of the formula maximum established by law must be returned to the taxpayers (i.e., more dollars in the treasury of the State does not mean that more dollars are available to be spent by the University of Hawaii or any other area of government).

p. 32
3.A. The discussion on soils should be expanded to demonstrate how such factors as severe erosion hazard will effect construction.

3.B.2. It should be noted that while the Ft. Ruger site includes elevations ranging from 90-240 feet (and attentand erosion) the Pensacola site is flat.

3.B.4. Why is air conditioning master planned for the campus when the prominent wind direction is from the Northeast (tradewinds) with average monthly temperatures ranging from 71.9 degrees to 80.6 degrees, respectively in the coolest and warmest months?

p. 37
3.C.3. Why is a community college being proposed for construction, ostensibly to service a particular community when that community is a population which is "stable and aging?" The enrollments, at elementary, intermediate and high schools have declined. The reference to a three-fold increase in college enrollment between 1960-1970 fails to note the projected decline in enrollment in the 1980s.

It may very well be, especially with the "newer" areas of Kahala and Diamond Head rising in price, that we have seen the crest of the adjacent, potential student population. Those families with students currently in school are unlikely to move into areas occupied by aging adults living on fee simple property. Those families would be much more likely to move to Makiki, Punchbowl, Kakaako or McCully - apartment areas.

p. 39-41
4.A.B.C. If the major concern of the Diamond Head Historic Cultural and Scenic District No. 2 Ordinance is to preserve and enhance Diamond Head and its prominent public views, why would the University of Hawaii seek an exemption from the provisions of this Ordinance? Further, what does the University expect to be the effect, and subsequent outcome of such a request?

One of the provisions of this Ordinance requires that "Utility lines shall be placed under ground within the Diamond Head District." The Director and Chief Engineer of the Department of Public Works has provided information that the estimated construction cost for the full improvement of the streets surrounding the Ft. Ruger site would be $12,500,000 with overhead utilities and $16,000,000 with underground utilities (see attachment 6). These costs do not appear as a part of the EIS presentation.

p. 40
4.E. How does the Shoreline Management Area Permit requirement affect the construction time-frame and costs? Would this permit be required at the Pensacola site?

4.F. What does "generally consistent" with the General Plan mean?

p. 41 "Policy 4: Encourage the construction of school facilities that are designed for flexibility and high levels of use." It should be noted that the Pensacola site is located adjacent to McKinley High School.

4.G. What does "basically consistent" with the Hawaii State Plan mean?

4.H. What is the various time-frames involved with the list of necessary approvals?

The socioeconomic impact of this project has not been adequately addressed. Further, it appears that there are substantial cost implications glassed over at the Ft. Ruger site with virtually no objective evaluation of the Pensacola site as an alternative given the fiscal and population trend realities of 1980 versus the site selection study of 1965! (see attachment 7)

p. 42 The discussion of the grading permit should include the Department of Public Works.

p. 43
5.A.1.a. What will be the effect, both financially and physically, of soil removal and replacement?

The lack of a soil survey makes the Master Plan, in effect, only a series of drawings and bears no relationship to the actual costs (examples of failure in this area previously include the Business Administration complex (F-Tower) and the parking structure at the University of Hawaii at Manoa.

What will be the effect of chemical conditioners discharged into the ocean?

p. 44
5.A.2.c. Sources of potable water must be found.

5.A.3.a. Has there been any attempt, or do plans exist to determine the change in the wind pattern? If not, why? Are the residents of the surrounding community aware of such an effect?

p. 44-47
5.A.3.c. What relationship does the downtown monitoring site have to Ft. Ruger?

Since there have been no long-term air quality measurements in the Ft. Ruger area, does a study of 3-4 months, this past year, provide an accurate assessment? A measurement at Leahi in 1979 did not reflect increased automobile traffic or the construction project itself.

p. 47
5.A.3.d. For how long will the community surrounding the Ft. Ruger site experience the 1.2 tons of dust/acre/month?

What is the effect of the increased nitrogen dioxide rates?

p. 47-49
5.A.3.e.
f. How can vehicular emissions of carbon dioxide be expected to decrease with an increase in the amount of vehicular traffic?

What is the source and justification for information contained in Table 10?

p. 50
5.A.3.g. On what basis is it assumed that all roadways will "maintain their present narrow widths through 1995?"

If one maintains that reversion of the Pensacola site to a lower density will result in "significant air quality improvements" how can it then be argued, in turn, that there will be little, if any, change for the worse at Ft. Ruger if the traffic is transferred there?

Also, don't the optimistic lower emission projections (by 1995) apply to the Pensacola site as well? It will if the study actually means this, if not, then it must indicate that the students, faculty, etc. will be driving two sets of cars to two separate sites.

There is no relationship analysed between those able to take The Bus and those who might have to drive to Ft. Ruger.

p. 52
5.A.3.h. How can "construction emissions" be considered a short-term phenomenon when the construction project is planned to proceed over a number of years, at best?

Where is a simple, straight-forward accounting of the work requirements of students attending KCC and the hours that constitute concentrated usage (i.e., what is the relationship of school to work site and thus to actual, rather than presumed convenience and what is the work site pattern, given KCC's programs, likely to be in the future. Surely, it is not in the residential areas of Kaimuki, Kahala and Diamond Head)?

Is there to be a charge for parking on the proposed Ft. Ruger campus? If so, what are the rates?

p. 53
(4) Optimism concerning the use of bicycles is somewhat unfounded as the narrow streets, already cited as difficult for cars, are dangerous.

5.A.4. Why were no noise studies and/or measurements conducted for this document?

Is the normal noise level from a campus planned to accommodate 8,000-9,000 students viewed as insignificant, particularly from the point of view of the surrounding residential area?

p. 54
5.A.5.b. To what extent will the water quality be affected by erosion?

5.C.1.a. The EIS notes that the "project will result in a higher day-time density of the project site." What is the reference (i.e., higher density than prior to construction, higher day-time, as opposed to other time, etc.)?

p. 55
5.C.1.b. Why is implementation of the Master Plan necessary to make recreation space available? On the contrary, without the proposed campus construction, the entire area is available.

The 50% open-space requirement involves enormous expense with respect to land/usage ratio. The Pensacola site is infinitely more efficient in this regard.

In a period of time when costs are sky-rocketing off the board, contemplating this rolling countryside type of school project borders on fiscal insanity.

5.C.1.e. There is no actual study on the claims made with respect to time/energy savings. Where is the study(ies) which indicate this? What is the relationship of work sites of students and concomitant travel necessities now and in the future?

Parking is available at the Pensacola site on adjacent, already improved streets, at NBC Arena, on campus (which virtually closes down in the early afternoon) and more buses are available. (see attachment 8).

What is the cost/benefit ratio of the expenditure of millions of dollars in improvement costs to a few minutes of riding time when the EIS document itself proclaims more efficient cars are coming thereby cutting costs? The EIS document cannot have it both ways (i.e., somehow efficient cars will go to Ft. Ruger but inefficient ones to Pensacola).

The identification argument is hopelessly overworked and is patent nonsense. Oahu, including UH-Manoa, is a commuter college system. Even residents in the dorms at UH-Manoa come from areas other than Manoa. Having been a resident of Manoa for more than 20 years I can verify the identification of the school with the community is virtually zero. If anything, traffic only upsets the surrounding residents. When did a college education suddenly become a leisure activity?

Interaction between the surrounding residential community contradicts the fact that the greatet opposition to the project, as stated in the EIS codument, has come from the residents of the surrounding area.

With respect to adult education classes, they by no means require an elaborate and expensive campus. On the contrary, they are generally liberal arts and/or non-credit oriented and can be taught in present renovated buildings or in already existing DOE facilities.

Why is there a persistent desire to construct facilities and underutilize them?

Given the profile of the surrounding community at Ft. Ruger (older, settled, etc.) non-credit courses are a likely use which do not require extensive, nor elaborate facilities.

p. 60 I hope that if KCC becomes a "literary point of the community" its students will be able to spell the word correctly!

Continued references to recreational facilities and usages slide over the fact that such plans will be the last to be implemented. A citizen reading the EIS quickly might easily be fooled into thinking that provision in this area will come rapidly. Item: Leeward Community College is still waiting for their recreational facilities and their master plan is being revised possibly, to remove the long, unkept promises in this area.

Finally, a reference to employment "can be viewed." What does this statement mean (i.e., is it true or not)? Where is a survey in this respect? A survey of this kind is crucial to a proper EIS (e.g., x-ray technician's location for field work - Kahala or somewhere in the Honolulu area).

p. 60
5.C.2. With respect to police and fire protection, what level of increase(s) will be required with a 5,000 FTE campus at Ft. Ruger or any part thereof?

5.C.3. Will parking fees be collected? From whom? Tuition is not "revenue" to the school as it goes directly into the State Treasury.

If new facilities are needed, why construct them on a larger campus than necessary as this only increases your initial and long-term capital costs as well as your daily operational costs?

What does "larger accommodation of students" mean? Why is the campus to be constructed for a larger number of students with declining enrollment projections?

p. 61 What educational benefits/cost outlay analysis exists other than by way of assertion? Plans for the new campus call for the same programs, same teachers, same students but on a more expensive campus both in construction and operational costs.

5.C.3.a. Indications from the EIS are that the effect of the project on employment has to do with those employed to build and subsequently maintain the project rather than a positive impact on employment from the educational program offerings. If the emphasis for the proposed school is construction-related jobs, rather than education, these jobs can take place anywhere - even at Pensacola.

5.C.4.a. What is the total cost and what is involved with the proposed complete electrical system?

5.C.4.c. A repeat of the drainage problem with failure to indicate how it will be resolved with the City and County.

With a solution (to the drainage problem) of flooding the recreational areas, I find it difficult to understand how this will meet with the aspirations of those in the community who have been promised use of such areas.

5.C.4.d. Have discussions concerning the sewage system been conducted with the Department of Public Works? If so, what was the outcome and conclusions reached?

p. 62
5.C.4.e. With respect to the question of potable water, who will be responsible for payment and what is the cost(s) involved? Have actual discussions taken place with the Board of Water Supply on this question?

5.C.5(2) The EIS indicates a widening of the streets "in the future." When is this to take place? Will construction of KCC at Ft. Ruger require a decision on this aspect now? Do the residents of the surrounding area want such improvements? Who will pay for such improvements? What cost(s) is associated with such improvements?

5.C.5(3) Traffic volume corresponds to peak arrivals at the proposed college site and will involve competition for driving room.

p. 66
5.C.5.b. This fails to take into account increased automobile usage by those who currently use the bus service at the Pensacola site but would find the bus service to Ft. Ruger inconvenient.

5.C.6. The EIS admits that the concerns I have indicated since 1974 are "valid" and that community groups have also cited them.

p. 67 Notes that the Master Plan is only a draft.

p. 79
7. The EIS indicates that the Master Plan, as drafted, confirms my contention that the Educational Specifications call for a pattern of separate buildings for each specific program.

p. 80
8. ". . .costs are unavoidable. . ." Yes, quite true if construction takes place at the Ft. Ruger site. All four "economic commitments" can be met far more efficiently at the Pensacola site.

With respect to the Ft. Ruger site, what are the costs for the following "economic commitments":

-All off-site improvements?

-All on-site infrastructure and improvements?

-All operational categories?

p. 82
10 With respect to the Pensacola site the following, taken from the EIS, illustrate why it is a superior site:

"Its convenient location may also be an added factor for the high number of enrollment applications received by the college."

"The type of subjects offered are popular especially in view of the employment potential for skills such as nursing, dental assisting, cooking, secretarial, et. cetera."

It should be noted that such employment, as stated above, is most likely at the present Pensacola site in terms of convenience.

P. 83 What are the costs associated with solid waste collection and disposal? What is the present situation, in this regard, at the Pensacola site?

A cost/benefit analysis is lacking and the reasoning for no analysis is without any substance. A cost/benefit analysis must be performed in order to ascertain a true picture of the proposed project. If the objectives of KCC are not being met at the present site it does not follow that they will be at the Ft. Ruger site unless the object is to spend more money than necessary. The present Pensacola site is inadequate because there are no buildings there to meet program needs - that's all!

The reasoning for discounting the two-campus operation concept is weak. Under such an arrangement the main functions could be handled at Pensacola and satellite functions at Ft. Ruger. Is there actually such a clamor for a large

night-school operation at Ft. Ruger from the surrounding community? Do the residents want such an operation?

p. 84 The indication is that with construction of the proposed campus property taxes will increase simultaneously with increased traffic/parking problems. How does the surrounding community benefit from this?

The disposition of the comment concerning parking at Leahi Hospital avoids the question of the parking lot. If Leahi must move its parking lot from the KCC site, where will it be relocated and what will be the associated cost? The DOH has indicated it might want to construct a parking structure. (see attachment 9) The Pensacola site does not need a parking structure, however, it might be desirable to construct such a facility in cooperation with the City and County fo increase parking availability at NBC Arena which cannot now meet its night-time event needs.

p. 84 With respect to the six-acre park, does anyone actually believe that school usage will not decrease recreational park use if only from the potential noise factor (i.e., a volleyball game wouldn't disturb classes).

p. 85 With respect to street widening, this view is at odds with the City and County of Honolulu. What does "per se" actually mean as utilized? Who is responsible for payment of the repaving costs and what will those costs be?

p. 87 With respect to the 1965 Site Selection Study, the factor selection ranking needs a complete revision from 1965. Does the EIS seriously contend that the ratings would be the same today? What about new apartment development in the Pensacola site area, Kakaako development, development in Makiki, McCully, Punchbowl, etc? It is ridiculous to assume that the relationship to economic generators, for example, is the same.

The entire process should be reviewed and that is what the 1980 Legislative appropriation of $194,000 requires (i.e., to do exactly this kind of re-evaluation).

p. 112 This section constitutes scare tactics and not very good ones, at that. There is to be no "displacement" of McKinley High School. Such a step is neither necessary nor contemplated.

attachments

Table II.C.2

FALL SEMESTER HEADCOUNT ENROLLMENT, REGULAR STUDENTS
BY CAMPUS
UNIVERSITY OF HAWAII

	ACTUAL 1/					PROJECTED 2/						
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL*	43,575	43,869	43,459	43,480	43,099	43,270	43,306	43,190	42,759	42,153	41,355	40,672
Manoa	21,087	21,196	20,950	21,095	20,706	20,670	20,673	20,622	20,422	20,120	19,713	19,307
Undergraduates	15,878	15,579	15,396	15,343	15,076	14,933	14,900	14,813	14,613	14,319	13,904	13,498
Graduates	5,209	5,617	5,554	5,752	5,630	5,737	5,773	5,809	5,809	5,809	5,809	5,809
West Oahu	--	134	200	230	257	285	313	341	346	346	346	346
UH at Hilo	3,539	3,322	3,232	3,035	3,069	3,025	3,022	2,930	2,885	2,837	2,744	2,691
Hilo Coll/Coll of Agr	1,848	1,633	1,536	1,438	1,363	1,284	1,284	1,245	1,234	1,217	1,175	1,143
Hawaii CC	1,691	1,689	1,696	1,597	1,706	1,741	1,738	1,685	1,651	1,620	1,569	1,548
Six Community Colleges	18,949	19,217	19,077	19,120	19,067	19,290	19,378	19,305	19,106	18,842	18,552	18,328
Honolulu CC	3,982	4,422	4,382	4,377	4,568	4,631	4,637	4,581	4,500	4,413	4,317	4,242
Kapiolani CC	4,307	4,571	4,457	4,702	4,626	4,721	4,797	4,824	4,764	4,689	4,592	4,528
Kauai CC	1,181	1,125	1,191	1,103	1,085	1,086	1,067	1,070	1,060	1,038	1,030	1,027
Leeward CC	6,790	6,347	6,093	5,833	5,493	5,390	5,309	5,203	5,130	5,037	4,951	4,859
Maui CC	1,554	1,626	1,630	1,713	1,810	1,848	1,867	1,878	1,885	1,887	1,894	1,907
Windward CC	1,135	1,126	1,324	1,392	1,485	1,614	1,701	1,749	1,767	1,778	1,768	1,765

* Total excludes concurrent and other special students.

1/ Student Enrollment Reports.

2/ Office of Institutional Research & Analysis, December 1979.

ATTACHMENT 2

JOHN A. BURNS
GOVERNOR

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119 HONOLULU, HAWAII 96810

LETTER NO. (P)1287.0

MAR 13 1980

Honorable Neil Abercrombie
Senator
State Capitol, Room 227
State of Hawaii
Honolulu, Hawaii

Dear Senator Abercrombie:

Subject: K.C.C. at Fort Ruger
Life Expectancy of Buildings and Preliminary
Draft of CDR

This is in response to your letters of March 5, 1980 regarding the subject items. The following comments are provided regarding the life expectancy of buildings:

(1) The existing buildings were probably constructed around 1920 so they are about 60 years old.

(2) These buildings can be used for at least another 10 years with proper maintenance.

(3) The major maintenance items are repainting, roofing repairs and treating for dry wood and ground termites.

(4) No assessment was made on the repair work required to bring these buildings up to a "properly maintained" condition.

(5) No assessment was made on the adequacy of these buildings in meeting space and program requirements for the college.

(6) The present plans of the University are to retain these buildings until new facilities are constructed.

In regards to the preliminary draft of the CDR, it has been reviewed and returned to the consultant for major revisions. Therefore, it is not ready for release at this time. However, as indicated in the Estimated CDR Schedule which was attached to my

MAR 14 1980

February 15, 1980 letter, the prefinal CDR will be resubmitted to DAGS by the end of March for review by the University of Hawaii. A copy of this report will be sent to you at that time.

If there are any questions, please call me at 548-3050.

Respectfully,

HIDEO MURAKAMI
State Comptroller

ATTACHMENT 3

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

DIRECTOR

TE3/80-692

April 9, 1980

Honorable Neil Abercrombie, Senator
The Senate
The Tenth Legislature
State of Hawaii
State Capitol
Honolulu, Hawaii 96813

Dear Senator ~~Abercrombie~~ Neil:

Subject: Your Letter of March 4, 1980 Regarding Redevelopment/Relocation of the Kapiolani Community College Campus

Transmitted are the traffic data (items 1, 2, and 3) that you requested. Costs of the proposed street widening and attendant improvements surrounding the Kapiolani Community College-Fort Ruger site (item 4) are not availabe at this time. We will send you this information as soon as it is developed by the City's Department of Public Works.

The following is in response to items 5, 6 and 7:

(5) The four streets surrounding the Fort Ruger site will need to be widened to accommodate the increased traffic. Additionally, the anticipated demand for on-street parking will necessitate improving most streets located within a two-block radius of the Fort Ruger site to the Development Plan standards. Attached is a map locating these streets. (Enclosure 4).

(6) Approximately 250 parking spaces with no time restrictions are available within the residential neighborhood area bordered by Pensacola Street, Alohi Way, Piikoi

and Kamaile Streets. However, very few open spaces were found during a recent 9:00 a.m. field check of this area.

(7) Bus service from the suburban and rural areas of Oahu passing Kapiolani Community College on Kapiolani Boulevard at Pensacola Street is planned for increased service during the morning and after peak periods. There are no plans for increasing bus service around the Fort Ruger Campus unless ridership increases over present levels.

Very truly yours,

AKIRA FUJITA
Acting Director

Encl.

cc: LLO

ATTACHMENT 4

KAPIOLANI COMMUNITY COLLEGE ENROLLMENT

Year	Fall Semester		Spring Semester	
	Headcount	FTE*	Headcount	FTE*
1961	380	no data	no data	no data
1962	428	" "	"	"
1963	512	" "	"	"
1964	818	" "	"	"
1965	890	" "	"	"
1966	1,052	" "	"	"
1967	1,514	" "	"	"
1968	1,538	1,342	1,276	"
1969	1,830	1,495	1,383	"
1970	2,205	1,850	1,654	1,278
1971	2,765	2,384	2,527	1,996
1972	3,001	2,693	2,983	2,384
1973	3,476	3,066	3,175	2,754
1974	3,597	2,769*	3,434	2,824
1975	4,307	3,203	3,641	2,704*
1976	4,571	3,300	3,720	2,802
1977	4,457	3,114	4,310	3,060
1978	4,702	3,127	4,200	2,934
**1979	4,652	3,130	4,155	2,852

*Note: Formula used in the calculation of FTE was changed in AY 1974-75. Prior to AY 1974-75, FTE = headcount of full-time students + (SSH of part-time students ÷ 12 SH). Beginning AY 1974-75, FTE = total SSH ÷ 15 SH.

**Unofficial figures pending IRP Report expected later in the Fall 1979 semester.

ATTACHMENT 5

A Brief Summary of Space Requirements and Operating Costs for the KCC - Diamond Head Campus

Senator Neil Abercrombie
Chairman, Higher Education Committee

This information has been prepared for presentation before a community information meeting on April 10, 1980. More detailed information can be provided upon request.

A careful reading of the educational specifications reveals that the space requirements are excessive, the campus will be overbuilt, under-utilized and expensive to operate and maintain.

Based on the educational specifications and standard conversion factors*, the campus, as planned, can support a headcount of approximately 8,000 to 9,000 students. This is how we obtained that figure: the total number of stations (desks, lab stools, chairs--any place students sit or work in the classroom) in the ed specs adds up as follows:

General Classrooms	2,145 stations
Specialized Classrooms	1,036 stations
Laboratories	766 stations
Total No. of Classroom Stations	3,947

The number of hours spent at each station depends on the type of course the student is taking. Students enrolled in liberal arts classes usually spend 1.0 hours per credit hour in the general classroom; and 2.0 hours per credit hour for laboratories. The station hour/credit hour factor for each kind of class is:

General Classroom	1.0
Specialized Classroom	1.1
Laboratories	2.0

* These standards are developed by the WICHE National Center on Higher Education Management Systems in its Higher Education Facilities Planning and Management Manual published in 1971.

Since each classroom is not used every hour, and each station in each classroom is not always occupied, a factor is calculated that represents a proportion of space utilized. These factors are standard and are used by higher education planners nationwide.

Next, a campus schedule must be determined which shows the average number of hours that classes will be scheduled each week. The ed specs state that the new campus will have an average weekly classroom hourly use of 32 hours which is supposed to include evening classes and weekends (p. 33).

To calculate the number of hours of actual use for each station we take the average weekly classroom hours and multiply by the space utilization factor to determine the total number of hours of actual use for each student station. I have calculated the space requirements on a 32 and 53 hour week:

32 hours average weekly classroom hourly use

X 72% space utilization factor = 23 hours of average station hourly use per week.

53 hours average weekly classroom hourly use

X 49% space utilization factor = 26 hours of average station hourly use per week.

The station hours are converted into credit hours, and are then divided by 15 credit hours to determine the full time enrollment (FTE) that the available classrooms and stations can support. The student FTE number is multiplied

by 1.5 to calculate the total headcount (1.5 is the ratio of headcount to FTE for 1978 and 1979 and is thus being used in these calculations). These figures are calculated as follows for a 32 hour work week:

Laboratories	Specialized Classrooms	General Classrooms	
766	1,036	2,145	The no. of stations in each kind of classroom
X 23	X 23	X 23	No. of hours/week each station is available and used under a 32 hr. week
17,618	23,828	49,335	Total number of hours all of the stations can be occupied
÷ 2.0	÷ 1.1	÷ 1.0	Divide by classroom hours per credit hour
8,809	21,666	49,335	Total no. of credit hours which each kind of classroom can handle
	79,806		Total no. of credit hours that the campus can handle
	÷ 15		Divide by credit hours per FTE student
	5,320		FTE based on 32 hour week
	X 1.5		FTE ratio
	7,981		Headcount based on current enrollment:FTE ratio

These figures are calculated as follows for a 53 hour work week:

Laboratories	Specialized Classrooms	General Classrooms	
766	1,036	2,145	No. of stations in each kind of classroom
X 26	X 26	X 26	No. of hours/week each station is available and used under a 53 hour week
19,916	26,936	55,770	Total no. of hours all stations can be occupied
÷ 2.0	÷ 1.1	÷ 1.0	Divide by classroom hours per credit hour
9,958	24,487	55,770	Total no. of credit hours which each kind of classroom can handle
	90,215		Total no. of credit hours that the campus can handle
	÷ 15		Divide by credit hours per FTE student
	6,014		FTE based on a 53 hour week
	X 1.5		FTE ratio
	9,021		Headcount based on current enrollment:FTE ratio

Now compare these FTE and headcount figures to actual and projected enrollment figures.

	Year	Headcount	FTE	Ratio Headcount/FTE
Actual	1974	3,597	2,769	1.3
	1975	4,307	3,203	1.3
	1976	4,571	3,300	1.4
	1977	4,457	3,114	1.4
	1978	4,702	3,127	1.5
	1979	4,626	3,084	1.5
Projected (as of 12/79)	1980	4,721	3,147	1.5
	1981	4,797	3,198	1.5
	1982	4,824	3,216	1.5
	1983	4,764	3,176	1.5
	1984	4,689	3,126	1.5
	1985	4,592	3,061	1.5
	1986	4,528	3,019	1.5

*FTE is calculated on 1.5 ratio for all projections

SOURCE: State Higher Education Functional Plan, p. II-17

Conclusions

① There are approx. 3,900 stations listed in the ed specs. As unrealistic as it may sound, 3,900 students could be accommodated at any hour if all general classrooms, specialized classrooms, and laboratories were occupaied at the same time! The 1979 headcount enrollment was 4,626. Since only a small percentage of these students are actually on campus at the same time, then far fewer stations are necessary than the total number of students. Obviously there are more classrooms and stations than are necessary to accommodate current and future enrollment.

② Enrollment has stabilized--the 1979 actual headcount (4,626) is higher than the 1986 projected enrollment (4,528).

③ A campus based on a 32 hour workweek can support a student body of 5,320 FTE and 7,981 headcount (not the 5,000 FTE and 6,000 headcount stated in the ed specs on page 33). 7,981 is 76% higher than 4,528, therefore it can be assumed that the space requirements are 76% more than is necessary.

④ A 32 hour use of classrooms per week means that classroom use is being scheduled less than 7 hours per day during the week (e.g., 7:30am - 2:30pm daily). How do evening and weekend hours fit into this schedule? The ed specs state that the campus shall be "open from early morning until late evening and during weekends" (p. 26), yet the campus has been planned for only a 32 hour workweek (p. 33).

⑤ If the campus were based on a 53 hour week, including a much more realistic number of evening classes, then the classroom space could support a student population of 6,014 FTE and 9,021 headcount. This means that is the classrooms were to be used during the day and several evenings per week, then 9,000 students could be accommodated!

⑥ The Pensacola campus is currently operating on a 65 hour week schedule including evening classes. Over 80% of the classes are scheduled before 2:00pm (Fall 1979 class schedule) but the buildings must remain open for the remaining 20% of the classes scheduled after 2:00pm. Additional classes, if needed, could be scheduled in these open hours.

⑦ KCC is moving from a 65 hour workweek to a 32 hour workweek--expanding the physical facilities five- to seven-fold, but cutting in half the hours that classes will be scheduled! We should be moving in the opposite direction by increasing the use of our facilities (using the classrooms for more than the proposed 7 hours/day) and decreasing the space requirements.

⑧ The number of faculty offices is also excessive. A total of 140 individual faculty offices are listed in the ed specs (faculty position count = 110). Faculty members in community colleges usually share offices since many of them are in the classroom 12 to 15 hours per week.

Operating and Maintenance Costs

No one has sufficiently discussed the costs of maintaining and operating the campus once it is constructed. I would like to address these aspects of the proposed project.

Right now the University is spending approximately $1.26/sq. ft./year on building maintenance costs. This figure includes electricity costs, water, gas, custodian salaries and supplies and shop workers.

It is estimated that by 1983 it will cost approximately $1.80/sq. ft./year to operate and maintain University facilities.* This is a very conservative estimate, is probably too low, and includes major conservation measures at a 6.2% savings.

Groundskeeping costs are estimated to be approximately $250/acre/month, but even this figure is probably too low.* One groundskeeper is needed for every 5 acres of property.

We have no estimates from the University concerning security at each of the two campuses.

I have asked the University to provide me with the current operating and maintenance costs so that I may present you with some basis of comparison. I have not yet received this information.

Following is a conservative estimate of some of the operating and maintenance costs for the Diamond Head campus in 1983:

* Manoa Campus Facilities Management Projections

Building Maintenance

384,700 sq. ft. (less rec. facilities) X $1.80 sq.ft./year = $ 692,460 per year

568,478 sq. ft. (incl. rec. facilities) X $1.80 " " = 1,023,260 per year

Hawaiian Electric provided the following estimate for 1983 for electricity only for an air conditioned office building:

2.4 kwh/sq. ft./month at $.10/kwh

384,700 sq. ft. X 2.4 kwh = 923,280 X 12 months = 11,079,360 kwh x $.10 = $1,107,936 per year!

Groundskeeping

52 acres X $250/acre/month X 12 months = $156,000 per year

52 acres X $500/acre/month X 12 months = $312,000 per year

Pensacola (5 acres x $250) = $15,000
(5 acres x $500) = $30,000

Since the University has not provided necessary information concerning maintenance, groundskeeping and security, we can look only to the 1979-81 State Budget Institutional Support (UOH 315) category for Kapiolani Community College which provides the following:

(26.50) positions for 1979-81

$ 746,742 in general funds in 1979-80

$ 767,154 in general funds in 1980-81

$1,513,154 in general funds in 1979-81

COMPARE THIS FIGURE TO THE PROJECTED ELECTRICITY COSTS ALONE!!!

It should also be noted that the University requested (1.50) additional positions, and $16,618 in general funds for 1980-81 (Supplemental request).

All of the community colleges within the University of Hawaii System anticipate a short fall of approximately $169,000 (total) due to electricity cost increases during the current fiscal year.

It should be noted that approximately 16% of this amount will be required from the Institutional Support budget category of KCC ($27,162) alone.

This examination of space requirements and operating costs should not preclude the utilization of the existing Fort Ruger campus for teaching of a formal academic nature, both for degree candidates and members of the surrounding community. On the contrary, it is clear that with the proper utilization of funds throughout the University of Hawaii System, we may be able to offer a far more extensive program (i.e., more offerings which are program and student oriented as opposed to administrative and capital intensive).

The ed specs state (p. 35), "...all of these estimates will need to be reviewed and updated before actual design of each building is started." The approach outlined in the specifications is reasonable and prudent and one which has been adopted by the Senate in its position on this project.

ATTACHMENT 6

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

DIRECTOR

TE3/80-852

April 30, 1980

Honorable Neil Abercrombie, Senator
The Senate
The Tenth Legislature
State of Hawaii
State Capitol
Honolulu, Hawaii 96813

Dear Senator ~~Abercrombie~~ Neil:

Subject: Your Letter of March 4, 1980 Regarding Redevelopment/Relocation of the Kapiolani Community College Campus

We are forwarding the Department of Public Works' estimated construction cost for the proposed street widening improvements (item 4) for the streets as marked in red on the attached sketch for your use.

Very truly yours,

AKIRA FUJITA
Acting Director

Attach.

DEPARTMENT OF PUBLIC WORKS

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

WALLACE MIYAHIRA
DIRECTOR AND CHIEF ENGINEER

001-13-0185

April 18, 1980

TO : MR. AKIRA FUJITA, ACTING DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM : WALLACE MIYAHIRA, DIRECTOR AND CHIEF ENGINEER
DEPARTMENT OF PUBLIC WORKS

SUBJECT: YOUR MEMORANDUM TE3/80-692, DATED APRIL 8, 1980, REGARDING A REQUEST FOR COSTS OF PROPOSED DEVELOPMENT PLAN STREET IMPROVEMENTS, SURROUNDING THE KAPIOLANI COMMUNITY COLLEGE - FORT RUGER SITE

The estimated construction cost for the full improvement of the streets marked in red on the plan that you sent to us is $12,500,000 with overhead utilities and $16,000,000 with underground utilities. The estimated costs do not include costs for land, engineering, inspection and adjustments at the property line.

For your information, the Development Plan shows a realignment of Diamond Head Road, which was not indicated on your plan. Diamond Head Road improvement costs were computed for the existing 30-foot right-of-way.

Wallace Miyahira
WALLACE MIYAHIRA
Director and Chief Engineer

ATTACHMENT 7

KAPIOLANI COMMUNITY COLLEGE: AN ALTERNATIVE

SENATOR NEIL ABERCROMBIE
CHAIRMAN, HIGHER EDUCATION COMMITTEE

KAPIOLANI COMMUNITY COLLEGE: AN ALTERNATIVE

Table of Contents

The Legislature is currently addressing the issue of whether to relocate Kapiolani Community College at Fort Ruger or to rebuild the campus at its present Pensacola Street location. The University of Hawaii Board of Regents, in its Supplemental CIP budget, has requested a reappropriation of the $1,009,000 for design studies for the campus at Fort Ruger. Because the University was unable to provide estimates of all the major costs associated with this project, I have suggested that we look at alternatives to relocating the campus at Fort Ruger and am recommending that $100,000 be appropriated for the purpose of studying these alternatives, which would include rebuilding the campus at its present site.

The University of Hawaii has been discussing the future of Kapiolani Community College for at least 13 years. A brief history includes a consultant's report which suggested building at the present site, another consultant's report that recommended moving KCC to Fort Ruger, a Board of Regents policy statement that indicated KCC should be developed at its present site, and a later BOR recommendation to discontinue KCC at its present site and build a new community college, East Honolulu Community College, at Fort Ruger. The land at Fort Ruger was acquired in 1974 for $5.4 million and an environmental assessment was prepared to evaluate the "concept" of a community college at the site. Without an environmental impact statement the University proceeded to demolish

existing buildings on the parcel and renovated others at a cost of more than one million dollars.

In October 1977 the State Department of Accounting and General Services contracted with a consulting firm to prepare the master plan and EIS for KCC at Fort Ruger (plans for building an "East Honolulu Community College" were lost in the shuffle somewhere). According to the work contract, the master plan was scheduled to be completed in late 1978, and the EIS was to be completed by mid-1979. In 1976 and 1978 the Legislature appropriated a total of $1,009,000 in the CIP budget for design studies. The master plan is currently being prepared and is scheduled to be completed June, 1980; the money for the EIS was released by the Governor in February, 1980 with the EIS scheduled to be completed by November, 1980; and the $1,009,000 in design money was never released and will lapse in June, 1980 unless reappropriated by this year's Legislature. The CIP request is priority #30 out of 56 projects listed by the University.

When I asked the University to provide me with all the costs associated with the relocation of KCC to Fort Ruger, including on-site and off-site improvements, they indicated that they were unable to provide this information without the master plan. Instead they forwarded a six-year CIP budget totaling $27,741,000, only a portion of the total costs of this project. When members of my staff calculated the estimated costs, they came up with $40 million. This is

without knowing many of the expenditures yet to be revealed!

Without the master plan and the EIS we are unable to assess the extent of major project costs such as infrastructural improvements and parking and traffic requirements. As a member of the Legislature who intends to comply with the state's expenditure ceiling and debt limitation, I am interested in all costs involved in and associated with any major CIP project. It should be recognized that the constitutional amendments on expenditure limits and debt ceilings, and the agreement between the Legislature and the Governor not to exceed a $150 million annual CIP budget, require the strictest discipline on spending. The University is one of many state programs competing for CIP funds. In this time of constitutionally mandated fiscal restraint, a request for a multi-million dollar country club complete with pool, gym, and other amenities, is utterly unrealistic.* Therefore, I am recommending that the $1,009,000 not be reappropriated and that we look at alternatives such as rebuilding KCC at its

* During recent years, the State of Hawaii has been selling general obligation bonds on the New York market at a rate slightly above 5%. At this rate if the State borrows $75 million, it would have to pay back $150 million. Until four years ago, the statutory ceiling placed on bond interest rates was set at 6%. However, when it appeared that rates would exceed 6% in the market, the Legislature raised the ceiling to 8%. Further, it was noted as recently as March 10, 1980 that the State could not sell bonds at the present time because government bond issues are moving well above the 8% ceiling fixed in Hawaii statute. At an 8% (or more) rate, the cost of paying back $75 million in bond borrowing would amount to approximately $225 million, or three times the amount which was originally borrowed. The Legislature is now aware, as of March 17, 1980, that the current interest rate on bonds now exceeds 9% and further escalates the cost of a project such as the one proposed for Fort Ruger. (Source: Honolulu Star-Bulletin March 10, 1980)

present site which would be less costly than relocating it to Fort Ruger.

There were several factors to consider when making this decision. I will briefly outline them below.

Location and Access

KCC-Pensacola is located in the center of an urban area in close proximity to commercial centers and Waikiki, and is compatible with the future redevelopment of Kakaako. Its location is an advantage to students for several reasons: the reduction in travel time to places of employment (most students are employed in Waikiki, Ala Moana, Downtown, and Kalihi); proximity to housing that students are more likely to afford; the frequency of service by the city bus system (the campus is served by bus routes 1, 2, 3, 9, 11, 12, 50, 51, 52, 53, and 54); and proximity to the proposed HART station one block away.

Fort Ruger, on the other hand, is isolated in a residential area away from any major thoroughfares, commercial centers, and affordable housing for students. Access by public transportation is limited (the campus is served directly by only two bus routes, 3 and 57; the campus is approximately four miles from the proposed University HART station and one mile from the 6th Ave.-Koko Head HART station), and the City and County Department of Transportation Services has no plans to expand bus service to this area.

On-Site Improvements

The extent of the costs of the on-site improvements for KCC-Pensacola depends on the design adopted for the campus. There are costs associated with constructing a high-rise or modular building campus that would not apply to the low-rise campus envisioned in the Fort Ruger site plan. The Pensacola site, however, is level, needs little gound preparation, and the existing infrastructure is adequate to support a campus of 5,000 full time enrollment (FTE)* students plus staff.

The costs of the on-site improvements for KCC-Fort Ruger are unknown at this time because the master plan is incomplete, but the latest University estimate is $3,600,000. The 1974 environmental assessment predicted that the capacity of the on-site sewer lines, water lines, electrical circuits, telephones and gas lines may have to be increased and an on-site drainage system be constructed. A fair amount of grading will be necessary to accommodate 12 acres of surface parking to avoid ponding and runoff to neighboring property.

Off-Site Improvements

No off-site improvements will be necessary as a direct result of rebuilding KCC at Pensacola. Off-site improvements

* FTE = headcount of full-time students + student semester hours of part-time students ÷ 15 semester hours.

at Fort Ruger, however, will be substantial and should be discussed as part of this project. The two-lane streets adjacent to the site already exceed capacity during peak hour traffic (according to a 1973 traffic count) and will probably have to be widened. Additionally, there will be an increase in traffic on the feeder streets from H-1 and other main thoroughfares leading to the site. The costs for these improvements will be borne by the state, the city and county, or the residents in the area through the improvement district process. These costs should be included in the project costs as these improvements may be necessary as a direct result of this project.

Parking and Traffic Generation

The parking situation is one of the major problems that will directly affect the costs of constructing either campus. KCC-Pensacola now has almost 300 parking spaces available on the site and requests for more. The site plan for the Fort Ruger campus calls for 1200 parking spaces, at the cost of $1100 per space, compared to $10,000 per space for a high-rise or underground parking structure.

There are several factors which must be considered when discussing the parking problems associated with each campus. The construction of 1200 spaces at Fort Ruger will cover about 12 acres of very expensive land, or 35% of the 34 acres designated for development (12 acres of parking represents 23% of the total area of the site). The $1100

construction cost per space does not include the possible expensive grading problems associated with the volcanic rock composition of the soil; thus the costs may be higher than those estimated. Providing all these spaces encourages the use of private automobiles and the depletion of a non-renewable resource, generates additional traffic, and is contrary to the state's and city's commitment to the use of public transportation. If students park off-campus in the unimproved surrounding streets, they will only compound the parking problem and irritate the nearby neighbors.

Leahi Hospital staff members are currently using 200 to 300 parking spaces that are located within the boundaries of the campus. If the campus is constructed, Leahi Hospital will have to make other parking arrangements for its staff. The costs of relocation and construction of a new parking facility, with state funds, should also be considered in the costs of the KCC-Fort Ruger campus.

There may not be a way to provide 1200 parking spaces at Pensacola, and there may not be a need to do so either. Pensacola is centrally located, has convenient off-street parking, and is served adequately by most major bus routes. A survey of student addresses reveals that most students can reach the campus on one bus and do not need to transfer. For those students and staff members who choose to drive there are 400 to 500 spaces available at the Neal Blaisdell Center on most days for a daily fee of $1.00.

I believe this is a reasonable parking charge for several reasons. First, it is competitive with bus fares and may encourage students and staff members to use public transportation. Many students do not attend classes every day, so this fee system has the advantage over a flat fee per semester. Second, parking at NBC enables the public to utilize more fully a service which is already being provided without expending state money to duplicate the service.

It may be desirable to build a parking structure on, under, or near the Pensacola site. What we need to find out from the study I am recommending are the actual parking needs for a campus of 5,000 FTE students plus staff, whether facilities can be shared with nearby NBC and McKinley, and whether a joint parking structure may be constructed with revenue bonds as a cooperative State-City project to accommodate the needs of both NBC and KCC. Once these needs are assessed we will be better able to recommend a solution to the parking problem and transfer costs from the taxpayer to the actual users.

Expansion Possibilities

Building at the Pensacola site will limit any future expansion of physical facilities on the existing parcel. However, expansion may not be necessary. The core programs

have already been established, no new programs are being added, and enrollment has been stable and is below that projected for this year. In addition, the Board of Regents has a policy which limits enrollment at community colleges to 5,000 FTE.

If expansion is necessary, I think we may have two options. First, we could move toward a joint use of facilities with the cooperation of the DOE and McKinley High School. McKinley sits on 40 acres of land and, when all construction is completed according to its master plan, will have a complex of recreational facilities and classrooms which could be shared with KCC and other educational programs. The entire parcel may be designed as an educational complex (The McKinley Community Education Center) where students could attend high school, where citizens could enroll in adult education or community college courses, and where services could be provided to such groups as immigrant students.

Second, KCC may be able to expand onto some of the land presently being under-utilized by McKinley. Adjacent to the campus is a strip of land now being used to store the State Farm Fair equipment, for tennis courts, a rifle range, and a maintenance worker's house and boats. None of these existing uses are included in the McKinley High School master plan except for the tennis courts which can easily be relocated and shared with KCC. Any expansion would require the alteration of the McKinley master plan, but nothing suggested here would interfere materially with education at McKinley.

Problems with expanding at the Fort Ruger site include the construction of new facilities at escalated construction costs.

Existing Facilities

Both campuses have buildings which could be retained for use. KCC-Pensacola has two buildings which are in excellent condition and, with proper maintanance, can continue to be used for many more years. The buildings may not be appropriate for their current uses, but could be modified to meet the requirements of other programs.

Several of the National Guard buildings were renovated at Fort Ruger and could be retained and used as they are now for at least ten years, with proper maintenance, according to the Department of Accounting and General Services. I am not recommending that the existing buildings at Fort Ruger be torn down, nor am I recommending that KCC phase out of Fort Ruger. Community groups have expressed a need for continuing education or extended degree courses, some of which are not normally offerred at KCC. These needs could be met at the Fort Ruger site by KCC, continuing education, the Department of Education, or other educational organizations.

Alternative Uses for the Site

It has been extremely difficult to obtain an answer to this simple question: What will the Pensacola site be used for when KCC moves to Fort Ruger? The University responds that a task force has been formed to study the issue, but has not yet made a recommendation. Last year, however, the University requested funds from the Legislature in its CIP budget to relocate the University Systemwide Administrative offices to the Pensacola site. The food service industry has requested that a facility be retained to locate a new continuing education food service program for people in the industry. We recently learned that the current food service program at KCC-Pensacola is not scheduled to move within the

next six years, but was selected to remain at the Pensacola site until some future date. The costs of the relocation of this program and its facilities are not included in the $27 million figure submitted to the Legislature in the six-year CIP budget.

As far as I can see, the University wants the 52 acres at Fort Ruger without giving up the 5 acres at Pensacola. I do not disapprove of this idea, except that I recommend constructing the principal campus at Pensacola and letting the existing buildings at Fort Ruger be used as I have outlined above. The remaining land would still be available for future expansion, if needed, and if the University retains all 52 acres.

Basis for Community College Course Offerings

Community colleges and four-year schools are usually program specific. That is, although each school may offer basic liberal arts classes, most specialize in a few program areas. If a person is interested in pursuing a particular occupation, he or she enrolls at the school offering that program, regardless of its location. For example, Honolulu Community College is the only school that offers refrigeration mechanics, and KCC is the only school that has a Legal Assistance Program and an Allied Health Program. Convenience for the surrounding community is incidental to program offerings unless one wishes to make the absurd contention that a particular program is of interest only to those people living around the campus where it is taught.

For this reason I would like to correct a misunderstanding

that surrounds discussion of the relocation of KCC to Fort Ruger to serve the residents of East Honolulu. The University of Hawaii is a general funded statewide educational system and is not intended to serve specific communities. Thus, geographic location, as such, is not a basis for establishing a school.

Operating Costs

A major consideration in designing any facility is the cost of operating and maintaining it once the project is completed. A campus consisting of many buildings sprawled over a large land area costs more to maintain than a campus concentrated with few multi-story buildings. Energy, grounds-keeping, janitorial and security costs will be far more inexpensive with fewer buildings.

Space Requirements for Kapiolani Community College

KCC-Pensacola campus is situated on 5.3 acres with 81,298 sq. ft. of building space. The educational specifications for the KCC-Fort Ruger campus list the space requirements as 384,700 sq. ft. for the classrooms and administration buildings, and 568,478 sq. ft. if all the recreational facilities are included. I agree that with the additional new programs KCC can certainly justify its expansion, but I am not convinced that the campus must be increased five- to seven-fold! I am recommending that the educational specifications be reviewed with the express purpose of eliminating those facilities which may be considered "luxuries" and reducing

other space requirements that may be larger than necessary. Classroom space can and should be designed for multi-purpose use, when possible, and should not be assigned to specific programs. In many occupational programs practical experience is gained off-campus. For example, radiation technicians and nursing students train in community hospitals. Thus, separate classroom space need not be designated for each program unless a particular program requires specific equipment which is used solely for that program.

I do not want to sacrifice the quality of education at KCC by reducing the space requirements for necessary facilities such as libraries, laboratories, student lounges, or the bookstore, but given our fiscal constraints I find it difficult to justify a swimming pool, gym, tennis courts, volleyball courts, a mock courtroom (for the Legal Assistant program) and other amenities for a community college. To add these extras amounts to little more than a Christmas shopping list with someone else's credit card in hand--in this instance, the taxpayer's.

I have two site plans designed for the Pensacola site using the educational specifications prepared for the Fort Ruger campus. One site plan suggests an 8-story high rise building, and accommodates all of the suggested recreational facilities. The other plan eliminates the recreational facilities and spreads modular 2-, 3-, and 4-story buildings over the entire site. Neither plan keeps any of the existing

buildings and both are designed for semi-underground parking. I am not advocating either one of these site plans because I do not want to see the existing buildings demolished or the construction of expensive semi-underground parking, nor do I believe the proposed space requirements are either necessary or realistic. The plans show, however, that it is possible to meet these requirements on the 5.3 acre parcel and still have an attractive campus.

Construction Problems

The City and County of Honolulu is prepared to discuss renting facilities at Blaisdell Exhibition Hall at two-thirds discount for schools on a long-term basis to assist KCC while construction is underway. If the football field and track that now run parallel to Kapiolani Blvd. were placed perpendicular to Kapiolani Blvd., next to the Blaisdell parking lot end of the McKinley area, considerable space would be available to KCC. The extensive grassy area and wide set-back from the street would allow for temporary buildings now in use to continue to serve as interim classrooms while the school is under construction. This would have the advantage of allowing construction to proceed rapidly to completion with little or no phasing depending on the adopted design for the campus.

At Fort Ruger the construction being proposed will be spread over a period of at least ten years--provided nothing

goes wrong and all on- and off-site development takes place expeditiously and within reasonable cost. Given the potential soil problems this would be little less than miraculous. The basic classroom buildings, less the Food Service facilities, would not be in a last phase of construction until 1985--again assuming no problems whatsoever arise including funding.

The $3.6 million dollars for on-site costs is only an estimate before the master plan and EIS are completed. This figure represents a rise in estimated costs of approximately $500,000 in less than two weeks from the time the University gave the Senate Higher Education Committee its capital improvement site development cost estimates on February 15, 1980 and those it provided Senator Patricia Saiki on February 29, 1980. The message is clear.

Conclusion

In summary, I would like you to consider the advantages and disadvantages of each campus, especially in light of the State's current fiscal situation. There are still several unanswered questions for both projects. For this reason, I am recommending that the Legislature appropriate $100,000 to study the rebuilding of KCC at its present site to include but not be limited to the following considerations:

* review the educational specifications and eliminate or reduce some of the space requirements and facilities

* examine those facilities or land areas which could be shared cooperatively with the Department of Education (McKinley High School) and the City and County of Honolulu (Neal Blaisdell Center)
* review existing educational programs and expand educational offerings to include use of facilities for adult education classes, courses for immigrant students, and other extended education programs
* assess the present and long-range capital improvement and operating costs of both campuses

The Legislature as the policy-making body of the government must take the lead in mandating a prudent fiscal approach to higher education. The Board of Regents, as the policy-making body for the University of Hawaii, should assist and cooperate with us in what should be a mutual endeavor.

DEPARTMENT OF AUDITORIUMS

CITY AND COUNTY OF HONOLULU

777 WARD AVENUE
HONOLULU, HAWAII 96814

NOV 1 6 1979

ATTACHMENT 8

FRANK F. FASI
MAYOR

HAZEL M. INOUYE
DIRECTOR

November 14, 1979

Neil Abercrombie
Senator, Sixth District
Chairman, Committee on Higher Education
The Senate
The Tenth Legislature of the State of Hawaii
Honolulu, Hawaii

Dear Neil:

In response to your letter of November 5, 1979, please be advised that of the 1100 parking stalls at Blaisdell Center about 650 are occupied on any given weekday. This, of course, is an average figure.

The daily parking charge is $1.00; the monthly is $20.00.

If I can be of further help please let me know.

Sincerely,

HAZEL M. INOUYE
Director of Auditoriums

HMI ag

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

DEC 5 1979

ATTACHMENT 8

FRANK F. FASI
MAYOR

ROBERT R. WAY
DIRECTOR

BS-11/79-3547

December 5, 1979

Honorable Neil Abercrombie
Chairman, Senate Committee
on Higher Education
The Tenth Legislature
State Capitol, Room 227
Honolulu, Hawaii 96813

Dear Senator Abercrombie:

In response to your letter of November 19, 1979, we have prepared the attached schedule describing TheBus service to the Kapiolani Community College campus at Fort Ruger.

Present plans call only for the maintenance of the current level of service for the area in the foreseeable future. While TheBus fleet will be expanded shortly, the vast new community developments outside Honolulu's urban core will demand and easily absorb any increased service capacity for the moment.

If the fixed guideway is built following the presently preferred route along the center of the freeway through Kaimuki, stations will likely be located at 6th Avenue and Koko Head Avenue. Areas surrounding the stations will be served by "feeder" buses circulating in the vicinity and connecting with the train at the stations. It is not possible to say how frequently feeder buses will cover the over one-mile distance from the stations to the Kapiolani Community College Ruger campus at this time. The routes will cover all of the neighboring communities. It is unfortunate that the Ruger campus is not located closer to a main transportation corridor or a proposed rapid transit station as is Kapiolani Community College's principal campus.

If I can be of any further assistance in this matter, please do not hesitate to call.

Sincerely,

ROBERT R. WAY
Director

Attachment

ATTACHMENT 8

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

DIRECTOR

TE3/80-692

April 9, 1980

Honorable Neil Abercrombie, Senator
The Senate
The Tenth Legislature
State of Hawaii
State Capitol
Honolulu, Hawaii, 96813

Dear Senator ~~Abercrombie~~ Neil:

Subject: Your Letter of March 4, 1980 Regarding Redevelopment/Relocation of the Kapiolani Community College Campus

Transmitted are the traffic data (items 1, 2, and 3) that you requested. Costs of the proposed street widening and attendant improvements surrounding the Kapiolani Community College-Fort Ruger site (item 4) are not availabe at this time. We will send you this information as soon as it is developed by the City's Department of Public Works.

The following is in response to items 5, 6 and 7:

(5) The four streets surrounding the Fort Ruger site will need to be widened to accommodate the increased traffic. Additionally, the anticipated demand for on-street parking will necessitate improving most streets located within a two-block radius of the Fort Ruger site to the Development Plan standards. Attached is a map locating these streets. (Enclosure 4).

(6) Approximately 250 parking spaces with no time restrictions are available within the residential neighborhood area bordered by Pensacola Street, Alohi Way, Piikoi

and Kamaile Streets. However, very few open spaces were found during a recent 9:00 a.m. field check of this area.

(7) Bus service from the suburban and rural areas of Oahu passing Kapiolani Community College on Kapiolani Boulevard at Pensacola Street is planned for increased service during the morning and after peak periods. There are no plans for increasing bus service around the Fort Ruger Campus unless ridership increases over present levels.

Very truly yours,

AKIRA FUJITA
Acting Director

Encl.

cc: LLO

ATTACHMENT 9

GEORGE ARIYOSHI
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. BOX 3378
HONOLULU, HAWAII 96801

GEORGE A. L. YUEN
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DEPUTY DIRECTOR OF HEALTH

JAMES S. KUMAGAI, PH.D., P.E.
DEPUTY DIRECTOR OF HEALTH

TADAO BEPPU
DEPUTY DIRECTOR OF HEALTH

In reply, please refer to:
File: C/S HOSP.

March 21, 1980

The Honorable Neil Abercrombie
Senator, Sixth District
Chairman, Higher Education Committee
The Tenth Legislature
State Capitol
Honolulu, Hawaii

Dear Senator Abercrombie:

In response to your letter of March 6, 1980, the proposed relocation of Kapiolani Community College to Fort Ruger would affect the parking situation at Leahi Hospital.

The parking lot of 240 stalls located at the corner of Kilauea and Makapuu Avenues is currently being used by visitors and staff of Leahi Hospital as well as the staff of the University and Department of Health programs which are housed at Leahi. The use of the parking lot is based on an informal arrangement with the University, and the hospital was given advance notice in June 1978 that the parking lot will be required for the development of facilities for the Community College. The notice to vacate was tentatively scheduled for January 1982 at which time the start of construction was anticipated.

While we have been informally advised that the above schedule is no longer applicable, we have investigated the need for a replacement parking lot.

A possible alternative to the use of the existing parking lot is to construct a new parking area of comparable size on Parcel 1 (see plot plan attached) which is located at the southwest corner of Kuwalei and Makapuu Avenues. This parcel is owned by the State and contains a total area of 108,480 sq. ft. or 2.49 acres. It is the site of the Bottomley and Spalding Buildings, which are now vacant and have been recommended for demolition as both buildings are beyond economical repair.

Although no engineering studies have been made to date, the preliminary costs associated with the construction of a replacement parking area are as follows for a comparable lot with approximately 250-300 stalls:

Demolition of Existing Structures	$ 90,000
Design and Plans	32,000
Construction Costs - grading, paving, drive-ways, lighting and landscaping	320,000
Inspection Costs	13,500
Contingencies	12,000
Total Estimated Cost	$467,500

The construction costs represent present day cost and must be adjusted upward at the rate of 1% per month due to inflationary factors.

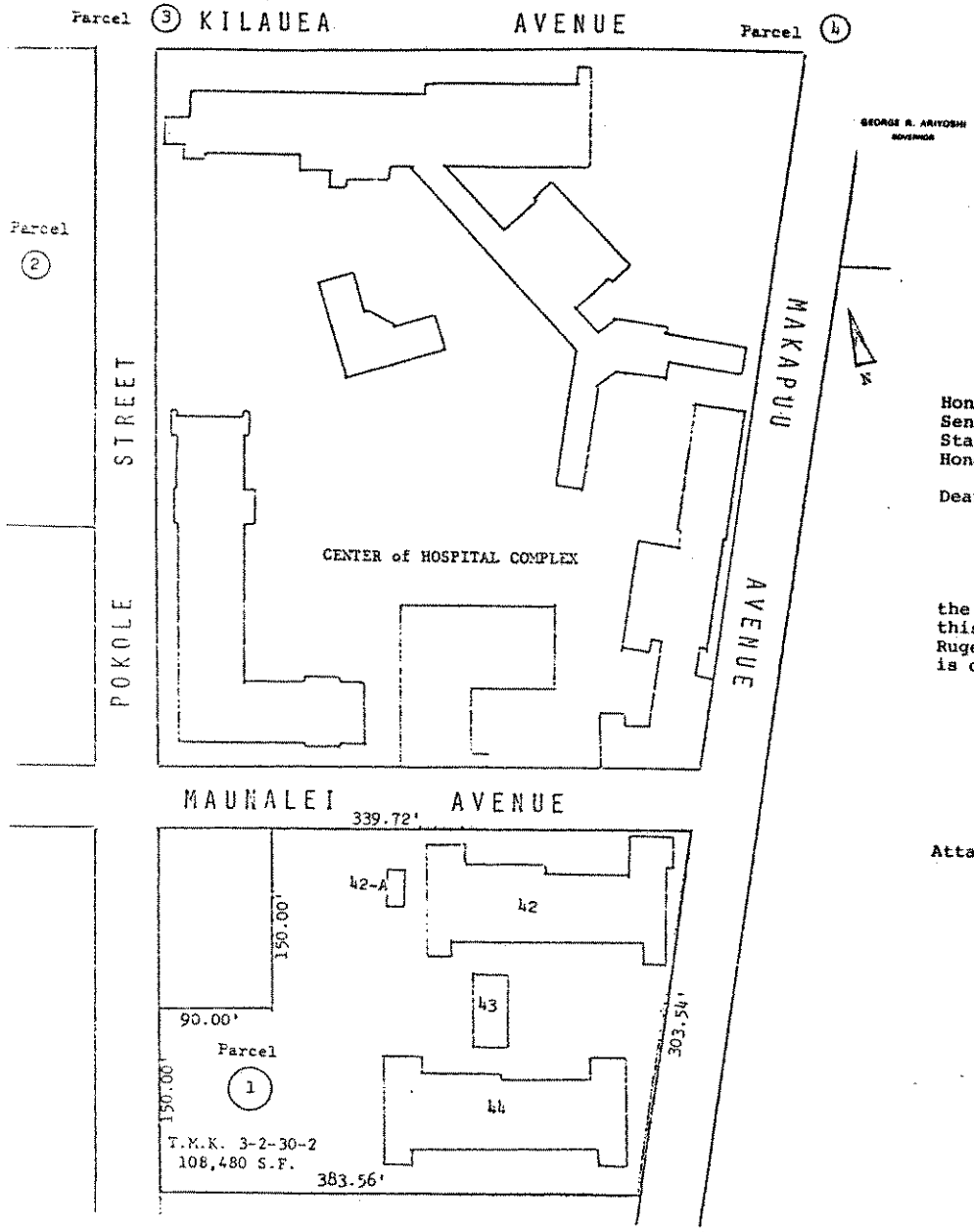
Should you need further information, please contact me.

Very truly yours,

GEORGE YUEN
Director of Health

Attachment

cc: Leahi Hospital



GEORGE R. ARIYOSHI
GOVERNOR

HIDEO MURAKAMI
COMPTROLLER

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STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96810

LETTER NO. (P)1964.0

OCT 16 1980

Honorable Neil Abercrombie
Senator
State Capitol, Room 227
Honolulu, Hawaii

Dear Senator Abercrombie:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your July 14, 1980 letter commenting on the draft EIS for the subject project. Please note that this EIS is for the master plan developed for the KCC Fort Ruger campus rather than a site selection study. Attached is our response to your numerous comments and questions.

Respectfully,

HIDEO MURAKAMI
State Comptroller

Attachment

KCC MASTER PLAN
EIS CONSULTATION PHASE
RESPONSE TO JULY 14, 1980 COMMENTS
FROM SENATOR NEIL ABERCROMBIE

Section 1.B. - Proposed Action

1. The sentence will be revised to read: "Since September 1975, a portion of KCC's student body has been taking classes at the Fort Ruger site. In the last few years, this has amounted to approximately 21%."

2. The master plan has been completed as indicated by Figures 3 through 6 in the EIS. However, the master plan report, which is being revised, has not been published yet.

3. The present schedule is to publish the master plan report after the EIS Consultation Phase is completed.

Section 1.C. - Statement of Need

1. The first portion of this statement will be revised as follows:

   "The Comprehensive Zoning Code (CZC) of the City and County of Honolulu limits the amount of facilities that can be constructed at the existing 5.3-acre site for Kapiolani Community College at Pensacola Street. Thus, even if the facilities were constructed in one massive air conditioned building, the site would not accommodate all of the facilities required for the college.

   Assuming that provisions of the CZC limiting development of the college were eliminated, there would still be the problem of incremental or totally new construction. Since the 5.3-acre site is extremely crowded, construction of new facilities will probably require displacing some or all existing facilities. Based on the above items and other factors, and since the college could not pragmatically expand the Pensacola site, the University of Hawaii Board of Regents decided to look for another site."

2. The 1965 site selection study has served its purpose. The best site available to relocate the college has been purchased, classes have been held at the Fort Ruger campus for several years, a master plan has been adopted and the first increment design can be implemented shortly.

3. "Pragmatically expand" refers to expansion without consideration of other items.

4. The need to expand is to eliminate present inadequacies and to provide for future growth. Some of the inadequacies are lack of science laboratories and specialized classrooms, the inadequate library space and parking lot, plus absence of a campus center.

5. Rather than just considering up to 1986, KCC is being planned to serve the educational needs of the community beyond the year 2000. The long-range projections prepared by Institutional Research and Analysis will be included in the EIS Appendix V.

6. The on-campus circulation system provides arriving vehicles the option of ingressing at the nearest entrance and thereby removes these vehicles from the street at the earliest possible moment.

Section 1.F. - Architecture

1. Since most of the buildings are two stories in height and a few are three stories, they can be called "low rise". By keeping the building heights below the trees as illustrated in Figures 10 through 13, the buildings should be low in profile.

2. The college has requested that the first increment design include reviewing the use of natural ventilation for most facilities. Other energy-saving items that will be considered during the design phase are use of solar energy systems and heat pumps for air conditioning and hot water heating.

Section 1.G. - Incremental Construction

1. The availability of funding is a key question for all University CIP projects. For KCC, it depends on the University's allocation of CIP funds and KCC's project priority compared to other U.H. projects. We presently do not have any effective method available for measuring the cost/benefit ratio of the educational system.

2. The University has established the attached Capital Improvement Program which will be included in the EIS as Table 15.

3. See Response Item No. 5 in Section 1.C. regarding student enrollment.

TABLE 15

Proposed Capital Improvements Program
for KCC from 1981 to 1987

Item	Fiscal Year					
Site Development	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Area I	X					
Area II		X				
Area III				X		
Area IV						X
Buildings:						
A - Business Education				X		
B - Health Education		X				
C - Fine Arts					X	
D - Science & Gen. Education		X				
F - Admin/Student Services						X
G - Food Services			X			
H - Campus Center/ Public Serv.				X		
I - Learning Resource Center			X			
J - Media Center/ Ind. Study				X		
K - Business Education					X	
P - Maintenance						X

4. The cost figure includes the cost of all on-site and off-site improvements. The parking lot for Leahi Hospital is a Department of Health CIP project and is therefore not included as a University cost item.

5. Because of the uncertainties in when facilities will be constructed, the inflation rate, bond interest, etc., the best cost figure to use now is the cost in 1980 dollars.

Section 1.H. - Affected Environment

1. The renovation cost figures you mentioned included demolition, sitework and improvements to utilities required to adapt the existing housing units for classroom and office uses.

2. As indicated in Item 6 of the March 13, 1980 letter to you, these buildings will be retained until new facilities are constructed. Although the University considers the existing classrooms inadequate for instruction, please note that the master plan was prepared so that these facilities could be retained until a substantial portion of the new facilities are constructed.

3. At the June 9, 1980 Public Hearing, the Hawaii State Historic Preservation Review Board referred the nomination papers back to the State Parks, Outdoor Recreation and Historic Sites Division for further analysis and research. No date was given for the resubmittal.

4. Based on discussions with the Historic Preservation people, the University has two basic alternatives: 1) honor the nomination and replan the college around the historic site or 2) proceed with the college as planned.

Section 1.I. - Minor Impacts

1. Since there are no standards, the rating is based on the judgement of the individual preparing the EIS. Please note that this section refers to impact on topography and soils.

2. The estimated peak surface runoff is projected to increase from the present 77 cfs to 230 cfs when the campus is fully developed. It should not affect the surrounding residential area since a detention basin will be provided as indicated in Section 5.C.4.c of the EIS.

3. See EIS Sections 5.A.3.e and f regarding emission controls.

4. Mitigation measures cost more but are controlled by County, State and Federal regulations.

5. See EIS Section 5.A.4.b regarding construction noise.

6. Noise would still be a problem because construction work would be clustered in a much smaller area. Additionally, the need to go high-rise increases the need to utilize piles for the foundation. Pile driving would be a major noise problem.

7. The County's proposed General Plan designation for Fort Ruger is "Public Facility."

8. This statement is based on the results of the "Traffic Impact Statement" in Appendix IV.

9. We have no comments on the County's statement to you regarding street widening. However, please note that the "Traffic Impact Statement" recommends "no parking" on the surrounding streets because street widening essentially provides curbside parking. The college is planned to provide 1,200 parking stalls which is about 600 more than the minimum required by the County CZC.

Section 1.J. - Major Impacts

1. The following information regarding the community's involvement with KCC will be included in Section 5.C.6 of the EIS:

> " KCC recognized that it was vital to have community input and assistance in order to build a responsive and widely supported community college. Therefore the college in cooperation with Kaimuki Neighborhood Board No. 4 developed and conducted a community needs assessment study during the summer of 1978. Its purpose was to better inform the planners of the Fort Ruger campus about the nature, needs, resources and concerns of the surrounding community.
>
> A portion of the resultant report Diamond Head - Community Input to the Planning of the Diamond Head Facilities of Kapiolani Community College is included in Appendix III. The KCC Provost also formed the KCC Advisory Committee composed of community representatives from Neighborhood Boards and community associations to assist in planning the campus. The individuals who served as members of the committee and their affiliation at the time of appointment were:

Individual	Affiliation
Yvonne Ambrose	Kapahulu Community Association; Kaimuki High School PTA
Nancy Bannick	Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board No. 5
Karen Bond	Kuliouou/Kalani Iki Neighborhood Board No. 2
Peyton Carroll	East Diamond Head Community Association
Albert Feirer	Kaimuki Neighborhood Board No. 4
Louise Meadows Kato	Waialae/Kahala Neighborhood Board No. 3
Richard Kinji Kimball	Council of Community Association Presidents; Waialae Kahala Area Resident
Earnest Lamb	Kapahulu Community Association
Aaron Levine	Oahu Development Council
Robin Loomis	Hawaii Kai Resident
Wendell Marumoto	East Diamond Head Community Association
Bertha Nahoopii	Kapahulu Community Association; Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board No. 5
Craig Nakamura	Waialae/Kahala Neighborhood Board No. 3
Clyde Preece	Neighborhood Board No. 5
C.E. "Rags" Scanlan	Kaimuki Resident; Waialae/Kahala Neighborhood Board No. 3
Rodney Shinkawa	22nd Avenue Association
Charles "Stu" Skiff	Kaimuki Businessmen and Professional Association

2. There is opposition from some sections of the community to placing the college in this area for reasons stated in the EIS. However, the majority of the people in the area support the college at the Ruger site as demonstrated at various occasions during the past two years. These occasions will be discussed in Section 5.C.6 of the EIS.

3. Development within an area that is already built up usually meets opposition from some of those already there. As indicated in Item 2 above, a majority of the people in the area support the college.

4. In terms of Item (4), there will be no recreational facilities for KCC to share with the community if KCC is not constructed here. For Item (1), there may not be any open space if housing is constructed here as suggested by some individuals. See response in Section 2.D. regarding Items (2) and (3).

5. Cost of water and drainage facilities to the community college are included in Table 5 (now Table 14) of the EIS.

6. The issues on water and drainage will be resolved during the detailed design for each increment of construction. The costs are included in Table 5 and the proposed construction schedule is included in the response for Section 1.G. Item 2.

7. The agencies involved are the Board of Water Supply and the Department of Public Works.

Section 2.B. - Proposed Action

1. See Response Item 2 for Section 1.B. regarding the master plan and the master plan report.

2. See Response Items 2 and 3 for Section 1.B. regarding the master plan report and the EIS.

3. The EIS was prepared for DAGS by Environmental Communications, Inc. which is a subconsultant to Robert M. Matsushita and Associates who prepared the master plan. See Section 1.K. of the EIS.

4. We disagree with use of the term "conflict of interest". If this were true, then most of the EIS's prepared for Hawaii projects would be in conflict of interest. Please note that the EIS procedure allows for community input.

5. The Board of Regents decided on January 20, 1972 that Kapiolani Community College will eventually be discontinued at its present site through a phased transfer of programs to East Honolulu Community College.

6. See Response Item 6 for Section 10 regarding a 2-campus operation.

7. U.H. is studying future alternative uses for the Pensacola site but no decision has been made yet.

Section 2.C. - Development at Fort Ruger

1. The first paragraph will be deleted except for the first sentence. KCC receives about 6,400 applications each year out of which about 4,700 actually register. But there are many reasons, of which inadequate facilities is only one.

2. See Response Item 5 for Section 1.C. regarding enrollment. Please note that the master plan report will not be set in concrete. Periodic reviews will be made of the educational specifications, enrollment projections and the master plan.

3. See Response Item 6 for Section 2.G.1. To avoid confusion, the number in the EIS will be changed to 15.

4. The area required for the KCC library is 43,380 ASF. Since the present library has approximately 6,000 ASF, the additional space required is about 37,380.

5. Campus atmosphere which promotes a sense of pride in the institution is essential to learning. Learning occurs both in the classroom and outside of the classroom where peer as well as informal student-instructor interaction occur. KCC's students deserve adequate facilities where they can engage in various types of learning activities within the time they have available.

6. The new facilities are intended to provide the students who attend and will attend KCC with the basic and up-to-standard facilities which any college of KCC's size and scope of educational offering ought to have. The new facilities are not intended to keep the students on campus longer. However, they are intended to maximize and enhance teaching and learning during the time the students spend on campus. Furthermore, because many students work while they attend KCC, it behooves us to provide the best possible facilities to enable the students to do their studies while they are on campus. Currently KCC has no study rooms, for example, except for 94 seats at the Pensacola library and 26 seats at Diamond Head.

Section 2.D. - KCC Background

1. Section 1 of Act 39, SLH 1964 contains the statement:

> "It is imperative, therefore, that legislation be enacted to establish a statewide higher

education system which provides for the creation of community colleges, offering college parallel, technical, and vocational education, in different parts of the State so as to make higher education facilities more readily available to a greater number of high school graduates as well as the community in general."

The underlining has been added. Based on this, we conclude there are regional as well as program aspects in the Act.

2. The 1970 Policy Statement also includes the phrase: "...to the community which each college serves" which indicates a regional aspect.

3. No comment since serving the entire island is a program aspect.

4. The liberal arts curriculum is the portion of the program that has regional aspects. In this regard, the Fort Ruger site should better serve the East Honolulu community because Honolulu Community College is closer to the Pensacola site.

5. KCC is indeed being planned for a maximum of 5,000 FTE students. The current enrollment, thus the official U.H. enrollment projection, is affected by the limitations in facilities at both campuses. It is also important to note that the Pensacola facilities are inadequate for the current enrollment. See also Response Item 5 for Section 1.C. regarding enrollment projections.

6. See Response Item 5 for Section 2.C.

Section 2.E. - Fort Ruger History

1. The Hawaii 5-0 Building will be retained for some time and used by KCC. The conditional use permit expires on February 28, 1981.

Section 2.F. - Development of the Master Plan

1. The site size adopted for KCC was 50 acres. This would require all of McKinley High School and the KCC Pensacola site. As indicated in Response Item 1 for Section 1.C., the decision to look for another site was made by the Board of Regents.

2. The Master Plan for McKinley High School indicates this area of less than two acres will be used to provide some of the physical education and ROTC facilities according to the Department of Education's "Educational Specifications and Standards for Facilities."

3. We have no comments on your statement regarding high density.

4. Buildings four stories and higher above the ground are considered to be high-rise. Their height would be about 45 feet and higher.

5. See Response Item 1 for Section 1.C. regarding the decision to relocate the college. A courtyard would decrease the building floor space possible and thereby increase the building height.

Section 2.F.1. - Educational Specifications

1. The space requirements described in the educational specifications are not inflated. They were developed from consultation with program instructors to determine the delivery systems to be used, the learning activities that will take place, and the desirable learning environment necessary to facilitate the teaching and learning process.

2. The educational specifications indicate details of facility requirements to support each program. This information is needed for the master planning process. The general classroom requirements provide for sharing of facilities among programs.

3. In the scheduling of classes, the classrooms can be "shared" between different programs as at other campuses.

4. The separation of facilities by program is to facilitate development of the master plan and to meet administrative and legislative requests to show budgeting by programs.

5. As indicated above, the educational specifications indicate the facilities required to support the programs to serve 5,000 FTE students.

6. The Board of Regents' Policy of 5,000 FTE students maximum was based on 12 credit hours for a head count of 6,000 students. Although the credit hours to compute the FTE students has been changed from 12 to 15, the maximum number of students will be 5,000 FTE or 6,000 head count, whichever comes first.

7. The educational specifications are not based on a 32-hour week. The 32 hours is the average weekly classroom use which is the standard used to compute the number of classrooms required. It includes day and evening classes.

8. The statement on where students come from is inappropriate here and will be deleted from the EIS. As indicated in Appendix I of the EIS, where students come from was only one of many items considered in selecting a new site.

9. The items on traffic were also evaluated in the Site Selection Study for the college.

10. This EIS is for the master plan of KCC at Fort Ruger. Therefore, we see no need for providing and comparing the figures with the Pensacola campus.

11. The term "square feet net" was used because it is a more common term. They mean the same thing. However, to be consistent, the term "assignable square feet" will be used. "Gross square feet" includes the "assignable" area plus areas for corridors, stairways, lanais, toilets, elevators, etc.

12. The difference you mentioned is probably between Tables 2 and 3 of the draft Master Plan Report. Table 2 lists spaces according to programs whereas Table 3 groups these spaces according to buildings which are shown on the master plan. The building spaces used in the draft Master Plan Report and the EIS are the same.

Section 2.G.2. - Planning Concepts (now Section 2.G.1.)

1. Convenient parking is planned to provide convenient access for the physically handicapped, to encourage parking on-campus rather than off-campus and to enhance the functional relationship. Although not always possible, it is the preferred practice at other community colleges.

2. The interior circulation system will be constructed with the sitework as indicated in Section 2.H. of the EIS. Since sitework and building construction will probably be combined, the length of construction will be dependent primarily on the size of the largest building in the increment.

Section 2.G.3. - Grading (now Section 2.G.2.)

1. The term "generally conform" is used to indicate that there will be some differences between the master plan and the detailed construction plans.

2. Grading will probably be the first item of construction for each increment. The areas of grading indicated in Section 2.H. can be combined or reduced into smaller areas. Grading costs will usually be higher if cut and fill operations are not balanced for each increment of sitework construction.

3. Elevators would also be required for any multi-level facility to accommodate the handicapped.

Section 2.G.4. - Utilities (now Section 2.G.3.)

1. The utilities master plan includes the drainage, water, sewer, and electrical systems. All of this work will be on-site except for work in the adjacent road right-of-ways.

2. The estimated cost of the utilities work is shown in Table 5 (now Table 14) of the EIS.

3. Your understanding regarding incremental construction of utilities is correct. This is the case for almost all governmental facilities. There may be additional costs if the utilities work is not coordinated.

4. A catch basin is the intake box ususally on the side of a road. It receives the rainfall runoff and conveys it to the drainage culverts.

Section 2.G.7.(1)d. - Ventilation (now Section 2.G.6.(1)d.)

1. The reasons for air conditioning are contained in this section of the EIS. Air conditioning was not included to control construction noise. The $36 million total cost of buildings in Table 4 (now Table 13) includes approximately $4 million for air conditioning. Please note that air conditioning will be required for high density facilities at the Pensacola site.

2. Energy conservation measures are normally handled in the detailed design phase. To conserve energy and reduce capital and operating costs, the college has requested that detailed design of the buildings consider natural ventilation whenever feasible. A Section 2.G.6.(2)f will be included on energy conservation.

Section 2.G.7.(1)e. - Accessibility (now Section 2.G.6.(1)e.)

1. This depends on what is meant by the "Fort Ruger area". If it is limited to Kaimuki only, the percentage of students from the area for Falls 1977, 1978 and 1979 ranged between 16-17%. If the area is extended from Moiliili-McCully/Waikiki east through Hawaii Kai, the percentage for the same period ranged between 35-40%.

2. We do not see the need to relate students' travel/work needs to the present bus routes. This may be desirable later for discussions with the County on changing bus routes and schedules.

3. The section on College Traffic Generation in Appendix IV of the EIS estimates that only 2% of the students will walk or ride a bicycle. The 1978 survey of students

attending the Fort Ruger campus revealed that usually 3% would walk and 1% would ride a bicycle and occasionally 4% would walk and 3% would ride a bike or moped.

4. This is the estimated number required to adequately serve the students, faculty, staff, and visitors.

5. Parking will not be free. To encourage bus ridership, the college has adopted the siting plan so that many of the buildings are close to Makapuu Avenue which has bus service. It has also made provisions so that the bus can enter the campus and stop in front of the administration building. The college will work with the County to improve the bus routing and service.

6. Each parking stall will be vacant an estimated average of about 40% of the time between 7:00 a.m. and 6:00 p.m.

7. There will be a charge for parking on campus. This provision will be made clear in the EIS.

Section 2.G.7.(2)a. - Security (now Section 2.G.6.(2)a.)

1. The cost of the security guard service currently is approximately $65,000 per year and includes the 50 acres at U.H. and the 5-acre Pensacola campus. The cost for 1979-80 was only $2,137 for the Diamond Head campus and $2,157 for the Pensacola campus because some of the positions were vacant.

Section 2.G.7.(2)c. - Maintenance (now Section 2.G.6.(2)c.)

1. The least amount of maintenance will vary for the different landscaped areas such as parking lots, buildings, lawns, and slopes. The maintenance of facilities and grounds will be budgeted as in other community colleges.

Section 2.H. - Incremental Construction

1. There are no plans to improve the County drainage system. See Section 5.C.4.c on drainage. Drainage improvement costs shown in Table 5 (now Table 14) of the EIS will be paid by the State.

2. Besides the 198 stalls to be constructed in the first increment, existing parking stalls in other areas of the campus will still be available.

3. The master plan for McKinley High already calls for shifting the athletic field to permit construction of additional facilities for their physical education program. See Response Items 1 and 2 for Section 2.F regarding the land at McKinley High.

4. The water and fire protection system will be constructed within the campus as indicated in Figure 5 of the EIS. Therefore, the college is responsible for the associated costs as indicated in Table 5 (now Table 14).

Section 2.I. - Costs and Funding

1. The cost figures will be adjusted to be consistent. The cost for items such as the water service connection charges for the Board of Water Supply will be included in Table 5 (now Table 14).

2. There presently are no plans to improve facilities under County jurisdiction except for partial widening of Diamond Head Road.

3. Even prior to any consideration of the building of the KCC campus, the residents seemed to be in favor of improvements such as street widening. However, there was still a question whether they would be willing to pay for an improvement district. Other means of financing would be through County, State and/or Federal funds.

4. Cost escalation is presently projected at 12% per year, not compounded, from July 1, 1980 to the time of bid opening. Assuming the total college were constructed at one time, we would need approximately two years for design and two years for construction.

5. The items you mentioned will restrict future expenditures. However, the State agencies have already been working within certain spending limitations imposed by the Governor for many years.

Section 3.B.2. - Topography

1. As indicated earlier, this EIS is for the KCC Fort Ruger master plan rather than a comparison of two sites. We have no response to your comment on topography.

Section 3.B.3. - Soils

1. This section will be revised because the soil description in the EIS applies to the steep slope separating the academic and athletic facilities. Most of this steep area will be retained in its present state. The areas to be developed are generally below 10% slope.

Section 3.B.4. - Microclimate

1. The prominent wind direction from the northeast does not negate the need to air condition buildings. This same wind direction occurs in most areas of the State. See Section 2.G.7.(1)d. (now Section 2.G.6.(1)d.) of the EIS regarding air conditioning.

2. The use of average monthly temperatures to show the range of temperatures between the coolest and warmest months is misleading. Please note that the average temperature is essentially the midpoint between the lowest temperature during the night and the highest temperature during the day. It probably varies about 15°F between the high and low.

Section 3.C.3. - Population

1. Selection of the Fort Ruger site is discussed in Section 2.C. of the EIS. It was based on serving the overall East Honolulu area rather than the Kaimuki community.

2. The statements on enrollment indicate that the community college enrollment does not necessarily follow the enrollment of lower education students. See Response Item 5 to Section 1.C.

3. As you indicated earlier, KCC will provide general course for the surrounding areas and specialized courses for the entire state. The present County General Plan projects the following population changes between 1975 and 2000: 39,374 to 55,000 for the Aina Koa-Hawaii Kai area, 304,546 to 358,000 for the Halawa to Kahala area and 704,403 to 917,400 for the entire island.

Section 4.B. - Diamond Head HCSD

1. The exemption is to allow higher buildings which do not affect the public views of Diamond Head.

2. Since the buildings will be below the level of trees and will not affect the public views of Diamond Head, we believe the exemption will be granted. However, it is anticipated that those opposing the college will try to have the exemption denied.

3. The Traffic Impact Statement in Appendix IV indicates that these streets do not have to be widened because of the college. Therefore, these costs do not appear for the college in the EIS except for widening Diamond Head Road at the entrance to the college.

Section 4.E. - SMA Permit

1. Since obtaining this permit is not on the critical path in the design process, it should not affect the construction time frame and cost.

2. The Pensacola site is not within the County SMA but it is within the Hawaii Community Development Authority's Kakaako District and the County drainage system for this area is inadequate.

Section 4.F. - County General Plan

1. The term "generally consistent" was used to indicate that it may not be 100% in line with the General Plan.

2. We do not believe that because the Pensacola site is adjacent to McKinley High School, that it is in line with Policy 4.

Section 4.G. - Hawaii State Plan

1. The term "basically consistent" was used to indicate that it may not be 100% in line with the State Plan.

Section 4.H. - Necessary Approvals

1. Except for the SMA Permit covered under Section 4.E. and the Waiver and Certificate of Appropriateness covered under Section 4.B., all other approvals are required for both the Pensacola and Fort Ruger sites. The EIS should be completed before 1981 and other permits will be obtained after construction bids are awarded to contractors.

2. The impact of the project is covered in Section 5 and the cost implications are covered in Section 2 of the EIS. The adequacy of the Pensacola site and the population growth are covered in the response to Section 1.C. comments.

3. The Department of Public Works is mentioned regarding the grading permit.

Section 5.A.1.a. - Soils

1. Soil removal and replacement may cost about $8 per cubic yard. No physical impact is anticipated other than what has been covered in Section 5 of the EIS.

2. The soil surveys are normally done during the detailed design phase of a project. This is the next step after the EIS is approved and a preliminary design is approved. Please note that soil surveys were made for the University of Hawaii Business Administration Complex and the parking structure. Therefore, the problem with those facilities was not the lack of a soil survey.

3. Chemical conditioners carried to the ocean by storm water runoff will provide nutrients for certain plant growth such as algae.

Section 5.A.2.c. - Potable Water

1. A commitment for water service will be requested from the Board of Water Supply when the first increment design is implemented. The commitment will be made, if water is available, at the time the request is received.

Section 5.A.3.a. - Wind Patterns

1. There has not been any attempt to determine the change in wind pattern because it will not serve any real purpose. The turbulences mentioned are usually immediately downwind of the buildings and generally increase with larger and taller buildings. Please note that the proposed buildings are low-rise and are separated so that air will flow through.

2. It is not known whether residents of the surrounding community are aware of possible changes in wind pattern. However, it is doubtful they can detect any difference because the prevailing wind flow will not change.

Section 5.A.3.c. - Air Quality

1. As stated, it is the most complete nearby monitoring site for which long-term readings of air pollutants are available.

2. We believe the data available provides an adequate assessment that the carbon monoxide levels in the area are presently well below allowable air quality standards.

3. This section deals with the existing ambient air quality. The Air Quality Impact Analysis in Appendix II discusses the changes from increased traffic and construction work.

Section 5.A.3.d. - Dust

1. The major dust generation will occur during site grading operations which will probably last about 2 to 4 months for each of the 5 areas. Airborne dust will most likely be carried downwind of the site by the prevailing tradewinds. The 1.2 tons/acre/month of dust generated is based on certain assumptions which will be attenuated in the case of KCC because most dirt moving operations will be confined to the immediate project area and many of the roadways within KCC are paved. Additionally, effective watering required by present regulations can reduce dust by as much as 50%.

2. Since the present and projected nitrogen dioxide emission rates are substantially below the State and Federal Ambient Air Quality Standards, no effects are anticipated.

Section 5.A.3.e. - Carbon Dioxide

1. No statement is made in the EIS regarding carbon dioxide. In regards to carbon monoxide, the second paragraph of this section in the EIS indicates the newer cars will emit less pollution.

Section 5.A.3.f. - Vehicle Emissions.

1. The information in Table 10 was computed using the Traffic Impact Statement and Table F-15 of EPA's "Mobile Source Emission Factors".

Section 5.A.3.g. - Carbon Monoxide

1. The assumption that all roadways will maintain their present narrow widths through 1995 was made because this would be the worst case situation in regards to generation of carbon monoxide.

2. The last paragraph of Section 5.A.3.g. is not pertinent to this EIS and will therefore be deleted.

3. The lower pollution projections would also apply to the Pensacola site.

4. Determining who is able to take The Bus, who might have to drive, and the relationship between these two would be difficult and would not provide any useful information for this EIS.

Section 5.A.3.h. - Construction Emissions

1. If the college is constructed in a few increments, the emissions would be considered as short-term. If the college is constructed in many increments over a long period of time, the emissions would be considered as minor. Based on this, the EIS will be revised to read "a short-term or minor phenomenon."

2. This question concerns the selection of the site. As indicated in the response to Section 1.C., 28 factors were considered in making the selection.

3. There will be a charge for parking. The rates will be set at a later date.

4. See Response Item 3 for Section 2.G.7.(1)e. (now Section 2.G.6.(1)e.).

Section 5.A.4. - Noise

1. Based on Noise Assessment Guidelines/Technical Background - HUD Report No. TE/NA 172" and the Traffic Impact Statement in Appendix IV, traffic noise should be in the "normally acceptable" range. This information will be included in the EIS.

2. The EIS states "noise from campus activities is not expected to be significant or adverse". It also states "Indirectly, the project will result in vehicular noise increases"; and "this noise is unavoidable". Section 2.G.1. of the EIS states the maximum number of students will be 6,000.

Section 5.A.5.b. - Erosion

1. The extent to which water quality is affected by erosion will be dependent upon the amount and distribution of rainfall, the stage of the grading and grassing work, and the extent of pollution-control measures taken during construction when it rains.

Section 5.C.1.A. - Land Use

1. The reference is "the present amount of KCC programs now occurring on the site."

Section 5.C.1.b. - Recreation

1. Implementation of the master plan will provide a gymnasium, swimming pool, paved courts, softball field, soccer field, and football field. If the college is not developed here, the site would probably be used for some other purpose other than recreation.

Section 5.C.1.c. - Aesthetics

1. The plan provides 50% open-space, but this is not a requirement.

2. The problems of sky-rocketing costs are recognized. However, the University does not feel that the KCC students should have substandard facilities.

Section 5.C.1.e. - Social Impacts

1. This EIS is for the master plan of the KCC Fort Ruger site rather than its location. Therefore, the second sentence in the first paragraph will be deleted.

2. The minimum parking requirement for the college is established at 600 stalls by the County's Comprehensive Zoning Code. Parking on the street and at NBC Arena do not qualify in meeting this requirement. Please note that the shortest distance between the NBC and Pensacola sites is approximately 900 feet. Parking for 600 cars requires an area of about five acres.

3. The first paragraph will be revised as indicated in response (1) above.

4. College/community identity is important for many residents as attested by their support and testimonies. This type of relationships between the college and the community is fostered in community colleges which includes services to the community as part of its mission. This is one of the major reasons for building campuses on the Leeward and

Windward sides of Oahu and on each of the major neighbor islands. No statement is made that a college education is a leisure activity.

5. It can also be said that the greatest support for the college has come from residents of the surrounding area. See Response Item 2 for Section 1.J.

6. No special provisions are made in the master plan for the adult education classes because they can be accommodated in the facilities provided to meet other requirements.

7. Please note that the master plan is developed to serve up to 5,000 FTE students which may occur around the year 1990.

8. No response since this comment is similar to that in Comment Number 6 above.

9. The spelling will be corrected.

10. The EIS already states that construction of the recreational facilities "is recommended for the last increment of construction because of the lower priority..." However, a statement will be added in Section 2.H to indicate that construction of the recreational facilities probably would not occur in the next decade because of their low priority and the State expenditure ceiling.

11. This EIS is for the master plan of the Fort Ruger campus rather than the relocation of the campus from Pensacola Street to Fort Ruger. Thus we do not believe an employment survey is "crucial to a proper EIS". The last paragraph of Section 5.C.1.e. will be deleted since it is not pertinent to this EIS.

Section 5.C.2. - Health and Safety

1. No increase in fire or police protection requirement is anticipated.

Section 5.C.3. - Economic Impact

1. Parking fees will be collected from the students, faculty and staff of KCC. The term "revenue" will be changed to "funds".

2. As indicated earlier, the campus is being planned for its ultimate development. The new campus will not mean a larger campus than necessary. It will mean finally providing KCC students facilities which are equivalent to those available at other campuses of the U.H. It is a matter of equality!

3. See Response Item 5 for Section 1.C. and Response Item 3 for Section 3.C.3. regarding enrollment projections and population respectively.

4. See Response Item 1 for Section 1.C. Please note that the Fort Ruger master plan provides for long overdue adequate facilities for existing programs with flexibility for new programs when needed.

Section 5.C.3.a. - Employment Impact

1. A positive impact on employment already exists from the educational programs. Thus, the added impact is on construction and maintenance employment. This is not the emphasis of, but the result of the new construction. It would also apply to new construction in any site including the Pensacola site.

Section 5.C.4.a. - Electrical System

1. The cost of electrical system is shown in Table 5. The Master Electrical Plan will be included in the EIS.

Section 5.C.4.c. - Drainage Problem

1. The proposal which will meet the City's approval is discussed in the second paragraph of this section in the EIS.

2. The proposed flooding of the athletic fields would be temporary and infrequent since the college is located in a relatively dry area as indicated in Section 3.B.4. This solution is intended to reduce State expenditures for the college.

Section 5.C.4.d. - Sewage System

1. The Division of Wastewater Management is part of the Department of Public Works. The conclusion reached is covered in the first paragraph.

Section 5.C.4.e. - Potable Water

1. Water development charges are levied against all new developments requiring water supplies from the County Board of Water Supply's system or additional water supplies from existing water services. This would be paid by the State for KCC. Presumably, funds from these charges will be used by BWS to develop additional water sources, transmission lines and storage facilities outside the campus.

2. Actual discussions have been held by the Civil Engineering consultant for the master plan.

Section 5.C.5. - Traffic

1. The widening of streets mentioned is according to the County Development Plan as indicated in Item 8 of the Traffic Impact Statement Summary of Appendix IV. The County presently has no time schedule to widen these roads.

2. The construction of KCC at Fort Ruger does not require a decision on road widening.

3. We believe residents want the improvements provided they do not have to pay for it and it does not affect their property.

4. Who will pay for these improvements will depend upon whether it is an improvement district project, whether federal and/or State funds are available, etc.

5. We have no cost estimate for the road widening. However, your Attachment 6 from the County indicates a cost of $12.5 to $16 million.

6. This statement is covered in the third paragraph under Traffic Volumes of the Traffic Impact Statement in Appendix IV.

Section 5.C.5.b. - Bussing

1. This section of the EIS concerns bus service to the Fort Ruger site. Please refer to the section on College Traffic Generation of the Traffic Impact Statement in Appendix IV regarding automobile-bus usage projections.

Section 5.C.6 - Community Attitude

1. As noted in Response Items 1 and 2 to Section 1.J., the college has involved the community in planning the campus to help alleviate concerns the community has.

   Two surveys were recently conducted by the Waialae-Kalaha Neighborhood Board No. 3 and the Diamond Head-Kapahulu-St. Louis Heights Neighborhood Board No. 5. Neighborhood Board No. 3 asked the question "Are you in favor of Fort Ruger as the location of KCC?" The response was 63% - yes, 21% - no, 15% no opinion and 1% - no response. Neighborhood Board No. 5 asked the question "The State may build a new campus for Kapiolani Community College at Fort Ruger, on Diamond Head Road. Do you approve of building a college campus in this area?" The response was 58% - approve, 29% - disapprove, 10% - no opinion and 4% - no response. Based on this, it can be concluded that the majority of the people in the area support the community college at Fort Ruger.

Section 6. - Alternatives

1. The draft master plan report has been prepared and work is progressing on publishing the final report. See Response Items 2 and 3 for Section 1.B.

Section 7. - Uses/Productivity Relationship

1. See Response Items 2, 3 and 4 for Section 2.G.1.

Section 8. - Commitment of Resources

1. As indicated previously, this EIS is for the master plan of the Fort Ruger site.

2. The construction cost estimates are summarized in Tables 4 and 5 (now Tables 13 and 14) of the EIS. Operational expenses for 1979-80 were approximately $111,000 for the Diamond Head campus and $342,000 for the Pensacola campus.

Section 10. - Environmental Assessment

1. The EIS states that: "Basically the high number of applications is felt to be a result of the college's curriculum." This would apply to both the Pensacola and Fort Ruger sites.

2. Solid waste collection and disposal is provided at both the Pensacola and Fort Ruger sites by private contractors for the State. The cost of this service for 1979-80 was $1,658 for the Diamond Head campus and $2,594 for the Pensacola campus.

3. The EIS response to the comment on cost-benefit analysis for Kapiolani Community College is still valid. Therefore, we do not feel a cost-benefit analysis is needed for the college.

4. The University is very much concerned with costs, especially since only a limited amount of funds are available for so many needed projects.

5. See Response Item 1 for Section 1.C. regarding the Pensacola site.

6. The net effect of having the main functions at Pensacola with satellite functions at Fort Ruger is operating two campuses at added costs. As indicated in your Attachment No. 1, there is no justification to support another community college at this time.

7. See Response Items 1 and 2 for Section 1.J. regarding the community.

8. The first sentence states: "The college's impact on the surrounding residential property value is unknown." Therefore the impact is unknown.

9. Your questions appear to be answered by your Attachment No. 9. As indicated by response Item 4 for Section 1.G., the parking for Leahi Hospital is a Department of Health rather than a University cost. The disposition statement will be revised accordingly.

10. See Response Item 2 for Section 5.C.1.e. regarding a parking structure at Pensacola or NBC.

11. The disposition response regarding a 6-acre park in the middle of the facilities will be revised as follows:

> "The neighborhood is already served by the following parks and playgrounds which are within one mile of the campus: Kaimuki Recreation Center (2.7 ac), Kapalono Field (5.5 ac), Kaimuki Reservoir Park (2.3 ac), Petrie Playground (4.8 ac), Kahala Field (8.8 ac), Kilauea Field (4.7 ac), Fort Ruger Park (3.2 ac), Diamond Head Beach Park (1.1 ac), Diamond Head Park A (0.7 ac), Diamond Head Park B (1.3 ac), Kuilei Cliffs (10.6 ac), Queen Kapiolani Park (96.5 ac), Waikiki Playground (3.0 ac). The area will also be served by the Diamond Head State Monument which contains over 145 acres.

12. The basis for the EIS comments on road widening is the Traffic Impact Statement prepared for the Fort Ruger site. We have no comments on the County's statement to you.

13. The term "per se" does not add anything and will therefore be deleted.

14. The repaving of County roadways are the responsibility of the County. We have no estimate of this cost.

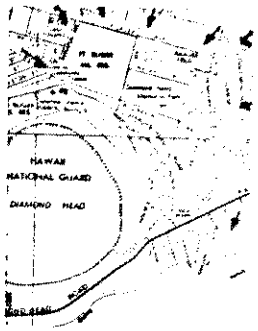
15. It would be a waste of taxpayers' money to conduct another site selection study. It doesn't seem probable that the University will be able to justify and obtain a minimum of $25 million necessary to purchase another site of about 50 acres in town and relocate the families and businesses it will displace.

16. Assuming that construction of KCC is delayed 6 years until a new site selection report and EIS are completed, the site is purchased, the families and businesses relocated, and the new master plan and EIS are completed, the cost to construct KCC will increase by about $32 million due to inflation.

Appendix III - Alternatives

1. This is an alternative course of action regardless of whether it is considered viable or not. It is a simple statement and not intended to "scare" anyone.

Diamond Head Est Association



June 28th, 1980

Department of Accounting
&General Services
State of Hawaii

Re: (P) 1672.0

Dear Ricky;

Long time since our paths merged. You've been where you're needed and I've just been playing golf! Looking forward to seeing you on this matter.

This is in response to Mr. Murakami's request of June 17 for local comments on the draft EIS, proposed community college at Fort Ruger.

We also have a draft titled "Traffic Impact Statement" prepared by Henry Tuck Au. A primary concern is with that document's use in the EIS. A paper like that, prepared by a well-known professional, tends to become a 'bible' for those writing the EIS. Even this document refers to one prepared in 1973 by Wm. C. Hong; that one should have little, or no bearing, on the Diamond Head complex since the parameters of the Hong study do not match this one. Yet, it becomes part of the new bible!

Being the professional that he is, Mr. Au deals with only a few probabilities:

1) Energy crisis and its effect on growth of public transportation (Summary, para 5);
2) Minor increase in traffic of only 1.25% per year, (Summary, para 7);
3) Under "College Traffic Generation," the last sentence estimates a growth in bus usage from 17% to 25%; also, an estimate on car pooling. The net conclusion on car usage is a decrease of some 11%.

715 Palekaua Place Honolulu, Hawaii 96816

3) continued
This discussion includes a counter flow claim that is subject to question because the variety of traffic on Diamond Head Road is not described in the Study;

4) In the conclusion, it is stated that the proposed KCC will not add substantially to the area traffic problems, (Summary, para 9).

CONTRA #1 Until this island controls vehicular numbers, a reduction in energy consumption for any school activity is a poor claim. Additionally, how the public will respond to costs of necessary driving is a moot point. Isn't Mr. Au actually arguing for the maintenance of the college at its present location where six-lane avenues intersect and remarkable bus service is enjoyed!

CONTRA #2 Diamond Head Road and Monsarrat have many important users. First, it is heavily driven going to work and coming home. Secondly, it has growing popularity for the visitor public interested in seeing the crater. Third, it has both driver and pedestrian traffic to Kaimuki Intermediate. Fourth, it is a short-cut, all day long, Waialae-Kahala environs and the Kapahulu-Kaimuki residential triangle. Fifth, there's heavy Guard traffic at certain times. Sixth, there are three schools that van handicapped children back and forth. Seventh, the theatre produces evening traffic and parking. Eighth, there are funeral processions to 18th Ave. These facts are not delineated in the Study. Why not?

CONTRA #3. The bus usage discussion does not mention the potential of a shuttle bus from Campbell Avenue to and through the proposed campus to 16th Avenue and on to a Waialae Avenue turnaround -- accepting transfers from #1 and #2 passengers. That shuttle might well support the optimistic expression of decreased car use. One drawback, and it may be the reason for not describing a shuttle bus service: the residents along 16th Avenue -- who have lived there in peace and quiet for many years -- would rebel against to and fro busses all day long.
The variety of traffic, between 18th Avenue and Campbell Avenue, compels one to dis-believe the claim of counterflow advantages with respect to that important Diamond Head Road segment of proposed school traffic.

CONTRA #4 We object to the overall conclusion since the Monsarrat & Diamond Head Road traffic is already at a maximum, in our opinion; even HOW MUCH is unknown without an up-to-date traffic study. The lack of a thorough traffic study since 1971 from 18th Avenue to Alohea is a salient objection to the use of the traffic study. Of the very few recommendations, the study does recommend widening Diamond Head Road. But, from where to where? Couldn't that recommendation be construed that Mr. Au does foresee impact problems?

As residents, we must deal in probabilities based on years of observation. Here are some we fear:

1. A major subject is omitted in this study: the impact on traffic from the blossoming of vehicular entrances. Left & Right turns onto Diamond Head Road, onto 18th Avenue, Makapuu and Kilauea. We see the proposed college forcing the need for a set of stop and turn lights at Monsarrat & Alohea.

   We believe that Diamond Head Road should have the 'odd-ball' turn-offs eliminated.

2. Trucks, trailers and equipment during construction periods, cause serious traffic impacts as well as dirt, noise and road destruction. The traffic impact of construction equipment is not described nor accounted for. Nor is there a forecast of how long this condition may prevail. Nor any description or responsibility outlined for the road damage and time needed to repair it. Those conditions will impact on the non-school users of the surrounding streets.

3. An integral probability for traffic impact is an apparent lack of coordination of the Monsarrat-Diamond Head Road-Alohea intersection which has the future Crater Park on one side and the proposed college, plus Gun Monument Park, on the other side. When does DLNR plan to get together with DAGS on the planning?

   Don't keep it a secret!

4. To lessen traffic impact on Diamond Head Road for other users, why not plan to 'grass off' those entrances through Gun Monument Park, consider changing the planned entrance to the College?

5. In view of the Kaimuki Intermediate, cemetery and other varied traffic on 18th Avenue, are you considering lessening impact by (1) widening of that DH Road intersection, (2) installing stop and turn lane lights and (3) cutting 18th Avenue up the hill to the tunnel to eliminate the 'tour bus' left turn to the crater some 50 yards farther on?

   The study does not provide many suggestions for improving the traffic flow for those who are inured to the existing problems and expect worsening conditions with or without the proposed college.

In another week we'll have input on the draft EIS, although there are a number of questions about the traffic study in this letter that bear on the validity of the draft EIS.

Sincerely,

Peyton

Peyton Carroll
President

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1969.0

OCT 16 1980

Mr. Peyton Carroll
President
East Diamond Head Association
715 Palekaua Place
Honolulu, Hawaii 96816

Dear Mr. Carroll:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Attached are our responses to your June 28 and July 7, 1980 comments and concerns on the draft EIS for the KCC Fort Ruger master plan. Your interest in this project is appreciated.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jnt 2-8
Attachment

Master Plan for KCC at Fort Ruger
EIS Consultation Phase
Response to June 28, 1980 Comments from
East Diamond Head Association

Traffic Study

The Traffic Impact Statement was made to facilitate planning the community college, to evaluate the traffic impact for the EIS and to help resolve the community's concern regarding vehicular traffic in the neighborhood. It was included in the EIS because of the community's interest in traffic. The study by William C. Hong was mentioned because of two items:

1) The 1.5 number of trips generated per student in the Leeward Community College survey should represent the maximum driving condition for a community college.

2) The 1,200 parking stalls planned for the Fort Ruger campus is based on computations from the Leeward Community College survey.

Contra #1 - Public Transportation

We feel the two simple statements Mr. Henry Au makes in paragraph 5 of his summary are reasonable. Bus ridership is increasing, communities are requesting new bus routes and more frequent bus service, and the County recently added more buses to their fleet. Although the County is proceeding with the proposed HART system, no adjustment is being made for increased bus ridership at this time.

Mr. Au's study was for KCC at Fort Ruger and did not involve the Pensacola campus. Therefore, he is not making any statement on the Pensacola campus.

Contra #2 - Traffic Increase

In regards to the projected increase in traffic without the college, we note the following:

1) Section 3.C.3 of the EIS states:

"The July 1, 1978 estimated population for census tract 8 was 4,113; this is -10.6% of the population in 1970 (4,599). This continues a trend of a decreasing population which is generally true of the surrounding census tracts."

Thus the number of work and other vehicular trips made by the residents in the surrounding areas is expected to continue to decline.

2) The visitor public to the crater is expected to increase but a large percentage will probably come on tour buses during the non-peak traffic hours.

3) The enrollment at Kaimuki Intermediate School has declined from 1,588 students in 1974 to 1,111 students in 1978. It is projected by the Department of Education to decline further to about 855 in 1984. Additionally, when the school is reorganized in the future from 7th - 9th graders to 7th and 8th graders, the enrollment will probably drop below 600 students. The smaller enrollments should result in less school traffic.

4) Traffic generated by the National Guard, Fort Ruger Theater, Diamond Head Cemetary and special education schools are anticipated to remain about the same.

5) As indicated in Table A3 in the Appendix, the traffic volume on Diamond Head Road at 18th Avenue has increased between 2-4% from 1971 to 1979 while the peak-hour traffic has declined between 4-9%.

Contra #2B - Delineation of Drivers

Please note that traffic generated by the many different users you mentioned are accounted for in the traffic study. An example is Table A3 in the Appendix which shows the hourly distribution of traffic on Diamond Head Road at 18th Avenue.

Contra #3A - Bus Shuttle

The potential for a shuttle bus to supplement the regular bus routes will be discussed with MTL as an alternative to providing more bus service.

Contra #3B - Traffic Counterflow Claim

It is fairly common knowledge to those driving in peak-hour traffic that driving counter to the flow of cars is usually easier than driving in the same direction with the flow of cars. Thus adding traffic counter to the flow of cars in an existing situation normally should have less of an impact than adding traffic with the flow of cars. In the case of Diamond Head Road during the peak-hours, the flow in the main direction generally varies from about two to three times the traffic flow in the opposite direction.

To help clarify the meaning, the last sentence under the section on College Traffic Generation will be revised as follows: "Thus the directional flow of traffic to the college will be counter to the prevailing peak-hour flow which should have less impact than traffic moving with the prevailing flow."

Contra #4A - Traffic Study

Please note 1) that Table 7 of the Traffic Study indicates the present morning and afternoon peak-hour traffic on Diamond Head Road is 970 and 1,005 vehicles respectively and 2) the section on Roadway Capacities in the Traffic Study indicates the capacity of a local street with a 44-foot ROW is 900 vehicles total for both directions of travel. Since the present peak-hour traffic already exceeds 900 vehicles per hour, Mr. Au logically recommended that Diamond Head Road should be widened even if the college is not relocated to Fort Ruger.

Table 7 indicates that the present and projected peak-hour traffic on Diamond Head Road east of 18th Avenue is below 900 vehicles. Therefore, the widening of Diamond Head Road would be from Monsarrat Avenue, which has already been widened, to 18th Avenue.

Contra #4B - Traffic Impact

To clarify Item 12 of the Summary and the Conclusion, they will be reworded as follows:

"Analyzing the various factors and assuming Diamond Head Road is widened to meet present traffic needs, it may be concluded that the proposed Kapiolani Community College at Fort Ruger will increase the traffic around the college but will not add substantially to the traffic problems to create an adverse impact. However, if Diamond Head Road is not widened by the time the college is fully developed, then the college traffic will probably cause traffic delays on Diamond Head Road.

To minimize traffic delays, a left turn lane should be provided at the Diamond Head Road entrance until this roadway is widened. The extent of traffic delays will then depend upon the degree that motorists will seek alternative routes."

Observation #1 - Vehicular Entrances

There probably will be some traffic delays at the vehicular entrances because of left turns into the campus. However, the proposal to provide seven entrances around the perimeter of the campus should distribute the traffic and the turning movements and thereby minimize the probability of a major traffic problem at any one entrance.

The section of roadway between Diamond Head Road and Alohea Avenue has been identified as Makapuu Avenue for the

study. The need for traffic lights at this intersection must meet County requirements to justify their installation. This can be reviewed periodically by the County as the college is developed.

The design of the intersections and entrances into the college and the Diamond Head Park will be coordinated as soon as the actual design of the first increment is started.

Observation #2 - Construction Equipment Impact

Comments on dust and noise during construction are contained in Sections 5.A.3.d and 5.A.4.a-b of the EIS.

The construction-related traffic will be during off-peak hours and impact on the traffic will be kept to a minimum. Please note that almost all of the construction work will be on-site so there will be no need to block off portions of the surrounding roadways for construction equipment except for utility and roadway connections.

Repair of road damages due to construction are the responsibility of the contractor. However, repair and maintenance of the roads such as filling potholes and repaving are the responsibility of the County and State for their respective roadways. Please note that there is a weight limit on the loading of construction equipment so that they do not destroy the public roads.

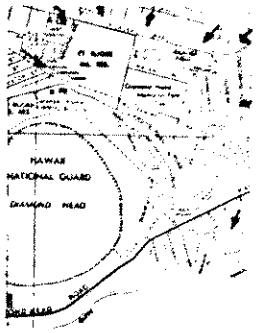
Observations #3 and #4 - DLNR Planning

Please note that the Diamond Head Road - Makapuu Avenue intersection and the entrances to Gun Monument Park are within lands under the control of the Department of Land and Natural Resources (DLNR). We have therefore forwarded your comments to DLNR for their consideration. However, the college will coordinate design of roadways for the college with DLNR.

Observation #5 - Road Improvements

The Ultimate Site Plan for Kapiolani Community College shown in Figure 2 of the EIS indicates that there are no plans to "cutting 18th Avenue up the hill to the tunnel." Widening of the Diamond Head Road and 18th Avenue intersection should be done with the recommended widening of Diamond Head Road to facilitate present traffic flow. Installation of signals at this intersection should be considered at the same time provided they meet the County criteria for installation of lights.

Diamond Head Est Association



July 7th, 1980

Department of Accounting
& General Services
State of Hawaii

Re: (p) 1672.0

Att: Mr. Rickio Nishioka

Gentlemen:

With regard to the 'draft' EIS dated May, 1980, for the proposed community college, we have input we hope the framers of this EIS will consider - not as opposition - but as an effort to help build a thorough document.

The quotes referred to apply to economic impact:

Pg 41, 4.g.	"...it was found that the proposed construction of KCC is basically consistent with the Objectives and Policies for sociocultural advancement in education." (Hawaii State Plan)
Pg 60, 5.C.3.	"Economic Impact" - lines 6 & 7 "...supported by State funds."
Pg 61	"...it is felt that costs involved in the development and continuation of KCC at Ft. Ruger will be compensated through the educational benefits derived by the State."
Pg 66 5.C.6.	"Community opposition is undesirable, and perhaps a better understanding of the environmental and socioeconomic consequences of the project will assist in the community's evaluation of this proposed project."
Pg 80 8.	Conclusion - "The site, developed for the college's specific use, would be committed for a long-term period."

715 Palekaua Place Honolulu, Hawaii 96816

Rephrasing the quote, page 66, please study and agree that it is "undesirable" not to evaluate the many real economic impacts. The quotes, in total, just about cover the work done on economic impacts except for a construction cost figure and assumption by the taxpayers of unknown, long-term operating costs.

The estimate offered in the present cost summary of 44 millions in 1980 dollars is denied in the same paragraph. Para 1.G. states that construction will proceed incrementally. 5 years? 10 years? 15 years? At present rate of inflation, the 1980 dollar will be worth 40¢ at the end of 1985. At a public hearing earlier this year, Senator Abercrombie appeared amused by the cost figure - and so may be thoughtful taxpayers.

It is frustrating to read a study document that is so firm in forecasting socioeconomic benefits yet fails to face up to numbers. The analyses needed must compare land uses and values for the public. This factor is not even mentioned on page 4, para 1.5.: "Major Impacts and Unresolved Issues."

Often, in these documents, the writers use phrases like "State Lands," "State Funds," "Benefits to the State." It is not a semantic argument to suggest replacement phrases: "Public Assets," "Public Funds," etc. Is it satisfying to the bureaucrat ego to consider a piece of Oahu a "State parcel" rather than what it is - a Public Asset? When "State" labeled, perhaps basic responsibilities are minimized for the writers of these EIS's.

It is recommended that comparisons be made, estimates drawn up and conclusions arrived at by an economist who can appraise the value based on potential use of the campus at Pensacola, the land at Ft. Ruger, the value of 125 single family residences at Ruger (and those taxes for the City & County), the time frame of the proposed college construction and a realistic scale of costs to completion of the proposed school. How is the public to know whether you have exposed all the impacts thoroughly? Suppose your varied proposals finally receive Legislative approval...and then the public sees the acreage at Pensacola lay vacant for 5 years? What is that land use plan? Isn't it possible that revenues from a proposed future use of the Pensacola site might, in the public's mind, counterbalance somewhat the unknown, annual cost of the school operation?

Page 37, "Population & Housing Statistics" apparently overlooks definite growth factors. One of your brother departments estimates a population for Oahu of 917,000 people by the year, 2000. Isn't it appropriate for figures from the Dept. of Planning & Economic Development to be incorporated in your impact discussion? In addition, the City & County Dept. of General Planning estimates that East Honolulu must expect a population of 61, 045 - up from 40,500 in 1975. Franklin Sunn, Director, Hawaii Housing Authority (as quoted in the June issue of 'Honolulu'): "We need at least 10,000 new housing units from now on until 1985 just to hold our own. That's 10,000 per year."

In the East Honolulu area, it appears that some of the growth will be handled in Hawaii-Kai, a minor portion on the ridge slopes in the form of 'townhouses', and the bulk of the growth in what it is called the Kapahulu-Kaiuki 'triangle' where zoning may be changed - quite soon - to permit many more apartment buildings. It may be questionable at today's construction costs, however, if they can be profitable within the height limits.

Going through the draft, point-by-point, these questions are raised:

1.C.	"It (Pensacola) cannot provide the facilities or the space required for a community college."
CONTRA	The site selection study of 1965 apparently did not consider expanding KCC at its present site. Your reference to that study should also emphasize that the study people were driving on 32¢ gasoline.
1.E.4.	Planning 12 more acres of macadam for parking in the Monument area is unfortunate, to say the least.
1.G.Para 3	Not a valid assumption.
1.H. " 4	Considerably more information appears required.
1.I. (2)	Drainage is to Kaalawai Bay where a second 36" storm drain was installed 4 years ago, City & County. Damage is already evident on the shoreline.
1.I. (4)	Conclusion cannot offer relief. Trucks, trailers and construction equipment, if it takes years to complete the project, will be a major impact for residents, varied users of the streets.
1. I. (6)	Many of the plants are 'senior.' They probably cannot be transplanted. Their growth makes them unique. The grading plan does not appear to provide enough protection.

1.I. (7)	The land use impact has not been evaluated on an economics basis.
1.I. (9)	Please refer to questions posed in our letter, and others, about the 'draft' traffic study.
2.A.	Information about the future impact of Crater Park use is required. Why doesn't DLNR coordinate planning with this proposed use?
2.C.	Sounds like a plan for a 4-yr college!
2.D. 2nd para	In logic, does not compare well to 2nd para, 2.C.
2.E. (4)	The chapel could serve the community best as a City Hall Annex. If that is financially impossible, then, as a home for the three Neighborhood Boards.
2.F.	"Due to the neighboring and established uses of McKinley High School and the Neal Blaisdell Center, the horizontal expansion of KCC was not possible."
CONTRA:	Not a valid statement without reference to a considerable file describing failure to achieve that expansion.
2.F.	"A high-density (i.e., high-rise construction) was felt to be innappropriate for KCC..."
CONTRA:	"Felt to be" is not an adequate description of 3-story or 4-story construction on a site expanded through cooperation with the DOE.
2.G.1.B.2	Air-conditioning doesn't appear necessary in neighborhood libraries or downtown.
" 3	Air-conditioning is a questionable need on the shady side of the crater. Have you asked residents their weather opinions?
" 5	Air-conditioning questionable except in certain labs.
" 9	These listed facilities are appropriate for 4-year colleges, except in California where numerous JCs compete in Leagues. Are you inferring growth to a 4-year college?

Of the many economic impacts, a most aggravating prospect is the planned use of desirable single-family residential acreage for a sports development. The privilege of owning a home in a desirable area should be a much more important public fulfillment than (1) duplication of neighborhood facilities or (2) development of an expensive physical education plant when credits for P.E. in a community college can be reasonably limited to less grandiose sports.

1. Softball. There is already a baseball diamond at Kilauea Park.

2. Gymnasium. Unusually complete plans have been developed for a gymnasium across 18th Avenue from this property, although not funded.

3. Swimming. Competitive-type pools exist at Manoa, Kaimuki and Hawaii-Kai. Unless a recent study indicates Hawaiians are woefully weak swimmers, afraid of the ocean, the plan (as is) may bear the accusation of building faculty jobs primarily.

4. Soccer, football. The facilities, and the organized teams, for soccer and rugby compete and socialize at nearby Kapiolani Park. Any such organized team at the proposed Jr. College, even six-man football, can practice quite adequately on the Ruger field.

5. Parking. The 18th Ave entrances to the sports area parking lots add to traffic impacts on that poorly constructed but busy street. Less emphasis on crowd-pleasing sports will result in less traffic impact and can lead to the elimination of those entrances and the parking plots.

Sports such as archery, golf, tennis, volleyball, hiking, quoits, rifle range, badminton and fencing do not require expensive on-site facilities for P.E. credits, are appropriate to both men and women and provide off-campus associations.

2.G.3. 2nd para	"Vehicular & pedestrian access to the site will be provided through openings to adjacent perimeter streets."
CONTRA	The Site Plan, as supplied, does not appear to be a thoughtful analysis of the vehicular traffic impacts at even the main entrance.
2.G.7. (1) (a)	During excavation, care should be counseled in this document for the masonry walls, man-made over 50 years ago, that re-occur throughout the Diamond Head area. Also, on other projects the 'ballast stone' for curbs has disappeared.
2.G.7. (i) (d)	Questionable opinion for the shady side of Diamond Head. Perhaps 10 days in September a student might perspire sitting down!
2nd para	Why? If on different levels.
2.G.7.1. e	Appears a blase write-off of traffic impacts.
2nd para	Have already commented, by letter, to Mr. Nishioka about this optimism.
2.H.A.1.	How big is this temporary detention basin?
2.H.A.1. 3rd para	How many cesspools? Where are they to be located? What size are they?
3.B.4.	Long-time residents doubt if there is as much as 30" of rainfall annually on the East slope of Diamond Head. It does <u>not</u> parallel Waikiki in rainfall and temperature.

4.A. para 2 Every application to waive building heights has been opposed in Historic, Scenic & Cultural District #2.

4.F. Objective B. Policy 1. Why not an additional phrase? "...at reasonable cost."

5.A.2.B Engineering should examine the drainage damage already existing on the shore of Kaalawai Bay at the foot of Kaimanawai.

5.A.3.h "In any case, construction emissions should be a short-term phenomenon."
CONTRA Not if incremental construction takes five years, 10 years, 15 years!

5.A.3.h "Mitigating measures"
CONTRA (1) The entrance patterns should be restudied to prevent impact on the varied users of Diamond Head Road and Monsarrat.

CONTRA (3) At the bottom of page 52, the draft describes how to reduce "the attractiveness of the campus as a parking lot" by requiring sizeable semester parking fees.

This community has had earlier experience with an EIS that claimed no parking impact, that the project parking was big enough, etc. That is the Variety Club. The off-site parking, particularly for evening meetings and fund raisers, has been a severe impact for neighbors, their friends and guests.

With higher parking rates, driving students won't necessarily use busses, they'll convert that fare money to gas and find on-street parking. Planning high parking rates adds to the worst traffic impact most schools bring about - on-street parking.

5.A5.a Potential of flooding portions of 18th Avenue during any winter grading period.

5.C.1.2 "Surrounding land"
CONTRA Crater Park, Cannon Club, Cemetery, Kaimuki Intermediate, National Guard, Board of Water Supply, Maintenance facilities; all of these have lands not presently in use.

5.C.1.e para 2 Why not quote a negative side? "Many residents might prefer neighbors who also pay taxes."

para 5 The area around the proposed site is fundamentally 25% Crater Park, 25% cemetery/school, 25% residential and 25% hospital. There are no bookstores, electronic game shops, music and record stores, ice cream parlors, etc. Will you recognize the possibility of a Puck's Alley development on Monsarrat or Alohea?

5.C.3. Much too short a description - no comparisons - repeats an impossible figure - the olympic pool, alone, may end up costing $650,000.

5.C.3. (cont)

5.C.3.a The same claim can be better substantiated if 125 single-family residences were built on the site. Many more of the 'small businesses' would benefit.

COMMENTS:

1. The part of your answer that refers to Pensacola should be emphasized - underlined or capitalized!
"Its convenient location, etc"

2. Since the proposed property has a cliff formation, why not consider 2-story parking on the 18th Avenue side with a walk-on to the campus from the roof - that's three levels of parking.

5. Lame response to comment.

9. Quite incomplete.

13. Not valid. Mr. Au did propose a widening of some part of DH Road. Many other reliever possibilities, not discussed.

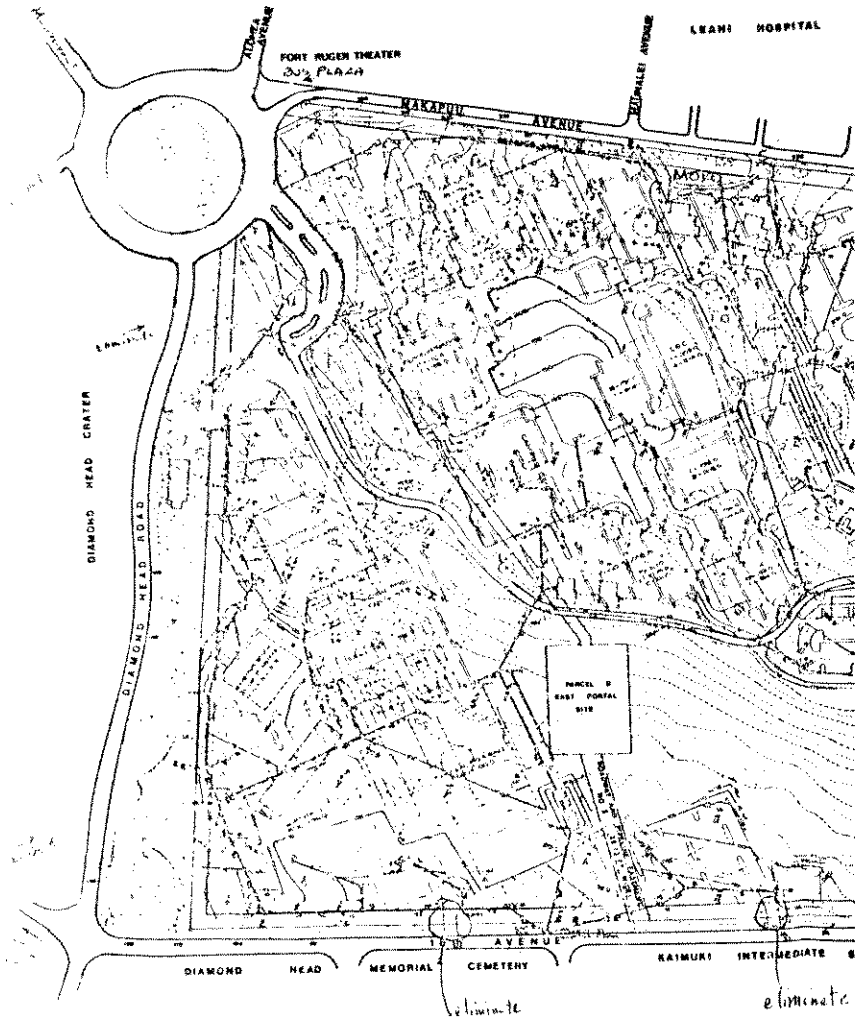
A sample of a 'circle' reliever is enclosed. Since it is a scenic area with low traffic speeds, the diameter of a circular drive may be as low as 300' - depending on professional traffic analysis. The grading does not appear to be a problem in that specific area. It does require, however, coordination with other State as well as City & County departments.

In conclusion, the need for substantiation of the varied economic impacts appears required. Vague socioeconomic reasons do not suffice for a public asset of this importance.

sincerely,

Peyton Carroll

Peyton Carroll
president



GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1969.0

OCT 16 1980

Mr. Peyton Carroll
President
East Diamond Head Association
715 Palekaua Place
Honolulu, Hawaii 96816

Dear Mr. Carroll:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Attached are our responses to your June 28 and July 7, 1980 comments and concerns on the draft EIS for the KCC Fort Ruger master plan. Your interest in this project is appreciated.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jnt 2-8
Attachment

MASTER PLAN FOR KCC AT FORT RUGER
EIS CONSULTATION PHASE
RESPONSE TO JULY 7, 1980 COMMENTS
FROM EAST DIAMOND HEAD ASSOCIATION

Project Cost

Additional pertinent information is being added to the EIS. However, it should be remembered that this EIS is for the master plan of the Fort Ruger campus.

Cost Figure

Because of uncertainties in when facilities will be constructed, the inflation rate, bond interest, etc., the best cost figure to use now is the cost in 1980 dollars.

Land Uses and Values

This EIS is for the master plan for KCC at Fort Ruger and not the highest and best use of the site. Therefore, other uses and benefits to the public were not evaluated.

Semantics

The terms "State Funds" and "State Lands" are more specific than the terms "Public Funds" and "Public Lands" and are therefore used. Please note that the term "public" could refer to the Federal, State, or County.

Economic Comparisons

The EIS process is designed to disclose the information which will sufficiently identify the impacts of the proposed action which is the master plan for KCC at Fort Ruger. It is not a document to review and rejustify all past actions plus evaluate the potential for other uses of the site. The EIS document and the technical studies are prepared within reasonable and practical limits as discussed in previous court decisions.

Population and Housing

The following information on State and County population figures will be included in Section 3.C.3 of the EIS:

"The State Department of Planning and Economic Development estimates the 1975 population of about 704,400 for Oahu will increase to 917,400 in the year 2000. The County General Plan distributes this population into nine population areas. The Primary Urban Center area which extends from Waipahu to Waialae-Kahala and the Urban Fringe area which extends from Aina Koa to Hawaii Kai should provide the bulk of KCC students. The 1975 populations of 421,960 and 39,374 for these respective areas are projected at 495,396 and 55,044 for the year 2000."

Please note the 61,045 population you referred to for East Honolulu is for the Aina Koa-Hawaii Kai area. It is based on a population of 1,039,000 for Oahu in the year 2000 and should therefore be adjusted downward as indicated above.

Section 1.C. - Statement of Need

The first portion of this statement will be revised as follows:

> "The Comprehensive Zoning Code (CZC) of the City and County of Honolulu limits the amount of facilities that can be constructed at the existing 5.3-acre site for Kapiolani Community College at Pensacola Street. Thus, even if the facilities were constructed in one massive air conditioned building, the site would not accommodate all of the facilities required for the college.
>
> Assuming that provisions of the CZC limiting development of the college were eliminated, there would still be the problem of incremental or totally new construction. Since the 5.3-acre site is extremely crowded, construction of new facilities will probably require displacing some or all existing facilities. Based on the above items and other factors, and since the college could not pragmatically expand the Pensacola site, the University of Hawaii Board of Regents decided to look for another site."

Section 1.E.4. - Planning Concepts

The large parking areas were planned to meet the college's need for parking and to accommodate the community's concern that inadequate parking on campus will cause traffic problems by forcing students to park on the streets. The parking areas will be landscaped so that the appearance of the area is not just an asphalt surface.

Section 1.G. - Incremental Construction

The statement is clear that the $44 million is in 1980 dollars. See also response under Cost Figure above.

Section 1.H. - Affected Environment

More information will be incorporated into Section 3.D. of the EIS.

Section 1.I.(2) - Impact on Water Quality

Drainage goes to the Waialae-Kahala area rather than Kaalawai Bay. Our visual inspection at the storm drainage outlet did not reveal any damage to the beach area.

Section 1.I.(4) - Noise Impact

Because construction will be spaced out over many years, there should be minimal impact of truck traffic on the varied users of the street. Since pile driving is not anticipated for any of the buildings and since the buildings are set back from the property line, we do not anticipate a major noise impact for the residents. See also Section 5.A.4. of the EIS.

Section 1.I.(6) - Flora and Fauna

The landscaping consultants find that these plants can be transplanted if they are healthy and it is done with care. See Section 2.G.2 on grading and Section 2.G.5 on the landscape master plan.

Section 1.I.(7) - Land Use Impact

See response on Land Uses and Values above. Also, please note that the item referred to relates to zoning and land use designations, rather than economics.

Section 1.I.(9) - Impact on Transportation System

Please refer to responses elsewhere.

Section 2.A. - Project Location

Information about the future impact on Crater Park is included in the Diamond Head State Monument EIS and Planning Report which was circulated by the Department of Land and Natural Resources. Meetings have been held with DLNR to coordinate design of roadways serving the park and college.

Section 2.C. - Statement of Need

The educational specifications and objectives used are for a community college. Another master plan and EIS would be required to change from a 2-year to a 4-year college.

Section 2.D. - Need for KCC - A Background

We are not clear on your comparison. Section 2.C. discusses briefly the need to relocate to Fort Ruger while Section 2.D. discusses the need for KCC.

Section 2.E.(4) - History of Fort Ruger

The disposition of the chapel after the college's use of it is the responsibility of the State Department of Land and Natural Resources. The community organizations can pursue use of the chapel with DLNR. Please note that it is within the Diamond Head State Monument.

Section 2.F. - Development of the Master Plan

The master plan developed for McKinley High School shows that the school requires all of their present site to meet the DOE's Educational Specifications and Standards for Facilities. It should be noted that about 20% of the McKinley School site has been placed on the Hawaii and National Register of Historic Places.

Section 2.G.1.B.2 - Learning Resource Center

Public libraries are being air conditioned as funds are made available.

Section 2.G.1.B.3 - Campus Center

The reasons for air conditioning is discussed in Section 2.G. of the EIS.

Section 2.G.1.B.5 - Group I and II Facilities

The college has requested that the first increment design be based on natural ventilation for most facilities.

Section 2.G.1.B.9 - Physical Education

Another master plan and EIS would be required to change from a 2-year to a 4-year college. We don't see how a 4-year college so close to the Manoa Campus can be justified now or in the future.

Single-Family Housing

Your feeling that the planned use of desirable single-family residential acreage for the community college sports development "is a most aggravating prospect" is acknowledged. However, we do not believe this is the prevailing viewpoint of the community. The college is presently reviewing the program for physical education facilities. If it is determined that they are not required, the land could be returned to the Department of Land and Natural Resources for possible assignment to the Department of Social Services and Housing for development of housing units.

Section 2.G.3. - Grading and Drainage

The intersection of the main entrance with Diamond Head Road was coordinated with the Department of Land and Natural Resources to facilitate traffic flow. This intersection will require realigning a portion of Diamond Head Road and widening it to provide turning lanes to minimize traffic delays on Diamond Head Road.

Section 2.G.7.(1)(a) - Architectural Guidelines - Site

Existing masonry walls that can be incorporated into the grading plan may be retained. This will be determined during the detailed design of each increment.

Section 2.G.7.(1)(d) - Architectural Guidelines - Ventilation System

The college has requested that the detailed design of most facilities be based on natural ventilation to reduce construction and operating costs and to conserve energy.

Section 2.G.7.1.e - Pedestrian and Vehicular Accessibility

This section contains guidelines to individual architectural consultants when they do more detailed planning of the campus. It is not an evaluation of the traffic impact.

Section 2.H.A - Site Area 1

The size of the detention basin will be determined after the detailed grading and drainage system plans are prepared. The details will be coordinated with the Department of Public Works prior to construction.

The cesspools will be located along the sewer line. Their number, size, and locations will be determined during the design after soil tests are conducted and the sewage flow is determined. This will be approved by the State Department of Health. If it is not approved, the sewer line connection must be made in the first increment construction.

Section 3.B.4. - Microclimate

The report "Rainfall of the Hawaiian Islands" which was published in September 1959 by the Hawaii Water Authority (now Division of Water and Land Development) indicates the median annual rainfall for the site is between 20 to 30 inches. Although temperature is affected somewhat by slope, wind exposure, and cloud cover, it depends almost entirely on elevation. Records show that the mean daily temperature decreases at an approximate rate of 1°F for each 300 feet increase in elevation, the rate being somewhat greater at lower elevations. Since the difference in elevation between Waikiki and Fort Ruger is less than 300 feet, the temperature difference is estimated at 1°F.

Section 4.A. - County Zoning

This does not mean that a waiver in this specific case would not be granted. Please note that the master plan complies with the purpose of the HCSD.

Section 4.F. - City and County of Honolulu - General Plan

This is a quotation of the County policy and therefore should not be amended.

Section 5.A.2.B. - Ocean Waters

See response comment to Section 1.I.(2) above.

Section 5.A.3.h - Atmosphere - Mitigative Measures

The major portion of dust and heavy equipment exhaust is created during site work grading which constitutes a small percentage of the total construction period. Once site work along the perimeter of the site is completed, the interior dirt-moving activities will have little or no affect on the surrounding community. Although construction may take place over a 15-year period, please note it will probably be intermittent.

This section deals with the atmosphere. See Section 5.C.5.c. of the EIS regarding mitigation measures for traffic problems.

We agree with your statement about students parking on the street if the parking fees are too high. This will be included in the EIS.

Section 5.A.5.a - Processes - Floods

This section discusses the potential flooding of the college site. See Section 5.C.4.c. regarding flooding around 18th Avenue and the detention basins.

Section 5.C.1.2. - Land Use

The sentence reads: "...there are no vacant lands in the vicinity that will be influenced by the establishment of a community college." We do not consider the Cemetery, Kaimuki Intermediate, and Board of Water Supply to be vacant lands and we do not see how the facilities mentioned will be influenced by KCC.

Section 5.C.1.e - Community - Social Impacts

The statement: "Some community members prefer to see this area developed for residential use" will be added to Section 5.C.6. -

Community Attitude. A Puck's Alley Development on Diamond Head Road or Alohea is possible but not probable. Except for one lot zoned for business on Alohea and several at the intersection of Monsarrat and Campbell Avenues, the area around the campus is zoned residential. Thus, such a development will probably require acquisition of about 14 existing properties and rezoning from residential to business.

Section 5.C.3. - Economic Impact

See response under Economic Comparisons above. The estimated total cost of the swimming pool contained in Table 13 of the EIS is $1,283,000.

Section 5.C.3.a - Employment

See response under Land Uses and Values above.

Section 10 - Environmental Assessment Comments

1. The words "at Pensacola" will be added to the disposition statement.

2. A parking structure would be more expensive and would have a visual impact at the edge of the cliff. We do not believe this would be in tune with preserving the views of the Diamond Head State Monument.

5. The comment makes two statements: the County will not collect the solid waste and that solid waste collected should be disposed of at the Palailai Sanitary Landfill. The response answers that the State will take care of its solid waste collection and that it will be disposed of at a County certified sanitary landfill. Thus, disposal is not limited to Palailai. We fail to see why this is a lame response.

9. Discussion on the use of the Fort Ruger site for other uses is beyond the scope of this EIS. Discussion on the alternatives to the master plan is included in Section 6 of the EIS.

13. (Actually 17) Additional write-up will be included on street widening.

    Attached is the section on Rotary Intersections from the AASHO - Geometric Highway Design. Based on this information, it is estimated the outer diameter of the proposed rotary would be about 550 feet and would vary in elevation from about 163 to 193 feet. It is not recommended for Fort Ruger.

ROTARY INTERSECTIONS

General

The rotary intersection is a specialized form of at-grade intersection. Its design embraces many of the elements discussed in chapter VII. Additional elements that apply to rotary design only are discussed herein. Figure VIII-53 gives nomenclature peculiar to rotaries.

Advantages and Disadvantages of Rotaries

The rotary intersection has several inherent advantages over other types of at-grade intersections of the same capacity, but there are disadvantages that severely limit its use.

Advantages. (1) An orderly and regimented traffic flow is provided by rotary one-way movement. Normally, all traffic proceeds simultaneously and continuously at low speed. At low volume levels there is little delay from speed reduction and no delay from stopping.

(2) Weaving movements replace the usual angular crossings of typical at-grade intersections. Direct conflict is eliminated, all traffic lanes merging or leaving at small angles. Accidents that occur from such movement are of minor nature, usually involving property damage only.

(3) All turns can be made with ease, although extra travel distance is required for all movements except right turns.

(4) The rotary design is especially suited for intersections with five or more intersection legs.

(5) The rotary usually costs less to construct than a grade separation with a full complement of interchange ramps that could be developed in the same area; however, the rotary capacity generally is much below that of the interchange.

Disadvantages. (1) A rotary can accommodate no more traffic than a properly designed channelized layout. In some cases rotaries have been eliminated and replaced with a channelized intersection resulting in better operation.

(2) A rotary does not operate satisfactorily when the traffic volumes on two or more intersection legs, particularly roads of four or more lanes, approach capacity at the same time.

(3) A rotary requires more right-of-way and roadway, and generally costs more than other at-grade intersections.

(4) The large area required prevents the use of rotaries in congested areas, except where parts of existing street systems may be designated as the one-way road of a rotary.

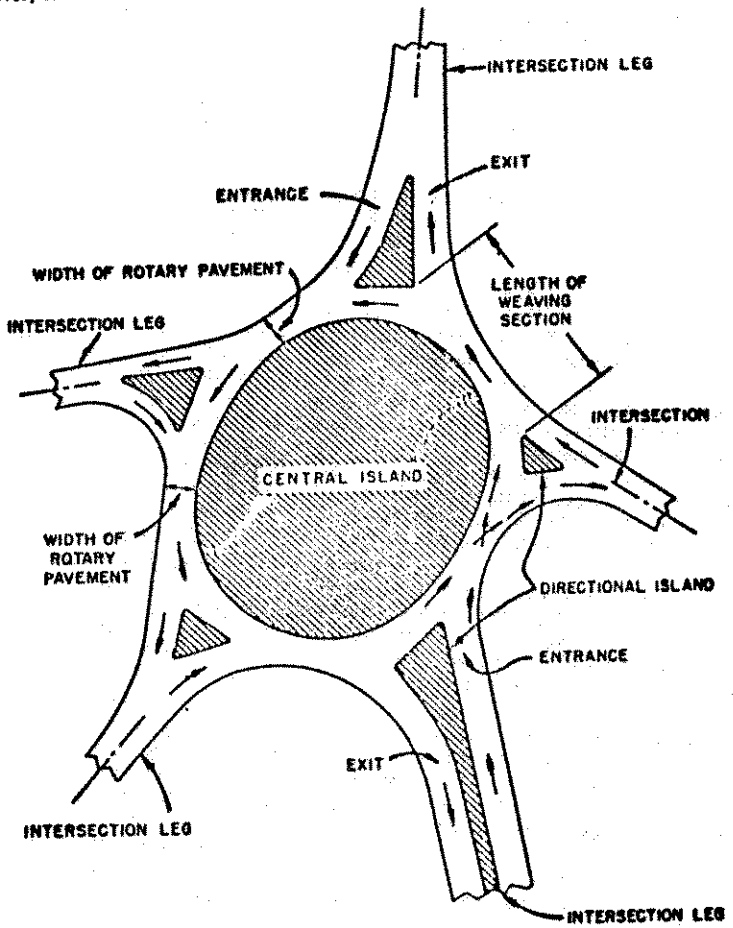
(5) Since a large, relatively flat area is required, topographic conditions in some localities may make it impracticable to develop rotary intersections.

(6) Rotaries are not directly suitable for conditions that require large movement of pedestrians across the intersection. The requisite orderly flow is interrupted where this requirement must be met. In some urban instances, rotaries are operated with traffic signal controls. This, however, violates the rotary concept of continuous movement.

(7) Rotaries should be extremely large when used on high speed roads to provide the proper weaving lengths between intersection legs, or where more than four approach roads are involved. Large rotaries add additional

mileage, particularly for left turning vehicles, which should be weighed against the delays likely at alternate channelized layouts.

(8) For safety and proper operation, numerous signs suitable for day and night operation are essential on rotary intersections. Signing which avoids confusion on the part of drivers not familiar with the layout, however, is difficult of attainment. Lighting is desirable and landscaping usually



TERMS USED IN ROTARY DESIGN
FIGURE VIII-53

is required. The cost of these items should be weighed against installations required for alternate channelized designs.

(9) The rotary is not readily adaptable to stage development. Attempts at stage development generally result in some over-design when measured by immediate traffic needs.

(10) For a rotary to function properly the access must be controlled. This control may be difficult to obtain when the approach highways do not have control of access.

Traffic Conditions Favorable to Rotary Design

Rotaries require the subordination of individual traffic movements in favor of traffic as a whole. Rarely are all the advantages of a rotary incorporated without the inclusion of some of the disadvantages. The final design generally is a compromise.

Character of Traffic. Rotaries are adaptable to all kinds of motor vehicle traffic, including the large truck combinations, if a sufficiently extensive design is provided.

Design Speed. Rotaries are suitable for highways of all design speeds. Large reduction in speed is required on high speed highways, but this generally can be encouraged by proper design of the approaches and by signing. High visibility on the approaches of high speed roads may tend to lessen the hazards of a rotary.

Traffic Volume. The rotary design is most adaptable where volumes entering the rotary from the different intersection legs are approximately equal. A total volume of 3000 vph entering from all intersection legs appears to be the maximum practical capacity of high type rotaries. The volume from all intersection legs may not be the criterion for design, however. The volume of through and weaving traffic on the critical weaving section of the rotary determines its capacity.

Other Considerations. Rotaries are best adapted to traffic conditions where the turning traffic approaches or exceeds the through volume. This condition occurs frequently in suburban areas where a radial highway intersects a belt highway. Rotaries at these sites have the added advantages of reducing speed of inbound traffic.

Rotary Design Elements

Rotaries are not standardized. Each rotary requires a separate design with attention to interrelation of all details. The design elements in chapter VII are pertinent; additional elements are treated in the following sections.

Speed of Rotary Movements

Vehicles must operate at uniform speed on a rotary to be able to merge with, weave across, and emerge from traffic to and from the intersection legs without serious conflicts. The design speed of the rotary should be selected initially and all elements of design based thereon to encourage uniform speed. The design speed selected should be related to the design speeds of the intersecting highways. If too great a speed reduction is required, hazard is increased and the utility of the intersection is impaired. On the other hand, designs for a high speed rotary movement require extensive layouts and extra travel distances. The designer should seek a

compromise which does not force too drastic a reduction from the over-the-road speed and which results in a design of practical dimensions and operating conditions.

Early experience in urban areas indicated that rotaries with speeds of 15 to 25 mph were efficient. In rural areas it was later found that such speeds are not satisfactory for highways designed for speeds of 40 to 70 mph. Experience indicates that rotaries might be used effectively where the design speed of the rotary roadway approximates, or is a little below the average running speed on the highway approaches.

For highway design speeds of 30 and 40 mph, the design speed of the rotary is about the average running speed on the highway; namely, 28 to 36 mph respectively, whereas the minimum values are somewhat lower. The suggested minimum rotary design speed of 25 mph for the 30 mph design speed highway appears low but is not serious in view of the already low speed of approaching traffic.

For highway design speeds greater than 40 mph, the suggested rotary design speeds will have to be relatively low to keep the rotary within practical limits. For example, a minimum radius of 430 feet is required for a 40 mph intersection design speed. This radius on the inner edge of rotary pavement results in an outer diameter of nearly 1000 feet and more on the major axis if an oval design is used. This size is nearly prohibitive, and a rotary on a larger scale does not appear practical. The large differential between highway speed and rotary speed must be absorbed on the entrance roadways through the use of signs, islands, and other traffic control devices. This explains why on modern highways having a relatively high design speed, the use of rotaries is limited in the design of rural highways.

Length of Weaving Section

The weaving length is the distance between ends of directional islands, figure VIII-53. Each weaving section provides for one crossing movement and usually two noncrossing movements. Weaving vehicles cross at or close to the narrowest part on the weaving section. Regardless of the number of intersection legs, the design of the rotary pavement between two adjacent intersection legs involves the same elements. The length and width determine the ease with which vehicles can maneuver through the weaving section, in effect determining the capacity of the section.

Data on operating characteristics of weaving sections, applicable to rotaries, are given in the Highway Capacity Manual.[1] Based on this information, table VIII-3 shows the relation between length of section, running speed, and volume of weaving vehicles. The widths of weaving sections pertinent to the volumes shown are discussed under a following heading.

The average running speed at possible capacity volume varies with local conditions but generally is about 20 mph. If more vehicles enter the rotary and the increase in traffic density causes speed to fall much below 20 mph, congestion develops, capacity is lowered rapidly, and complete stoppage frequently results.

Table VIII-3 illustrates the importance of weaving length in relation to capacity. For example, a weaving length of 600 feet has about double to triple the capacity of one 100 feet long. These dimensions appear to be

[1] Highway Capacity Manual, 1965. Highway Research Board.

TABLE VIII-3

RELATION BETWEEN NUMBER OF WEAVING VEHICLES AND LENGTH OF WEAVING SECTION FOR VARIOUS SPEEDS

Length of weaving section, feet	Number of weaving vehicles per hour * at average running speed of:	
	30 mph	40 mph
100	750	350
200	1100	600
300	1350	750
400	1600	900
500	1750	1050
600	1900	1200

* An average running speed of 30 mph is normally used as a basis for design for rotaries. See figure IX-17 to determine the relation between the number of weaving vehicles and lengths for other lengths than given above.

about the practical minimum and maximum lengths. A length below 100 feet resolves weaving movements into typical at-grade crossings and a length of about 600 feet appears to be about the maximum if the rotary is to remain of practical dimensions. This, however, depends upon the number of intersection legs and the angles between them.

In addition to the above criterion, length of weaving sections should be not less than that required for maneuvering (during low volumes) at the design speed of the rotary. Lengths which permit a lateral shift of about 20 feet, or a time interval of 4 seconds, at the design speed, generally meet this requirement. Minimum lengths on this basis are shown in table VIII-4.

TABLE VIII-4

SUGGESTED MINIMUM LENGTHS OF ROTARY WEAVING SECTIONS

Design speed of rotary, mph	Minimum length of rotary weaving section, feet
25	150
30	180
35	210
40	240

The Central Island

The design of the central island is governed by the design speed of the rotary, the number and locations of the intersection legs, and the required weaving lengths. There are several possible positions for each entrance and exit road and each combination of these roads suggests a different shape of central island. The design of the rotary is developed by connecting the one-way entrance and exit roads to form a closed figure with at least minimum weaving lengths, and then adjusting for the minimum radius of the rotary roadway corresponding to the design speed. Also, physical conditions at the site may require further adjustment of the shape of central island. The adjustment is best done on a scale layout on which the radial roads

and other controls are plotted. It may be desirable to realine one or more of the intersection legs where it approaches the rotary to aid in reducing the speed of entering vehicles, but curvature should not be so sharp as to reduce sight distance thereon below the required minimum.

A central island may be designed as a true circle which occupies the least area, has the shortest perimeter, and on which all the segments of the rotary may be designed to the same speed. A true circle or regular polygon, however, is not desirable traffic-wise except when the approach roads intersect equidistant on the perimeter of the rotary and have nearly equal volumes. In the majority of designs either the roadways do not intersect on a uniform pattern or traffic may present an unbalanced pattern during the peak hour. The daily volume traversing one weaving section is the same as on any other, but during the peak hour one weaving section may have high volumes of through and weaving traffic. These weaving sections should be made as long as feasible. Thus, the provision of adequate weaving sections often obviates symmetry in design and may result in an elongated or oval central island.

The Rotary Pavement

The rotary pavement is the one-way pavement around the central island. In combination with the entrances and exits, its width generally varies along each weaving section, but the minimum widths for the various weaving sections usually are the same. For convenience this minimum width is referred to as "width of rotary pavement," figure VIII-53. If there are unequal traffic demands during peak hours these widths for different weaving sections may not be the same.

The combination of width of rotary pavement and length of weaving section determines the capacity of the rotary intersection as given in chapter IX.

The minimum width of rotary pavement should be at least the equivalent of two 12-foot lanes. Generally the minimum width should equal or exceed half of the total width of the widest intersection leg, plus the width of one lane. Normally, the maximum width of rotary pavement recommended in rural areas is 4 lanes, because excessive width enables vehicles to wander hazardously during periods of light traffic and at other times reduced control results in little more capacity than that of a somewhat narrower rotary pavement.

The factors appearing in the numerator of the formula to determine the number of lanes should be based on factual traffic data. For through highway weaving sections, other than rotaries, C varies between 1000 and 1500 equivalent passenger vehicles per hour, with the lower value applicable to rural conditions and the larger to urban expressways. For rotaries, C is lower but available experience does not point with assurance to positive values for use. The speed changes required on rotary approaches combined with "tight" operating conditions on curved alinement of relatively low design speed indicate that conservative factors should be selected. Values of 800 to 1000 equivalent passenger vehicles per hour should be used for usual conditions on rotaries, and 1200 possibly for traffic consisting mainly of passenger cars operating on rotaries of high type design.

The alinement of the rotary pavement should enable weaving vehicles to cross from one side to another without sharp reversals in direction and to enable right turning vehicles to travel within the limits of a weaving section without reversing. Otherwise, parts of the rotary pavement are unused and

KAHALA COMMUNITY ASSOCIATION
POST OFFICE BOX 10404
HONOLULU, HAWAII 96816

July 12, 1980

Mr. Rikio Nisioka
State Public Works Engineer
P.O. Box 119
Honolulu, Hawaii 96810

Dear Sir:

Re: Draft Environmental Impact Statement for the Proposed Kapiolani Community College at Fort Ruger, Master Plan, May 1980, with Traffic Impact Statement, Kapiolani Community College at Fort Ruger, rev. June 1980

The opportunity to comment on the Kapiolani Community College Draft Environmental Impact Statement and Traffic Impact Statement is appreciated.

Concerns of residents are noted in the draft under "community attitude" with the expression that "a better understanding of the environmental and socioeconomic consequences of the project will assist in the community's evaluation of this proposed project."

The Kahala Community Association boundaries are those of the Kahala Elementary School, roughly from 3600 Diamond Head Road through the Kahala Mall and Golf Course Sub-Division to H-1 Freeway and Kalanianaole Highway. Some members of the Kahala Community Association Board are or have been members of the East Diamond Head Association and Neighborhood Board No. 5. We endeavor to maintain close liaison. None of our Community Association Board have served on the Kapiolani Community College Advisory Committee.

Kahala Community Association Board members, present and former, and residents have consistently expressed concerns relative to construction and uses:

1) Not compatible with the primarily single-family residential nature of the area, where the infrastructure has been constructed according current standards as well as older areas where streets and other infrastructure were approved in much earlier years.

2) Incompatible uses of the Fort Ruger area within and adjacent to the Diamond Head National and State Monument.

3) Failure of the state and county to construct and fund necessary roads, drainage, water, parks, etc., prior to or concurrently with state and county approved construction and uses.

4) Lack of coordination between city and state and the agencies thereof despite years of efforts and with input from residents and community groups in part for a State Plan with "functional plans" and a County Development Plan, along with parks and recreational facilities, roads, transportation, etc.

With specific reference to the draft EIS and Traffic Impact Analysis, the following comments are submitted. In consideration of the deadline of July 14, 1980 imposed for comments, these are necessarily general in nature. Kahala Community Association board members and residents are being encouraged to submit individual comments on areas of their specific expertise, understandings, and concerns.

1. The Kahala Community Association and many other organizations have repeatedly requested the State to prepare a long-range master plan for all State-owned lands in the Fort Ruger-Diamond Head Monument area. The EIS and traffic impact indicate little effort to interrelate the Diamond Head Monument plan, adopted by the State Board of Land and Natural Resources, with the Community College plan.

2. The effects on the "old Kahala" and newer Waialae-Kahala areas already impacted by the H-1 Freeway with off and on ramps at Kahala Mall, Kalanianaole Highway, Kahala Hilton Resort Hotel, and the Shopping Center are not mentioned.

3. The increasing use of streets in the Diamond Head area and those fed to and from the Diamond Head area for other than normal walking and automobile driving is not adequately considered. Pedestrian traffic includes jogging in the streets, creating safety hazards for the jogger and the motorist. Also included are the handicapped students, to be increased at Kaimuki Intermediate School according to the DOE, and the students who regularly attend Kaimuki Intermediate. Portions of Diamond Head Road, 18th and 22nd Avenues, Kealaolu, etc., do not have "sidewalk areas" and many other streets lack curbs and sidewalks. Vehicular traffic includes mopeds, bicycles, and motorcycles, many operated by visitors unaware of the street and safety considerations. Tour buses and trucks are major users and with the Diamond Head Monument serving as a tour attraction, additional visitors may be anticipated.

4. Duplication of publicly-funded facilities for recreation, with further overloading of the streets and such sidewalk areas as exist for pedestrians, may be encountered. For example, a gymnasium recreation complex at Kilauea Field, adjacent to Kaimuki Intermediate School at 20th and Kilauea, is in the approved 1980-81 Honolulu budget for $1,910,000 to cover planning, engineering, and construction. There could be unnecessary duplication at Kapalono Field (12th and Kilauea) and Petrie Field (20th and Harding). At the same time, there are no suitable meeting places for Neighborhood Boards, Community Associations, etc., in the vicinity although the "little Chapel" at Fort Ruger was requested.

5. The "socioeconomic" aspects of "affordable housing," escalating property tax valuations, "improvement districts" in the older areas to bring streets, sidewalks, drainage, etc., to conform with the needs of the Diamond Head Campus and other activities designated by the State for the State-owned lands in the Fort Ruger area are not covered.

Mahalo for your consideration,

Wendell H. Martin, Sr.

Wendell H. Martin, Sr.
President

cc: (page 3)

cc:
Elected Representatives for KCA area:
Councilmembers Clement and Nekota
Senators Cobb, O'Connor, Soares, and Saiki
Representatives Larsen & Marumoto
Provost Kapiolani Community College
State Dept. of Land & Natural Resources
C&C Dept. of Trans. Svcs.
C&C Dept. of Parks & Recr.
NB #3
Save Diamond Head Assn.
Outdoor Circle
League of Women Voters of Hono.
East Diamond Head Assn.

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

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MIKE N. TOKUNAGA
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LETTER NO. (P)2026.0

OCT 16 1980

Mr. Wendell H. Martin, Sr.
President
Kahala Community Association
P. O. Box 10404
Honolulu, Hawaii 96816

Dear Mr. Martin:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 12, 1980 on the EIS for the subject project. The following response is provided to your opening remarks:

1. Community Participation

The attached list of members who have or are serving on the KCC Advisory Committee will be included in the EIS. Some of these members represent more than one organization. If your organization is not represented by any of the members on the list, please contact KCC Provost, Dr. Joyce Tsunoda, if you wish to have a representative appointed to the committee.

The following responses are provided to your general comments:

1. Incompatibility with Residential Use

Community colleges are permitted in the residential zoned areas according to the County Comprehensive Zoning Code. On this basis, we feel the college is compatible with single-family residential units. Please note that if the college site were developed for housing there would still be the same problems with the infrastructure.

2. Incompatibility with Diamond Head

Regulation and control of projects in the area are to preserve the views and character of Diamond Head.

The college has been planned so that it preserves the views and character of Diamond Head.

3. Inadequate Infrastructure

The discussion of roads, drainage, water, and parks are contained in the EIS. Please note that the State and County have different responsibilities on the construction of various public facilities.

4. Lack of Coordination

The State Plan has been adopted and the various Functional Plans have been or are being prepared. The County is presently developing their General Plan with input from the Neighborhood Boards and community organizations. The City's proposed Development Plan designates the Fort Ruger site for Public Facility, and engineering and planning consultants have discussed preliminary aspects of the KCC Master Plan with various City agencies.

The following responses are provided to your specific comments on the draft EIS and Traffic Impact Statement:

1. Long-Range Plan

a. A long-range plan could be prepared for all State lands in the Fort Ruger area. However, it would probably be generalized like the County General Plan being prepared for the various development areas on Oahu. We believe the Diamond Head State Monument EIS and Planning Report, which was previously circulated, and the EIS being processed for the KCC Master Plan provide the level of details the community is interested in.

b. Items that needed to be coordinated between the two plans have been coordinated and will continue to be coordinated through the design and construction phases.

2. Effects on Old Kahala and Newer Waialae-Kahala

The increase in traffic, which is the major impact projected for the college, is covered in the EIS.

3. Roadway and Traffic

a. The Traffic Impact Statement in Appendix IV of the EIS covers the projected increase in vehicular traffic.

b. The Traffic Impact Statement states that nearly all of the local streets have a right-of-way width of 50 feet and pavement width of 20 feet. Therefore, there should be approximately 15 feet on each side of the road for students, pedestrians and joggers.

c. Handicapped students are bussed to school.

d. Curbs and sidewalks are facilities that should be provided regardless of whether or not the college is located at Fort Ruger. These improvements can be implemented through the County improvement district process whereby residents benefiting from the improvements pay a portion of the cost.

e. Implementation of an improvement district project should provide better safety for the cars, motorcycles, mopeds, and bicycles used by both residents and tourists.

f. We concur with the assumption that the Diamond Head State Monument will generate additional traffic in the area. However, much of this traffic will occur during the non-peak times so that the roadways are not overloaded.

4. Duplication of Public Facilities

a. The recreational facilities for the college will be used primarily by KCC students and will be available for community use when not needed for the college. Since the use of existing recreational facilities by the college may restrict community use of these facilities, the proposed college facilities are not felt to be a duplication. Recreational facilities provided by the County follow County standards in serving the community.

b. There may be overloading of vehicles and pedestrians on streets and sidewalks because of recreational facilities but it is not considered likely. More

recreational facilities in a community reduces the chances of residents overloading a particular facility.

c. The Kaimuki Regional Library has a meeting room which is available for community use and future college facilities could be made available for community meetings.

5. Socioeconomic Aspects

a. The impact of the college on affordable housing is considered to be nil if any and is therefore not discussed in the EIS.

b. Discussion of property tax valuations in Section 10 will be moved to Section 5.c.3 of the EIS.

c. A discussion of improvement districts will be included in Section 5.c.4. of the EIS.

Very truly yours,

MIKIO NISHIOKA
State Public Works Engineer

Attach.
SS:jm

Individual	Affiliation
Yvonne Ambrose	Kapahulu Community Association; Kaimuki High School PTA
Nancy Bannick	Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board No. 5
Karen Bond	Kuliouou/Kalani Iki Neighborhood Board No. 2
Peyton Carroll	East Diamond Head Community Association
Albert Feirer	Kaimuki Neighborhood Board No. 4
Louise Meadows Kato	Waialae/Kahala Neighborhood Board No. 3
Richard Kinji Kimball	Council of Community Association Presidents; Waialae Kahala Area Resident
Earnest Lamb	Kapahulu Community Association
Aaron Levine	Oahu Development Council
Robin Loomis	Hawaii Kai Resident
Wendell Marumoto	East Diamond Head Community Association
Bertha Nahoopii	Kapahulu Community Association; Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board No. 5
Craig Nakamura	Waialae/Kahala Neighborhood Board No. 3
Clyde Preece	Neighborhood Board No. 5
C.E. "Rags" Scanlan	Kaimuki Resident; Waialae/Kahala Neighborhood Board No. 3
Rodney Shinkawa	22nd Avenue Association
Charles "Stu" Skiff	Kaimuki Businessmen and Professional Association

KAIMUKI BUSINESS & PROFESSIONAL ASS'N

1148 12TH AVENUE — SUITE 103
HONOLULU, HAWAII 96816
PHONE 734-1053

June 23, 1980

State Public Works Department
1151 Punchbowl Street
Honolulu, Hawaii 96813

Gentlemen:

We are in receipt of copies of the draft Environmental Impact Statement and Traffic Impact Statement for the proposed Kapiolani Community College at Fort Ruger and wish to compliment you on the thoroughness and attention to detail in the Statements.

We consider it very important that East Honolulu have a local community college for our citizens in this area as well as continuing community college-level programs on education, food, health, etc. The KCC has evidence available that it has outgrown the present site on Pensacola Avenue and that it would be less expensive and a much better location to build the new campus at Fort Ruger.

In reading and studying the impact drafts we do not have any comments to make on the KCC master plan but we do have several comments on the traffic study. Better consideration needs to be given to access to and exit from the site; the widening and making two-way, plus re-paving of 10th Avenue from Waialae to Pahoa is important so that Palolo, St. Louis and Kaimuki can avoid the bottle-neck at Koko Head. This year's Capitol Improvements Budget allows $25,000.00 for the planning of this 10th Avenue project. Can you help us implement these plans?

Too, with the additional traffic which will be caused by the KCC, 18th Avenue must be widened and improved all the way from Diamond Head Road to Harding Avenue.

In an effort to solve some of the problems which could develop, the through traffic from Waialae to Hawaii Kai should be allowed to by-pass the area by constructing a bridge across the Ala Wai Canal at University Avenue instead of all coming up Kalakaua into Monsarrat and through the 18th Avenue corner. It has been estimated that this would eliminate 30% to 50% of the traffic at 18th and Diamond Head Road by thus allowing this traffic to use the H-1 Freeway.

Thank you for considering these changes.

Yours very truly,

KAIMUKI BUSINESS & PROFESSIONAL ASSOCIATION
Patrick G. O'Malley, President

PGO:uds

cc: Gov. George Ariyoshi
Sen. Pat Saiki
Rep. Ken Kiyabu
Councilman Tom Nekota
Kaimuki Neighborhood Board
Palolo Neighborhood Board
St. Louis-Kapahulu Neighborhood Board
Waialae Neighborhood Board
Kapiolani Community College

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
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LETTER NO. (P)2023.0

OCT 16 1980

Mr. Patrick G. O'Malley
President
Kaimuki Business and Professional
Association
1148 12th Avenue, Suite 103
Honolulu, Hawaii 96816

Dear Mr. O'Malley:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of June 23, 1980, commenting on the subject project and supporting the community college. In response to your traffic concerns, we provide the following information:

1. Ingress/Egress: Careful consideration has been given to providing sufficient access to and exit from the site to minimize traffic problems on the surrounding streets. Roadways have been located on all four streets surrounding the property and have been aligned with existing streets whenever feasible. The access to Diamond Head Road which is heavily traveled, will be provided with turning lanes.

2. Tenth Avenue: Tenth Avenue is under the jurisdiction of the City and County of Honolulu. Thus the repaving of this roadway is a County responsibility and the widening of Tenth Avenue should be implemented as an improvement district project. In this case, the property owners benefiting from the improvement must pay for part of the improvement.

   In discussions on this matter between my staff and Mr. Charles Skiff, Managing Director of your organization, it was reported that property owners are opposed to this widening because of cost and the existing trees that must be removed. Therefore, your organization is not pushing for the road widening at this time.

3. Eighteenth Avenue: Eighteenth Avenue is also under the jurisdiction of the City and County of Honolulu. Therefore our response to its proposed widening and improvement is similar to that for Tenth Avenue in item no. 1 above.

4. Ala Wai Canal Bridge: The proposed bridge across the Ala Wai Canal at University Avenue has been discussed by others over a number of years. Although it may benefit traffic around the college, it is beyond the scope of this EIS for the master plan of the campus.

We appreciate your concern regarding the EIS for the project.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm

LIFE OF THE LAND
A GROUP FOR ENVIRONMENTAL RESEARCH AND ACTION

July 14, 1980

Mr. Rikio Nishioka
State Public Works Engineer
P. O. Box 119
Honolulu, Hi 96810

SUBJECT: Kapiolani Community College at Fort Ruger
EIS Consultation Phase for the Master Plan

Dear Mr. Nishioka:

Life of the Land is happy to be given the opportunity to comment on this draft environmental impact statement. For the most part, we feel the document has not adequately nor fairly discussed some critical problems, which are outlined below.

Historic Register - Although it is stated that a portion of the site is being considered forplacement on the Hawaii Register of Historic Places (p. 2, 1.H), there is no mention of whether the proposed project will effect the site. There is not even a brief description of the historic area.

Open Space - The "benefit" to the community of "...50% open space use of the campus...", (p. 4, 1.J), which refers to the completed project, is misleading. The fact is that there is currently more open space available than there will be if the project is implemented as planned. This existing area is of great value in that it provides a place for recreational and educational activities. Much of this space will be destroyed, and, consequently, it's value to the community lost. Therefore, the elimination of this space would be an adverse impact, not a beneficial one. We do not think the potential value of the existing open space has been adequately evaluated in the Master Plan.

Community/Educational Benefits - It is misleading to state that KCC students will be benefited by closer proximity to the college. Are there supporting studies showing where KCC students reside? It is our understanding that community colleges are not necessarily set up to serve a geographic area. Rather, they are program specific, and maintain an "open door" policy that encourages attendance from throughout the state.

Planning Concepts & Architectural Guidelines - For the most part, Life of the Land supports the environmental and aesthetic considerations made in planning the Ruger campus.

We question the validity of the assumption, however, that the facilities cannot be designed to incorporate natural ventilation. The Ruger site is elevated and well-exposed to the tradewinds, and therefore cooler than the lower areas such as Waikiki, contrary to the statement on page 32, 3.B.4. Recent federal standards restrict air conditioning to a maximum of 75 degrees, making the necessity of cooling an area with an average annual temperature of 76.2 degrees somewhat ridiculous. In addition, the majority of classes are not held during the hottest summer months. We realize, of course, that a certain amount of air conditioning will be needed where equipment such as computers and books or documents are to be stored. If the long-range cost of air conditioning is considered, it is doubtful to us that the advantages do indeed outweigh the disadvantages of air conditioning for all the structures. Also, have solar water heating systems been explored as a possibility?

One of the basic concepts outlined in the Master Plan calls for 2 or 3 story facilities, yet no heights are mentioned in the EIS. What are the planned heights for the buildings?

Parking and Traffic Problems - We have a lot of trouble with the assertion made in the EIS that the traffic generated by the proposed project will not adversely impact the community and overload surrounding roadways. It just does not make sense that the increase from 1,500 to 6,000 students will not cause serious traffic congestion.

Although the number of stalls exceeds CZC parking requirements, the statement on page 23 that "These parking areas will be sufficient for all the college users" may not necessarily be true. It is more likely that there will be demands on surrounding roads for parking during peak classroom periods and special events, adding to congestion and creating disruption to the community.

Recreation - Although it is stated on page 55, 3.C.1.b. that "The project site was never available for public recreational activities", this is not true. The open area within the site is now, and has been used even prior tothe State's acquisition, by the community for jogging, picnicing, biking, baseball, and other recreational activities. As we mentioned, this is a valuable resource to the community that will be destroyed by the proposed plan.

Soils and Erosion - The EIS itself states that "...erosion hazard is severe..." for the soil type found at the site (p. 32), yet erosion and drainage problems are not thoroughly discussed. Results of the soils studies should be included in the EIS.

Alternatives to Proposed Action - The alternative of leaving the campus as is, or of developingthe area minimally, has not been included in the EIS. Although the need for the Ruger campus was thoroughly justified, the alternative of no action still remains as a viable possibility.

Of the alternatives that are discussed, Scheme 3 appears to be an attractive possibility--and is, indeed, evaluated nearly as highly as the chosen plan, Scheme 4. We have already proposed that the existing open space is a resource that has been undervalued, and Scheme 3 would at least preserve this area. As the EIS points out, tree loss and excavationwould be minimized. If the buildings are more dispersed, moreover, designing them to utilize the natural cooling of tradewinds may be more feasible.

In conclusion, we feel that important considerations have not been adequately covered in the Master Plan, including the effects of the project on surrounding infrastructures (especially roadways and drainage), soil erosion, preserving existing open space and recreational resources, and utilizing natural and economical energy resources.

Thank you for allowing us the opportunity to comment at this time. We hope our concerns will be addressed more adequately in the Draft EIS.

Please feel free to call at 521-1300 should you have any questions or need clarification.

Sincerely,

Dee Dee Letts

Dee Dee Letts
Executive Director

DDL/jdm

194

GEORGE R ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

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LETTER NO. (P)2033.0

OCT 10 1980

Ms. Dee Dee Letts, Executive Director
Life of the Land
404 Piikoi Street
Honolulu, Hawaii 96814

Dear Ms. Letts:

Subject: Master Plan for KCC at Fort Ruger
EIS Consultation Phase Comments

Thank you for your letter of July 14, 1980 commenting on the EIS for the subject project. In regards to your concerns, we would like to provide the following responses:

1. Historic Register.

   a. The "parade grounds" and some of the existing buildings on the KCC campus were included in the nomination to the Hawaii and National Register of Historic Places. However, the Historic Places Review Board referred the matter back to the staff for further research. The master plan calls for demolishing the existing wooden buildings, grading the parade grounds and constructing buildings around this area.

   b. Discussions with the State Parks, Outdoor Recreation and Historic Sites Division indicates the college has two choices if the parade ground and buildings were placed on the Hawaii and National Registers:

      1) Honor the historic designation and replan the college around the parade grounds.

      2) Proceed with the college as planned.

2. Open Space. Since implementation of the master plan will reduce the amount of open space, this benefit will be deleted. However, the impact of this reduction in open space will be minimal since there are almost 300 acres of State and County parks within one mile of the campus.

3. Community/Educational Benefits. The statement on the proximity of KCC to students will be deleted since this was not a principal benefit. There are some regional aspects in the policy of community colleges. Section 1 of Act 39, SLH 1964 contains the statement: "It is imperative, therefore, that legislation be enacted to establish a statewide higher education system which provides for the creation of community colleges, offering college parallel, technical and vocational education, in different parts of the State so as to make higher education facilities more readily available to a greater number of high school graduates as well as the community in general." Underscore has been added for emphasis. Based on this, we conclude there are regional as well as program aspects in this Act.

4. Planning Concepts and Architectural Guidelines.

   a. No claim is made that the facilities cannot be designed to incorporate natural ventilation. The Architectural Guidelines simply states: "The educational facilities are master planned to incorporate an air conditioning system." However, to conserve energy and reduce capital and operating costs, the college has requested that detailed design of various facilities be based on natural ventilation. This change will be made in the EIS.

   b. The statement in Section 3.B.4. states "Average annual temperature readings are not available for the immediate area, but average annual temperature should parallel those recorded at Waikiki..." Temperature depends almost entirely on elevation, although affected somewhat by slope, wind exposure, and cloud cover. Records for other areas show that the mean and daily temperatures decrease at an approximate rate of 1°F for each 300 feet increase in elevation, the rate being somewhat greater at the lower elevations. Since the difference in elevation between Waikiki and Fort Ruger is less than 300 feet, the temperature difference is estimated at 1°F.

   c. The use of average monthly temperatures to show the range of temperatures between the coolest and warmest months is misleading. Please note that the average temperature is essentially the midpoint

between the lowest temperature during the night and the highest temperature during the day. It probably varies about 15° between the high and low. Please note that air conditioning also controls humidity which is high in Hawaii.

   d. The use of solar water heating systems will be considered during the detailed design of the facilities.

   e. The building heights will be determined during the detailed design stage. However, present estimates would be ten feet per story plus the roof up to a maximum of about 45 feet for a 3-story building.

5. Parking and Traffic Problems.

   a. The statement "Although the impact on the transportation system is considered to be minor, there will be a significant increase in the vehicular traffic," will be added to the EIS. This assertion is made on the basis of the Traffic Impact Statement contained in Appendix IV of the EIS.

   b. The statement on parking will be revised to read "These parking spaces should be sufficient and equally available for all of the college users.

6. Recreation. This statement will be revised to indicate that implementation of the master plan will provide more recreational facilities than is presently available to the public.

7. Soils and Erosion. This section will be revised because the soil description in the EIS applies to the steep slope separating the academic and athletic facilities. Most of this steep area will be retained in its present state. The areas to be developed are generally below 10% slope.

8. Alternatives to the Proposed Action. This section will be revised to show three alternatives to development of the campus according to the adopted master plan.

Your interest in this project and your comments are appreciated.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:ck

WAIALAE-KAHALA NEIGHBORHOOD BOARD NO. 3
P. O. BOX 10435
HONOLULU, HAWAII 96816

July 10, 1980

Mr. Rikio Nishioka
State Public Works Engineer
P.O. Box 119
Honolulu, Hawaii 96810

Dear Sir:

Thank you for sending Neighborhood Board No. 3 a copy of the Kapiolani Community College Draft Environmental Impact Statement, which includes the Traffic Impact Statement. The State Comptroller forwarding letter of June 17, 1980 was received by the Board on June 25, 1980 and a reply was requested by July 14, 1980. Since the Neighborhood Boards are governed by laws applicable to "agencies" of the government and community expressions of concern and input are needed, it is impracticable if not impossible to reply by the deadline date of July 14 prescribed. The Board consists of volunteers, lacks technical and on-site staff assistance, and must obtain a majority vote of all members prior to officially recommending a position relative to any proposals.

It is understood from contact with your office that we are now in the "consultation period" prior to an official public input period. This being the case, comments made will be those of interested and concerned Neighborhood Board members rather than by the Board itself. The draft EIS with Traffic Impact Statement will be presented to Board members at our next monthly meeting, July 17, 1980. We hope that after presenting the matter to the Board and obtaining input on the matter from individuals and organizations within the area of Neighborhood Board No. 3, the Board will be able to state an official response to the EIS.

Sincerely yours,

Howard Y. Fukuda

Howard Y. Fukuda
Chairman

cc:
N.C.
N.B. #2
N.B. #5
Cognizant Committees of
N.B. #3

13. REVIEW COMMENTS AND RESPONSES - PUBLIC REVIEW PHASE

DAGS letter of transmittal to OEQC dated November 19, 1980 is provided on page 200. DAGS letter of transmittal to EQC dated November 19, 1980 is reproduced on page 200. EQC transmittal and distribution list dated November 20, 1980 are provided on pages 201 to 204. DAGS letter of transmittal to KCC Advisory Committee members dated November 28, 1980 is reproduced on page 205. Below, letters received responding to the Draft EIS are identified along with the date of the letter, date of response, and the beginning page on which the letter is reproduced.

AGENCY	DATE OF COMMENT	DATE OF RESPONSE	PAGE IN FEIS
Federal			
Soil Conservation Service	12/9/80	—	206
Department of the Air Force	—	—	—
U.S. Army Corps of Engineers	12/3/80	—	206
Headquarters U.S. Army Support Command	12/2/80	—	207
U.S. Coast Guard	12/8/80	—	207
U.S. Fish and Wildlife Service	11/28/80	—	208
Headquarters Fourteenth Naval District	12/2/80	—	208
State			
Department of Agriculture	11/28/80	—	209
Department of Defense	1/22/81	—	209
Department of Education	11/26/80	—	210
Department of Health	12/4/80	—	210
Department of Land and Natural Resources & State Historic Preservation Officer	12/16/80	12/23/80	211
Department of Planning & Economic Development	12/4/80	—	212
Department of Social Services & Housing	—	—	
Department of Transportation	12/1/80	—	213
State Energy Office	11/25/80	—	213
Office of Environmental Quality Control	12/23/80	1/26/81	214
University of Hawaii at Manoa, Environmental Center	12/29/80	1/23/81	218
University of Hawaii at Manoa, Water Resources Research Center	12/16/80	—	220
City and County of Honolulu			
Department of General Planning	12/15/80	1/22/81	221
Department of Housing & Community Development	12/18/80	—	224
Department of Land Utilization	12/23/80	1/23/81	225
Department of Parks & Recreation	12/23/80	2/6/81	228
Department of Public Works	11/25/80	1/26/81	229
Department of Transportation Services	12/18/80	12/23/80	230
Board of Water Supply	12/22/80	1/12/81	231
Mass Transit Division, DOTS	—	—	
Building Department	12/1/80	—	232

AGENCY	DATE OF COMMENT	DATE OF RESPONSE	PAGE IN FEIS
NEWS MEDIA			
Honolulu Advertiser	—	—	
Honolulu Star-Bulletin	—	—	
LIBRARIES			
State Main Branch	—	—	
Kaimuki Regional Library	—	—	
Kaneohe Regional Library	—	—	
Pearl City Regional Library	—	—	
Hilo Regional Library	—	—	
Wailuku Regional Library	—	—	
Lihue Regional Library	—	—	
Aina Haina Library	—	—	
Manoa Library	—	—	
McCully-Moiliili Library	—	—	
Waikiki-Kapahulu Library	—	—	
Hamilton Library, Hawaiian Collection	—	—	
State Archives	—	—	
LRB Library	—	—	
Municipal Reference Center	—	—	
Windward Community College Library	—	—	
COMMUNITY ORGANIZATIONS/U.H. AND OTHERS			
East Diamond Head Association	11/29/80	1/26/81	233
Kahala Community Association	12/13/80	1/26/81	236
Kaimuki Business and Professional Association	—	—	
Life of the Land	—	—	
Neighborhood Board No. 3	12/18/80	1/26/81	240
Neighborhood Board No. 4	2/17/81	2/24/81	255
Neighborhood Board No. 5	—	—	
Neighborhood Board No. 6	—	—	
The Outdoor Circle	—	—	
Puu Panini Community Association	—	—	
Save Diamond Head Association	—	—	
22nd Avenue Community Association	12/22/80	1/22/81	245
Kapiolani Community College	—	—	
University of Hawaii	—	—	
Walter T. Kunihiro	12/22/80	1/23/81	246
PUBLIC UTILITIES			
Hawaiian Electric Company	12/15/80	—	248
LEGISLATORS			
Honorable Neil Abercrombie	12/12/80	2/18/81	248
Honorable Steve Cobb	—	—	
Honorable Dennis O'Conner	—	—	

AGENCY	DATE OF COMMENT	DATE OF RESPONSE	PAGE IN FEIS
Honorable Patricia Saiki	—	—	
Honorable Buddy Soares	—	—	
Honorable Robert Dods	—	—	
Honorable Donna Ikeda	—	—	
Honorable Ken Kiyabu	—	—	
Honorable Bertrand Kobayashi	12/22/80	1/26/81	253
Honorable Kinau Kamalii	—	—	
Honorable Barbara Marumoto	—	—	
Honorable Fred Rohlfing	—	—	
Honorable Calvin Say	—	—	
Honorable Tom Nekota	—	—	
American Lung Association of Hawaii	—	—	
KCC ADVISORY COMMITTEE 1980-81			
Yvonne Ambrose	—	—	
Horace Clay	—	—	
Philip Doi	—	—	
Albert Feirer	—	—	
Louise Meadows Kato	—	—	
Richard Kinji Kimball	—	—	
Ernest Lamb	—	—	
Aaron Levine	—	—	
Robin Loomis	—	—	
Bertha Nahoopii	—	—	
Craig Nakamura	—	—	
Clyde Preece	—	—	
Clarence Scanlan	—	—	
Rodney Shinkawa	—	—	
Charles "Stu" Skiff	—	—	

(P)3063.0

DEC 19 1980

Mr. Richard O'Connell
Director
Office of Environmental
Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. O'Connell:

Subject: Environmental Impact Statement for the Proposed Kapiolani Community College at Fort Ruger Master Plan

Transmitted herewith are the original and five (5) copies of the Environmental Impact Statement for the subject project for official filing as required by Sub-Part F of the Environmental Quality Commission's EIS regulations.

Should there be any questions, please have your staff call Mr. Edwin Tani of the Division of Public Works at 548-5742.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

ET:jnt 3-1
Attachment
cc: EQC w/o attachment

NOV 19 1980

(P)3055.0

Mr. Donald Bremner
Chairman
Environmental Quality Commission
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Bremner:

Subject: Environmental Impact Statement for the Proposed Kapiolani Community College at Fort Ruger Master Plan

Transmitted herewith are ninety (90) copies of the EIS for Kapiolani Community College at Fort Ruger Master Plan for official filing and distribution as required by Sub-Part F of your regulations. Besides your normal distribution, we would appreciate having your office distribute copies of the EIS to the legislators and organizations shown on the attached list. We will be sending copies of the EIS to members of the Kapiolani Community College Advisory Committee shown on the attached list.

Should there be any questions, please have your staff call Mr. Edwin Tani of the Division of Public Works at 548-5742.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

ET:ck
Attach.

cc: OEQC w/o attach.

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
ENVIRONMENTAL QUALITY COMMISSION
OFFICE OF THE GOVERNOR
550 HALEKAUWILA ST.
ROOM 301
HONOLULU, HAWAII 96813

DONALD A. BREMNER
Chairman

Executive Secretary
TELEPHONE NO.
(808) 548-6915

RECEIVED
NOV 25 1 24 PM '80
DIV. OF PUBLIC WORKS
DAGS

Dear Reviewer:

Attached for your review is an Environmental Impact Statement (EIS) that was prepared pursuant to Chapter 343, Hawaii Revised Statutes and the Rules and Regulations of the Environmental Quality Commission:

Title: Proposed Kapiolani Community College at Fort Ruger Master Plan

Location: Fort Ruger, Oahu

Classification: Agency Action

Your comments or acknowledgement of no comments on the EIS are welcomed. Please submit your reply to the accepting authority or approving agency:

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Please send a copy of your reply to the proposing party:

Department of Accounting & General Services
Division of Public Works
P.O. Box 119
Honolulu, Hawaii 96810

Your comments must be received or postmarked by: December 23, 1980.

If you have no further use for this EIS, please return it to the Commission.

Thank you for your participation in the EIS process.

201

EQC DISTRIBUTION LIST

( ) E.A. (xx) EIS ( ) APPLICANT ACTION (xx) AGENCY ACTION

Title: Proposed Kapiolani Community College at Fort Ruger Master Plan

Location: Fort Ruger, Oahu

Proposing Agency/Applicant: Department of Accounting & General Services

Accepting Authority/Approving Agency: Governor Ariyoshi

Deadline for Comments: December 23, 1980

Date Sent: NOV 20 1980

By: [illegible]

STATE AGENCIES	Amount Sent	Remarks
OEQC		
Dept. of Agriculture	1	
Dept. of Land and Natural Resources (3)	3	
Dept. of Health	1	
Dept. of Planning and Economic Development	1	
Dept. of Defense	1	
Dept. of Accounting and General Services		
Dept. of Social Services and Housing	1	
Dept. of Transportation (3)	3	
Dept. of Education*	1	
DLNR State Historic Preservation Officer	1	
Dept. of Hawaiian Home Lands*	-	
State Energy Office	1	
UNIVERSITY OF HAWAII		
Environmental Center (4)	4	
Water Resources Research Center	1	
Marine Programs*		
FEDERAL		
Environmental Protection Agency*		
U.S. Army Corps of Engineers	1	
U.S. Fish and Wildlife Service	1	
Soil Conservation Service	1	
15th ABW/DEE	1	
Navy	1	
Army-DAFE	1	
U.S. Coast Guard	1	
U.S. Geological Survey*		

LIBRARIES	Amount Sent	Remarks
State Main Branch (2)	2	
Regional:		
Kaimuki Regional Library	1	
Kaneohe Regional Library	1	
Pearl City Regional Library	1	
Hilo Regional Library	1	
Wailuku Regional Library	1	
Lihue Regional Library	1	
Branch:		
OAHU		
Aiea Library		
Aina Haina Library	1	
Ewa Beach Community-School Library		
Hawaii Kai Library		
Kahuku Community-School Library		
Kailua Library		
Kalihi-Palama Library		
Liliha Library		
Manoa Library	1	
McCully-Moiliili Library	1	
Mililani Library		
Wahiawa Library		
Waialua Library		
Waianae Library		
Waikiki-Kapahulu Library	1	
Waimanalo Community-School Library		
Waipahu Library		
HAWAII		
Bond Memorial Library (Kohala)		
Holualoa Library		
Honokaa Library		
Kailua-Kona Library		
Keaau Community-School Library		
Kealakekua Library		
Laupahoehoe Community-School Library		
Mountain View Community-School Library		
Pahala Community-School Library		
Pahoa Community-School Library		
Thelma Parker Memorial Library		
Waimea Library		
MAUI		
Kahului Library		
Lahaina Library		
Makawao Library		
MOLOKAI		
Molokai Library		
LANAI		
Lanai Community-School Library		

NEWS MEDIA	Amount Sent	Remarks
Honolulu Star Bulletin	1	
Advertiser	1	
The Sun Press - Oahu		
Ka Leo O Hawaii - UH		
Hawaii Tribune - Hawaii		
West Hawaii Today - Kona		
Lahaina Sun - Maui		
Maui News - Maui		
Ka Molokai - Molokai		
The Garden Island Newspaper - Kauai		
HONOLULU - CITY & COUNTY AGENCIES		
Dept. of General Planning	1	
Dept. of Land Utilization	1	
Dept. of Transportation Services	1	
Dept. of Parks and Recreation	1	
Dept. of Public Works	1	
Board of Water Supply	1	
Dept. of Housing & Community Development	1	
Mass Transit Division*	1	
Building Department	1	
HAWAII - COUNTY AGENCIES		
Planning Department		
Dept. of Public Works		
Dept. of Parks and Recreation		
Dept. of Water Supply		
Dept. of Research and Development		
University of Hawaii - Hilo Campus Library		
MAUI - COUNTY AGENCIES		
Planning Department (2)		
Dept. of Public Works		
Dept. of Parks and Recreation		
Dept. of Water Supply		
Economic Development Agency		
Maui Community College Library		
KAUAI - COUNTY AGENCIES		
Planning Department		
Dept. of Public Works		
Dept. of Water Supply		
Kauai Community College Library		

LIBRARIES	Amount Sent	Remarks
KAUAI		
Hanapepe Library		
Kapaa Library		
Koloa Community-School Library		
Waimea Library		
OTHERS		
Hamilton Library, Hawaiian Collection	1	
State Archives	1	
LRB Library	1	
Municipal Reference Center (for Oahu EIS's)	1	
Windward Community College Library	1	
* See attached for additional list		

*Optional

LEGISLATORS/COMMUNITY ORGANIZATIONS/UH

1. Honorable Neil Abercrombie
   Senator
   State Capitol, Room 227
   Honolulu, Hawaii

2. Honorable Steve Cobb
   Senator
   State Capitol, Room 208
   Honolulu, Hawaii

3. Honorable Dennis O'Connor
   Senator
   State Capitol, Room 203
   Honolulu, Hawaii

4. Honorable Patricia Saiki
   Senator
   State Capitol, Room 218
   Honolulu, Hawaii

5. Honorable Buddy Soares
   Senator
   State Capitol, Room 204
   Honolulu, Hawaii

6. Honorable Robert Dods
   Representative
   State Capitol, Room 311
   Honolulu, Hawaii

7. Honorable Donna Ikeda
   Representative
   State Capitol, Room 419
   Honolulu, Hawaii

8. Honorable Ken Kiyabu
   Representative
   State Capitol, Room 433
   Honolulu, Hawaii

9. Honorable Bertrand Kobayashi
   Representative
   State Capitol, Room 302
   Honolulu, Hawaii

10. Honorable Kinau Kamalii
    Representative
    State Capitol, Room 425
    Honolulu, Hawaii

11. Honorable Barbara Marumoto
Representative
State Capitol, Room 322
Honolulu, Hawaii

12. Honorable Fred Rohlfing
Representative
State Capitol
Honolulu, Hawaii

13. Honorable Calvin Say
Representative
State Capitol, Room 430
Honolulu, Hawaii

14. Honorable Tom Nekota
Councilman
P. O. Box 10435
Honolulu, Hawaii 96816

15. American Lung Association of Hawaii
c/o Mr. James W. Morrow
Director
245 North Kukui Street
Honolulu, Hawaii 96817

16. East Diamond Head Community Association
c/o Mr. Peyton Carroll, President
715 Palekaua Place
Honolulu, Hawaii 96816

17. Kahala Community Association
c/o Mr. Wendell Martin, Sr., President
P. O. Box 10404
Honolulu, Hawaii 96816

18. Kaimuki Business and Professional Association
c/o Mr. Patrick O'Malley, President
1148 12th Avenue
Honolulu, Hawaii 96816

19. Life of the Land
c/o Ms. Dee Dee Letts, Executive Director
404 Piikoi Street
Room 209
Honolulu, Hawaii 96814

20. Neighborhood Board No. 3
Waialae Kahala
Attn: Mr. Howard Y. Fukuda
P. O. Box 10435
Honolulu, Hawaii 96818

21. Neighborhood Board No. 4
Kaimuki
c/o Mr. Paul Haraguchi
725 Luawai Street
Honolulu, Hawaii 96816

22. Neighborhood Board No. 5
Attn: Mr. Clyde Preece
c/o Kapahulu Library
402 Kapahulu Avenue
Honolulu, Hawaii 96815

23. Neighborhood Board No. 6
Palolo
c/o Ms. Barbara Ryan
2801 La-I Road
Honolulu, Hawaii 96816

24. The Outdoor Circle
200 North Vineyard Street
Honolulu, Hawaii 96817

25. Puu Panini Community Association
c/o Dr. S. W. Glynn
4360 Puu Panini Avenue
Honolulu, Hawaii 96816

26. Save Diamond Head Association
c/o Mr. Sidney Snyder
119 Merchant Street
Room 508
Honolulu, Hawaii 96813

27. Twenty-Second Avenue Community Association
c/o Mr. Paul Haraguchi
725 Luawai Street
Honolulu, Hawaii 96816

28.- Kapiolani Community College
33. c/o Dr. Joyce Tsunoda
620 Pensacola Street
Honolulu, Hawaii 96814

34. University of Hawaii
c/o Mrs. Mae Nishioka
Physical Planning and Construction
2002 East-West Road
Honolulu, Hawaii 96822

DAGS WILL MAIL COPIES OF THE EIS TO THE
KAPIOLANI COMMUNITY COLLEGE ADVISORY COMMITTEE 1980-81

1. Yvonne Ambrose
1017 6th Avenue
Honolulu, Hawaii 96816

2. Horace Clay
5863 Mahimahi Street
Honolulu, Hawaii 96821

3. Philip Doi
1502 Wilhelmina Rise
Honolulu, Hawaii 96816

4. Albert Feirer
3730 Mariposa Drive
Honolulu, Hawaii 96816

5. Louise Meadows Kato
4300 Waialae Avenue, B-1201
Honolulu, Hawaii 96816

6. Richard Kinji Kimball
307 Lewers Street, Room 505
Honolulu, Hawaii 96815

7. Ernest Lamb
3631 McCorriston Street
Honolulu, Hawaii 96815

8. Aaron Levine
Oahu Development Conference
141 Merchant Street, Suite 313
Honolulu, Hawaii 96813

9. Robin Loomis
250 Kawaihae Street, #10-D
Honolulu, Hawaii 96825

10. Bertha Nahoopii
3216 Winam Avenue
Honolulu, Hawaii 96816

11. Craig Nakamura
4952-2 Kilauea Avenue
Honolulu, Hawaii 96816

12. Clyde Preece
2049 St. Louis Drive
Honolulu, Hawaii 96816

13. Clarence Scanlan
2265 Aha Niu Place
Honolulu, Hawaii 96821

14. Rodney Shinkawa
4140 Malapua Place
Honolulu, Hawaii 96816

15. Charles "Stu" Skiff
1143-12th Avenue,
Suite 103
Honolulu, Hawaii 96816

NOV 28 1980

Kapiolani Community College
Advisory Committee Member

Subject: Environmental Impact Statement for the Proposed Kapiolani Community College at Fort Ruger Master Plan.

Transmitted herewith for your review and comments is a copy of the EIS for K.C.C. at Fort Ruger Master Plan. All written comments should be directed to the Office of Environmental Quality Control (OEQC) within thirty (30) days with a copy to our office. The address for OEQC is Room 301, 550 Halekauwila Street, Honolulu, Hawaii 96813.

Should there be any questions, please call Mr. Edwin Tani of the Division of Public Works at 548-5742.

Very truly yours,

HIDEO MURAYAMA
State Comptroller

ET:jm
Attach.

cc: Environmental Quality Commission
Office of Environmental Quality Control

United States Department of Agriculture

Soil Conservation Service

P. O. Box 50004
Honolulu, Hawaii
96850

December 9, 1980

Director
Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Sir:

Subject: EIS for Proposed Kapiolani Community College at Fort Ruger

Thank you for the opportunity to review subject document.

We have no comments to make.

Sincerely,

JACK P. KANALZ
State Conservationist

cc:
Department of Accounting & General Services
Division of Public Works
P.O. Box 119
Honolulu, HI 96810

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FT. SHAFTER, HAWAII 96858

PODED-PV

3 December 1980

Mr. Harry Y. Akagi, Acting Director
Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, HI 96813

Dear Mr. Akagi:

We have reviewed your Environmental Impact Statement (EIS) for the proposed Kapiolani Community College at Fort Ruger, Master Plan, forwarded to us on 24 November 1980. The U.S. Army Corps of Engineers comments of 8 July 1980 to Mr. Hideo Murakami (page 97 of the EIS) are still valid and we have no additional comments.

Sincerely,

CLARENCE S. FUJII
Acting Chief, Engineering Division

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY SUPPORT COMMAND, HAWAII
FORT SHAFTER, HAWAII 96858

APZV-EHE-E

02 DEC 1980

Office of Environmental Quality Control
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

The Environmental Impact Statement (EIS) for the Proposed Kapiolani Community College at Fort Ruger Master Plan has been reviewed. The only effects the project will have on remaining Army activities in the Fort Ruger area are occasional traffic delays on Diamond Head Road during peak hours.

Sincerely,

RAY H. JYO
Deputy Director of Engineering & Housing

ADOLPH A. HIGHT
COL, EN
Director of Engineering and Housing

CF:
Department of Accounting and
General Services
Division of Public Works
P.O. Box 119
Honolulu, Hawaii 96810

207

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

COMMANDER (dpl)
Fourteenth Coast Guard District
Prince Kalanianaole Federal Bldg
300 Ala Moana Blvd.
Honolulu, Hawaii 96850

Serial 566
11000
8 December 1980

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Sir:

The Coast Guard has reviewed the Environmental Impact Statement for the Proposed Kapiolani Community College at Fort Ruger and has no objection or constructive comments to offer at the present time.

Sincerely,

J. E. SCHWARTZ
Commander, U. S. Coast Guard
District Planning Officer
Fourteenth Coast Guard District
By Direction of the District Commander

United States Department of the Interior

FISH AND WILDLIFE SERVICE
300 ALA MOANA BOULEVARD
P. O. BOX 50167
HONOLULU, HAWAII 96850

IN REPLY REFER TO:
ES
Room 6307

November 28, 1980

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Re: Kapiolani Community College
Fort Ruger, Oahu (EIS)

Dear Sir:

We have reviewed the subject Environmental Impact Statement (EIS) and have no comment.

We appreciate this opportunity to comment.

Sincerely yours,

Nevin D. Holmberg
Deputy Project Leader
for Ecological Services

cc: Department of Accounting & General Services
Honolulu, Hawaii

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

208

HEADQUARTERS
U. S. NAVAL BASE
BOX 110
Pearl Harbor, Hawaii 96860

002A:amn
2469

2 DEC 1980

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Environmental Impact Statement for the Proposed
Kapiolani Community College at Fort Ruger

The Environmental Impact Statement for the Proposed Kapiolani Community College at Fort Ruger has been reviewed and the Navy has no comments to offer. As requested the subject EIS is returned.

The opportunity to review the EIS is appreciated.

Sincerely,

R. D. EDER
CAPTAIN, CEC, U.S. NAVY
FACILITIES ENGINEER
BY DIRECTION OF THE COMMANDER

Copy to:
State DACS, Div of Public Works

GEORGE R. ARIYOSHI
GOVERNOR

JOHN FARIAS, JR.
CHAIRMAN, BOARD OF AGRICULTURE

YUKIO KITAGAWA
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF AGRICULTURE
1428 SO. KING STREET
HONOLULU, HAWAII 96814

November 28, 1980

MEMORANDUM

To: Office of Environmental Quality Control

Subject: EIS for the Proposed Kapiolani Community College at Fort Ruger

The Department of Agriculture has no comments to offer on the subject environmental statement.

The EIS report is returned herewith for your further use.

John Farias, Jr.
Chairman, Board of Agriculture

cc: Department of Accounting & General Services

Att.

State of Hawaii
DEPARTMENT OF DEFENSE
THE ADJUTANT GENERAL
Honolulu, Hawaii 96816

HIENG

22 JAN 1981

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Proposed Kapiolani Community College at Fort Ruger

We have received a copy of the above subject Environmental Impact Statement and have no comments at this time. The Environmental Impact Statement, as requested, is being forwarded to the Environmental Quality Commission under separate cover.

Sincerely,

JERRY M. MATSUDA
Captain, HANG
Contr & Engr Officer

cc: Dept of Accounting & General Services

GEORGE R. ARIYOSHI
GOVERNOR

CHARLES G. CLARK
SUPERINTENDENT

STATE OF HAWAII
DEPARTMENT OF EDUCATION
P. O. BOX 2360
HONOLULU, HAWAII 96804

OFFICE OF THE SUPERINTENDENT

November 26, 1980

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

SUBJECT: Environmental Impact Statement
Kapiolani Community College

The concerns expressed in our letter of June 26, 1980 on the unresolved issues of drainage and traffic appear to be adequately covered by the expressed need to have these issues coordinated with the respective County departments responsible for these areas.

We have no further comment to offer at this time.

Sincerely,

for Emiko Kiriko
CHARLES G. CLARK
Superintendent

CGC:HL:jl

cc: Honolulu District

AN EQUAL OPPORTUNITY EMPLOYER

210

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

GEORGE A. L. YUEN
DIRECTOR OF HEALTH

VERNE C. WAITE, M.D.
DEPUTY DIRECTOR OF HEALTH

HENRY N. THOMPSON, M.A.
DEPUTY DIRECTOR OF HEALTH

~~JAMES G. KUMAGAI, PH.D., P.E.~~
DEPUTY DIRECTOR OF HEALTH

~~TADAO BEPPU~~
DEPUTY DIRECTOR OF HEALTH

In reply, please refer to:
File: EPHS-SS

December 4, 1980

MEMORANDUM

To: Mr. Hideo Murakami, Comptroller
Department of Accounting & General Services

From: Deputy Director for Environmental Health

Subject: Environmental Impact Statement (EIS) for Proposed Kapiolani Community College at Fort Ruger, Oahu

Thank you for allowing us to review and comment and the subject EIS. On the basis that the project will comply with all applicable Public Health Regulations, please be informed that we do not have any objections to this project.

We realize that the statements are general in nature due to preliminary plans being the sole source of discussion. We, therefore, reserve the right to impose future environmental restrictions on the project at the time final plans are submitted to this office for review.

For Bingh J. Chy
MELVIN K. KOIZUMI

cc: OEQC

GEORGE R. ARIYOSHI
GOVERNOR OF HAWAII

SUSUMU ONO, CHAIRMAN
BOARD OF LAND & NATURAL RESOURCES

EDGAR A. HAMASU
DEPUTY TO THE CHAIRMAN

DIVISIONS:
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FISH AND GAME
FORESTRY
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

December 16, 1980

Office of Environmental
Quality Control
550 Halekauwila Street, Rm. 301
Honolulu, Hawaii 96813

Gentlemen:

We have reviewed the EIS for Kapiolani Community College (Ruger Campus Plan).

211

1. Page 50, last paragraph, is in error. As written, the statement implies that the College has the option to either "honor the nomination and replan the College around the historic site" or "proceed with the College as planned." Such an interpretation of Chapter 6E-8, HRS, is inaccurate, as the law reads:

   "(a) Before any agency or officer of the State or its political subdivisions commences any project which may affect historic property, the agency or officer shall advise the department and allow the department an opportunity for review of the effect of the proposed project on historic properties, especially those listed on the Hawaii register of historic places. The proposed project shall not be commenced; or, in the event it has already begun, continued, until the department shall have given its written concurrence.

   If the concurrence of the department is not obtained within ninety days after the filing of a request with the department, the agency or officer seeking to proceed with such project may apply to the governor who may request the Hawaii advisory council on historic preservation to report or who may take such action as he deems best in overruling or sustaining the department."

   The department referred to in the above law is the Department of Land and Natural Resources.

2. Page 71, Section 5.C.1.d, does not adequately address the relationship of the proposed action to the existing military structures present on the site. It refrains from discussing the adverse effect the proposed master plan will have on these buildings, nor does it offer any mitigating measures.

3. Page 84, the "Summary of Unresolved Issues" does not include the disposition of the military structures located on the proposed site.

4. Page 85, the "List of Necessary Approvals" does not include the Department of Land and Natural Resources as an approving agency for compliance with Chapter 6E, HRS.

Thank you for providing us with this opportunity to comment on this EIS.

Sincerely,

SUSUMU ONO, Chairman
Board of Land and Natural Resources;
and
State Historic Preservation Officer

cc: DAGS (Public Works)

DEC 23 1980

(P)3192.0

Honorable Susumu Ono
Chairman
Department of Land and
Natural Resources
State of Hawaii
Honolulu, Hawaii

Dear Mr. Ono:

Subject: EIS for KCC Master Plan
Public Review Phase

Thank you for your December 16, 1980 letter commenting on the subject EIS. Our response to your comments are as follows:

1. Page 50 - The paragraph will be revised to include the wording from HRS Chapter 6E-8.

2. Page 71 - The statement "The master plan calls for demolishing all of the existing military buildings on the site" will be added. Since the buildings are not on the historic register, the master plan does not have an "adverse" effect on the buildings and therefore no mitigation measures are provided.

3. Page 84 - The following statement will be added: "If the existing military buildings and parade grounds are placed on the Hawaii Register of Historic Places, the master plan will have to be revised."

4. Page 65 - Since no site or building has been placed on the Hawaii Register of Historic Places, the Department of Land and Natural Resources should not be included in the List of Necessary Approvals for compliance with HRS Chapter 6E.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

SS:ck

212

STATE OF HAWAII
DEPARTMENT OF PLANNING AND
ECONOMIC DEVELOPMENT
RECEIVED
Honolulu, Hawaii 96804
DEC 22 2 8 30
DAGO

December 4, 1980

Ref. No. 2451

Mr. Harry Akagi
Acting Director
Office of Environmental Quality
Control
550 Halekauwila Street
Honolulu, Hawaii 96813

Dear Mr. Akagi:

Subject: Environmental Impact Statement for the proposed
Kapiolani Community College at Fort Ruger, Oahu

We have reviewed the above document and find that it has adequately identified the major environmental impacts which can be anticipated to result from the proposed project.

Thank you for the opportunity to review this matter.

Sincerely,

Hideto Kono

cc: Hon. Hideo Murakami

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813

DIRECTOR
JACK K. SOUZA
JAMES R. CARRAS
JAMES R. McCORMICK
JONATHAN K. SHIMADA, Ph.D.

IN REPLY REFER TO

STP 8.6877

December 1, 1980

The Honorable Harry Akagi
Acting Director
Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Akagi:

Environmental Impact Statement
Kapiolani Community College at
Fort Ruger, Master Plan

Thank you for the opportunity to review the subject document.

The proposed action is some distance away from any of our existing or proposed programs. Therefore, we have no substantive comments to offer which could improve the EIS.

Very truly yours,

Ryokichi Higashionna

Ryokichi Higashionna
Director of Transportation

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GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
ENVIRONMENTAL QUALITY COMMISSION
OFFICE OF THE GOVERNOR
550 HALEKAUWILA ST.
ROOM 301
HONOLULU, HAWAII 96813

DONALD A. BREMNER
Chairman

Executive Secretary

TELEPHONE NO.
(808) 548-6915

Dear Reviewer:

Attached for your review is an Environmental Impact Statement (EIS) that was prepared pursuant to Chapter 343, Hawaii Revised Statutes and the Rules and Regulations of the Environmental Quality Commission:

Title: Proposed Kapiolani Community College at Fort Ruger Master Plan

Location: Fort Ruger, Oahu

Classification: Agency Action

Your comments or acknowledgement of no comments on the EIS are welcomed. Please submit your reply to the accepting authority or approving agency:

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Please send a copy of your reply to the proposing party:

Department of Accounting & General Services
Division of Public Works
P.O. Box 119
Honolulu, Hawaii 96810

Your comments must be received or postmarked by: December 23, 1980.

If you have no further use for this EIS, please return it to the Commission.

Thank you for your participation in the EIS process.

November 25, 1980 80:1158

We have no comments to offer on this EIS.

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
OFFICE OF THE GOVERNOR
550 HALEKAUWILA ST
ROOM 301
HONOLULU, HAWAII 96813

RICHARD O'CONNELL
DIRECTOR

TELEPHONE NO.
548-6915

December 23, 1980

MEMORANDUM

TO: Hideo Murakami, Comptroller
Department of Accounting & General Services

FROM: Harry Akagi, Acting Director

SUBJECT: Environmental Impact Statement for the Proposed Kapiolani Community College at Fort Ruger Master Plan

We have reviewed the subject document and offer the following comments for your consideration:

Page 1

How many of the 5,000 KCC students are currently enrolled at the Pensacola Street site? Fort Ruger site?

Page 25

This section states grading and drainage work may require temporary stockpiling of excess material. This could lead to erosion problems during storms. The EIS should consider this prolem and discuss mitigative measures.

Page 34

Section (E). The first sentence appears incomplete. How should this sentence read? The next sentence states that provisions should be made for users traveling by foot, bike, car, or bus. How many students currently attending KCC

live near Ft. Ruger and so may be expected to walk or bike?

The possibility that some students may choose to park off campus rather than pay the parking fee has not been adequately discussed. This is a major area of conflict with residents. Page 78 states several streets will be marked off for no parking to minimize conflicts. Which streets will have restricted parking? How will parking restriction be enforced?

Page 37-39

The EIS states detention basins will be used until the county sewage system is adequate to accommodate the additional flows generated by the college. Is the county planning to upgrade their system? If so when? If the county has no plans to do so will the detention basins become a permanent feature? What is the size of these detention basins? Location of the basins should be clearly shown.

Page 44

The age of Diamond Head should be changed to approximately 200,000 years old.

Page 49

This section should describe in more detail the buildings being considered for placement on the Hawaii and National Register of Historic Places. These buildings should also be clearly identified in Figure 8.

Page 65

What decibel levels are anticipated during construction. Hours of construction correspond to peak school hours. The EIS should discuss the impact of noise on students attending KCC at Ft. Ruger during the period of major construction.

Page 71

If several of the military structures are designated as historic sites, what impact will this have on the proposed master plan? Will the plan be changed to accomodate these sites or will demolition occur? The EIS should state which option will be chosen.

Page 73

What type of drainage system will be utilized when

development of the recreational facilities are completed and interim ponding areas have been phased out. How will local on site flooding then be controlled?

Page 74

The EIS states the "existing road systems may be widened and improved by the county according to the general plan." Is any time table available for these improvements? The EIS should discuss fully the traffic impacts of the completed college on these road systems if no improvements have been or will be made.

The EIS does not discuss the short-term impact of increased traffic surrounding Ft. Ruger during construction.

Page 84

Another unresolved issue is the fate of the buildings that are being considered for placement on the Hawaii and National Register of Historic Places. A discussion of this issue should be included in this section.

We have enclosed a list of commenting agencies and organizations on an attached sheet.

We appreciate the opportunity to review the subject EIS and look forward to the revised statement.

Attachment

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1042.1

JAN 26 1981

Mr. Harry Akagi, Acting Director
Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Akagi:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

Thank you for your December 23, 1980 letter on the subject EIS. Responses to your questions and comments are attached.

Responses have also been made to all questions and comments received during the EIS Public Review Phase.

The final EIS, which includes the above comments and questions received plus the responses made, is being published and will be submitted to the Governor through your office shortly.

If there are any questions, please have your staff call Mr. Stanley Shin of the Public Works Division at 548-5703.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

KCC MASTER PLAN
EIS PUBLIC REVIEW PHASE
RESPONSE TO DECEMBER 23, 1980 COMMENTS
FROM MR. HARRY AKAGI

Page 1 - Section 1.B. - Identification of the Proposed Action

Students enroll in KCC rather than the Fort Ruger or Pensacola campus. During Fall 1980, approximately 27% (1,350) of KCC's student body are taking classes at the Fort Ruger campus. Since some students are attending classes on both campuses, more than 73% (3,650) of the student body are taking classes at the Pensacola campus.

Page 25 - Section 2.G.2. - Grading and Drainage Plan

Mitigative measures for erosion of stockpiled material are covered by County Ordinance. This will be indicated in Section 5.A.5.b. of the EIS.

Page 34 - Section 2.G.6. - Architectural Guidelines

The word "that" in the sentence will be changed to "with". The number of KCC students living in the Moiliili to Kahala area during 1978 was approximately 30% of the 4,200 students then. The Traffic Impact Statement in Appendix IV of the EIS estimates that about 2% of the students will walk or ride a bicycle.

The second paragraph of Section 5.C.5.c. - Proposed Solution to Potential Traffic Problems will be revised as follows:

> "Entrances will be provided around the perimeter of the campus so vehicles can enter as soon as possible and thereby reduce traffic on the surrounding streets. Parking for 1,200 vehicles, which is about double the number required by the County Comprehensive Zoning Code, will be provided to minimize the need for students to park on surrounding streets. These stalls will be dispersed around the campus so that, in conjunction with access roads, they do not concentrate the college's traffic."

The following paragraphs will also be added:

> "There will be a nominal parking fee per semester that will be very small compared to the cost of owning and operating a vehicle. However, there may be some students who will not want to or cannot afford to pay the fee, that will park in the surrounding neighborhood. Since it is recommended that parking be restricted during certain daytime hours on the roadways immediately surrounding the campus, these students will probably have to walk some distance to reach their classrooms.
>
> The streets recommended for the parking restriction would be the surrounding streets out to one or two blocks from the campus. Enforcement of the restriction would be by the County Police Department.

Page 37 to 39 - Section 2.H. - Incremental Construction

The following sentence will be added to the first paragraph in Section 5.C.4.c. of the EIS:

> "The County does not have any schedule for improvement of their drainage system."

As indicated on Page 40 of the EIS, if the County drainage system is not adequate when construction of Area 5 begins, the detention basins will have to be retained. Whether they become permanent or not will depend upon when the County drainage improvements are made.

The discussion on incremental construction indicates the first detention basin will be located below the Diamond Head entry roadway. This probably will be in the area shown for the gymnasium. The second detention basin will probably be located in the soccer/football field area. However, the exact location will be determined in the design stages after borings and other field investigations are completed.

The capacity of the detention basins will be determined during the design stage when more exact computations can be made after the detailed grading and drainage system plans are laid out. Preliminary estimates indicate the capacity will be around 4 ac. ft. The configuration, area and depth will also be determined during the design stage.

Page 44 - Section 3.B.1. - Geology

"Anatomy of an Island, A Geological History of Oahu," prepared by Gordon A. Macdonald and Will Kyselka, Bernice P. Bishop Museum Special Publication 55, 1967 indicates that Diamond Head was created about 100,000 years ago. Therefore, this age will be used in the EIS.

Page 49 - Section 3.D. - Historical and/or Archaeological Sites

This section will be revised as follows:

> "Five existing wooden buildings plus the large open area in the middle of the campus between these buildings as shown in Figure 8 are being

considered for placement on the Hawaii Register of Historic Places. The five buildings are designated as Utility Buildings, Office Building, Student Services Building and Faculty Office Building. They are two-story wood frame buildings which were used as officers quarters.

Nomination papers prepared by the State Parks, Outdoor Recreation and Historic Sites Division of the Department of Land and Natural Resources are included in Appendix VI of the EIS. At the June 9, 1980 Public Hearing, the State Historic Places Review Board received testimony and sent the nomination back for further research and justification. Part of the testimony given is also contained in Appendix VI."

Page 65 - Section 5.A.4. - Noise from Construction Activities

The effect of construction noise on students will depend upon distance between existing and new facilities being constructed, whether the existing facility is air conditioned or naturally ventilated, and wind velocity and direction. This impact of construction noise on students is unavoidable but could be reduced by constructing buildings sequentially in clusters moving downwind through the campus. However, this probably would not satisfy the program and operational requirements of the college.

The above information will be included in the EIS.

Page 71 - Section 5.C.1.d. - Historical/Archaeological Site

HRS Chapter 6E-8 states:

"Before any agency or officer of the State or its political subdivisions commences any project which may affect historic property, the agency or officer shall advise the department and allow the department an opportunity for review of the effect of the proposed project on historic properties, especially those listed on the Hawaii Register of Historic Places. The proposed project shall not be commenced; or, in the event it has already begun, continued, until the department shall have given its written concurrence.

If the concurrence of the department is not obtained within ninety days after the filing of a request with the department, the agency or officer seeking to proceed with such project may apply to the Governor who may request the Hawaii Advisory Council on historic preservation to report or who may take such action as he deems best in overruling or sustaining the department."

Thus, if some of the college site and buildings are placed on the Hawaii Register of Historic Places, the college has several courses of action:

1. Obtain approval from the Department of Land and Natural Resources to demolish the historical buildings and site so the college can be developed according to the master plan.

2. Obtain approval from the Governor to demolish the historical buildings and site so the college can be developed according to the master plan.

3. Revise the master plan around the historic site and buildings by using more massive and/or higher buildings. There may be problems with increment funding and construction, aesthetics, view planes, etc.

4. Revise the master plan around the historic site and buildings by reducing the size of the facilities. The college will be in an undesirable position of having to operate on a split campus.

5. Delay indefinitely further development of the campus. The college will most likely lose its accreditation.

It is premature at this point to say what option will be selected if the above condition occurs. The above information will be included in Section 3.D. of the EIS.

Page 73 - Section 5.C.4.c. - Drainage System

The proposed drainage system is discussed in Section 2.G.2. of the EIS. It should eliminate any on-site flooding if the County system is improved.

Page 74 - Section 5.C.5. - Traffic and Transportation System

There is no time table available for improvement of the existing road system according to the County General Plan.

Item (3) will be revised as follows:

"Development of the college will increase the vehicular traffic in the area. However, due to the relatively low traffic volume levels presently existing and with the various roadways, the existing street system should be able to accommodate all of the anticipated traffic

volumes within the desirable capacity for 2-lane roadways, except for Diamond Head Road. The existing traffic on Diamond Head Road already exceeds this desirable capacity.

The effect of the additional traffic on the surrounding streets and Diamond Head Road is increased driving time for motorists. The greater the increase, the greater the additional driving time due to slower traffic. Proposals to reduce the anticipated delays on Diamond Head Road at the college entrance are included in Section 2.G.7. of the EIS.

The maximum number of construction workers on the site at one time probably will not exceed 100 on the upper campus based on the proposed incremental building construction plan. During this construction phase, the workers and students attending classes will be less than the peak college traffic projected in the Traffic Impact Statement. Construction of the athletic fields as the last increment probably will not involve more than 20 construction workers on the site at one time. This may cause a minor short-term negative impact on traffic. Some of these workers may meet at designated locations to form car pools and drive to the site in company or private vehicles."

Page 84 - Section 9 - Summary of Unresolved Issues

The following sentence will be added:

"If the existing military buildings and parade grounds are placed on the Hawaii Register of Historic Places, the master plan for the college will probably have to be revised. This is discussed in Section 3.D. and 5.C.1.d.

University of Hawaii at Manoa

Environmental Center
Crawford 317 • 2550 Campus Road
Honolulu, Hawaii 96822
Telephone (808) 948-7361

Office of the Director

December 29, 1980
RE:0317

Office of Environmental Quality Control
550 Halekauwila Street
Honolulu, Hawaii 96813

Dear Sir:

Draft Environmental Impact Statement
Proposed Kapiolani Community College
at Fort Ruger Master Plan
Fort Ruger, Honolulu, Oahu

The draft Environmental Impact Statement for the proposed Kapiolani Community College at Fort Ruger Master Plan has been reviewed by Jacquelin Miller, Garret Kawamura, Alexis Cheong Linder and Ronald Renkoski of the Environmental Center.

The reviewers concur that the DEIS addresses the major environmental impacts that can be expected to occur as a result of this project. We find the document to be comprehensive in dealing with planning issues on a broad perspective. We offer the following comments in hopes that they will be useful in the final design of the Master Plan and preparation of the revised EIS.

Bicycles

Although the DEIS mentions the probability of utilizing bicycles as a means of transportation to campus (p. 74, Appendix 4, p. 45) there is no reference to incorporating bikeway routes into the master plan. It is admirable that the State encourage bicycling as a means of transportation and as a mitigative measure for transportation impacts. However, to evaluate the effectiveness of this mitigative measure, specific planning measures for bikeways should be included in the final EIS and provided for in the Master Plan. In addition, the master plan should include secure parking areas for bicycles at the campus site.

Traffic

It is recognized that Diamond Head Road will surpass its traffic capacities by the time the Kapiolani Campus is built. What other alternatives exist that will minimize traffic congestion to the area, aside from the widening of Diamond Head Road? While the number of planned parking spaces exceeds the number required by the CZC it is estimated that 65 percent of the total number of students plus faculty and staff will drive to campus (p. 76). Based on the 5,000 FTE figure alone this will mean approximately 3,250 vehicles

will require parking spaces. Assuming the 1200 on-site spaces will all be utilized this means roughly 2000 cars will need to locate street parking. Obviously this represents significant impacts on the surrounding neighborhood with regard to air quality, noise, traffic and safety. The East Diamond Head Association proposed that a two story parking structure be built against the slope of Diamond Head, p. 178. While we agree with the State that this might have an adverse visual impact (depending upon location of the parking structure) it also appears to be a high-intensity use of a campus area that might solve the aforementioned impacts. Although this proposal is purported to be more expensive, it may be more economical to build such a structure now rather than having to implement costly mitigative measures concerning parking and traffic problems in the future.

Building Design

We commend the State for planning efforts that incorporate natural ventilation as part of the building design as well as blending in with the surrounding community. Has the use of solar panels to cut down on energy costs and promote energy self-sufficiency for the campus site (p. 34) been considered? Have cost feasibility estimatesof alternate energy forms been reviewed? It might initially mean large capital investment but over the long term may be economically appropriate.

Landscape Design

Banyans are suggested as the primary tree at the proposed KCC site (p. 36). We are in support of saving as many healthy banyans as possible, however, other tree species should be considered for the following reasons: (1) due to thick, light-filtering folage, ground covers are not easily established under banyan trees (a prime example is located at the University's Kennedy Theater), (2) people are reluctant to lounge under banyans due to their attraction to avifauna as an excellent food resource and roosting area, and (3) banyans are not "low-maintenance" trees as far as the generation of rubbish is concerned. As an alternative, the planting of native tree species could add variety to landscaping as well as provide some educational benefit to the community at large.

Impact on Soils

Analysis of soil samples should be included as part of this EIS to determine whether the underlying soil is able to support the proposed facilities. If the soil is deemed unsuitable and removal and replacement measures become necessary (p. 55) will significant impacts upon air quality, traffic and costs of the project be expected?

Thank you for the opportunity to review this document. We hope our comments will aid your planning efforts for this project.

Yours truly

Doak C. Cox

Doak C. Cox
Director

DCC/ck

cc: DAGS
Jacquelin Miller
Garret Kawamura
Alexis Cheong Linder
Ronald Renkoski

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1036.1

JAN 23 1981

Mr. Doak C. Cox
Director
Environmental Center
University of Hawaii
Crawford 317
2550 Campus Road
Honolulu, Hawaii 96822

Dear Mr. Cox:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

Thank you for your letter of December 29, 1980 commenting on the subject EIS. Our response to your comments are as follows:

Bicycles

Bicycles will utilize the campus roads as well as the walkways for convenient accessibility and travel. Bike racks will be provided in strategic locations throughout the campus.

Traffic

1. Some alternatives to reducing traffic congestion in the area are:

   a. Utilizing one-way traffic patterns.

   b. Charging a fee to use the main roadway through the area.

   c. Leasing Waialae Drive In for parking and bussing the students to the campus.

2. Your computation for parking should consider that most students do not go to school everyday and

Letter No. (P)1036.1

that most students stay in school only for a few hours.

3. The parking and traffic concerns will have to be reviewed periodically as the college is constructed. Thus, it is possible that in the future a parking structure may be constructed as suggested by East Diamond Head Association.

Building Design

Energy conservation measures such as solar energy and heat pumps will be considered during the design for the college facilities. Cost estimates for these alternative energy forms have been reviewed for other projects.

Landscape Design

Your comments on this item are greatly appreciated. Your suggestion to include the planting of native tree species as an alternative to banyans will be considered during the detailed design.

Impact on Soils

The foundation analysis is normally done during the detailed design phase of a project when the building location and configuration have been determined. This is the next step after the EIS is approved and a preliminary design is approved.

If the soil is deemed unsuitable and removal and replacement measures become necessary, no significant impacts are anticipated other than what has been covered in Section 5 of the EIS. Section 3 of the EIS indicates nearly solid basaltic material is encountered 2 to 6 feet below the ground surface. Therefore, no foundation problems are anticipated.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

ET:jm

cc: OEQC

University of Hawaii at Manoa

Water Resources Research Center
Holmes Hall 283 • 2540 Dole Street
Honolulu, Hawaii 96822

16 December 1980

Office of Environmental Quality Control
550 Halekauwila Street
Honolulu, Hawaii 96813

Gentlemen:

We have reviewed the EIS for the Proposed Kapiolani Community College at Fort Ruger Master Plan, November 1980 and have no comment. This material was reviewed by WRRC and affiliate personnel.

Thank you.

Sincerely,

Edwin T. Murabayashi
EIS Coordinator

ETM:jm

cc: H. Gee
C. Liu
Y.S. Fok
DAGS

ARTMENT OF GENERAL PLANNIN
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

GEORGE S. MORIGUCHI
CHIEF PLANNING OFFICER

DGP11/80-3325(CT)

December 15, 1980

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Environmental Impact Statement for Kapiolani Community College at Fort Ruger Master Plan, November 1980
Comments Requested November 21, 1980

We offer the following comments.

Traffic

We note that there is a difference between the need for street improvements projected by the State's traffic consultant and by the City's Department of Transportation Services (pp. 116; 118, item 15; 127; 145; and 156). The impact statement admits only to the need for widening the portion of Diamond Head Road between 18th and Monsarrat Avenues, but indicates that since this is a County roadway, the County should improve the roadway (p. 116).

Roadway ownership is only one facet in determining who is responsible for improvements. The State, as a major traffic generator and benefitting abutting land owner, should share in costs of improving the road if the college is built here. The State, moreover, should initiate action through the County for the necessary road improvements.

Drainage

The impact statement indicates that peak runoff will increase from an estimated 77 cfs to a projected 230 cfs. The Department of Education indicates that there is a history of flooding at the Kaimuki Intermediate School (p. 101). The response from the Department of Accounting and General Services (DAGS) was that the college is not in a position to finance improvements to the County drainage system, and that DAGS would therefore recommend

that an improvement district be initiated for the improvements (pp. 102-103).

It should be pointed out that under the County improvement district procedures, the State can petition for consideration of an owner-initiated improvement district at Fort Ruger for mitigation of existing and projected problems of drainage, sewers, street improvements or other public facilities.

The City/County would act on a petition of the owners and lessees of at least 60 percent of the frontage or area to be assessed, or on a petition of the owners or lessees of 100 percent of the frontage or area to be assessed. The City/County could initiate an improvement district through the Council's adoption of a Resolution of Intention (Chapter 24, Revised Ordinances of Honolulu, 1969, as amended).

Air Conditioning

We note that extensive air conditioning, as initially proposed, is no longer to be State policy for the new facilities. The impact statement indicates that

> "The college has requested that the detailed design of the buildings consider natural ventilation whenever feasible to reduce construction and operating costs and to conserve energy. Therefore, the architects will be challenged to design facilities using air conditioning and natural ventilation" (p. 34, Section 2.G.6(1)(d)).

Minimizing the need for air conditioning begins at the site planning stage, rather than at the time of detailed design of the buildings; i.e., you start with good siting to take advantage of the natural elements, such as tradewinds. Therefore, the EIS should discuss the contribution of the site plan to energy efficiency.

Wastewater Management

It should be indicated that the State Department of Health intends to turn over the task of cesspool approvals to the City and County of Honolulu's Department of Public Works, Wastewater Management Division. One of their proposed policies will be the prohibition of cesspools in areas which are sewered and which have adequate system capacity to handle projected flows. The use of cesspools (pp. 37 and 39) is not in accord with proposed policy of the Department of Public Works.

Urban Design and Aesthetics

The proposed site plan for the new campus is not consistent with urban design objectives of the City and County General Plan. The new campus should complement the character of the community in which it is to be located.

The primary issue is the relationship to the surrounding residential community. The predominant view of the campus will be parking lots. Other major urban design issues are site planning to enhance open spaces, protection and provision of views, energy economics of building heating and cooling, and vehicular and pedestrian circulation.

The proposed circulation system will increase the use of peripheral streets and confirm the opposition of the neighboring residents to the new vehicular traffic.

The proper site planning to achieve General Plan environmental objectives is a matter requiring serious consideration.

Sincerely,

NED WIEDERHOLT
Acting Chief Planning Officer

NW:fmt

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE R. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1038.1

JAN 22 1981

Mr. Willard Chow
Chief Planning Officer
Department of General Planning
City and County of Honolulu
Honolulu, Hawaii

Dear Mr. Chow:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

Thank you for your letter of December 15, 1980 commenting on the subject EIS. Our response to your comments are as follows:

1. Traffic

The Department of Transportation Services' (DTS) assessment on the need to widen nearby streets appears to be based on their experience with schools where the demand for on-street parking necessitates road widening. We do not disagree with this assessment because many high schools do not provide the required number of parking stalls.

However, the master plan for KCC provides 1,200 parking stalls on campus. Since this is about twice the number required according to the CZC, the demand for on-street parking should be less than DTS' normal experience with schools.

Although the State or property owners can initiate action for an improvement district through the County, we recommend that this be done by the County since they will plan, coordinate and implement the improvements to their systems and facilities.

2. Drainage

The above comment regarding initiation of an improvement district is applicable for the drainage improvements.

3. Air Conditioning

The statement in Section 2.G.6.(1)(d) will be revised as follows:

> "The college has determined that Buildings C, E, F, portion H, L, P, Q, R and S will be naturally ventilated. This will reduce construction and operating costs and conserve energy. This change will involve making some adjustments to the building massing and orientation to ensure that adequate natural ventilation is provided."

We agree that planning for natural ventilation begins at the site planning stage. However, as indicated in Table 2 of the EIS, it is only one of many items considered. Review of the plan indicates that only changes to the building massing and orientation are needed to provide adequate natural ventilation for these buildings.

4. Wastewater Management

The EIS will be revised to state that approval for the use of cesspools will require Department of Health or County Department of Public Works approval. If this approval is not received, the sewer connection to the County system will be made as required.

5. Urban Design and Aesthetics

This topic has been divided into various items to facilitate response to the general comments made.

a. Community Character - Section 2.G. of the EIS indicates the following planning concepts were used so the new campus would complement the character of the community:

(1) The style and character of the educational facilities will be low in profile, residential in scale, and natural in earth-tone colors.

(2) Building clusters (instead of larger massive buildings) with courtyards and activity centers interconnected by ramps, walkways, and malls will be used.

(3) Low-roof profiles (residential-type roofing) will be utilized.

(4) Existing open and natural spaces will be incorporated into the master plan.

b. Predominant View - The aerial view of the master plan may give the impression that the predominant view from the surrounding residential community will be "parking lots". However, much of the ground-level view will be blocked out by the existing vegetation and proposed landscaping plan shown in Figure 6 of the EIS. Please note that the campus has a total of 295 trees with trunk diameters of 6 inches or more and Table 11 indicates more than 80% will be retained.

c. Open Spaces - The athletic field areas of the lower campus are considered to be open space so the response covers the upper campus. The site plan is based on retaining much of the present open field area of the campus and placing the buildings around it. These buildings are also set back from the property line to enhance the open space feeling at the boundary. More open space could be provided by going to taller or more massive buildings. However, this would not be consistent with other urban design objectives of the County General Plan.

d. View - The buildings have been set back from the property line so they minimize obstructing views from the surrounding roads. Buildings E, F, and D have been placed near to but back from the edge of the bluff. Thus, they will have a panoramic view towards the Koko Head area while minimizing the visual impact of the buildings from the surrounding area.

e. Building Ventilation - This is covered in Item 3 above.

f. Vehicular Circulation - The college will increase the vehicular traffic but the proposed circulation system should decrease the use of peripheral streets. As indicated in Section 5.C.5.c. of the EIS, entrances will be provided around the peri-

Letter No. (P)1038.1

meter of the campus so vehicles can enter as soon as possible and thereby reduce traffic on the surrounding streets.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm

cc: OEQC

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813
PHONE 523-4181

FRANK F. FASI
MAYOR

EDWARD Y. HIRATA
MANAGING DIRECTOR

BARRY CHUNG
DIRECTOR

MYRA M. TAKASAKI
DEPUTY DIRECTOR

December 18, 1980

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Proposed Kapiolani Community College at Fort Ruger Master Plan Environmental Impact Statement

We have reviewed the subject environmental impact statement and have no comment.

Very truly yours,

Barry Chung

cc: Department of Accounting and General Services

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU, HAWAII 96813 • (808) 523-4411

FRANK F. FASI
MAYOR

TYRONE T. KUSAO
DIRECTOR

(LC)

December 23, 1980

Department of Accounting
and General Services
Division of Public Works
State of Hawaii
P.O. Box 119
Honolulu, Hawaii 96810

Gentlemen:

Environmental Impact Statement
Kapiolani Community College
at Fort Ruger
November, 1980

We have the following comments:

1. Diamond Head-Historic, Cultural & Scenic District (DH-HCSD)

   a. Since one of the major objectives of the DH-HCSD is the preservation of public views of Diamond Head, there should be some view analysis of Diamond Head from Kilauea Playground, Kaimuki Intermediate School, Fort Ruger Park, Kilauea, 22nd, 18th Avenues and Elepaio Streets.

   b. We acknowledge that a waiver from height limitations may be obtained. What would the justification be for this waiver?

   c. Procedures and time schedules for processing under the DH-HCSD should be included.

   d. A map showing the relationship of the proposal to the DH-HCSD and Special Management Area boundaries should be included.

2. Special Management Area (SMA)

   a. The Department of Land Utilization may waive the assessment procedure if an acceptable EIS document prepared under Chapter 343, HRS is presented with a Special Management Area Permit (SMP) application.

   b. There should be some discussion of how the project meets objectives and policies and review guidelines contained in Ordinance No. 4529, as amended.

3. We assumed that since the state completed the purchase of the Fort Ruger site, no further action was needed for land acquisition. Why then is it necessary for the state to get approval from the Department of Land and Natural Resources for land acquisition? Will this require additional funds?

4. We feel it is incorrect to say that the Comprehensive Zoning Code limits the amount of facilities that can be constructed at the Pensacola site. The uses and restrictions on the Pensacola site (zoned R-6 Residential District) are similar to the Fort Ruger site (zoned R-3 Residential District). Limitations on the Pensacola site are more related to land area. A waiver of height limitations is also possible within this district, with justification.

5. We feel that full utilization of the Pensacola site should be discussed as an alternative to the proposed action.

6. What is the status of the request of the University of Hawaii Board of Regents in its supplemental CIP budget for a reappropriation of $1,009,000 for design studies for the Fort Ruger site? If these funds have lapsed, what would be the next step?

7. No positive incentive plan or program, besides that to provide accessibility to and frequency of bus service, has been proposed to encourage the use of the public transportation system. A discount on student service fee or tuition through bus passes could be a positive alternative to explore.

8. Energy Conservation/Ventilation System

Specific energy conservation "devices" can be reviewed during the detailed design stage; however, energy conservation should be planned as an integral part of the ultimate site planning scheme by proposing the optimal building and site planning orientation early in the planning process, not at the detailed design stage which is too far down the process to make inexpensive changes.

Should there be any questions regarding the above, please contact Mrs. Lorrie Chee of our staff at 523-4077.

Very truly yours,

TYRONE T. KUSAO
Director of Land Utilization

TTK:sl

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

MIDEO MURAKAMI
COMPTROLLER

MIKE M. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1035.1

JAN 23 1981

Mr. Michael M. McElroy
Director
Department of Land Utilization
City and County of Honolulu
Honolulu, Hawaii

Dear Mr. McElroy:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

Thank you for your December 23, 1980 letter commenting on the subject EIS. Our response to your comments are as follows:

1. Diamond Head HCSD

a. View Analysis

Cross section views of the proposed campus are shown in Figures 10 through 13 of the EIS to indicate the visual effect buildings will have. The view analysis required for the Diamond Head HCSD will be made during the design stage when the detailed plans provide the necessary details.

The view analysis of Diamond Head from Kilauea and 18th Avenues seems appropriate. However, the need for view analysis from Kilauea Playground, Kaimuki Intermediate School, Fort Ruger Park, 22nd Avenue and Elepaio Street will be discussed with your office during the design stage.

b. Height Waiver

The justification is that the proposed plan is in consonance with the objectives of the Diamond Head HCSD.

c. Procedures and Schedule

No schedule is given because there is no time limit on some of the procedural items. Since

procedural requirements are spelled out in Sections 21-1204, 1205 and 1207 of the County Comprehensive Zoning Code, we do not feel it is necessary to include this in the EIS.

d. Boundaries

The HCSD and SMA boundaries will be shown on Figure 1 of the EIS.

2. Special Management Area

a. Assessment Procedure

The waiver of the assessment was noted but not included in the summary of procedural requirements. The reader can refer to Ordinance No. 4529 for details on the procedure.

b. Purpose and Review Guidelines

The sentence "Its purpose is to preserve, protect and where possible, to restore the natural resources of the coastal zone" will be added to the first paragraph of Section 4.D. of the EIS.

The proposed master plan should not affect significantly the SMA.

3. Land Acquisition

The Department of Land and Natural Resources (DLNR) controls the strip of land between the campus and Diamond Head Road. Thus, the changes indicated in Section 2.G.7. of the EIS require formal DLNR approval. No additional land acquisition funds are required.

4. CZC Limit

The Pensacola site contains 5.3 acres of land on which the CZC places three restrictions: a building setback of 30 and 15 feet from the front and side property lines, respectively; a 50% maximum lot coverage of all buildings and structures; and a maximum building height of 15 feet, or 25 feet above the high point of the buildable area boundary line if an additional building setback of 5 feet is utilized.

As indicated above, limitations on the Pensacola site are related to land area and the CZC. A waiver of height limitations is possible for the Pensacola site but a high-rise structure would be required to provide the college facilities.

5. Pensacola Site

The alternative of full utilization of the Pensacola site is similar to other suggestions made like operating a split campus, reducing the design enrollment or facilities requirement, doing another site selection study, and evaluating alternative uses of the site. Since the EIS is for the master plan of the Fort Ruger campus to meet the requirements of the college, these alternatives are not considered appropriate.

6. Funding Status

The $1,009,000 appropriation available for the first increment design has been allotted. The next funding request will be for construction of the first increment.

7. Bus Passes

This is one alternative to encourage use of the bus for transportation. However, it will increase the operating cost of the college to the taxpayers. This can be discussed with the Department of Transportation Services along with the bus service.

8. Energy Conservation/Ventilation System

We concur with your statement on planning. The college has already decided that Buildings C, E, F, portion of H, L, P, Q, R and S will be naturally ventilated. This eliminates the guesswork and permits site planning and building orientation to be determined early rather than during the design stage.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm

cc: OEQC

DEPARTMENT OF PARKS AND RECREATION

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813

NK F. FASI
MAYOR

RAMON DURAN
DIRECTOR

December 23, 1980

Mr. Harry Akagi, Acting Director
Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. Akagi:

SUBJECT: COMMENTS ON ENVIRONMENTAL IMPACT STATEMENT/MASTER PLAN FOR THE PROPOSED KAPIOLANI COMMUNITY COLLEGE AT FORT RUGER

Thank you for allowing the Department to comment on the EIS-Master Plan for Kapiolani Community College.

The proposed recreational facilities are adequate and will complement the existing park facilities and activities in the area.

Our one comment is regarding the location and grading of the ballfield area and the effect it will have on the topography of the site. The severity of the slope might possibly increase erosion and drainage problems within the recreational areas.

Warm regards.

Sincerely,

RAMON DURAN, Director

RD:vc

cc: ✓Dept. of Accounting and General Services

GEORGE R. ARIYOSHI
GOVERNOR

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

LETTER NO. (P)1087.1

FEB 6 1981

Mr. Robert K. Masuda
Director
Department of Parks and Recreation
City & County of Honolulu
Honolulu, Hawaii

Dear Mr. Masuda:

Subject: EIS for Kapiolani Community College Master Plan - Public Review Phase

This is a response to the December 23, 1980 comments on the subject EIS from Mr. Ramon Duran, former Director of the Department of Parks and Recreation. The location and grading of the ballfield area may be adjusted during the detailed design to reduce the cut slopes. However, no drainage problems are anticipated since the slopes will be designed and constructed to meet County grading and drainage standards.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

ET:jm

DEPARTMENT OF PUBLIC WORKS

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

WALLACE MIYAHIRA
DIRECTOR AND CHIEF ENGINEER

ENV 80-350

November 25, 1980

Office of Environmental Quality Control
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Re: Proposed Kapiolani Community College
at Fort Ruger Master Plan, Fort Ruger, Oahu

We have reviewed the subject EIS and have the following comments.

1. The final drainage plan for the proposed site should be coordinated with the Drainage Section of the Division of Engineering. Design criteria of the retention basin should be submitted as soon as possible since there are no City's standards on this type of facility.

2. Construction plans should be coordinated with the Divisions of Engineering and Wastewater Management.

Very truly yours,

WALLACE MIYAHIRA
Director and Chief Engineer

cc: DAGS
Div. of Engineering
Div. of Wastewater Management

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GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1053.1

JAN 26 1981

Dr. Michael Chun
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Dr. Chun:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

Thank you for your November 25, 1980 letter commenting on the subject EIS. Our responses are as follows:

1. Drainage Plan

Design of the detention basin will be coordinated with the Drainage Section of the County Division of Engineering.

2. Construction Plans

Design of the college facilities will be coordinated with the County Divisions of Engineering and Wastewater Management.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:ck

cc: OEQC

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

FRANK F. FASI
MAYOR

AKIRA FUJITA
XXXXXXXXXXXX
DIRECTOR

TE11/80-330

December 18, 1980

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement for the Proposed Kapiolani College at Fort Ruger Master Plan

We have reviewed the Environmental Impact Statement for the proposed Kapiolani College at Fort Ruger and have the following comment:

Although the project will provide off-street parking spaces in excess of CZC requirements, we believe that there will still be a high demand for curbside parking on the neighboring streets. Since these streets are unimproved, the project will accentuate the need for an improvement district for the area.

Very truly yours,

AKIRA FUJITA
Director

cc: Dept. of Accounting & General Services

230

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII

DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE M. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)3193.0

DEC 23 1980

Mr. Akira Fujita
Director
Department of Transportation Services
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Fujita:

Subject: EIS for KCC Master Plan
Public Review Phase

Thank you for your December 18, 1980 comments on the subject EIS. Our responses to your comments are as follows:

Curbside Parking

The master plan for the college shows double the number of parking stalls required by the CZC. This should reduce the demand for curbside parking on the neighboring streets. However, regardless of what this demand will be, Section 5.C.5.c of the EIS recommends that parking restrictions be implemented for the roads immediately surrounding the campus to maintain the present road capacities.

Improvement District

We concur with your statement. Section 5.C.4.h of the EIS states "...the College itself is not generating an Improvement District project, but it may accelerate that which is already proposed."

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:ck

BOARD OF WATER SUPPLY
AND COUNTY OF HONOLULU

COPY

December 22, 1980

Mr. Harry Y. Akagi
Acting Director
Office of Environmental
Quality Control
550 Halekauwila Street
Room 301
HOnolulu, Hawaii 96813

Dear Mr. Akagi:

Subject: Environmental Impact Statement for Proposed Kapiolani Community College at Fort Ruger (Master Plan)

We have the following comments on the environmental impact statement (EIS):

1. As indicated in our letter on page 122, we will not allow structures to be constructed over our easements. This measure is taken to avoid costly reconstruction should emergency work be performed in the area. The EIS should mention this.

2. To prevent potential damage to our pipeline tunnel, all pile driving or blasting work should be prohibited. This item should be included in the document.

3. We have made no commitment to serve water to the project. The University of Hawaii will be required to make the necessary arrangements with the Board to assure the availability of water for the project. This will include assisting the Board to develop new sources.

4. All construction plans must be submitted for our review and approval.

Should you have questions or require additional information, please call Lawrence Whang at 548-5221.

Very truly yours,

For KAZU HAYASHIDA
Manager and Chief Engineer

cc: Department of Accounting and General Services

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)3214.0

JAN 12 1981

Mr. Kazu Hayashida
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
Honolulu, Hawaii

Dear Mr. Hayashida:

Subject: EIS for KCC Master Plan
Public Review Phase

Thank you for your letter of December 22, 1980 commenting on the subject EIS. Our response to your comments are as follows:

1. BWS Tunnel Easement - This item is already covered in our October 16, 1980 letter on Page 123 of the EIS.

2. Pile Driving and Blasting - Section 3.B.3 of the EIS states: "Nearly solid basaltic material is encountered 2 to 6 feet below the surface throughout the site and is visible along the face and base of the steep rise." Based on this, no pile driving is anticipated.

   Section 5.C.4.g of the EIS indicates the depth to the tunnel is approximately 40 feet and Section 5.A.1 of the EIS already states: "Geological impact will be non-existent since no blasting, large excavation, or other significant earthwork is proposed."

3. Water Commitment - This item is covered in Section 5.C.4.e. of the EIS.

4. Construction Plans - This item is covered in Section 10 of the EIS.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm

232

PB 80-903

December 1, 1980

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: EIS for the Proposed Kapiolani Community College at Fort Ruger Master Plan

We have reviewed the subject EIS and have no comments to offer.

Than.. you for the opportunity to review the EIS.

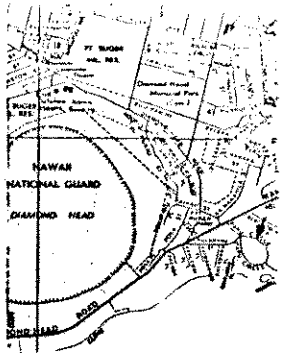
Very truly yours,

HOWARD M. SHIMA
Director and Building Superintendent

TH:jo
cc: DAGS, Public Works Div.
J. Harada.

Diamond Head
&
Association

November 29, 1980



Environmental Quality Commission
550 Halekauwila Street
Honolulu, Hawaii

Re: KCC at Ft. Ruger

Gentlemen;

The Board of this association met Tuesday evening, November 25th, immediately after receiving the Environmental Impact Statement for the proposed Kapiolani Community College at Fort Ruger. The vote was unanimous to oppose the validity of this document.

We do not agree that it fulfills the requirements of the Regulations under Sub-Part A, 1:4 (k) (l) (m).

Under Sub-Part B, 1:10 and quoting..."with a view to: the overall, cumulative impact; related actions in the region; and further actions contemplated." The document states quite baldly that the project will be constructed incrementally. Five years? Ten years? FIFTEEN YEARS? Without a Master Plan, how can an EIS approval be requested under the regulations? Particularly, in an historically residential neighborhood.

It is peculiarly true that DAGS is proceeding with this project in opposition to the Legislature's intent. In the last session, the Legislature made available $194,000 to study the applicability for higher education of both the present Kapiolani site and the Fort Ruger site. The Legislature did <u>not</u> appropriate other funds requested. The high-handed nature of this action appears to be opposed by your regulations 1:31 and 1:42 (g).

Among many reasons now in print, allow us to expand some local knowledge. We do not believe the traffic study...nor is it complete. Two examples: a) the 18th Ave and Diamond Head Road interesection has not had a thorough traffic study since August, 1971...and that was <u>not</u> a school period at Kaimuki Intermediate...also, <u>before</u> the graveyard chapel was built, <u>before</u> the Guard built its maintenance center and headquarters makai of 18th Avenue, <u>before</u> the Red Cross building was erected and <u>before</u> CBS moved to that intersection; b) we cannot find a traffic count for the most important intersection for pass-through traffic -- Makapuu at Monsarrat.

Of all the suppositions this EIS is based on, it appears the <u>most diminished</u> impact the writers describe is traffic.

sincerely,

Peyton Carroll
President

715 Palekaua Place Honolulu, Hawaii 96816

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

NIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1039.1

JAN 26 1981

Mr. Peyton Carroll, President
East Diamond Head Association
715 Palekaua Place
Honolulu, Hawaii 96816

Dear Mr. Carroll:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

This is in response to your November 29, 1980 letter on the subject EIS. Our response to your comments are as follows:

1. EIS Requirements

Since our October 16, 1980 letter responded to the specific comments contained in your July 7, 1980 letter as shown on Pages 175-186 of the EIS, we believe the EIS requirements have been met.

2. Incremental Construction

Although Table 15 of the EIS shows the proposed capital improvements program for 1981-1987, Section 1.G. of the EIS states:

> "The Master Plan for KCC will be implemented incrementally. The actual facilities and construction time for each phase will be determined by the needs of the Community College and by the availability of funding."

Based on the above, no one can state with unqualified assurance that the College will be completed within a definite period of time.

We agree with your statement: "Without a Master Plan, how can an EIS approval be requested under the regulations?" However, please note that there is a master plan which is also called the Ultimate Site Plan as shown in Figure 2 of the EIS. We do not agree

that because the master plan does not state whether it will be constructed in 5, 10 or 15 years, that it is not a master plan. As mentioned earlier, no one is in a position to give that assurance.

3. Legislature's Intent

The Legislature provided the following appropriations for KCC as listed below:

Act 226, SLH 1976, Item G-98
Kapiolani CC - New Campus Development

New campus at Fort Ruger - plans, construction, furniture and equipment for the development of a new campus. Development to consist of site development, science laboratories, classrooms, offices, learning-resources center, campus center, vocational and business education facilities and physical education facilities.

Design	$372,000

Act 243, SLH 1978, Item 86G-103
Kapiolani CC - New Campus Development

(The appropriation contained the same wording as Act 226, SLH 1976, Item G-98 above.)

Design	$637,000

The above funds have been encumbered for the first increment design. Additional funds are not required until July 1, 1981 and 1982 when construction funds are needed for Area I and Buildings B and D as indicated in Table 15 of the EIS.

The appropriation you referred to is indicated below:

Act 300, SLH 1980, Item 315A
Kapiolani CC - New Campus Development

Plans for campus development at both the Pensacola and Ruger campuses to include analysis of alternatives, assessment of on-site and off-site development plans.

Plans	$100,000
Design	94,000
Total	$194,000

Release of $100,000 has been requested to do this study.

4. EQC Regulations

Section 1:31 Significance Criteria and Procedures of the EIS Regulations concerns the following major items:

a. Consider every phase of a proposed action in determining whether or not it will have a significant effect on the environment. - This has been done.

b. Assess the proposed action. - Our assessment stated that an EIS was required.

c. File a Notice of Determination with EQC. - This was done.

d. EQC shall publish the Notice of Determination in a periodic bulletin. - This was done.

Section 1:42 Content Requirements, Item (g) Alternatives to the Proposed Action states:

> "Any known alternatives for the action which would feasibly attain the objectives of the action - even though more costly - shall be described and explained as to why they were rejected."

The alternatives to the proposed action are discussed in Section 6 of the EIS.

Based on the above, we believe we are in compliance with the EQC Regulations.

5. Traffic Study

Traffic volume counts in the area were made by the County Department of Transportation Services in 1971, 1973 and 1979. The 1973 and 1979 counts were

not as extensive as the 1971 count. However, it is not necessary to do an extensive traffic count each time since the future traffic assignment to each road is estimated as explained in the Traffic Impact Statement.

Analysis of the 1973 traffic data indicated that the peak hour volumes were generally lower than either the 1971 or 1979 peak hour volumes. Therefore, only the 1971 and 1979 traffic volume data are shown in Appendix A of the Traffic Impact Statement in the EIS. The 1973 count was made during January when Kaimuki Intermediate and other schools in the vicinity were in session. Please note that the present peak hour volume in Table 7 of the Traffic Impact Statement is based on the highest traffic count from 1971 or 1979.

The traffic at the intersection of 18th Avenue and Diamond Head Road can be estimated from Tables A2 to A4 in Appendix A of the Traffic Impact Statement. The traffic at the intersection of Makapuu Avenue and Diamond Head Road can also be estimated from Tables A3, A5, A6 and A8.

We note that the graveyard chapel, National Guard maintenance center and headquarters, Red Cross building and CBS building were already existing by 1979. Based on the above, we believe the traffic impact is adequately stated in the EIS.

Thank you for your interest in this project.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm

cc: OEQC

KAHALA COMMUNITY ASSOCIATION
POST OFFICE BOX 10404
HONOLULU, HAWAII 96816

Dec. 13, 1980

...ce of Environmental Quality Control
550 Halekauwila St., Rm. 301
Honolulu, HI 96813

Re: Environmental Impact Statement for the proposed Kapiolani Community College at Fort Ruger Master Plan November 1980 - Comments required by December 23, 1980

Aloha:

Review of the Environmental Impact Statement with consultation phase comments and appendices indicates inconsistencies and contradictions and leads to questions. Specific reference is made to the following.

1. Costs. Economic Impact data (para. 5.C., p. 72) refers to $44 million (1980 dollars). For full improvement of immediately adjacent streets, the minimum estimate (with overhead utilities) of the Department of Public Works of the City is given at $12,500,000 with the existing 30-foot right-of-way of Diamond Head Road, page 145. Mention is made to county Improvement District projects which might be implemented, with costs borne by property owners affected and partly by all Oahu property-taxpayers. The question of "affordability" thus arises.

2. Duplication of Facilities. Environmental Assessment Comments (para. 11, item 15,p. 89) state:

"The neighborhood is already served by the following parks and playgrounds which are within one mile of the campus: Kaimuki Recreation Center (2.7 acres), Kapaolono Field (5.5 acres), Kaimuki Reservoir Park (2.3 acres), Petrie Playground (4.8 acres), Kahala Field (8.8 acres), Kilauea Field (4.7 acres), Fort Ruger Park (3.2 acres), Diamond Head Beach Park A (0.7 acre), Diamond Head Park B (1.5 acres), Kuilei Cliffs (10.6 acres), Queen Kapiolani Park (96.5 acres), Waikiki Playground (3.0 acres). The area will also be served by the Diamond Head State Monument which contains over 145 acres."

Figure 2, Ultimate Site Plan (the Master Plan), page 26, indicates an extensive area off 18th Avenue and between Diamond Head Road and Kilauea Avenue for a gymnasium, swimming pool, tennis courts, softball, soccer, and football. (It is noted that Table 13 for Estimated Building Cost (p. 41) indicates lowest priority for the gymnasium, swimming pool, etc., and that capital improvements are not planned from 1981 to 1987 in the incremental development.)

Inconsistency and planned duplication seems apparent. In the Recreation Section (para. 5.C.1.b, p. 71) the statement is made:

"Implementation of the Master Plan will provide more recreational facilities than is presently available to the public."

3. Pedestrian and Vehicular Safety and On-Street Parking. There is recognition of infrastructure, on-street parking, and safety problems for pedestrians and vehicles; e.g., in the Traffic Consultant's report, correspondence, and in the text. There is no indication of when and if such problems will be solved, how coordinated, and whether there will be agreement on priorities between organizational components of the state and city/county governments for expenditure of funds. The area of the Kahala Elementary School has much experience in such matters where governmental actions have permitted or promoted expansion of Kahala Mall, the building of the Kahala Hilton Hotel, and the construction of H-1 without corrective action for impact on surrounding single-family residences.

4. Disturbance of Residents. Census tracts 6, 7, 8, and 14 are referred to under Population and Housing Statistics (para. 3.c.3, p. 49). From age, length of home occupancy, home ownership, and declining elementary, intermediate, and high school enrollment it is stated the population in this area is indicated as "stable and aging." The Architectural Guidelines (para. 2.G.6, p. 34) indicate provisions should be made for users traveling by foot and bike, as well as car or bus, because of the number of KCC students within the "community." Under Economic Impact (para. 5.C.3.b, p. 72) it is indicated that heavier traffic on adjacent streets, on-street parking problems, and some student activities may disturb some residents. Under Community-Social Impacts (para. 5.C.1.e, p.71) the adult education classes and becoming a "focal cultural and literary" point are cited. It is stated that the opportunity for interaction between the college and the community will provide "greater experiences for the student which are not presented in classroom situations." The word community is used throughout the text without qualification as to some parameters such as surrounding 2-blocks, 1 mile radius, all of Oahu, or even definition of "East Honolulu," in most cases. Community Attitude (para. 5.C.6, p. 78) recognizes community concerns for disturbances in the residential areas, traffic, and inadequacy of water, drainage, and roadways and indicates they are "discussed in this EIS." There is discussion, but there does not appear to be resolution.

5. Community Support. It was concluded, based on surveys, that there is support from the "surrounding community" for placement of the college at Fort Ruger (para. 5.C.6, p. 79). The validity of the surveys from a statistical basis as reflecting "surrounding community" attitudes is subject to question. (Most such surveys are, even when conducted by professionals, as for the recent national election.) It is noted that the five Neighborhood Boards who had representatives on the Advisory Council (p. 190) and the three Neighborhood Boards cited (pp. 78 and 79) as conducting surveys failed to comment on the "draft" EIS. This would seem to indicate that these boards had no "positions" which could readily be cited for either support or opposition. There is appeal in having facilities available for various groups and educational opportunities for youth and adults. It is noted, however, that "community colleges" from an educational standpoint and that of the Board of Regents, p. 8, specifically states:

for KCC - 3

"Career programs which may serve a limited number of students and which are expensive in terms of equipment, faculty, and space will be assigned to one campus, *particularly so on Oahu where it is possible for students to commute to a campus which does serve their needs.*" (Italics provided)

When property taxes keep being raised, the extended construction period starts, on-street parking and traffic problems increase, and improvement district assessments are made for "benefiting" property owners, additional "surveys" may be called for as incremental funding is approved.

There is no question as to the usefulness and desirability of a community college system as described in paragraph 2.D. (pp. 7-8). There are questions, inconsistencies, and contradictions as indicated above with relation to the EIS for a 52-acre campus at Fort Ruger.

Draft of these proposed comments was discussed and approved unanimously by the Directors of the Kahala Community Association at regular meeting on December 11, 1980.

Mahalo for your consideration,

KAHALA COMMUNITY ASSOCIATION

Adeline Schutz

Adeline Schutz, Vice President
Governmental

cc:
Proposing party: Dept. of Acctg. & Gen. Svcs.,
Div. of Public Works, P O Box 119,
Honolulu 96810
Each member of NB#3 (9)
Councilmembers Clement & Nekota
State Senators Cobb, O'Connor, Saiki, & Soares
State House Members Rohlfing & Marumoto
Save Diamond Head Association; E. Dia. Hd. Assn.; W. Dia. Hd. Assn;
Kapahulu Comm. Assn.; Black Point Assn.
Outdoor Circle
Pres. KCA; Trans. Ctee KCA

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1037.1

JAN 26 1981

Ms. Adeline Schutz
Vice President, Governmental
Kahala Community Association
P. O. Box 10404
Honolulu, Hawaii 96816

Dear Ms. Schutz:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

This is in reply to your December 13, 1980 letter regarding the subject project. Our response to each item of your concerns is attached. Please note that some of these items have been separated to better focus on your concerns.

We trust that your questions have been answered and that inconsistencies and contradictions have been resolved. Thank you for your interest in this project.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm
Attach.
cc: OEQC

EIS FOR KAPIOLANI COMMUNITY COLLEGE
MASTER PLAN - PUBLIC REVIEW PHASE
RESPONSE TO DECEMBER 13, 1980 COMMENTS
FROM MS. ADELINE SCHUTZ

1. Costs

Since the college is not generating the need for the improvement district, the question of "affordability" should be split into improvement district and campus development. For the improvement district, the community should decide whether or not they want to implement an improvement district to bring their area up to standards according to the County General Plan because the affected property owners will pay part of the cost. This question must be answered regardless of whether or not the college is developed at Fort Ruger.

As to the need for the community college development, the University of Hawaii Board of Regents has exercised its constitutionally mandated responsibility and has determined the need. This decision has been supported by the Governor and the legislature.

2. Duplication of Facilities

The response you quoted from page 89 of the EIS was made in regards to the comment that "the 6-acre park area within the Fort Ruger site should be preserved and used for an urban park by the surrounding community." It indicated that the community was already served with many park facilities.

The item you quoted from page 71 of the EIS was a simple statement concerning the socioeconomic impact of the college facilities on recreation. Those recreational facilities are planned to serve the needs of the college program first. While a side benefit will be the provision of more recreational facilities for community use, this is not their primary purpose. Therefore, there is no inconsistency or planned duplication.

3a. On-Street Parking

The master plan provides 1,200 parking stalls on campus which is twice the number required by the County Comprehensive Zoning Code. This should reduce the normal demand for on-street parking. Additionally, the Traffic Impact Statement recommends that parking be restricted during certain daytime hours on the roadways surrounding the campus. An alternative to this is to utilize one way traffic which would permit parking on one or both sides of the street. Therefore on-street parking is not anticipated to be a major problem. However, any specific action to implement parking restrictions will require County approval.

3b. Pedestrian and Vehicular Safety

The Traffic Impact Statement indicates that the existing streets surrounding the campus are adequate for the projected peak traffic but that restriction of on-street parking should be considered. Restricting on-street parking during certain daytime hours should maintain the capacity of the roadways for traffic and improve pedestrian and vehicular safety because of better sight distance. The feasibility of implementing one way traffic patterns on certain streets will also be explored.

4a. Community

Qualification of the term "community" as used in portions of the EIS are as follows:

a. Population and Housing Statistics (3.C.3.)

The communities discussed in this section are well defined. The first is the immediately surrounding area of Census Tracts 6, 7, 8, 14 and 16; the second is the Primary Urban Center from Waipahu to Waialae-Kahala; and the third is the Urban Fringe area from Aina Koa to Hawaii Kai.

b. Pedestrian and Vehicular Accessibility (2.G.6.1e.)

The bulk of the students walking and riding bicycles to the campus will probably come from the communities between Kapahulu to Waialae-Kahala.

c. Property Tax (5.C.3.b.)

The portion of the community that may be affected by student activities would be those residences along 18th Avenue near the athletic facilities.

The on-street parking by students will probably be limited to three blocks from Makapuu Avenue and two blocks from Kilauea and 18th Avenues along the campus. The heavier traffic will affect the communities within Census Tracts 6, 7, 8, 14 and 16.

d. Community - Social Impacts (5.C.1.e.)

The "community" from the standpoint of educational offering covers the McCully-Manoa to Koko Head areas for the general education and the liberal arts programs and the entire State generally for special occupational programs. The comments on offering adult education classes, and serving as the focal cultural and literary points, refer to the McCully-Manoa to Koko Head communities. (Please refer also to related response to your comments relative to Section 5, "Community Support.")

e. Statement of Need for the Relocation (2.C.)

The term "East Honolulu" as used in Section 2.C. of the EIS is defined therein as the Kaimuki to Koko Head community.

4b. Community Concerns

Resolution of various items are covered in the EIS as follows:

a. Drainage

A detention basin will be used until the County system is improved.

b. Water

Requests for water commitment and connection will be made to the BWS for each increment of development. The BWS charges a water connection fee which is used to develop and improve new water sources, transmission systems and storage facilities. This procedure applies to almost every new construction project on Oahu including private subdivision developments.

c. Traffic

The master plan provides 1,200 parking stalls on campus which is twice the number required by the County. This should reduce the normal demand for on-street parking. The planned parking areas have been distributed around the campus to reduce college traffic on the surrounding streets. The Traffic Impact Statement indicates the existing roadways, except Diamond Head Road, are adequate to accommodate the anticipated peak traffic and recommends that on-street parking be restricted around the campus. Turning lanes will be provided for the Diamond Head Road entrance to minimize traffic delays.

d. Roadways

Implementation of Improvement Districts to upgrade the roadways to County standard are left up to the people to decide. Although the college itself is not generating the Improvement District, it may accelerate its implementation.

5. Community Support

a. Surveys

The survey of the Waialae/Kahala Neighborhood Board conducted by the Board indicated a ratio of almost 3 to 1 in favor of the college development while the survey of the Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board, again, initiated and conducted by the Board indicated a ratio of 2 to 1 in favor of the campus development. While it may be said that surveys are subject to a margin of error based on the number of responses and number of people in the area and other factors, this method has been utilized by groups such as Neighborhood groups to assess community viewpoints on numerous other issues. The significant ratio of those in favor of the community college provides justification for the statement that "there is support from the surrounding community for placement of the college at Fort Ruger."

The lack of Neighborhood Board comments on the draft EIS does not negate the community survey results supporting the college at Fort Ruger. It only means they did not wish to comment on the draft EIS. Comments have been received from Neighborhood Board No. 3 during this Public Review Phase.

b. Board Positions

The EIS is a written report which describes what will probably happen to the environment should a project be implemented. Its purpose is to help ensure that environmental concerns are considered in making governmental decisions. Thus, Boards are not asked to take a position for or against the college or the EIS but to comment on the environmental impact information.

c. Community College

We are happy that your organization agrees with the usefulness and desirability of the community college system.

You quote from a statement of the University Board of Regents, taken from page 8 of the EIS. we call your attention also to page 7 of the EIS in which the former President Harlan Cleveland describes the five-fold purpose of the community colleges. The fulfillment of these stated purposes, with the exception of the offering of special technical, vocational and semi-professional skills training, necessitates the location of the campus within a given geographic community. This is the basis upon which the seven campuses of the U.H. community colleges were located and developed.

d. Additional Surveys

It is hoped that the Neighborhood Boards will continue to take surveys of their people as the college is developed so that their input can be utilized and their concerns better resolved.

WAIALAE-KAHALA NEIGHBORHOOD BOARD NO. 3
P. O. BOX 10425
HONOLULU, HAWAII 96816

December 18, 1980

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

The Board appreciates the opportunity to review and comment on the Environmental Impact Statement (EIS) for the Kapiolani Community College at Fort Ruger (Master Plan) dated November 1980.

Representatives of the University, this Neighborhood Board, and others have made efforts to obtain community participation and to inform residents of plans for the college. However, it is not considered that the residents of communities near the affected area are fully aware of the ultimate costs to be borne by the taxpayers as a result of county, as well as state, improvements accelerated, if not required, by the project and of various environmental and social aspects. A major cost item, not emphasized to the residents, is given in letter from the City and County Transportation Services Department (shown on EIS page 137). Mr. Akira Fujita, responding to request, states that all four streets surrounding the project must be widened for traffic and also two blocks around for parking. The City and County Public Works Department (on page 145) gave an estimate of $12.5 to $16 million for improvement of such adjacent streets. No cost estimate was given for matters relating to land, engineering, inspection, and adjustments at the property line.

Survey conducted by the Kapiolani Community College (pages A-30 to A-41) emphasized benefits, with little consideration of costs and impact. Survey conducted by this Neighborhood Board (page 79) indicated 63% of 430 residents voting in the board election favored a Fort Ruger location. Both of these surveys were conducted before the draft and final EIS, providing more details, were issued. Further, the limited distribution and availability and sheer volume of material in the EIS has done little to inform the general public. The environmental, social, and economic impact of such a project is difficult to explain briefly.

It is believed greater consideration should be given to those who have attended available informational meetings and have studied the project as presented in the EIS documents. The directors of the surrounding community associations for East Diamond Head, West Diamond Head, and Kahala have reviewed the project in more detail and have submitted comments.

In response to the EIS of November 1980, the following are specifically noted:

1) There has been no significant satisfactory resolution of the many problem areas previously commented on by state and county agencies, community associations, and others as a result of the October 1974 Environmental Assessment Comments (pages 86 to 89) and the "draft" EIS and Traffic Analysis circulated in May 1980. From detailed correspondence incorporated in pages 96 to 197 of the EIS, it appears that various agencies, organizations, and individuals have addressed many environmental, social, economic, and educational facets which bear on the project.

2) There is no objective data supporting the relocation to the Fort Ruger site in terms of projected attendance; character and growth of areas surrounding the site; accessibility; or needs for the variety of programs ultimately proposed. Nor has there been objective justification for this high-impact project in a primarily residential area, with various institutional uses already existing.

3) Many aspects of traffic, drainage, sewage, and other environmental impacts (such as dust during a protracted and indefinite construction period) are left unresolved. Many of these problems involve divided and undecided responsibilities of the State and the County. The costs of corrective measures are not addressed or are obscured.

4) There has been no objective study of alternative sites, if indeed an alternative to a fully-developed facility at Pensacola is needed. The 1965 alternative site study approaches the ridiculous as only a few impracticable sites were considered. The 1980 legislative mandate to study the inner-city versus residential area location has been ignored. While, as stated, it may not be a function of the EIS to evaluate the potential for other uses of the Fort Ruger site (originally intended for the University Medical School), this 52-acres of essentially vacant land should be considered for uses which would impose fewer problems affecting not only the surrounding areas but also island-wide land use and economic considerations. An update of a 15-year-old study in terms of current and projected enrollment for the community college and for land use in the surrounding areas, over-all fiscal considerations, and current educational needs is considered mandatory.

5) The scope of the facilities being proposed seems to exceed those considered compatible with the concept of a "central-city" educational complex for the improvement of employable skills. Recreational facilities shown on the site plan duplicate some already existing or programmed. The strict application of standards for educational institutions are unrealistic in terms of current state land availability and fiscal constraints. The future operating and maintenance costs are ignored. The projected long and indefinite construction period makes total costs undefinable. Ignored are ultimate costs directly identifiable to the Community College as well as for ultimate costs for other institutions and residences in the area and the state and county tax burdens.

6) There is no indication that instructional quality will be improved for those seeking job skills or that indicated adult recreational and educational activities are needed in addition to those currently planned or available from other public and private sources.

Neighborhood Board No. 3 at its regular meeting on Dec. 18, 1980 voted unanimously not to support the Environmental Impact Statement as presented. Consideration was given to the presentations and objections of various community associations. Neighborhood Board No. 3 agrees that until such time as the problems cited by the community associations are resolved, we object to acceptance of the EIS in its present form.

Sincerely yours,

Howard Y. Fukuda

Howard Y. Fukuda
Chairman

cc:
Proposing agency: State DAGS; State Senators Cobb, O'Connor, Soares & Saiki
Governor of Hawaii; State Representatives Rohlfing and Marumoto
Mayor, City and County of Honolulu
Chairman & Members of the City Council,
C&C of Honolulu
Community Assns. in area of NB #3
NB's #2, 4, 5, and 6
N.C. Files
NB #3: DAO & P&Z Cttees; Secy.

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1041.1

JAN 26 1981

Mr. Howard Fukuda
Chairman
Waialae-Kahala Neighborhood
Board No. 3
P. O. Box 10435
Honolulu, Hawaii 96816

Dear Mr. Fukuda:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

Thank you for your December 18, 1980 letter to the Office of Environmental Quality Control on the subject EIS. Responses to your comments are attached. Please note the following:

(1) The responses have been split according to the various topics discussed to permit better focus on your comments and concerns.

(2) We have attempted to answer all of your questions and respond to your concerns succinctly.

(3) The EIS is a written report which describes what will probably happen to the environment should a project be carried out. Its purpose is to help ensure that environmental concerns are considered in making sound governmental decisions.

Based on the above, we believe the EIS meets the requirements as set forth by the Environmental Quality Commission.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm
Attach.
cc: OEQC

EIS FOR KCC MASTER PLAN
PUBLIC REVIEW PHASE
RESPONSE TO DECEMBER 18, 1980 COMMENTS
FROM WAIALAE-KAHALA NEIGHBORHOOD BOARD NO. 3

Responses to General Comments

1. Community Awareness

We recognize the difficulty of making residents fully aware of various projects planned in their community because of the time and money required and the general apathy of many people. However, we congratulate your Neighborhood Board for the work it did on informing the community of plans for the college, obtaining community input, and becoming involved with planning for the college. It is hoped that with several members of your community on the KCC Advisory Committee and your Board's continued interest and involvement in the college planning, the concerns of the community can be resolved.

2. Road Widening Cost

We do not know what information and conditions were given to the County or what assumptions were made for their response to Senator Neil Abercrombie. Therefore, we had no comment on the need to widen the roads. However, we do know the following:

a. The master plan provides 1,200 parking stalls on campus which is twice the number required by the County CZC. This should reduce the normal demand for on-street parking.

b. The Traffic Impact Statement contained in Appendix IV of the EIS indicates the existing roadways surrounding the campus, except Diamond Head Road, are adequate to accommodate the anticipated peak traffic flow. The peak traffic on Diamond Head Road already exceeds the desirable capacity of the roadway.

c. The Traffic Impact Statement recommends that parking be restricted during certain daytime hours on the roadways immediately surrounding the campus. An alternative is to utilize a one way traffic pattern which would thereby permit parking on one or both sides of the street. Therefore, any street widening would be the result of implementing the County's General Plan for the area rather than accommodating the potential college traffic.

d. Street widening should be financed through the Improvement District process as discussed in Section 5.C.4.h. of the EIS and not through the college. Please note, however, that the college itself is not generating an Improvement District project, but it may accelerate that which is already proposed.

Based on the above, the cost of road widening is not included as a cost of the college.

3. Surveys

The survey conducted by KCC in cooperation with Neighborhood Board No. 4 was a community needs assessment study. Therefore, it does not cover matters of cost and impact which is what this EIS is for. The conditions under which your survey was taken are acknowledged. However, we understand that these surveys are commonly used by community-based organizations including the Neighborhood Boards to ascertain constituent viewpoints.

4. Informing the Public

We believe adequate public notice was given by the EQC Bulletin and newspaper articles on the college and the EIS. Copies of the draft EIS were sent to all individuals who requested a copy and automatically to all known community organizations in the area during the EIS Consultation Phase. Copies of the EIS during the Public Review Phase were distributed to community organizations and libraries in the area. Thus, those who were interested had ample opportunity to review the EIS during the Consultation and Public Review Phases.

5. Volume of Material

We agree that it is difficult to explain briefly the environmental, social, and economic impact of such a project. It appears the more detailed information provided in the EIS, the less the general public will read. However, organizations and individuals continually request more detailed information.

6. Weighted Comments

In regards to the suggestion that "greater consideration" be given for comments from various individuals and/or organizations, our response is that all comments are treated equally in that appropriate responses should be made to all comments received.

Responses to Specific Comments

1. Resolution of Concerns

As you noted, there were many questions, comments, and concerns expressed by agencies, organizations, and individuals during the Consultation Phase on environmental, social, economic, and educational facets which bear on the project. However, we have provided appropriate responses to all of them as indicated in pages 96 to 197 of the EIS. The impacts are discussed in various sections of the EIS.

2a. Relocation Justification

a. Justification based on projected attendance is included in Appendix V of the EIS.

b. Character and growth of the areas surrounding the site are covered in Section 3 of the EIS.

c. Accessibility is covered in the Traffic Impact Statement in Appendix IV of the EIS.

d. The need for the variety of programs are basically demonstrated by the college's Educational Development Plan, its enrollment growth as well as by community needs assessment and analyses of State manpower trends and needs.

2b. Site Selection

A portion of the 1965 Site Selection Study, which selected the Fort Ruger site, is contained in Appendix I of the EIS. This EIS is to expose the environmental consequence of developing the college according to the proposed master plan.

3a. Impacts

The impacts of traffic, drainage, sewage, and other environmental impacts are covered in the EIS. In regards to your specific comment on dust, this is covered in Sections 5.A.3.d. and 5.A.3.h. of the EIS.

3b. Undecided Responsibilities

Governmental responsibilities are split between the State and County and within the departments of these governmental bodies. The responsibilities are spelled out according to Federal and State statutes and regulations, executive directives, agreements, etc. While there may be some differences, we do not agree that there are "undecided responsibilities."

3c. Cost of Corrective Measures

The cost of major items are contained in Section 2.I. of the EIS. The cost of corrective measures, such as dust control, are included in the construction cost.

4a. Alternative Sites

This EIS is for the Master Plan of the KCC Fort Ruger Campus and not a site selection study. Therefore, no alternative sites were considered. The 1965 Site Selection Study considered 17 potential sites as discussed in Appendix I of the EIS. The choices then, as now, are very limited in finding large undeveloped land for the college.

4b. Legislative Mandate

The appropriation you referred to is Act 300, SLH 1980, Item 315A which states:

> "Kapiolani CC - New Campus Development Plans for campus development at both the Pensacola and Ruger Campuses to include analysis of alternatives, assessment of onsite and offsite development plans."

A request has been initiated for release of funds to do the study. Please note that this appropriation gives the Executive Branch of State government authority to expend a certain amount of funds according to the wording of the appropriation. It does not order that it be done.

4c. Alternative Uses

As indicated in Item 4a. above, this EIS is for the Master Plan of the KCC Fort Ruger Campus. Therefore, comments on alternative uses of the site or another site selection study are not appropriate.

The educational programs of the college are discussed in Section 2.F.1., the enrollment projections are contained in Appendix V, and the land use is discussed in Section 4 of the EIS.

5a. Facilities

a. The educational specifications for the college were developed from consultation with program instructors to determine the delivery systems to be used, the learning activities that will take place, and the desirable learning environment necessary to facilitate the teaching and learning process. Neither Kapiolani Community College nor any of Hawaii's other community colleges has ever had its mission defined as a "central city educational complex for the improvement of employable skills." The mission of KCC and other community colleges as defined by the legislature and the BOR is to serve as comprehensive institutions offering not only two year career programs but also liberal arts and community education programs. This much broader concept of the community college's role is as appropriate to the Diamond Head Campus location as it is to the Pensacola site.

b. The recreational facilities shown on the plans are to meet the needs of the students whereas the existing recreational facilities in the area are to meet the needs of the community. Therefore, they are not considered to be a duplication.

c. We do not feel that planning for the Fort Ruger Campus is unrealistic. The present site is adequate and available. The present State administration has been imposing fiscal constraints for many years, which means that individual projects proposed must be given a high priority by the requesting agency (i.e. the University) and the State administration. Accordingly, the development of KCC's Diamond Head Campus has received a high priority within the University's Capital Improvement Program Request for Biennium 1981-83, and corresponding support in the Executive Budget.

5b. Costs

a. The operating and maintenance cost of the college is projected at approximately $789,000 for the 1980-81 and $1,586,000 for the 1986-87 fiscal years. This includes the O&M cost of new buildings that are projected to be in operation at the Fort Ruger campus. All cost items have been escalated except for maintenance personnel. The cost for faculty and staff are not included.

b. Total cost of the college is given in the EIS based on the value of 1980 dollars. Costs can be projected into the future by assuming a construction timetable and inflation factor.

c. All construction costs of the college are included in Tables 13 and 14 of the EIS. Cost of other items such as that for possible road widening are included in the EIS correspondence but are not part of the cost of the college as discussed therein.

d. The 1980 cost of the college is about $55/person. This will be paid through State revenues since the higher education system is a State responsibility. No County funds are anticipated for the college.

e. In addition, costs for road and drainage improvements, which are required regardless of whether or not the college is developed at Fort Ruger, would be split between the State, County and Property Owners.

6a. Instructional Quality

The overall quality of instruction cannot be separated from the adequacy of the facilities. Please note that the development of the facilities at the Fort Ruger site is to provide facilities needed to serve the currently enrolled students as well as to assure the future students of proper educational environment and services.

6b. Adult Recreational and Educational Activities

No special or additional facilities are being provided for the adult education program. Such programs which are part of the overall mission of a community college will utilize the facilities for the regular instructional program.

22ND AVENUE COMMUNITY ASSOCIATION

December 22, 1980

Dept. of Accnting & Gen Services
Division of Public Works
P. O. Box 119
Hon., HI 96810

Re: EIS for Kapiolani Community College at Fort Ruger

Gentlemen;

The 22nd Avenue Community Association has been participating in the public input for the planning of the proposed Kapiolani Community College at Fort Ruger because we are vitally concerned about the environment of our community. We represent 200 families, some of whom live in the immediate area of the proposed college. We are in favor of higher education but not at the expense of ruining the residential setting of our neighborhood.

We wish to make three comments:

1. We would like to continue participation in the public input for the planning of the college.

2. We desire a definite limit to the number of students enrolled at the college. The planned buildings and facilities appear adequate for about 5,000 students. We desire that it be written in the plans for the college that 5,000 students and the planned buildings and facilities be the limit to the college. We do not want the explosive growth of the University of Hawaii Manoa happen here in our neighborhood.

3. The drainage of heavy rain has not been adequately addressed in the EIS. City and State engineers will attest that the drainage canals in Waialae-Kahala are too small to handle any heavy rain even without the building of the college. After the college is built, the heavy rain falling on the college can end up in the Waialae-Kahala drainage canals which will then back up and overflow if filled to capacity. The low-lying areas near Kilauea Avenue, Hunakai and Luawai Streets will be flooded.

Sincerely,

William Chinen

William Chinen, President
22nd Ave. Comminity Association

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119 HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1024.1

JAN 22 1981

Mr. William Chinen
President
22nd Avenue Community
Association
Honolulu, Hawaii

Dear Mr. Chinen:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

Thank you for your December 22, 1980 letter commenting on the subject EIS. Our response to your comments are as follows:

1. Public Input - Your organization's continued participation in the planning for the college is appreciated and welcomed by the University.

2. Student Limit - Section 2.D. of the EIS contains a policy statement by the Board of Regents on student limits. It indicates community colleges should not exceed 5,000 full-time equivalent students. Section 2.F.1. of the EIS on Educational Specifications further restricts student enrollment by using a maximum enrollment of 6,000 head-count students.

3. Drainage - The drainage problem is covered in Section 5.C.4.C. of the EIS. The drainage proposal does not solve the present drainage problem but it also does not add to it.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:ck

December 22, 1980

Office of Environmental Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

SUBJECT: PROPOSED KAPIOLANI COMMUNITY COLLEGE AT FORT RUGER MASTER PLAN
ENVIRONMENTAL IMPACT STATEMENT

As a resident of 848 16th Avenue, Honolulu, Hawaii, I would like to comment on your Environmental Impact Statement which was prepared on the Proposed Kapiolani Community College at Fort Ruger. Particularly the Traffic Impact Statement prepared by Mr. Tuck Au.

The Traffic Impact Statement looks good, ON PAPER. But like anything else done with estimations, what looks good on paper does not always come out that way in actuality. What Mr. Au may have failed to consider is the age and type of drivers that will make up this increase in traffic. If Mr. Au does not understand why this should make a difference, perhaps he should spend at least a day or two on 16th Avenue, between Kilauea and Pahoa Avenues, while school is in session (especially before and after classes) and see for himself how some of these idiots drive.

Sixteenth Avenue is an improved street with sidewalks, but is not wide enough for two-way traffic. Cars can be parked only on one side of the street going makai, so cars traveling in that direction have to pull over to let oncoming cars pass. If it is suggested that no parking be permitted on 16th Avenue, then we don't need a community college at Diamond Head.

My main concern and complaint is the increase in traffic as well as SPEEDING traffic to and from the 16th Avenue campus gate. Sixteenth Avenue is a local street and not designed to handle that type of traffic. The speed limit is 25 miles per hour, but most of the traffic, which is likely to be going to and from campus, exceed that speed limit.

The Sixteenth Avenue gate should be closed permanently. If that cannot be done, then perhaps the campus should be moved to a more suitable location without having to disrupt a nice and quiet residential neighborhood.

Sincerely,

Walter T. Kunihiro
Post Office Box 1194
Honolulu, Hawaii 96807

cc: Department of Accounting and
General Services
Honorable Neil Abercrombie
Honorable Tom Nekota
Neighborhood Board No. 4, Kaimuki

GEORGE R. ARIYOSHI
GOVERNOR

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

LETTER NO. (P)1031.1

JAN 23 1981

Mr. Walter Kunihiro
P. O. Box 1194
Honolulu, Hawaii 96807

Dear Mr. Kunihiro:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

Thank you for your December 22, 1980 letter commenting on the subject EIS. Our response to your concerns are:

1. Traffic Impact Statement:

It is recognized that anytime projections are made, there is a margin of error in what may actually occur. To reduce the margin of error, the consultant chose to be conservative in estimating the traffic loading on any one street as discussed in the Traffic Impact Statement.

2. Parking Restrictions:

The Traffic Impact Statement recommends that parking be restricted on the roadways around the campus. This restriction can be made for certain daytime hours. An alternative is to utilize one way streets which would thereby allow parking on one or both sides of a street.

3. Speeding:

The college conducted a visual survey of the traffic on 16th Avenue during certain times of the day over a two week period, ran a road test for visually judging speed and discussed speeding with police officers in the area. The results and conclusions were:

a. The police officers have not noted any regular speeding problems in the area.

b. The posted speed of 25 mph may appear to be very fast to someone on the side of the road.

c. Some of the cars may have exceeded the speed limit of 25 mph, but most of these cars which appeared to be speeding did not enter or come from the 16th Avenue gate.

The college will continue to seek HPD's assistance in monitoring the flow of traffic on 16th Avenue to discourage speeding. If any speeding problems do develop in the future, the college will work with the County to control this matter.

4. Increased Traffic:

The college will generate additional traffic which is unavoidable. Closing the 16th Avenue gate will not stop traffic from using 16th Avenue or speeding. It may reduce the traffic on 16th Avenue but this will increase the traffic on another street. The plan is to disburse the traffic as much as possible so the impact is minimized.

5. Alternative Location

The EIS indicates the college is needed and desired but will unavoidably impact on the neighborhood. However, this impact is probably much less than relocating to another area and displacing many homes and businesses.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm

cc: OEQC

HAWAIIAN ELECTRIC COMPANY, INC.
Box 2750 / Honolulu, Hawaii / 96803

December 15, 1980

ENV 2-1
NV/G

Office of Environmental Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Sirs:

We have reviewed the Environmental Impact Statement that was prepared for the proposed Kapiolani Community College at Fort Ruger and find it to be a thoroughly documented statement. We have no further comments to make at this time.

Sincerely,

Richard L. O'Connell
Manager, Environmental Department

RLO:cal

Enclosure

cc: State of Hawaii, DAGS
Division of Public Works
P.O. Box 119
Honolulu, Hawaii 96810

248

RICHARD S. H. WONG
PRESIDENT

DUKE T. KAWASAKI
VICE PRESIDENT

JOSEPH T. KURODA
MAJORITY LEADER

ANSON CHONG
GEORGE H. TOYOFUKU
ASSISTANT MAJORITY LEADERS

NORMAN MIZUGUCHI
MAJORITY FLOOR LEADER

DANTE K. CARPENTER
MAMORU YAMASAKI
PATSY K. YOUNG
ASST. MAJORITY FLOOR LEADERS

CHARLES M. CAMPBELL
MAJORITY POLICY LEADER

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CHAIRMAN EMERITUS

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STANLEY I. HARA
JOHN T. USHIJIMA

SECOND DISTRICT
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THIRD DISTRICT
RALPH K. AIKU
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MARY GEORGE

FOURTH DISTRICT
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SIXTH DISTRICT
NEIL ABERCROMBIE
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ANSON CHONG
WADSWORTH YEE

SEVENTH DISTRICT
STEVE COBB
DENNIS O'CONNOR
PATRICIA SAIKI
W. BUSDY BOARES

EIGHTH DISTRICT
GEORGE H. TOYOFUKU

The Senate
The Tenth Legislature
of the
State of Hawaii

HONOLULU, HAWAII

December 12, 1980

Room 227
548-7513

TO: Office of Environmental Quality Control

FROM: Senator Neil Abercrombie, Chairman
Committee on Higher Education

RE: EIS/Master Plan for the proposed Kapiolani Community College at Fort Ruger project

The "response" to my comments on the Draft EIS for the proposed Kapiolani Community College at Fort Ruger was woefully inadequate, devoid of reality (fiscal or otherwise) and generally lacking in answers to the questions raised in my comments (i.e., the most serious problems facing construction of a new campus at Diamond Head). The "response" was so inadequate concerning the questions raised that time will not permit a point-by-point analysis at this time. However, the following are illustrative of the inadequacies of the EIS document and why it should not be accepted.

-The enrollment figures, even through 1986, contained in the University's projections in the State Higher Education Functional Plan differ from those contained in the new EIS Appendix 5. Which set of figures accurately reflect the projected enrollment? If the Functional Plan figures are inaccurate, why were they used in a document based on a long-range for the University System? Was the information in EIS Appendix 5 not available when the work was conducted to prepare the Higher Education Fuctional Plan? Also, what is the difference between a "projection" (which I assume to be official since it is footnoted) and an "unofficial projection" which is cited and utilizes the same University source?

-In response to my question concerning the lack of a cost/benefit analysis, it is stated that "We presently do not have any effective method available for measuring the cost/benefit ration of the educational system."

-With respect to cost, it is ridiculous not to include a portion of the actual total cost simply because it is not a part of the University's capital improvments budget. This aspect fails to recognize that it is not the University or the Department of Health who will be paying for this or any other capital project - it is the taxpayers of the State of Hawaii.

-With respect to my comment that the project is based on 1980 dollar figures, this not only neglects reality but clearly shows that unrealistic (low) cost figures are being utilized to keep the cost of the project down - that is, on paper. It should be noted that Table 15 in the EIS indicates that site development for Area I is not scheduledto begin until 1881-82, however, on the following page of the EIS it is stated that " ... the best cost figure to use now is the cost in 1980 dollars."

-Concerning my comment on the widening of the surrounding streets (based on information I received from the Department of Transportation Services, City and County of Honolulu), the response stated that there was " ... no comments on the County's statement ..."

-I reiterate my point that the Educational Specifications are inflated and do not bear any relation to the real needs of the school. My analysis of the Educational Specifications (included as an attachment to my original comments) clear shows this.

-When I questioned the amount of time during the day that the 1,200 parking stalls would be empty, it was noted, in response, that "Each parking stall will be vacant an estimated average of about 40% of the time between 7:00 a.m. and 6:00 p.m."

-With respect to finding sources of potable water, the response to my comment states: "A commitment for water service will be requested from the Board of Water Supply when the first increment design is implemented. The Commitment will be made, if water is available, at the time the request is received." (emphasis added)

-It should be noted that there will be a charge for parking. This points out that those who do not and/or cannot afford to pay for parking will park off-campus on the surrounding residential streets.

-How can it rationally be maintained that there will be no need for an increase in fire and/or police protection if there is to be a campus constructed which will accomodate up to 9,000 students?

-"Support" for the college, based on community surveys is suspect as the EIS does not outline the extent and scope of the plans for such a new campus at Diamond Head; methodology utilized for the surveys; over what period of time there were conducted and how many people were interviewed.

-The EIS notes that the repaving of the County roadways is the responsibility of the County and there is no estimate of the cost.

Obviously, costs for such work should be included in the TOTAL COST figure for such a project as this is a valid point which the taxpayers of the County, State or specific area will incur.

There is simply no need to go further with this litany. It could go on and on because the so-called rejoinders amount to little more than non-sequiters.

The facts are this EIS is a fraud on its face. There is no more substance to its fiscal claims than water in a sieve. It doesn't even pretend to have any claims educationally other than to associate unsubstantiated building "needs" in the most general way with program abstractions.

This EIS should be rejected. If the Office of Environmental Quality Control is at all desirious of maintaining its credibility, no other course of action is available. The basic environmental questions, in relation to land utilization, water, drainage, utilities, improvements (off and on-site), etc., are either avoided or glossed over with what amounts to "we'll spend whatever we need whenever we need to do so."

The Fort Ruger project is a glaring example of government bureaucracy making a decision before hand and then working backward to justify it, no matter how adversely it effects the taxpayer.

There is not a single person who would last one second on the job in private business activity if he or she was to approve an open-ended invitation to throw private money into a bottomless well of expenditure. Yet, when it comes to government spending (i.e., the taxpayer's money), expense is not object; justification is charade; the obligation to be accountable a superficial pose.

These projects have not heretofore received the scrutiny they require. Those days are now past. The public will no loner tolerate rampant waste in government, and rightly so. When legitimate environmental questions are asked and answers are not forthcoming that cannot withstand even cursory examination it becomes clear why laws were written to require an EIS.

In this instance, the process has exposed glaring weaknesses in a proposal. It is an opportunity for the Office of Environmental Quality Control to carry out the mandate of the law to protect the public from deception and bureaucratic empire-building.

cc: Division of Public Works ✓
Department of Accounting & General Services

FEB 18 1981

Honorable Neil Abercrombie
Senator
State Capitol
Honolulu, Hawaii

Dear Senator Abercrombie:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

This is in response to your December 12, 1980 letter to the Office of Environmental Quality Control (OEQC) on the subject EIS. As indicated in our October 16, 1980 letter to you, this EIS is for the master plan developed for the KCC Campus at Fort Ruger and not a site selection study. However, we have attempted to answer all of your many questions succinctly during the EIS Consultation Phase as indicated on Pages 158-171 of the EIS.

To avoid generalities regarding the October 16, 1980 responses, we need to respond again, point-by-point, to those items which you cited as illustrative of the inadequacies of the EIS document. These responses are contained in the attachment. Based on the attached responses, we believe the EIS meets the requirements as set forth by the Environmental Quality Commission.

Respectfully,

HIDEO MURAKAMI
State Comptroller

SS:jm
Attach.

bcc: Governor's Office

EIS FOR KAPIOLANI COMMUNITY COLLEGE
MASTER PLAN - PUBLIC REVIEW PHASE
RESPONSE TO DECEMBER 12, 1980 COMMENTS
FROM SENATOR NEIL ABERCROMBIE

Section and item numbers in parentheses refer to the initial responses provided by DAGS letter of October 16, 1980.

Enrollment Figures (Section 1.C., Item 5)

The 1980-86 enrollment projections for KCC, included as Attachment 1 to your July 14, 1980 letter, were extracted from the State Higher Education Functional Plan. Based on this, you questioned the need to expand KCC since the figures indicated a leveling-off and subsequent decline of enrollment in the 1980's. These projections, which are shown on Page 135 of the EIS, were prepared in December, 1979 by the UH Office of Institutional Research and Analysis based on the following assumptions which will be listed in Appendix V of the EIS.

1. Enrollment of new students entering directly after graduation from Hawaii high schools will be the same percentage (of the projected number of high school seniors in the previous year in the school district(s) from which most of the students came) as in Fall 1979.

2. Enrollment of new students with other local high school background or GED certificate will vary according to the least-square trend of the past five years through Fall 1982 and be constant thereafter.

3. Enrollment of new students from out-of-state high schools will be the same percentage of total new students as in Fall 1979.

4. The distribution of new students by broad program area on each campus will be based on the estimated Fall 1979 relationship between new students by broad program area and by high school background. New students entering directly from Hawaii high schools will be distributed to broad program areas in the same pattern as Fall 1979 students under 20 years of age. New students from other sources will be distributed to broad program areas as the comparable Fall 1979 students.

5. The total number of liberal arts, vocational education and unclassified transfer students at the six community colleges will follow the linear least-square trend of the last five years. Distribution of each program area totals by college will be based on the 1979 percentage distribution.

6. Enrollment of continuing and returning students for each program area will be a constant percentage of the previous fall total enrollment in that program. These percentages (retention rates) will be the average of the past five years for each college.

Our October 16, 1980 response stated that KCC is being planned to serve the educational needs of the community beyond the year 2000 and included the enrollment trend projections shown in Appendix V of the EIS. These long range projections, which were prepared in September, 1980 by the UH Office of Institutional Research and Analysis, are based on two more factors than the 1979 projections:

1. The Fall 1980 preliminary enrollment exceeded the projected enrollment by 279 students as indicated in Appendix V of the EIS.

2. The State's official Series II-F population projection by age group.

The 1979 projections cover the six year period from 1980-1986 and are intended as short range numeric projections whereas the 1980 projections cover the 1985-2005 period in five year increments and are intended to project longer range trends. As noted above, both projections were prepared by the UH Office of Institutional Research and Analysis. The designation unofficial on the 1980 projections indicate that the University's Vice-President for Academic Affairs has not formally approved the projections.

Cost Benefit Analysis (Section 1.G., Item 1.)

The benefits an individual receives from an education system are difficult to analyze directly in monetary form. The benefit from a component of the educational system becomes even more difficult to analyze. If these cost/benefit ratios were computed at considerable public expense, they would be difficult to substantiate and still would not improve the availability of CIP funds.

Total Project Cost (Section 1.G., Item 4.)

It is recognized that the taxpayer pays for all government benefits provided. However, the figure given in the EIS is the direct capital improvement cost for the college. See comments below on street widening and repaving.

1980 Dollars (Section 1.G., Item 5.)

Economic analysis dictates that costs in different years be adjusted to a common point in time. We believe that stating construction costs in 1980 dollars is the best way to indicate the cost of the college in the EIS because people can better gage what the value of a dollar is today than what it will be several years from now.

Street Widening (Section 1.I., Item 9.)

We do not know what information and conditions were given to the County or what assumptions were made for their response shown on Page 137 of the EIS; therefore, we had no comment. However, we do know the following:

1. The master plan provides 1,200 parking stalls on campus which is twice the number required by the County CZC. This should reduce the normal demand for on-street parking experienced at other schools.

2. The Traffic Impact Statement contained in Appendix IV of the EIS indicates the existing roadways surrounding the campus, except Diamond Head Road, are adequate to accommodate the anticipated peak traffic flow.

3. The Traffic Impact Statement recommends that parking be restricted during certain daytime hours on the roadways surrounding the campus to facilitate the future traffic flow. Therefore, any street widening will be the result of implementing the County's General Plan for the area rather than accommodating the potential college traffic.

Based on the above items, the cost of street widening should be financed through the Improvement District process as discussed in Section 5.C.4.h. of the EIS and not through the college.

Educational Specifications (Section 2.F.1., Item 1.)

We believe our original response covers this comment.

Parking Stalls (Section 2.G.7.(1)e., Item 6.)

The 1,200 parking stalls planned for the campus is to meet peak parking requirements which will occur around 9:00 a.m.-1:00 p.m. Most students will leave the campus before 4:00 p.m. The number of parking stalls can be reduced but the result will be increased parking on the adjacent streets and corresponding increase in the peak traffic as students go to school earlier to scramble for the fewer stalls available. The college wants to avoid this situation.

Potable Water (Section 5.A.2.c., Item 1.)

The University will hook up the community college system to the Board of Water Supply's system as most developments on

Oahu must do. The Board of Water Supply requires that request for a water commitment be made during the design for each increment of construction. The Board of Water Supply will approve the connection provided water is available. For this connection, the University must pay a water service charge which the Board of Water Supply uses to develop new water sources plus transmission and storage facilities.

Parking Fee (Section 2.G.7.(1)e., Item 7.)

The cost of parking fee for one semester will probably be very small compared to the cost of owning and operating a vehicle. However, as you point out, there will be some students who do not want to or cannot afford to pay the fee, that will park in the surrounding neighborhood. The restriction on parking during certain daytime hours proposed in the EIS for implementation on the roadways immediately surrounding the campus is partly intended to discourage the parking of students on these roads. Students choosing to park off-campus may thus have to walk some distance as compared to the convenience of on-campus parking. The problem with providing free parking is it will encourage more people to drive to college who might otherwise use alternative means of transportation.

Fire/Police Protection (Section 5.C.2., Item 1.)

The Kaimuki Fire Station is less than one-half mile from the campus and the Waikiki Fire Station is approximately one mile from the campus. Since the campus is not generating the need for another fire station, no increase in fire protection is required.

We are not aware of any need to increase the police force because of development of the Fort Ruger campus; therefore, no increase in police protection is anticipated.

As discussed in Section 2.F.1. of the EIS, the maximum head count enrollment will be 6,000 students rather than the 9,000 you quoted.

Community Surveys (Section 5.C.6., Item 1.)

The survey conducted by the University is covered by a portion of the report which is included in Appendix III of the EIS. Page A-25 indicates the survey questionnaire was distributed by mail to a random sample of 1,600 registered voters living in the area surrounding the campus.

The number of people involved in the two surveys conducted by the Neighborhood Boards are indicated on Page 79 of the EIS. Since these surveys were conducted by the County Neighborhood Boards which are elected representatives of the people, we cannot conclude that the results supporting the college are "suspect".

Repaving Cost (Section 10., Item 14.)

We agree that the cost of the college as well as the road repaving will ultimately be paid for by the taxpayers. However, we do not agree that the cost of repaving the roadways should be assigned to the college since the repaving is a normal County function which must be performed regardless of whether or not the college is developed at Fort Ruger.

Since the college will generate additional traffic which will accelerate deterioration of the road, this information will be included in Section 5.C.3. of the EIS.

HOUSE OF REPRESENTATIVES
THE TENTH LEGISLATURE

STATE OF HAWAII
STATE CAPITOL
HONOLULU, HAWAII 96813

December 22, 1980

Office of Environmental
Quality Control
550 Halekauwila Street, Room 301
Honolulu, Hi. 96813

Gentlemen:

This is in reply to the Environmental Impact Statement on the proposed Kapiolani Community College (KCC) at Fort Ruger, dated November, 1980. The Fort Ruger site for KCC is supported, as you know, by a number of organizations and residents from the Kaimuki area and also personally by myself. Our concerns are that the college be built in such a way as to minimize adverse effects upon residents of the area. In this regard there is special concern about traffic flow, parking, and aesthetic and environmental disturbances.

On the issue of traffic, I would note that there is disagreement in the report about the necessity to widen streets around the project. Comments on page 69 of the report state that with the exception of Diamond Head Road, streets have adequate capacity to accommodate additional traffic generated by the college. However, on page 156 of the report Mr. Akira Fujita of the City and County Department of Transportation Services states, "The four streets surrounding the Fort Ruger site will need to be widened to accommodate the increased traffic. Additionally, the anticipated demand for on-street parking will necessitate improving most streets located within a two block radius of the Fort Ruger site...."

I strongly urge that further consideration be given to the need for street improvements.

I further note that on page 192 of the report Rikio Nishioka, State Public Works engineer, notes that access to Diamond Head Road will be provided with turning lanes. The maps you have provided do not seem to indicate those turning lanes on Diamond Head Road. Nor do they indicate widening of the streets at bus stops on Diamond Head Road so as to avoid a traffic build up behind buses stopped near the Diamond Head Road entrance to the college site.

Special effort should be made to minimize traffic congestion especially near the entrances to the college site and along Diamond Head Road, in light of the report's statement on page 76 that, "The effect of the college's traffic will be some traffic delays on Diamond Head Road."

As to parking, I would support the concerns of the Office of Environmental Quality Control as contained on page 107 of the report that the discussion on parking be expanded. It is not clear whether parking will be free or whether a fee will be charged. I would support the idea of free on-site parking in an attempt to avoid heavy on-street parking in a quiet community, especially in the early years of the college when on-site parking would seem to be ample.

Thank you for this opportunity to comment on the Environmental Impact Statement.

Sincerely,

Bertrand Kobayashi
State Representative

BK:dg

cc: Division of Public Works
Department of Accounting &
General Services

Dr. Joyce Tsunoda, Provost
Kapiolani Community College

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER

MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1040.1

JAN 26 1981

Honorable Bertrand Kobayashi
Representative
State Capitol, Room 302
Honolulu, Hawaii

Dear Representative Kobayashi:

Subject: EIS for Kapiolani Community College
Master Plan - Public Review Phase

Thank you for your December 22, 1980 letter commenting on the subject EIS. Please be assured that the University of Hawaii and the Department of Accounting and General Services have attempted to develop the master plan to minimize the adverse effects upon residents of the area. Our response to your comments are as follows:

1. Traffic - We do not know what information and conditions were given to the County or what assumptions they made for their comments shown on page 137 of the EIS. However, we do know the following:

   a. Their comment was made without the benefit of the ultimate site plan which was adopted after April 1980.

   b. The ultimate site plan provides for 1,200 parking stalls which is twice the number required by the County CZC. This should reduce the normal demand for on-street parking.

   c. The Traffic Impact Statement (TIS) contained in Appendix IV of the EIS was prepared by a traffic consultant to evaluate the traffic.

   d. The TIS indicates the existing roadways surrounding the campus, except Diamond Head Road, are adequate to accommodate the anticipated peak traffic flow.

   e. The TIS indicates the traffic on Diamond Head Road already exceeds the Service Level C capacity of the road. Additional traffic can be accommodated but at a slower speed.

   f. The TIS recommends that parking be restricted during certain daytime hours on the roadways surrounding the campus. An alternative to this would be one way traffic which would allow parking on one or both sides of the street.

   g. The existing County General Plan indicates the roadways in the area should be widened. Therefore, any widening would be to implement the County General Plan rather than to accommodate the potential college traffic.

   h. The need for street improvements through improvement district projects should be determined by the community since they will pay part of the cost of the improvements. Please note, as stated on page 74 of the EIS, that the college itself is not generating an improvement district project, but it may accelerate that which is already proposed.

2. Diamond Head Road Entrance - The item is covered in Section 2.G.7. of the EIS. Design of the intersection will involve the Department of Land and Natural Resources, University of Hawaii, Department of Transportation Services and MTL during the first increment design.

3. Parking - Section 2.G.6. of the EIS indicates the large number of college parking stalls should reduce on-street parking and will be equally available for all of the college users. Students and faculty parking on campus will be charged a nominal fee consistent with the low community college tuition and fee rates. Please note that no parking fee may encourage more driving to college. For your information, the current parking fee charged is $5 per semester.

Very truly yours,

HIDEO MURAKAMI
State Comptroller

Kaimuki Neighborhood Board No. 4
Kaimuki Regional Library

February 17, 1981

Office of Environmental Quality
Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Sir/Madame:

The Kaimuki Neighborhood Board No. 4 appreciates the opportunity to comment on the Environmental Impact Statement for the proposed Kapiolani Community College at Fort Ruger Master Plan dated November 1980.

While the EIS is quite comprehensive, several important issues are not satisfactorily resolved by this document. The following three statements express the Board's official concerns about the EIS.

(1) The impact of increased traffic flow which the Fort Ruger campus will create has been underestimated. In Section 5.c.5. (Traffic and the Transportation System, pp. 74-78) the EIS concludes that the present system will be able to accomodate all of the anticipated traffic volumes except for Diamond Head Road, which would require widening for turning lanes near the campus. However, the roads surrounding the campus are already in poor repair, causing poor traffic flow in spite of their theoretical capacity. The Master Plan should provide for all roads to be brought up to al least minimum standards, with widening for turns at all entrances to the campus.

(2) Section 5.c.3.b. (Property Tax, p. 72) and Section 5.c.4.h. (Imporvement District, p. 74) mentions that the college itself will not generate an Improvement District project, but may accelerate one that is already proposed. We are strongly opposed to any Improvement District project made necessary or even "accelerated" by the college; alternate financing for any such improvements should be identified and included in the EIS.

(3) Section 5.c.6 (Community Attitudes, p. 78) concludes that there is support from the surrounding community for placement of the campus of Ft. Ruger. We feel that the 1978 needs assessment conducted by KCC in cooperation with the Kaimuki Neighborhood Board is fatally flawed in that it did not ask the residents if their community might best be served by not building the campus (voiced by several respondents to the initial mini-survey conducted to develop the final survey questionnaire used). We recomment that a survey be carried out to update the community response and that it include a question about whether the campus should be built in this neighborhood. The survey should also question the community on their suggestions for alternative uses of the Ft. Ruger site.

A number of other questions about the EIS raised by Board members at our February 11, 1981 meeting are mentioned below:

1.C. p.1 2.C. p.7	The citation of specific site such as the Ruger campus as being essential was questioned.
1.B. p.1 2.B. p.5	Are both student body enrollment and education programs and administrative facilities relocated from KCC Pensacola to Ft. Ruger equal to 21%?
2.C. p.5 (footnote)	To what extent was the 50 acre requirment used in the 1965 site selection study for the community college used as the basis for recommendation of the Ft. Ruger site? This criterion appears to be biased in favor of Ft. Ruger, and could have resulted in acceptable alternative sites being eliminated.
2.F.1.B (1)-(9) pp. 10-13	According to this section, over 50% of the assignable square footage will be air conditioned. The Board was informed that this percentage has been reduced in revised plans for the campus, and this should be noted accordingly.
2.F.2 pp.13-24	All items used in the evaluation method per site utilization schemes are weighed equally without regard for importance or priority. Use of a weighted average

technique might have yielded different results.

Our Board has not yet taken a formal stand on the relocation of Kapiolani Community College. We had hoped to make a decision based on the findings of the EIS. However, we share many of the concerns about the present EIS previously expressed by the Waialae Kahala Neighborhood Board No. 3 to your office in their letter dated December 18, 1980. It should be noted that this Board was able to obtain copies of this EIS only after the deadline for response had already passed, and that the time available to us for reviewing the volume of material contained within the EIS has been extremely limited. As a result, it is doubtful that many residents of Kaimuki have any idea of what this document contains.

Once again, we would like to thank your office for granting a special extension to us to make these comments and look forward to the proposing agency's response.

Sincerely yours,

Stephen A. J. W. Lung
Chairman

cc: Dept. of Accounting and General Services, State of Hawaii
Members of the State Senate Higher Education Committee
State Representative Bertrand Kobayashi
City Councilman Tom Nekota
Kaimuki Business & Professional Association
Dr. Joyce Tsunoda, Kapiolani Community College
Mayor, City and County of Honolulu
Neighborhood Boards Nos. 2, 3, 5 and 6
Neighborhood Commission
Members of Neighborhood Board No. 4

SAJWL:st

GEORGE R. ARIYOSHI
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
DIVISION OF PUBLIC WORKS
P. O. BOX 119, HONOLULU, HAWAII 96810

HIDEO MURAKAMI
COMPTROLLER
MIKE N. TOKUNAGA
DEPUTY COMPTROLLER

LETTER NO. (P)1153.1

FEB 24 1981

Mr. Stephen Lung
Chairman
Kaimuki Neighborhood Board
No. 4
c/o Kaimuki Library
1041 Koko Head Avenue
Honolulu, Hawaii 96816

Dear Mr. Lung:

Subject: Master Plan for Kapiolani Community College at Fort Ruger
EIS Public Review Phase

Thank you for your February 17, 1981 letter regarding the subject project. Attached are the responses to your Board's comments and questions.

Very truly yours,

RIKIO NISHIOKA
State Public Works Engineer

SS:jm
Attach.

cc: OEQC w/attach.

KCC MASTER PLAN
EIS PUBLIC REVIEW PHASE
RESPONSE TO FEBRUARY 17, 1981 COMMENTS
FROM KAIMUKI NEIGHBORHOOD BOARD NO. 4

Comments

1a. Traffic Flow

Although some of the roads surrounding the campus are in poor repair, they do not appear to slow the speed of vehicles. Thus, we do not believe the capacity of the road is seriously reduced, if at all. The consequence of the poor road condition probably is greater maintenance cost for motorists.

1b. Master Plan

Improvement of the existing roadways surrounding the campus is not included in the campus master plan because the County General Plan already indicates the surrounding roadways should be improved and the Traffic Impact Statement in the EIS indicates the college is not creating the need to improve the roadways.

1c. Turning Lanes

Turning lanes at the campus Diamond Head entrance are planned because the peak-hour traffic on Diamond Head Road already exceeds the Service Level C capacity of the existing 2-lane roadway. The need for turning lanes at other entrances to the college will be reviewed periodically with the County Department of Transportation Services as the college is developed.

2. Improvement District

Section 5.C.3.b. of the EIS will be revised to state that an alternative to an improvement district project is a capital improvement project with funds from the County/State and/or Federal governments.

3a. Community Survey

The purpose of the 1978 community needs assessment study was to better inform the planners for the campus about the nature, needs, resources, and concerns of the surrounding community. Therefore, we do not agree that the study was "fatally flawed" because it did not ask the community if they wanted the college at Fort Ruger. Since the neighborhood boards were formed to provide community input to County government, we recommend that your organization conduct the community survey.

Questions

1. Site

The specific site is mentioned because the Board of Regents had already determined that KCC will be located at the Fort Ruger site. The need for permanent facilities is considered to be "essential" because KCC has programs which are not available at other community colleges and because it has inadequate facilities which do not meet standards for accreditation.

2. Percentage

The percentage refers only to the student enrollment. Based on the 1978 Survey Response shown in Table 2 of the Traffic Impact Statement, the percentage of students attending classes at the Diamond Head campus should be 28 rather than 21%.

3. Acreage Requirement

Appendix I of the EIS indicates that the size of the site was 1 of 28 factors considered in the selection of the Fort Ruger site and was assigned a Factor Rank of 3 on a scale of 5. The size factor constituted only about 4% of the evaluation of a site.

4. Air Conditioning

The initial requirement was that almost all of the college buildings were to be air conditioned. This has been reduced as noted in the EIS.

5. Site Utilization Schemes

Although each evaluation item does not carry the same weight, the differences are not significant enough to affect the results of the evaluation. Table 2 indicates that Site Utilization Scheme A, which was selected, is much better than either Schemes B or C. Refinements to the evaluation do not add anything and are difficult to substantiate.

6. Relocation of KCC

The EIS was prepared for the master plan of the Fort Ruger campus and not the site selection for the campus. Its purpose is to expose the environmental concerns associated with the proposed master plan to assist government in making decisions.

7. EIS Response

Since copies of the EIS were sent to a member of your Board that was designated to receive the EIS notices and documents, we regret that your Board did not receive the EIS until the deadline for comments had passed. However, we thank the Board for their interest in this project and the comments submitted.

8. Public Knowledge

We recognize the difficulty of making residents aware of what this document contains because of the time required to read and digest the EIS and the general apathy of many people. However, we believe that your group, as an elected Board, can adequately represent the community and present its concerns.

LIST OF REFERENCES CITED

1. Geology of the Hawaiian Islands, H.T. Stearns, 1946.

2. "Soil Survey of (the) Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii," U.S. Department of Agriculture, Soil Conservation Service, in coorporation with the University of Hawaii Agricultural Experiment Station. Issued August, 1972.

3. "Soil Classification in Hawaii - Circular 476, Cooperative Extension Service, University of Hawaii," W.W. McCall, 1973.

4. "The 'Elepaio, Journal of the Hawaii Audubon Society," Volume 40, Number 9, March, 1980.

5. Comprehensive Zoning Code, City and County of Honolulu, 1969.

6. "Existing Zoning Map, Planning Area #16 Kaimuki-Kapahulu," Department of General Planning, City and County of Honolulu, 1974.

7. R-7 classification - single family dwelling on 3,500-square foot lots.

8. "Census Tracts, Honolulu, Hawaii, Standard Metropolitan Statistical Area, PHC (1) -88," U.S. Bureau of the Census, 1971.

9. "Population and Housing Unit Estimates for Oahu Census Tracts, 1970 - 1978," Report CTC - 41, April 6, 1979. Prepared by the Census Statistical Areas Committee, State of Hawaii.

10. U.S. Bureau of the Census, 1971.

APPENDICES

APPENDIX A

APPENDIX I

A PORTION OF THE 1965 SITE SELECTION STUDY FOR THE RELOCATION OF KAPIOLANI COMMUNITY COLLEGE

III. PLANNING OBJECTIVES AND METHODOLOGY

This study is a review and comparative analysis of site possibilities for a community college in Honolulu. The basic assignment is the identification of the most favorable site or sites, taking into account all primary factors bearing on their usefulness for community college needs.

In the 1964 session, the State Legislature passed Act 39 known as the Hawaii Community College Act. Under this Act, community colleges were defined in broad educational terms ". . . to provide two-year college transfer and general education programs; semi-professional, technical, vocational, and continuing education programs, and such other programs as are appropriate to such institutions."

Expressed in size of site, the desirable standard is 50 acres. This standard has been established by the staff of the Community College System as the appropriate area required for buildings and site development as related to enrollment projections. In the course of the study and in consideration of future enrollments, educational and other considerations, it was determined by the Community College System staff that two sites would be needed. Considerations in determining the desirability of two community college campuses are: students can more effectively be served on a smaller campus; two locations will make the college accessible to larger numbers of students, especially for part-time and evening students; traffic congestion will not be as great as for a single campus; and two campuses can better provide for the future growth of Honolulu.

The methodology used in the study can be summarized under the five headings -- Selection of Sites, Initial Screening of Sites, Selection of the Six Principal Sites, Preparation of the Evaluation Technique, and Application of the Evaluation Technique to the Six Principal Sites.

The following discussion reviews and amplifies these steps in detail.

EXPLANATION OF EVALUATION

OF STUDY SITES

1. Selection of Sites. In this stage, 17 potential sites were identified. They were selected on the basis of size, ownership pattern, and other features. This initial selection was an overview of all practical site alternatives.

2. Initial Screening of Sites. A preliminary analysis of features and characteristics of each site with reference to possible use as a community college campus was reviewed. At this time, after review with the Community College System staff, the majority of possible sites were discarded for a variety of reasons.

3. Selection of Six Principal Sites. The initial screening of the sites revealed six sites having the greatest possibilities for use. These six sites are identified as Prison, Honolulu Tech, Kukui, Sheridan, Alapai, and Ft. Ruger.

4. Preparation of the Evaluation Technique. Under this stage, criteria were prepared to enable a comparative evaluation of the six principal sites. This stage is developed in four parts as follows:

   a. Determination of Factors. This is the identification and definition of all major factors bearing upon the comparative analysis of sites. In the course of development of this aspect of the evaluation technique, some 28 factors were identified as having significant value in the review of prospective sites for a community college.

   b. Factor Rank. Each of the 28 factors was assigned a numerical value indicating relative importance to all the other factors. The rank value of 5 indicates a factor of maximum importance while a rank value of 1 denotes an assignment of relatively low value. This classification takes into account the degree of importance of the factors since it is apparent that some are more important than others.

   c. Factor Rating. This is a numerical assignment made on the basis of an evaluation of the relationship of sites one to another to the factor under consideration. The numerical scale ranges from 0 through 10.

d. Score. This is the numerical product obtained by multiplying Rank times Rating.

In summary, the evaluation formula applied to each site by factor is: Rank X Rating = Score.

5. Application of the Evaluation Technique to the Six Principal Sites. This step is the concluding portion of the study with reference to determining the relative position of the six primary sites. Under this step, Ratings were assigned to each site under all 28 factors. The numerical product of the Rating times Rank determined the score for a particular site under each factor.

In determining the factor rating, supporting information, in the form of statistical data, factual information, other measurements, and judgmental considerations provided the basis for assigning ratings.

IV. INITIAL SCREENING OF SITES

In consultation with the Community College System staff, seventeen potential sites were reviewed. Because they were considered inadequate for various reasons, further investigations were not continued on the areas listed below. Outlined for each of these areas are the principal reasons why these sites are considered inappropriate for further study.

1. Kewalo. This site is located between Kewalo Basin and Fort Armstrong. There are now a number of uses proposed for the area including a food distribution center and oceanographic institute of the University of Hawaii. For the reason that there are a number of major existing and proposed competing uses, this site was eliminated from further consideration.

2. McKinley High School. If this site were acquired, two additional high school sites of between 25 and 30 acres would be needed to replace McKinley High School.

3. Punchbowl. The State owns about 18 acres of land on the slope of Punchbowl above Prospect Street between Robert Louis Stevenson Intermediate School and the cemetery entrance road. Because the land is State-owned, this site was considered even though it is situated outside the study area. The site is narrow, small, and difficult to expand. For these reasons, it was passed over.

4. Honolulu Stadium. The area considered is bounded by King, Isenberg, Date, and McCully Streets and totals less than 30 acres. This site is in a stable, well-established neighborhood and would be difficult to expand because of high acquisition costs. Also, the site area is too small.

5. Ala Wai Boathouse Area. Containing only about 25 acres, this site is too small and would require use of important City & County park land. Portions of the area are presently high value and high intensity development.

6. Queen's Hospital. While consideration is being given to relocation of the hospital to a new medical center, the future of this center is indefinite and remote at this time. Acquisition of the site for community college use would have to wait until the hospital question is resolved. It was judged that the timetable for arriving at a decision and moving the hospital would be too lengthy and indefinite. Therefore, the site was dropped from further consideration.

7. Ala Wai Golf Course. While the State has title to this land, the City & County operates and maintains this important open space area which is strategically located near Waikiki and other parts of Honolulu. It was considered that the importance of the golf course as open space in the community was of such great significance to the future of the city that the use should not be displaced by a community college campus.

8. Diamond Head Crater. The National Guard and Federal Aviation Agency presently use a portion of the Crater. Master plans of the National Guard call for further development and use of the area.

9. Magic Island. A community college at this site would: (a) require acquisition of important waterfront park space; and (b) conflict with present plans for development of the area.

10. Kaimuki. Located mauka of Date Street between Kapahulu and Kaimuki High School, this site is a stable residential area, is relatively small, and is difficult to expand.

11. Keeaumoku. This site is situated between Keeaumoku, Lunalilo Freeway, Beretania, and Piikoi. Because of its limited size (23 acres) and high value, this location was eliminated from further consideration.

Of the total sites initially considered, six were selected for further study and comparative evaluation. These six sites are described following.

1. Prison. The dominating feature of this site is the Oahu Prison. Also located within the boundary is the Puuhale Elementary School. The site is bounded on three sides by Dillingham Boulevard, Nimitz Highway, and Mokauea Street. The total area is 37 acres.

2. Honolulu Tech. This site is bounded by the Kapalama Drainage Canal, King Street, Dillingham Boulevard, and contains forty acres. Existing development is dominated by Honolulu Technical School, Kaiulani Elementary School, and the City & County incinerator.

3. Kukui. This site is 36 acres in area. It is bounded on the makai side by Beretania and King Streets. The other site boundaries are identified by Liliha Street, Vineyard Boulevard, and Nuuanu Stream. The site is the Kukui Urban Renewal Project and virtually the entire area has been cleared of structures.

4. Alapai. This site is the smallest of the six containing 30 acres. It is generally bounded by Lunalilo Freeway on the mauka side, King Street on the makai side, and Ward Avenue and Alapai Street on the Waikiki and Ewa sides respectively. This site is the most irregularly shaped of the six.

5. Sheridan. This area is located immediately mauka of the Ala Moana Shopping Center and is bounded by Piikoi, King, and Keeaumoku Streets and Kapiolani Boulevard. The area is mixed industrial, commercial, and residential use. Total site size is 41 acres.

6. Ft. Ruger. This area is the largest of the six and contains 48 acres. The site boundary has been drawn to exclude the National Guard Headquarters near the intersection of Diamond Head Road and Makapuu Street. Site boundaries are Kilauea Avenue, 18th Avenue, Diamond Head Road, and Makapuu Street. Present use is for military housing and warehouse facilities. Most of the site is undeveloped.

V. FACTORS IN SELECTION

Factor Definitions and Measurement

The 28 factors used in evaluating the six principal sites are defined following. Accompanying each factor definition is a measurement guideline statement and factor rank assignment. The Factor Rank is a numerical value that shows relative importance in comparison with all the other factors. The scale of 1 through 5 is in the order of least important to most important.

1. Population Served. This conveys where people are in relation to sites considered, including both day and night-time population.

   Measurement is based upon the site relationship to centers of: 1970 night-time population for Oahu; 1970 night-time population for Honolulu; and 1964 day-time (employment) for Honolulu.

   Factor Rank

1	2	3	4	**5**

2. Site Accessibility. This conveys comparison of access by all means of transportation, concerning immediate vicinity of the site, as veins in a circulatory system.

   Measurement is an evaluation of the streets immediately surrounding the site and the connections to major traffic routes.

   Factor Rank

1	**2**	3	4	5

3. Relation to Major Traffic Routes. This conveys existing and proposed routes considered as arteries near the site.

   Measurement is the proximity to major arterials or freeways in the City.

   Factor Rank

1	2	3	**4**	5

4. Arrival and Departure Traffic Patterns. This conveys actual turning and traffic movements, whether disrupting or continuing the flow.

Measurement evaluates a.m. and p.m. peak traffic, and total traffic with respect to traffic entering and leaving the campus.

Factor Rank

1	2	3	4	5

5. Effect on Open Space. This conveys an addition to or subtraction from the amount of open space at or near the site.

Measurement is of the change in open space within the site and a one-block perimeter area. Open space is defined to include predominantly undeveloped areas not containing major structures or paving.

Factor Rank

1	2	3	4	5

6. Competing Public Uses for Site. This conveys other existing or possible public uses for a site.

Measurement and evaluation of existing and proposed public developments for each site.

Factor Rank

1	2	3	4	5

7. Competing Private Uses for Site. This conveys other existing or possible future private uses for a site.

Measurement and evaluation of existing and proposed private developments for each site.

Factor Rank

1	2	3	4	5

8. Value of Land. This conveys the value of land.

Measurement is in dollars of land value for each site. This source of information is the tax assessment records.

Factor Rank

1	2	3	4	5

9. Value of Improvements. This conveys the value of existing improvements on the site.

Measurement is in dollars for existing development including buildings and structures. The source of information is the tax assessment records.

Factor Rank

1	2	3	4	5

10. Stability of Environment. This conveys whether the environment is improving, stable, or deteriorating in the vicinity of the sites.

Measurement is an evaluation of the stability of the peripheral area of the sites.

Factor Rank

1	2	3	4	5

11. Cost of Acquisition. This conveys that government land is now owned by the State or might be bought under the assessed value, but private land must be related to fair market value.

Measurement is in dollars based upon assessed valuations of land and improvements, representing 70% of market valuation. Total valuation is computed exclusive of public lands or property for which compensation would not be required.

Factor Rank

1	2	3	4	5

12. Design Opportunities. This conveys opportunities within the site considering property configuration, topography, and scenic view.

Measurement is by an "architect's scale," evaluating extent, configuration, topography, and scenic qualities of the site.

Factor Rank	1	2	3	4	5

13. Possibility of Future Expansion. This conveys future growth possibilities covering extent, land availability, resulting configuration, and relationship to basic site.

Measurement is rated on the probability and ease of future acquisition; configuration; size; and relationship to initial site.

Factor Rank	1	2	3	4	5

14. Availability. This conveys time required for acquisition.

Measurement is based upon relative ease of obtaining the site or a portion of the site. This takes into account the probability that presently-owned State land would be made available sooner than privately-owned land or land under the jurisdiction of other public agencies.

Factor Rank	1	2	3	4	5

15. Effect of Environment on Campus. This conveys plus and minus values of environment with respect to the site.

Measurement evaluates the impact of adjoining areas on the site.

Factor Rank	1	2	3	4	5

16. Effect of Campus on Environment. This conveys enhancement of surrounding neighborhood due to the development of the college.

Measurement is based on the impact of the campus on adjoining and surrounding areas.

Factor Rank

1	**2**	3	4	5

17. Proximity to University Manoa Campus. This conveys the relationship between the site and University.

Measurement is distance from the University Manoa Campus.

Factor Rank

1	2	3	4	5

18. Relationship with Major Economic Generators. This conveys proximity to principal centers directly related to the curriculum of the college.

Measurement is distance of the site location in relation to identified major economic centers.

Factor Rank

1	**2**	3	4	5

19. Dwelling Units Affected. This conveys a specific number of residential units displaced by a campus.

Measurement is the number of dwelling units that would be removed by development of a campus on a given site.

Factor Rank

1	2	3	**4**	5

20. Businesses Affected. This conveys the number and type of businesses to be relocated.

Measurement is the number and type of commercial and industrial operations dislocated as a result of the campus development at a given site.

Factor Rank	1	2	3	4	5

21. Urban Renewal Suitability. This conveys whether or not a site assembly can be considered as suitable for the urban renewal process.

Measurement is an evaluation of whether the site in whole or in part is suitable for the urban renewal process.

Factor Rank	1	2	3	4	5

22. Schedule of Development. This conveys when one or more portions of the site are ready for use.

Measurement is based upon an estimated timetable for relocating and demolishing major existing developments or components within the site.

Factor Rank	1	2	3	4	5

23. Utilization of Existing Improvements. This conveys the additional college purpose of serving as a focal point or center for a wide variety of community activities.

Measurement takes into account the applicability of existing improvements with reference to a campus development at the site.

Factor Rank	1	2	3	4	5

24. Tax Disruption. This conveys the effect upon the tax base in dollars of tax revenue lost.

Measurement is in annual dollar amounts lost from tax revenues.

Factor Rank	1	2	3	4	5

25. Community Center Suitability. This conveys the additional college purpose of serving as a focal point or center for a wide variety of community activities.

Measurement is based upon the possible use of the community college as a center of community activities. The evaluation also takes into account the relationship to possible other competing community centers.

Factor Rank	1	2	3	4	5

26. Site Preparation. This conveys the costs of demolition of existing structures.

Measurement is based upon the type and size of structures that would have to be removed to make way for the community college campus.

Factor Rank	1	2	3	4	5

27. Size of Initial Site. This conveys the adequacy of the site with reference to a 50-acre standard.

Measurement is the area of each site, in acres, related to the 50-acre desirable standard.

Factor Rank	1	2	3	4	5

28. Relationship to Urban Pattern. This conveys compatibility with broad community planning objectives.

Measurement is based upon an evaluation of stated community planning goals as defined by general plans for the City & County and State.

Factor Rank	1	2	3	4	5

A summation of the Factor Rank assignments is shown on the accompanying chart. The factor "Population Served" was given the highest numerical value or a rank of 5. This is the only factor receiving a 5 ranking. It was reasoned that this is the most important factor since the principal function of the community college is to effectively serve the most people.

Six of the factors received rankings of 4. The factors assigned either 4 or 5 rankings total 7 or 25% of all factors. The number and percent distribution of factors summarized by ranking is: One (3.5%) Factor Rank 5; Six (21.5%) Factor Rank 4; Six (21.5%) Factor Rank 3; Nine (32.0%) Factor Rank 2; and Six (21.5%) Factor Rank 1.

It is important to point out that most of the factors have overlapping aspects. This is illustrated by considering the basic effect that the factors have on categories such as money, people, design, environment, and time. The overlapping of the factors is shown in the accompanying chart which identifies the relationship of the factors to these five categories.

When the Factor Rank assignments are applied to each of the five categories, it is found that money receives 28 points, people receives 32 points, design receives 18 points, environment receives 14 points, and time receives 22 points. The total point value is 134.

The percentage distribution of factor effect is:

Money	28%
People	31%
Design	14%
Environment	11%
Time	16%
	100%

APPENDIX II

PORTION OF REPORT: "AIR QUALITY IMPACT ANALYSIS, KAPIOLANI COMMUNITY COLLEGE AT FORT RUGER," PREPARED BY BARRY ROOT

A. Mesoscale Emissions Analysis

Using 1979 average daily traffic figures and an annual growth rate of of 1.25 percent per year for each of the four roadways surrounding the Fort Ruger site, average 1981 daily vehicle miles traveled along this 1.2 mile circuit would be 8828. As stated in the traffic impact statement for the project, the relocated Kapiolani Community College campus can be expected to generate an additional 4770 vehicle trips per day when completed in 1981. This figure would not be expected to increase thereafter, but by 1995 average daily vehicle miles traveled along the roadway segments considered

will have increased to about 10505 even without the additional college traffic (assuming that the Fort Ruger site remains vacant until that time).

The traffic increase attributable to the campus relocation will thus be about 19.4 percent in 1981 and 16.3 percent in 1995. Table 3 indicates the likely increases in pollutant emissions (in kilograms per day) that will be associated with these increased levels of traffic.

The pollutant values shown were calculated using Table F-15 of EPA's Mobile Source Emission Factors which contains the following inherent assumptions: (1) a vehicle mix that is 88.2 percent automobiles with the remainder light duty trucks and vans, (2) average ambient temperature of 75°F, (3) average vehicle speed of 19.6 mph, and (4) 20.6 percent of the vehicles operating under cold start conditions.

Table 3 shows that there will be an immediate increase in vehicular emissions of carbon monoxide, hydrocarbons and nitrogen dioxide in the Fort Ruger area when the relocation is completed in 1981, but, because the college-generated traffic will not change while adjacent roadway traffic continues to increase in future years, by 1995 the emission levels with the proposed relocation will be only slightly greater than would be the case if the project is not undertaken at all.

With or without the planned relocation, daily emissions of all three pollutants are expected to decrease substantially by 1995 because mandated increases in pollution control efficiency are scheduled to occur at a more rapid pace than the traffic growth rate of the area. As shown in Table 3 carbon monoxide and hydrocarbon emissions are expected to decrease substantially by 1995, while nitrogen dioxide emissions decrease by a somewhat smaller amount. Since measurements of ambient nitrogen dioxide concentrations at the Department of Health building were well within allowable limits in 1976, it seems likely that decreasing nitrogen dioxide emissions throughout the Honolulu area (including Fort Ruger) should insure that the allowable air quality standards for this pollutant continues to be met in future years.

Since there are no existing hydrocarbon measurements for either the project area or any State of Hawaii long term air monitoring station, it is difficult to relate the hydrocarbon emission values shown in Table 3 to allowable concentration limits. In any case hydrocarbon emissions are important primarily because of the precursor role that they play in the

TABLE 3

VEHICULAR EMISSIONS ANALYSIS
FORT RUGER AREA

YEAR		24-HOUR VMT*	CARBON MONOXIDE (KG/DAY)	HYDROCARBONS (KG/DAY)	NITROGEN DIOXIDE (KG/DAY)
1981	WITHOUT KCC CAMPUS	8828	408	43	22
	WITH KCC CAMPUS	10545	487	52	26
1995	WITHOUT KCC CAMPUS	10505	168	20	17
	WITH KCC CAMPUS	12222	196	23	20

* VEHICLE MILES TRAVELED

formation of photochemical oxidants such as ozone. Since the State of Hawaii air quality standard for oxidants has not been exceeded at the Department of Health sampling site since 1976 it would seem that the decreasing levels of hydrocarbon emissions expected through 1995 should serve to reduce the likelihood that ozone levels in excess of allowable limits will occur at anytime through that date.

Although Table 3 shows that significant decreases in carbon monoxide emissions are expected by 1995, it is not possible to compare these emissions to allowable State and Federal concentrations without carrying out a detailed microscale analysis.

B. Microscale Carbon Monoxide Analysis

Morning peak hour (0700-0800) traffic volumes on Diamond Head Road and Makapuu, Kilauea, 16th and 18th Avenues were counted on Thursday, February 28, 1980. Morning peak hour traffic volume projections for 1981 and 1995 were then calculated using the 1.25 percent annual growth rate presented in the Traffic Impact Statement for the project.

The 977 peak hour trips expected to be generated by the relocated campus were then allocated to entrances in the following way: 200 to the Diamond Head Road Entrance, 200 to the Makapuu Avenue entrance, 200 each to the 15th and 16th Avenue entrances along Kilauea Avenue, and 60 each to the three entrances along 18th Avenue (see Figure 2).

Vehicular carbon monoxide emissions for 1981 and 1995 were determined using a Federal Highway Administration tabulated version of the Environmental Protection Agency's computerized Mobile Source Emissions Model (MOBILE 1). The present and future mix on roadways in the Fort Ruger area was estimated to be 90 percent automobiles, 8 percent light duty trucks and vans, and 2 percent buses (based on the February 28 morning traffic counts). This vehicle mix was assumed to remain unchanged with the addition of the increased traffic associated with the relocated campus.

To be as conservative as possible an ambient temperature of 60°F was selected with 30 percent of the vehicles operating in the cold start mode.

For the 1981 and 1995 situations without consideration of the additional Kapiolani Community College traffic vehicle speeds on Diamond Head Road and the surrounding Avenues was assumed to be 25 mph in unimpeded flow. For the

1981 and 1995 situations with the additional college traffic the speed was reduced to 15 mph in unimpeded flow. For traffic flow upstream from stop signs and cross-traffic turns vehicle speeds were reduced to 5 mph for emissions computations purposes in all cases. The slower the traffic flow the greater the vehicle emission rates. These assumptions therefore tend to magnify the impact of the increased traffic expected to be generated by the college.

Six critical receptor sites around the perimeter of the project were selected for analysis and the EPA computer model HIWAY of the UNAMAP series was used to estimate resulting carbon monoxide concentrations with or without the additional traffic expected to be generated by the relocated campus. Stability category E was used for the computations. This category represents the most stable, least favorable, atmosphere dispersion conditions likely to exist in a suburban area such as this one during morning peak hour traffic time. A uniform windspeed of one meter per second was used to simulate worst case wind flow, but the worst case wind direction was decided based on the geometry of each receptor area. Location of the receptor sites is shown in Figure 2.

Receptor site 1 (located on the east side of Diamond Head Road) was selected to evaluate the impact of traffic entering the campus via the proposed entrance at this location. For this site the worst case wind direction is west northwest (a fairly rare occurrence).

Receptor site 2 (located on the Leahi Hospital side of Makapuu Avenue) was selected to evaluate the impact of traffic entering the campus via this proposed route. For this site the worst case wind direction is east (a frequent situation).

Receptor site 3 (also located on the Leahi Hospital side of Makapuu Avenue) was selected to evaluate the impact of increased traffic levels at the Makapuu/Kilauea Avenue intersection. There is a stop sign on Makapuu Avenue at this intersection. The worst case wind direction is east.

Receptor site 4 (located on the north side of 16th Avenue) was selected to evaluate the impact of traffic entering the campus via this route. There is already an entrance to the Fort Ruger site at this location, but traffic entering the site during the morning of February 28, 1980, was less than 10 vehicles. The worst case wind direction for receptor site 4 is south.

Receptor site 5 (located on the east side of 18th Avenue) was selected to evaluate the impact of increased traffic levels at the Kilauea/18th Avenue intersection. There is a 4-way stop at this intersection. The worst wind direction is west. Receptor site 6 (located on the Kaimuki Intermediate School grounds) was selected to evaluate the impact of traffic entering the campus via 18th Avenue. The worst case wind direction is north northwest (a rare occurrence).

All receptor sites were located about one meter from the edge of the nearest traffic lane at a breathing level of 1.5 meters. All roadways were assumed to maintain their present narrow widths through 1995.

Background contributions of carbon monoxide from areas or sources not directly considered in the analysis were estimated to be 2 mg/m^3 in 1981 and 1 mg/m^3 in 1995 (when more stringent emission controls will be in effect).

Results of the computations are shown in Table 4 for peak and eight-hour time periods. The eight-hour estimates were made by application of two correction factors to the peak hour values. The first factor was an adjustment to allow for the fact that during the peak eight hours of the day the average hourly traffic volume is only 6.49 percent of the average daily traffic while the morning peak hour level is 8.17 percent of this value. The second factor is a meteorological persistence factor of 0.6 recommended in EPA guidelines to provide a rough accounting for the fact that wind speed and direction are likely to be more variable over an eight-hour day than they are over a one-hour time period.

As shown in Table 4 carbon monoxide concentrations at all the selected critical receptor sites are expected to be within allowable State and Federal limits both in 1981 and 1995 whether the Kapiolani Community College is relocated to Fort Ruger or not. The values in Table 4 are based on worst case traffic and meteorological conditions and the sites selected are those likely to have the highest carbon monoxide concentrations in the area.

From the results in Table 4, and from previous discussion, it seems reasonable to conclude that the indirect immediate and long term air quality impact of increased vehicular traffic attracted to the Kapiolani Community College at Fort Ruger will be minimal and that the relocation project will present no threat to maintenance of the high quality atmospheric environment that already exists in the area.

TABLE 4

RESULTS OF PEAK HOUR CARBON MONOXIDE ANALYSIS
(MILLIGRAMS PER CUBIC METER)

		1981		1995	
SITE	CONFIGURATION	PEAK HOUR	8-HOUR	PEAK HOUR	8-HOUR
1	WITHOUT KCC CAMPUS	5.4	2.6	2.4	1.1
	WITH KCC CAMPUS	8.3	4.0	3.6	1.7
2	WITHOUT KCC CAMPUS	2.5	1.2	1.2	0.6
	WITH KCC CAMPUS	4.9	2.3	2.0	1.0
3	WITHOUT KCC CAMPUS	7.6	3.6	3.2	1.5
	WITH KCC CAMPUS	9.4	4.5	3.9	1.9
4	WITHOUT KCC CAMPUS	4.5	2.1	2.1	1.0
	WITH KCC CAMPUS	6.3	3.0	2.6	1.2
5	WITHOUT KCC CAMPUS	8.4	4.0	3.6	1.7
	WITH KCC CAMPUS	9.8	4.7	4.1	2.0
6	WITHOUT KCC CAMPUS	3.1	1.5	1.5	0.7
	WITH KCC CAMPUS	4.3	2.0	1.9	0.9

	1 HR	8 HR
STATE OF HAWAII AQS	10	5
FEDERAL AQS	40	10

NOTE: See Figure 2 for location of receptor sites.

APPENDIX III

PORTION OF REPORT: "COMMUNITY INPUT TO THE PLANNING OF THE DIAMOND HEAD FACILITES OF KAPIOLANI COMMUNITY COLLEGE," PREPARED BY GEORGE WARFEL

DIAMOND HEAD

Community Input To The Planning Of The Diamond Head Facilities Of Kapiolani Community College

A Report To
Dr. Joyce Tsunoda

by

George Warfel

October 1978

SUMMARY REPORT

Community Input to the Diamond Head Facilities of Kapiolani Community College

Introduction to the Diamond Head Campus

Kapiolani Community College currently has the unique distinction of being the only college within the University of Hawaii system to have a dual campus operation. The original Pensacola campus, in operation since the community college's establishment in 1965, currently serves approximately 3,700 students in densely overcrowded facilities. In 1974, the University acquired 52 acres at Fort Ruger on the slopes of Diamond Head as the future site for a new campus for Kapiolani Community College. Today, approximately 1,000 liberal arts and allied health students attend classes at the Diamond Head campus in buildings that were initially renovated prior to the inauguration of classes there in August, 1975.

Eventually, the University of Hawaii hopes to transfer the total operations of Kapiolani Community College to the Diamond Head campus. Development of a campus master plan for the site has already been initiated and completion of this plan will be followed by preparation of an environmental impact statement. It is projected that, by the late 1980's, about 5,000 students will be enrolled in the College at its new location.

The Diamond Head campus of Kapiolani Community College offers a unique opportunity for the University of Hawaii system to serve the educational needs of citizens living east of the downtown area. Kapiolani's Diamond Head campus is the only community college serving the residents and communities from Hawaii Kai to Kakaako. The natural setting, the space available, and the high educational interest of the surrounding populace provide the opportunity to establish one of the finest community colleges in the country.

Community Needs Assessment

During this growth development and transition period, Kapiolani Community College recognizes that it is vital to have community input and assistance in order to build a responsive and widely-supported community college. As one major means of obtaining this needed community input, the College, in cooperation with Kaimuki Neighborhood Board No. 4, developed and conducted a community needs assessment study during the summer of 1978. The purpose of this study was to better inform the planners of the Diamond Head facilities about the nature, needs, resources, and concerns of the surrounding community.

The questionnaire used in the survey was drafted by a working group composed of college and community representatives, assisted by a consultant on community needs assessment, George Warfel. The survey instrument was based on issues raised in a series of community meetings held with neighborhood boards and other community groups in April, May and June of 1978, and contained a series of thirty-one questions, seventeen related to the College itself, fifteen on community planning and governance, three demographic items and one question about further communication.

The survey questionnaire was distributed by mail to a random sample of 1,600 registered voters living in the four neighborhood board areas surrounding the new campus site (Neighborhood Board areas 3, 4, 5, and 6). Four hundred and four (404) community residents completed and returned the questionnaire, for a response rate of 25.3%. Basically, the high rate of response and the general results of the survey indicate a high degree of interest and community support for the campus, with approximately 73% of the respondents indicating an intent to avail themselves of the various educational opportunities to be offered by the new campus. Complete results of the community needs survey are summarized below and the tally of responses to each question is presented at the end of this summary report. Detailed reports on all aspects of the needs survey are also available upon request from the Office of the Provost, Kapiolani Community College.

College Course Offerings and Activities

Questions 1 and 2. The first two survey questions asked respondents what credit and non-credit courses they would be interested in attending at the new Diamond Head campus. The most preferred subject areas for credit curricula were Arts and Humanities (176 responses), Business (171), and Languages (160). Health Care (125) and Food Service (109) also received a high number of responses. Among the non-credit courses, Taxes and Finances (222) emerged as the most popular area. Also receiving high priority ranking were the areas of Gardening (171), Health and Diet (162), and Cooking (150).

Question 3. The activities which the community residents would most like to see offered at the Diamond Head site in the evenings and on weekends are: Craft Fairs (213 responses), Plant and Garden Shows (also 213), and Food and Cooking Shows (210). The two lowest ranked items are College Team Sports (91) and Rock and Roll Shows (73), possibly because these two items would also be the greatest generators of peak traffic.

Question 4. This question asked how the respondents felt the College's personnel could best serve the community. Three out of the four neighborhood areas surveyed ranked Teaching and Other Academic Duties first as the best way the faculty could serve the community and the Conducting of Workshops second. However, in the total sample, the choice of Workshops just slightly edged out Teaching by 246 to 245, indicating that the community as a whole ranks these two forms of faculty service equally.

Questions 5 and 6. When asked "Would you or someone in your family be interested in teaching a non-credit course?", sixty-four respondents (15%) said that they or members of their family would, and forty-nine were definite enough to list subject areas ranging from Korean to Psychotherapy to Motorcycle Maintenance. In all, the survey results indicated that teaching resources exist in the community for thirty-six different non-credit subject areas.

Traffic and Parking

Question 7. A primary concern throughout the College's planning and community input process has been the issues of traffic and parking. Several questions in the survey were therefore directed to these topics. Question 7 asked if the respondents felt that traffic and parking problems currently exist in their communities. A slight majority of respondents (227, or 56%) indicated that they felt there is presently a problem, over one-third (146, or 35%) feel there is not, and 31 gave no response. (See special report on "Community-Total Sample and Area Variations" for a discussion of variations by neighborhood.)

Question 17. The current traffic and parking situation stems from the transportation mode used by the residents of the area. Question 17 therefore asked respondents to rank their first-most-used and second-most-used mode of transportation. Driving one's own personal automobile was by far the first-most-used method of transportation, with 300 respondents (74%) according it first place ranking. The second-most-used mode of transportation in the community is riding in Another's Car (88), followed closely by Taking the Bus (77), and Walking (73).

Question 8. This survey question asked respondents to offer their suggestions on how the College can help reduce or minimize any additional parking or traffic problems. One hundred sixty-five people had an idea and took the time to share it. Almost half of the responses fell into the following five groups:

Suggestion	Number of Times Suggested
Build parking structures	24
Have adequate bus service	22
Have car pools	17
Have shuttle buses	13
Have adequate parking space	17
	93

Six more respondents suggested various systems of parking passes and a total of ten additional suggestions were made that attacked the problem from a parking system approach.

All in all, fifty (30%) of the suggested solutions involved the construction, management, and financing of new parking spaces and a second cluster of opinion (21%) shaped around various suggestions for bus service, including rerouting, additional buses, shuttle buses, etc. A carefully planned integration of available methods of dealing with to-and-from campus transportation appears to be called for, with the major elements being the provision of on-campus or satellite parking, improved bus service and, of course, the staggering of campus use periods throughout the day and the week to prevent peak loading problems.

Community Use of College Facilities

Question 9. This question asked specifically if the respondent and his/her family planned to use the facilities of the new Diamond Head campus. An overwhelming 296 (73%) said "Yes" and only 74 (18%) said "No." The remaining nine percent did not answer. This high rate of interest along with the high rate of interest for non-credit courses give a strong indication of the breadth of community interest in and need for the College.

Question 10. In response to the question of "Do you think a community group should advise on the use of the Diamond Head facilities?", a very high total of 312 residents (76%) responded "Yes." Only 57 indicated "No", and 37 respondents did not answer the question.

Question 11. This question sought to obtain community input on what types of facilities and activities (in addition to teaching, counseling, libraries, etc.) should be included in a Diamond Head complex. From a list of ten possible items, three leading uses emerged:

Hobby and Craft Workshops	236
Organized Recreational Areas for Baseball, Tennis, etc.	219
Open Space	207

The most significant item in this lead cluster is the strong preference that open space be maintained. This is a use not entirely compatible with the equally desired fields and courts for organized sports (219 responses to 217).

Question 12. When asked to indicate during what hours the respondents and their families would be most likely to use the Diamond Head facilities, 246 (56%) of the respondents indicated the evening hours of 6 to 9 p.m. According to the survey results, only 30% of the potential community users of the campus would prefer to use the campus during the prime daytime period between 9 a.m. and 3 p.m. (See "Special Report: Evening Attendance.")

Question 13. In response to the question of what would be the best arrangement for community groups and agencies using the campus, 251 responses indicated that empty classrooms should be made available to these groups and 221 respondents felt that such things as the theater and workshops should be made available. The option of establishing facilities jointly owned and managed by community groups, such as the various social service agencies located in the area, received a very low number of positive responses (only 82).

Question 14. This question sought to ascertain which of the desired campus facilities and uses the community feels should be provided free of charge and for which a fee could be properly charged. The breakdown into two categories was quite clear. The community respondents indicated that charges are most proper for such things as Hobby and Craft Workshops and for the Theater, whereas Recreational Facilities and Meeting Rooms should be provided free of charge.

Campus Construction and Environmental Preservation

Question 15. When asked to select between building the new Diamond Head campus facilities all at once or in increments, 222 respondents (61%) favored building the College in increments, while 139 (38%) indicated that it should be built all at once. This preference is congruent with the community's concern for open space (Questions 11 and 16) and their worries about traffic (Questions 7 and 8.)

Question 16. Five environmental concerns were listed in Question 16 and respondents were asked to rank them from "most important to "least important." Based upon a weighting method to rank their responses, the following priority list of environmental concerns was established by the community respondents:

Environmental Concern	Weighted Rank Score
Minimize Height and Bulk of Building	2,350
Preserve Open Space	2,282
Preserve Trees	1,726
Minimize Use of Energy and Water	1,365
No Grading of Contours	622

While the feasibility of different campus design strategies must come from architectural studies, the preference of the community is clear: The structures should not dominate the landscape or block any viewplaces, the existing extensive open space should be preserved and a prudent regard for energy and water resource limitations should be observed.

Community Planning and Governance

Questions 18-28. In addition to the above survey questions which were directly related to the College and its development, this group of questions sought to poll respondents on community-related issues such as governance and planning, level of confidence and trust in public officials, and adequacy of basic community services. Detailed results of this portion of the survey are presented in Section III of the complete survey report, Diamond Head: Community Input to the Diamond Head Facilities of Kapiolani Community College, available through the College.

In general, responses to this section of the survey revealed: 1) strong support for the concept of open public discussion and governmental decision-making free from conflicts of interest; 2) a relatively low level of confidence and trust in public officials; and 3) a rating of only adequate for most basic public services, with the exception of parks and recreational facilities which were rated as good by 43% of the respondents.

Demographic Characteristics of Survey Respondents

Questions 29 and 30. Demographically, the respondents were a rough equivalent of the adult population of the area. They tended, however, to be more likely to be female (53% to 46%) and to be long-term residents of the area (72% have lived in the survey area more than ten years and 85% have been here at least six years). In age, 18% were under 25, 32% were young adults between 26 and 40, another third (34%) were between 40 and 60, and 15% were over 61.

Future Means of Communication

Question 31. Two methods of communication were clearly preferred above others when respondents were asked how the College and community organizations can best keep in touch with them: direct mail newsletters and the use of the daily papers. Radio announcement came in a distant third.

Conclusion

The data from this community needs survey will now be made available to planners of the College; the planners of other related systems, such as the bus and rapid transit; and the general public. Used carefully as one part of an integrated planning process, the information presented in the full survey report can help these various parties assure that the Diamond Head campus of Kapiolani Community College truly reflects the desires and meets the needs of its host community.

Acknowledgement

The College wishes to acknowledge the following persons for their assistance and support:

Mrs. Elizabeth Duesler
Chairman of Planning Task Force
Neighborhood Board No. 3

Dr. Edmund Faison
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College of Business Administration
University of Hawaii

Mr. Albert J. Feirer
Chairman
Neighborhood Board No. 4

Mr. Dewey H. Kim
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Public Relations Assistant for Community Colleges
University of Hawaii

Mr. Frederick Y. Smith
Director
Office of University Relations
University of Hawaii

Mr. Brian M. Suzuki
Chairman of Planning Task Force
Neighborhood Board No. 4

UNIVERSITY OF HAWAII · KAPIOLANI COMMUNITY COLLEGE · Office of the Provost

Dear Neighbor:

As you may know, Kapiolani Community College will be developing its Diamond Head campus on the old Fort Ruger property in the near future. As part of that process, we are very interested in knowing what you think the campus should be like and how it can best serve you.

To help us find out, we have put together the enclosed survey in cooperation with Kaimuki Neighborhood Board #4 and with input from other neighborhood boards, local businessmen, and community leaders. In addition to questions about the college, we're looking for information about community development, environmental protection, and citizen participation to be shared with the community neighborhood boards.

We'd be grateful if you would fill out the survey and return it in the postage-paid envelope enclosed. The people being surveyed have been selected at random, and responses cannot be identified with any individual. When the surveys are returned, we'll tally the responses and make our findings available to community leaders, city and state officials, and the general public. We think the end result will be a better community for all of us.

I hope you will help us and get your answers back to us right away. If you have any questions about the survey or want more information, please call our community services officer, Mr. Henry Kalani, at 735-3511.

Sincerely,

Joyce S. Tsunoda

Joyce S. Tsunoda,
Provost

COMMUNITY & COLLEGE SURVEY

QUESTIONS ABOUT THE COLLEGE

1 In which of the following areas would you and members of your family be interested in taking regular credit courses?
(CHECK AS MANY AS APPLY)

176 ARTS & HUMANITIES
171 BUSINESS
160 LANGUAGES
125 HEALTH CARE
100 FOOD SERVICE
94 LAW
80 NATURAL SCIENCE
74 SOCIAL SCIENCE
73 MATH

2 In which of the following areas would you and members of your family be interested in attending non-credit courses or workshops?
(CHECK AS MANY AS APPLY)

222 TAX & FINANCES
171 GARDENING
162 HEALTH & DIET
156 COOKING
132 CONSUMER CONCERNS
107 PERSONAL GROWTH
89 CONCERNS OF THE ELDERLY
81 FAMILY LIFE

3 Which of the following activities would you like to see at the Diamond Head site in the evenings and on weekends?
(CHECK AS MANY AS APPLY)

213 CRAFT FAIRS
213 PLANT & GARDEN SHOWS
210 FOOD & COOKING EXHIBITS
180 REGULAR STUDENT CLASSES
171 ART SHOWS
137 ORCHESTRA CONCERTS
115 JOGGING
91 COLLEGE TEAM SPORTS
73 ROCK & ROLL CONCERTS

4 How do you think the college's personnel can best serve the community?
(CHECK AS MANY AS APPLY)

246 WORKSHOPS FOR COMMUNITY GROUPS
245 TEACHING & OTHER ACADEMIC DUTIES
207 CONSULTATION & TRAINING
99 CONCERTS & PERFORMANCES
No response 30

5 Would you or someone in your family be interested in teaching a non-credit course?

64 YES 291 NO
No response 50

6 If yes, in what subject or area?
See attached report.

7 Do you feel that there are traffic and parking problems in the community?

227 YES 146 NO

8 Do you have any suggestions as to how the college can help reduce or minimize any additional parking or traffic problem?

See discussion in summary report.

9 Do you think that you and your family will be using the facilities of the Diamond Head campus?

296 YES 74 NO
No response 35

10 Do you thin a community group should advice on the use of the Diamond Head facilities?

312 YES 57 NO
No response 37

11 Which of the following should be included in a Diamond Head complex for community use?
(CHECK AS MANY AS APPLY)

226 HOBBY & CRAFT WORKSHOPS
219 ORGANIZED RECREATION AREAS FOR BASEBALL, TENNIS, ETC.
207 OPEN SPACE
182 JOGGING TRACK/PATH
176 THEATER/CONCERT HALL
171 BOOKSTORE
163 SWIMMING POOL
154 COMMUNITY INFORMATION CENTER
110 RESTAURANT
104 ART GALLERY

12 During what hours would you and members of your family be likely to use the Diamond Head facilities?
(CHECK ONE)

246 BETWEEN 6:00 & 9:00 P.M.
91 BETWEEN 8:00 A.M. & NOON
61 BETWEEN 3:00 & 6:00 P.M.
48 BETWEEN NOON & 3:00 P.M.
29 None. WE WILL NOT USE THEM

13 What would be the best arrangement for community groups and agencies using the campus?
(CHECK AS MANY AS APPLY)

251 USE OF EMPTY CLASSROOMS
231 USE OF THEATER, WORKSHOPS, ETC.
82 JOINTLY OWNED & MANAGED FACILITIES
19 NONE

14 Not all community activities and facilities can be totally supported by taxes. Which ones would you be willing to pay a fee to use?
(CHECK AS MANY AS APPLY)

223 HOBBY & CRAFT WORKSHOPS
207 THEATER/CONCERT HALL
165 RECREATIONAL FACILITIES
142 MEETING ROOMS

15 Should the Fort Ruger-Diamond Head site of the future community college be built all at once, or should it be built in increments?
(CHECK ONE)

222 IT SHOULD BE BUILT IN INCREMENTS.
139 IT SHOULD BE BUILT ALL AT ONCE.
37 NO RESPONSE

16 Whenever public facilities are built in this community, which environmental concerns are the most important to you?
(PUT A "1" BY THE MOST IMPORTANT, A "2" BY THE NEXT MOST IMPORTANT, ETC. PUT A "5" BY THE LEAST IMPORTANT)

1 MINIMIZE BULK & HEIGHT OF BUILDING
2 PRESERVE OPEN SPACE
3 PRESERVE TREES
4 MINIMIZE USE OF ENERGY & WATER
5 NO GRADING OF CONTOURS

17 For daily trips in the community (shopping, school, library) which mode of transportation do you use?
(PUT A "1" BY THE MOST USED. PUT A "2" BY THE NEXT MOST USED)

	Number of Times Indicated As: 1st Mode	2nd Mode
Drive My Own Car	300	36
Ride in Another's Car	23	38
Take the Bus	37	77
Walk	36	73
Bike	9	15

QUESTIONS ABOUT THE COMMUNITY

On the following questions indicate by circling the appropriate response whether you:

STRONGLY AGREE	SA	
AGREE	A	
have NO OPINION	N	(CIRCLE ONE)
DISAGREE	D	
STRONGLY DISAGREE	SD	

18 Before making decisions that will have a major effect on the community, public officials should:

a) Hold public hearings.

SA	A	N	D	SD
276	97	14	1	2

b) Disqualify themselves if they have a direct or indirect financial interest in the matter.

SA	A	N	D	SD
270	87	17	10	2

c) Require an environmental impact analysis including projected revenues and costs.

SA	A	N	D	SD
181	146	30	19	5

d) Disclose any real estate holdings they have in the area.

SA	A	N	D	SD
229	108	33	11	2

e) Open all discussion and decision sessions to the public.

SA	A	N	D	SD
209	118	19	34	6

19 Each community should determine its own population capacity.

SA	A	N	D	SD
100	144	72	51	12

20 Each community should determine when and where within the community new development should occur.

SA	A	N	D	SD
127	151	51	51	4

21 Zoning and land use decisions in my community are fairly and justly made.

SA	A	N	D	SD
27	109	133	74	33

22 Do you believe that additional development is desirable for your community?

180 YES 176 NO

On the following statements please indicate how you would rank your community. The rankings are:

EXCELLENT	1	
GOOD	2	
ADEQUATE	3	(CIRCLE ONE)
POOR	4	
VERY POOR	5	

23 The integrity of officials responsible for zoning and land use decisions is:

1	2	3	4	5
9	83	190	57	30

24 Mass transportation service is:

1	2	3	4	5
41	125	139	61	18

25 Parks and recreational facilities are:

1	2	3	4	5
43	163	121	46	9

26 Efforts taken to protect established neighborhoods from new developments that do not fit the neighborhood are:

1	2	3	4	5
15	93	172	64	24

27 Public access to beaches and trails is:

1	2	3	4	5
26	105	150	55	27

28 The quality and maintenance of streets, sewers, and sidewalks are:

1	2	3	4	5
27	88	157	76	32

Do you have other comments about community planning and development: _____

- - - - - - - - - - - - - - - - AND A FEW QUESTIONS ABOUT YOURSELF - - - - - - - - - - - - - - - -

29 Are you FEMALE 204 or MALE 175?

In which age range do you place yourself?

133 41 TO 60	70 UNDER 25
125 26 TO 40	37 61 AND OVER

30 This survey is being taken in the area from Kapahulu to Kaimuki, Kahala, and Diamond Head. How long have you lived in this area? (CHECK ONE)

282 OVER 10 YEARS	46 1 TO 5 YEARS
51 6 to 10 YEARS	9 LESS THAN 1 Year

31 We would like to stay in touch with you. What would be the best way for community organizations and the college to keep in touch? (CHECK AS MANY AS APPLY)

292 NEWSLETTERS MAILED TO YOU
285 THE DAILY PAPERS
154 RADIO ANNOUNCEMENTS
89 COMMUNITY MEETINGS
80 SURVEYS
60 EDUCATIONAL T.V.
25 CABLE T.V.
24 BULLETIN BOARDS

If you have other comments, please write them here: or you may call us to volunteer to serve on the advisory board or share your ideas with us. Please call Mr. Henry Takani at 735-3511. PLEASE PLACE THIS SURVEY IN THE POSTAGE-PAID ENVELOPE AND MAIL IT TO US TODAY. Thank you for your help.

COMMENTS: _____

QUESTIONS 5 & 6

Non-Credit Teachers

Korean to

Psychotherapy

Having queried the people extensively about what they wanted to have taught to them, we asked in Questions 5 and 6 if they would like themselves to be the teachers of any non-credit subjects. Sixty-four said that they or members of their family would and forty-nine were definite enough about it to list a subject area. The full list of subjects is attached. It ranges from Korean to Psychotherapy to Motorcycle Maintenance. It is a strong comment of the type of community and its attitudes toward the teaching-learning process when 15% of the respondants are as interested in doing the teaching as in being the students. Naturally it behooves the college to go first to its own community when recruiting non-credit instructors in any of the areas listed on the roster developed from this question.

QUESTION 7

A primary concern throughout the community needs assessment process has been the issue of traffic and parking. On the initial mini-survey, designed to detect areas of concern,

this item threatened to overwhelm all others. On this survey several questions are directed to this matter. Question 7 attempts to discover opinion about the existence of a traffic and parking problem in the community as it presently is. 227 (56%) indicate that they feel there is presently a problem, 146 (35%) feel that there is not, (31 gave no response.) With the non-responders eliminated, the percentages become a crisp 60% saying that there are parking and traffic problems in the area and 40% saying that there are not. This aggregate ratio of 3 to 2 varies from area to area. (See "Variations By Neighborhood" for more detail.) While a majority of the residents feel there is a parking problem it is not the screaming all-consuming issue that the earlier mini-survey sensed. Whereas that survey asked simply if there was a problem, this one gave as well the option of indicating that there was <u>not</u> a problem. Well over one-third of the respondants indicated specifically that parking and traffic were <u>not</u> a problem. In one neighborhood, number 3, it was almost a

Traffic and Parking: A Present Problem

But Not Everywhere

stand-off with 47 indicating that there was a problem and 40 indicating that there was not.

QUESTION 17

Most Use Own Car

The traffic and parking situation stems from the transportation mode used by the residents of the area. Question 17 asked respondents to rank by first-most-used and second-most-used, five modes of transportation; Driving a private automobile, riding in a private automobile, riding the bus, bicycling and walking. The questionnaire specifically sought the first two most used modes because it is the finding of previous studies that people satisfy the great majority of their local transportation needs from among two basic modes. The respondants were left free, however, to rank modes 3rd, 4th and 5th, which many chose to do. To score this item, a number of strategies were used. One of them assigns weights (chosen to catch the significant high choice items) to the choice-ranks and then multiplies the choice-ranks to get a weighted score. Those weighted

scores are then added to obtain a total score for the item which can be compared to the total scores for each other item. To properly reflect the intended loading on the first and second most often used modes, weights were used as follows: 1st choice--12x (multiplied by twelve); 2nd choice--9x; 3rd choice (if expressed)--3x; 4th choice--1x. The item ranked last is dropped out (0x). Driving a private care comes in first, and overwhelmingly so. No matter what weighting formula is used; even one that gives second choice items almost as much importance as first choice items, driving one's own car consistently scores far, far ahead of any other item. This is easy to understand when one looks at the raw scores:

	Number of Times Indicated As	
	1st Mode	2nd Mode
Drives Own Automobile	300	36
Takes the Bus	37	77
Rides in Another's Car	23	88
Walk	36	73
Bike	9	15

The 300 indications of driving one's own car speak to the predominance of that mode of transportation in this community. It is important to note here that people were not indicating their preferences on this question nor were they being asked to state what modal splits they would think best for their community. The question asked about present behavior. It would be grossly unfair to assume that this community is happy with this state of affairs and prefers to have this dependence on the self-driven private car just as it would be unwarranted to assume that with the introduction of other options the community would desert its cars en mass. All that can be said is that the present behavior pattern is one of predominant use of the car.

Another way of looking at this data is to attempt to project what proportion of the total daily trips in the community are made by each mode. To do this we simply figure that in each instance where the first mode can be said to represent one trip, the second choice mode probably accounts for half-of-a-trip and

the third through fifth for another half. (Actually, this is being conservative. It is likely that the first choice mode accounts for a good deal more than half of all the trips made.) By this model we find that 44% of the trips are made by private car with the respondant as driver, 17% are made by bus, 14% by private car with the respondant as passenger, 16% by foot and 9% by bike. Thus, more than half of all trips made in the community (44% + 14%) involve putting a car on the neighborhood streets, and finding parking for it.

The planners of the college can draw several conclusions from this material. One of course is to realize that the community has a traffic problem. A second is to be aware that the problem exists now, with the college only minutely developed. There is little the college can do, directly, to improve the community traffic problem. It can, however, minimize its contribution to the problems. It can also sponsor studies to try to find a long-range solution. It

Can the College Help?

can see that its own long-range plans are coordinated with whatever municipal and other plans are developed to respond to the community problems. These steps it is recommended the college take, with the awareness that a traffic problem existed before it was built and would continue to exist in any event.

QUESTION 8

Building on the excellent response that the mini-survey and the town meetings experienced when the community was asked for ways to help with the traffic, an open-ended question was included which asked for suggestions for solutions. One-hundred sixty-five people had an idea and took the time to share it. Almost half of the responses fell into five groups:

SUGGESTION	NUMBER OF TIMES SUGGESTED
Build parking structures	24
Have adequate bus service	22
Have car pools	17
Have shuttle busses	13
Have adequate parking space	17
	86

Parking, Busses and Other Solutions

Six more suggested various systems of parking passes and a total of ten additional suggestions were made that attacked the problem from a parking system approach. All in all, fifty (30%) of the suggested solutions involved the construction, management, and financing of new parking spaces. There is a crystallization of opinion about how to handle the traffic problem around the provision of adequate parking to handle the number of cars expected. A second cluster of opinions (36 responses, 21%) shapes up around various suggestions for bus service including rerouting, additional busses, shuttle busses, etc. Given that the transportation mode behavior question revealed that this community uses the bus as the second-most used means of transportation, these suggestions about bus service bear careful followup. Among the 165 suggestions were several that had been voiced before and none that had not been thought of previously. No magic breakthroughs are on the horizon. A carefully planned integration

of available methods of dealing with the to-and-from-campus transportation issue appears to be called for, with the major elements being the provision of on-campus or satellite parking, improved bus service and, of course, the staggering of campus use periods throughout the day and the week to prevent peak loading problems.

QUESTION 9

Up to this point it has not been specifically asked if the respondant plans to use the campus or not. As the campus will have an impact on all those in the community, whether they become full-time students, only come for a workshop now and then, or never set foot on the campus at all, the questionnaire asks for the opinions of all and gives all respondants equal voice. One question, however, asks if the respondant thinks that he or members of his/her family will be using the campus. Two-hundred ninety-six (73%) said "YES" and 74 (18%) said "NO." The remaining 9% either were not sure at this time or simply elected not to answer. It is

Four out of five Plan to Use the Campus.

APPENDIX IV

"TRAFFIC IMPACT STATEMENT KAPIOLANI COMMUNITY COLLEGE AT FORT RUGER," PREPARED BY HENRY TUCK AU

TRAFFIC IMPACT STATEMENT

KAPIOLANI COMMUNITY COLLEGE

AT

FORT RUGER

TAX MAP KEY 3-1-42-09

Prepared By

Henry Tuck Au, Consulting Engineer
33 S. King Street
Suite 507
Honolulu, Hawaii 96813

Revised June 1980

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ILLUSTRATIONS

TABLES

SUMMARY

1. The proposal is to relocate all of Kapiolani Community College to the former Fort Ruger property and at the same time develop a community college in the East Honolulu area. The proposed college will be designated as Kapiolani Community College at Fort Ruger. The campus and educational programs will be planned to accommodate an ultimate enrollment of 5,000 FTE students.

2. The Fort Ruger property, identified by Tax Map Key 3-1-42-09, covers an area of 51.628 acres and is bounded by Eighteenth Avenue, Diamond Head Road, Makapuu Avenue and Kilauea Avenue. The existing zoning of the Fort Ruger property is R-3 Residential District which allows for such uses as colleges and universities. No change in zoning is required for relocation of the college.

3. The college is bounded by streets on three sides of the property. On the fourth side, there is a strip of land between Diamond Head Road and the college. This strip of land is part of the Diamond Head Monument under the control of the State Department of Land and Natural Resources. The site is, therefore, well located with respect to access routes from several directions.

4. The college and the neighborhood are presently served by two bus lines so that the college is accessible by various modes of transportation (bicycle, walk to school, automobile driver, automobile passenger, transit passenger, etc.) from various points in Honolulu. The rerouting of one of these buslines or the addition of another line should provide more convenient service for the college and community.

5. The energy crisis, and with it the rising transportation cost, will restrict the use of the automobile and curtail the mobility of the general public. There is now, throughout the United States and Hawaii, increasing dependence on the use of public transportation.

6. The major highway system serving the Fort Ruger neighborhood, consists of Waialae Avenue, Lunalilo Freeway, Harding Avenue, Pahoa Avenue, Sixth Avenue, Twelfth Avenue, Eighteenth Avenue, Alohea Avenue, Kilauea Avenue and Diamond Head Road. Being away from all major activities and with numerous local streets to distribute the traffic flow, the college should create less of a traffic problem.

7. Lunalilo Freeway has diverted considerable through traffic from the local streets and major streets of the Kaimuki District, including Waialae Avenue and Harding Avenue. Only minor increases in future traffic volumes of about 1.25% per year, are expected on the local and major streets of the Kaimuki District. The increase in traffic is considered to be minor.

8. The present County Development Plan for the area indicates all of the major streets in the Kaimuki area will be widened to a 56 or 80-foot right-of-way. This does not appear to be necessary based on the traffic analysis.

9. Except for Diamond Head Road which should be widened at least a 56-foot road right-of-way, the existing streets are adequate to accommodate the projected community college traffic.

10. The peak hour volume generated by the college is estimated at 848 trips. There are 11 approaches to the college. Assuming equal distribution on all approaches, and a peak hour traffic of four times the average traffic increase on any road, the distribution of the peak hour volume on any one approach will be only 250 vehicles. The street system, therefore, will have sufficient capacity to accommodate all of the traffic generated by the college except Diamond Head Road which already has a peak hour traffic of over 900 vehicles.

11. A maximum of 1,200 parking spaces will be provided for the campus. This is more than the 600 stalls required according to the County Comprehensive Zoning Code. The additional stalls are being planned to minimize off-street parking by the students and thereby reduce traffic congestion in the surrounding area.

12. Analyzing the various factors, it may be concluded that the proposed Kapiolani Community College at Fort Ruger will not add substantially to the traffic problems to create an adverse impact. Properly planned and with adequate parking, the college should enhance the aesthetic, environmental and economic aspects of the neighborhood and provide a service to the community.

PROJECT DESCRIPTION

Kapiolani Community College, originally located on 5.3 acres of land at Pensacola Street and Kapiolani Boulevard, is gradually being relocated to the former Fort Ruger property to meet educational facility requirements and to develop a community college in the East Honolulu area. The initial relocation of part of the college was made in 1975 when the Arts and Science Program was transferred to Fort Ruger. At Fort Ruger, the College presently operates in temporary facilities utilizing the existing buildings within the site.

At Fort Ruger, full relocation and development of the college with a permanent campus and expanded educational facilities are planned to be accomplished in 1982 or later. The campus and educational programs will be planned to accommodate an ultimate enrollment of 5,000 FTE students. Kapiolani Community College will be attended by students from the entire metropolitan area and present plans are to design the college as a commuter campus with no residential facilities or dormitories for the student body.

The Fort Ruger property, identified by Tax Map Key 3-1-42: 09, covers an area of 51.628 acres and is bounded by Eighteenth Avenue, Makapuu Avenue, Kilauea Avenue and a strip of land along Diamond Head Road. The project location map, Plate 1, outlines its relationship to the highway system and the neighborhood.

The existing zoning of the Fort Ruger property is R-3 Residential District which allows for such uses as colleges and universities. No change in zoning is required for relocation of the college.

INTRODUCTION

The relocation of an institution is a major project and considerable planning has been undertaken to insure that proper attention was given not only to the future arrangement and development of the campus, but also to the transportation problems of the institution. The magnitude of the problems incidental to the greater usage of the automobile was readily recognized. Thus, planning of the campus had to address the traffic and parking problems.

Adequate transportation facilities, including access, parking and safe movement of vehicles and pedestrians are a prerequisite for efficient operation of the college. Plans therefore include provisions for the automobile and pedestrians, with locations and designs of buildings properly related to

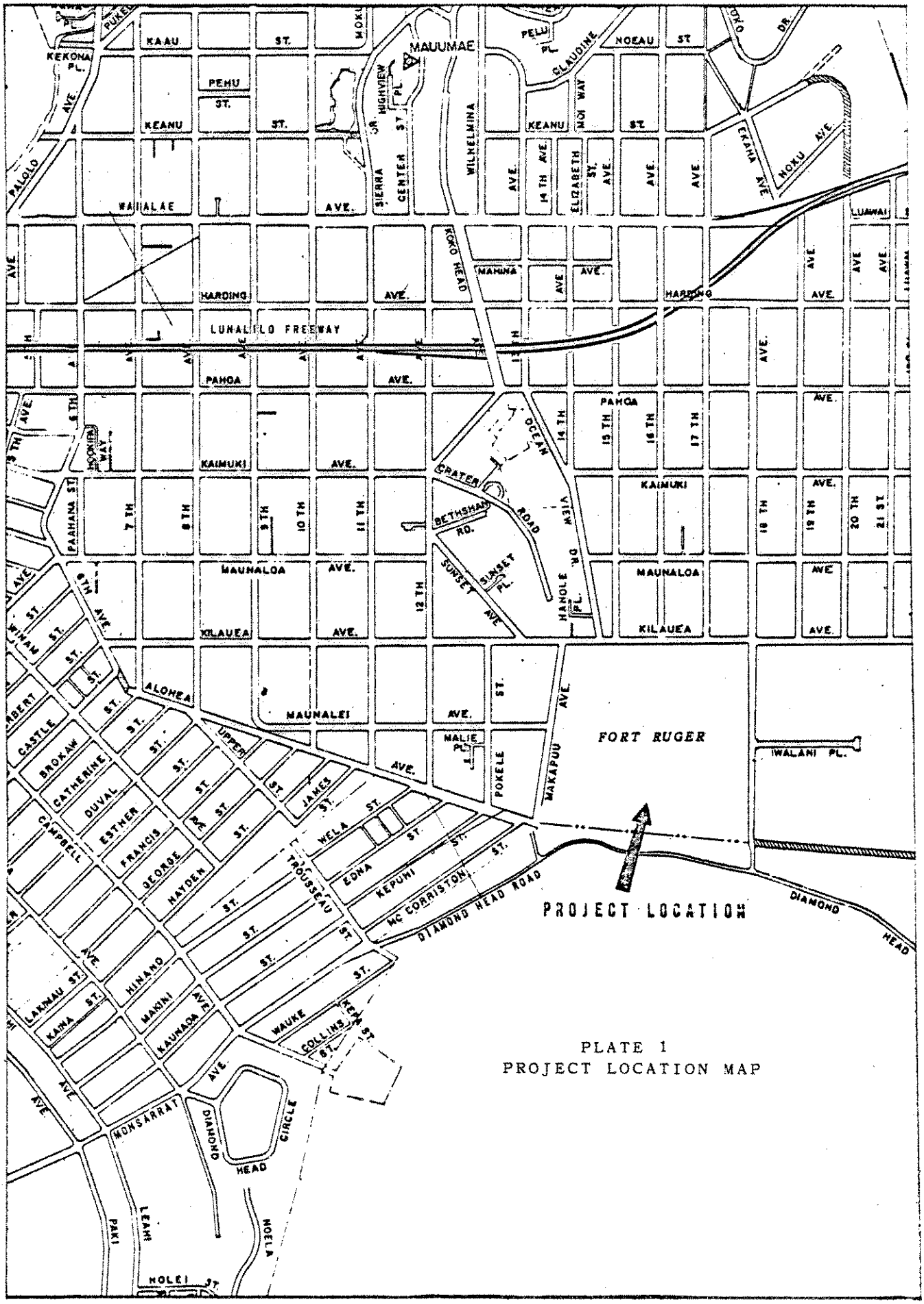


PLATE 1
PROJECT LOCATION MAP

access, parking and internal circulation. Thus, the college should provide a needed service to the community without creating major traffic problems.

This report analyzes and evaluates the traffic impact of the college on the highway system, the neighborhood and the community.

LEEWARD COMMUNITY COLLEGE SURVEY

The "Parking Requirement Report - Community Colleges on Oahu" was prepared for DAGS by T. Y. Lin, Hawaii, Inc. with William C. Hong, Traffic Consultant and published in February 1973. Reference is being made to this report because it contains pertinent traffic information which can be used to project the traffic for the Kapiolani Community College Diamond Head campus. Plate 2 and Table 1 were extracted from Chapter 3 and Appendix E, respectively, of this report.

The 1.5 factor of total trips (students, faculty, staff, visitors and deliveries) to total students from Table 1 should represent the maximum driving condition based on the following items:

1. Wahiawa Transport Systems Inc. was on strike from early 1971 and Leeward Bus Company provided only limited service at the time of the survey in 1971. Additionally, the bus stop was on Farrington Highway which was about one mile from the campus.

2. College officials reported that an increasing percentage of students were coming from outside the Leeward areas. The chances were greater that these students would drive to the college.

3. Nearby housing and student dormitories were non-existent at that time. Therefore, very few students, if any, were within walking distance to the campus.

4. There were no parking fees so students were not discouraged from driving to the college.

5. There was adequate parking to meet the peak parking demand.

Conditions were excellent for the survey because:

1. Cars driven to LCC by students, faculty, staff and visitors were parked within the paved parking lots, Drum Storage Road and construction areas where they could easily be counted.

2. There was only one entrance to the college so traffic counting was simplified.

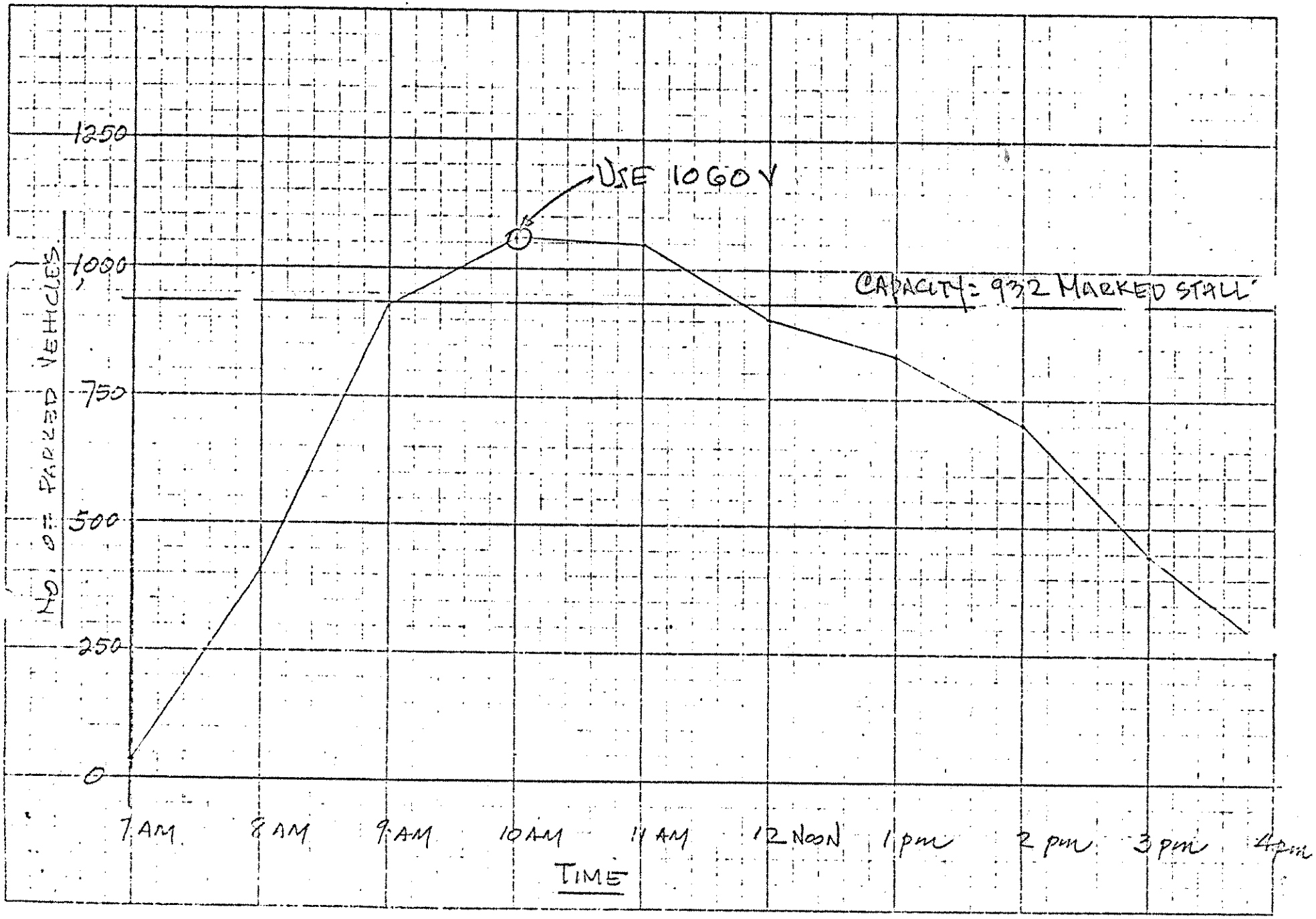


PLATE 2 - INVENTORY OF PARKED CARS - LCC - May 6, 1971

TABLE 1

Department of Transportation
Highways Division - Planning Branch

TRIP GENERATION STUDY Leeward Community College STUDY # 001

SITE DESCRIPTION:

Enrollment	:	4,400
Faculty and Staff	:	202
Parking Spaces Available	:	1,250
Paved Spaces	:	950
Building Area sq. ft.	:	108,810
Site Area acres	:	49

Standard Land Use Code: 6,822

Date of Count: Monday 2-8-71 to Thursday 2-18-71

Peak Day of Week: Wednesday

AM Peak Hour: 7:30 - 8:30

PM Peak Hour: 2:30 - 3:30

Average Daily Traffic: 6,656

PEAK HOUR VOLUMES GENERATED BY THE COLLEGE:

Volumes During Normal Highway Peak Hours

	Morning		Afternoon
Hour	(6:30-7:30)	(7:00-8:00)	(4:30-5:30)
2-way Vol.	135	440	311
2-way Peak Hour Vol. as % of ADT (6656)	2.0%	6.6%	4.7%

Volumes During College Peak Hours

	Morning		Afternoon		Evening
Hour	(7:30-8:30)	(8:00-9:00)	(12:00-1:00)	(2:30-3:30)	(8:30-9:30)
2-way Vol.	673	640	597	661	380
2-way Peak Hour Vol. as % of ADT (6656)	10.1%	9.6%	9.0%	9.9%	5.7%

TRIP RATIOS (Two-way Trips per Unit):

	Leeward College	California Jr. Colleges (Average)
Trips/Total Students	1.5	1.4
Trips/Faculty and Staff	33.0	27.8
Trips/Available Parking Space	5.3	5.5
Trips/10,000 Sq. Ft. Bldg. Area	612	346
Trips/Acre	136	88

MM (3-31-71)

KAPIOLANI COMMUNITY COLLEGE SURVEY

A survey of the Kapiolani Community College students, faculty and staff was conducted in May 1978 to determine some of their transportation characteristics. The response of approximately 37%, as indicated in Table 2, provided valuable information. Tables 3 to 5 summarizes information obtained from the survey.

Assuming the responses received represents a uniform segment of the student body, the number of students attending classes at the Diamond Head Campus was estimated as follows: 28.5% (16.2% plus 12.3%) times 4,200 KCC students which comes to approximately 1,200 students. This means that about 20% (1,200/6,000) of the utlimate community college traffic is being generated now.

TABLE 2

1978 Survey Response[1/]

	Campus						
	Pensacola		Both		Diamond Head		Total
	No.	%	No.	%	No.	%	No.
Faculty/Staff	48	72.7	13	19.7	5	7.6	66
Students	1116	71.5	252	16.2	192	12.3	1560
Total	1164	71.6	265	16.3	197	12.1	1626

1/ On March 3, 1978, there were 4,200 students enrolled at Kapiolani Community College according to KCC Report 2507.

TABLE 3

1978 Mode of Travel
Diamond Head Campus

	Percent of Responses	
Mode of Travel	Students	Faculty/Staff
Drive	76	94
Ride Bus	17	6
Other	7	0
TOTAL	100	100

Table 4

1978 Diamond Head Campus Traffic

	% of Average Daily Traffic						
	Students		Faculty/Staff		Combined		
Time	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures	Total
7:00 A.M.	24.6		75.8		27.6		27.6
8:00 A.M.	25.6		3.0		24.2		24.2
9:00 A.M.	8.8	3.8	0.0	0.0	8.3	3.6	11.9
10:00 A.M.	11.7	8.9	7.1	0.0	11.5	8.4	19.9
11:00 A.M.	7.5	9.6	2.0	6.1	7.2	9.4	16.6
12:00 Noon	9.1	16.5	1.0	1.0	8.6	15.6	24.2
1:00 P.M.	5.5	20.1	1.0	17.2	5.2	19.9	25.1
2:00 P.M.		12.8		11.1		12.7	12.7
3:00 P.M.		10.5		11.1		10.5	10.5
4:00 P.M.		2.9		33.3		4.7	4.7
5:00 P.M.		2.2		15.2		2.9	2.9
6:00 P.M.							
% of Total	92.8	87.3	89.9	95.0	92.6	87.7	

TABLE 5

Riding Bus/Car Pooling
Diamond Head Campus

Survey Question/Group	% Response Yes	No	?
1. Would you ride the bus if the service were improved?			
All Students	48	42	10
Only Students Driving	42	51	7
All Faculty/Staff	28	61	11
Only Faculty/Staff Driving	23	65	12
2. Would you participate in a car pool?			
All Students	42	33	25
Only Students Driving	40	35	25
Only Student Drivers Who Said They Would Not Ride The Bus	-	34	-
All Faculty/Staff	22	56	22
Only Faculty/Staff Driving	18	59	23

COLLEGE TRAFFIC GENERATION

The 1978 survey indicated that approximately 76% of the students and 94% of the faculty and staff at Diamond Head Campus drove to school. This high dependence on the use of automobiles as the primary means of transportation should lessen due to the increased cost of automobile travel. The result should be increased use of public transportation, car pooling, bicycling and walking. Since transportation by "The Bus" can have a significant positive impact on the college and community by alleviating some of the traffic volume, the college will encourage bus ridership.

The Diamond Head Campus is presently served by City and County Bus Routes 3 and 57 as indicated in Plate 3. Buses run every 15 and 30 minutes for Routes 3 and 57, respectively. Route 57 comes from the Ala Moana area, passes through Waikiki, takes Monsarrat Avenue to Diamond Head Road, turns into Eighteenth Avenue, and then proceeds on Kilauea Avenue to Kahala. The bus returns on the same route, as it back-tracks to Ala Moana. Route 3 comes from the Kapahulu Area on Maunaloa Avenue, turns on 9th Avenue and Kilauea Avenue, turns into Makapuu Avenue and then Diamond Head Road, and continues on Eighteenth Avenue to Pahoa Avenue, then to the Kaimuki terminal. Route 3 returns on the same route except that after turning into Makapuu Avenue, it turns at Alohea Avenue, and then Pokole Avenue, to reach Kilauea Avenue.

In order to provide better bus service for the students and community, provisions have been made in the master plan for the buses to enter the campus from Diamond Head Road, and stop in front of the Administration Building. Additionally, changes in route and more frequent bus service have been discussed with the City and County Department of Transportation Services. These changes can be made at a later date and will depend on the following:

1) A request for additional service is made.

2) Buses are available to provide the additional service.

3) Ridership on the bus route justifies the additional service.

The 1979 survey indicated that approximately 48% of all Community College users and 42% of those now driving to the campus would ride "The Bus" if bus service were improved. If this happens, the net gain in bus riders would be 31%. However, it is estimated that only about one-fourth of these new people would actually ride the bus. Therefore, this study estimates that with an improved bus service, bus ridership will increase from the present 17% to 25% of those going to the community college.

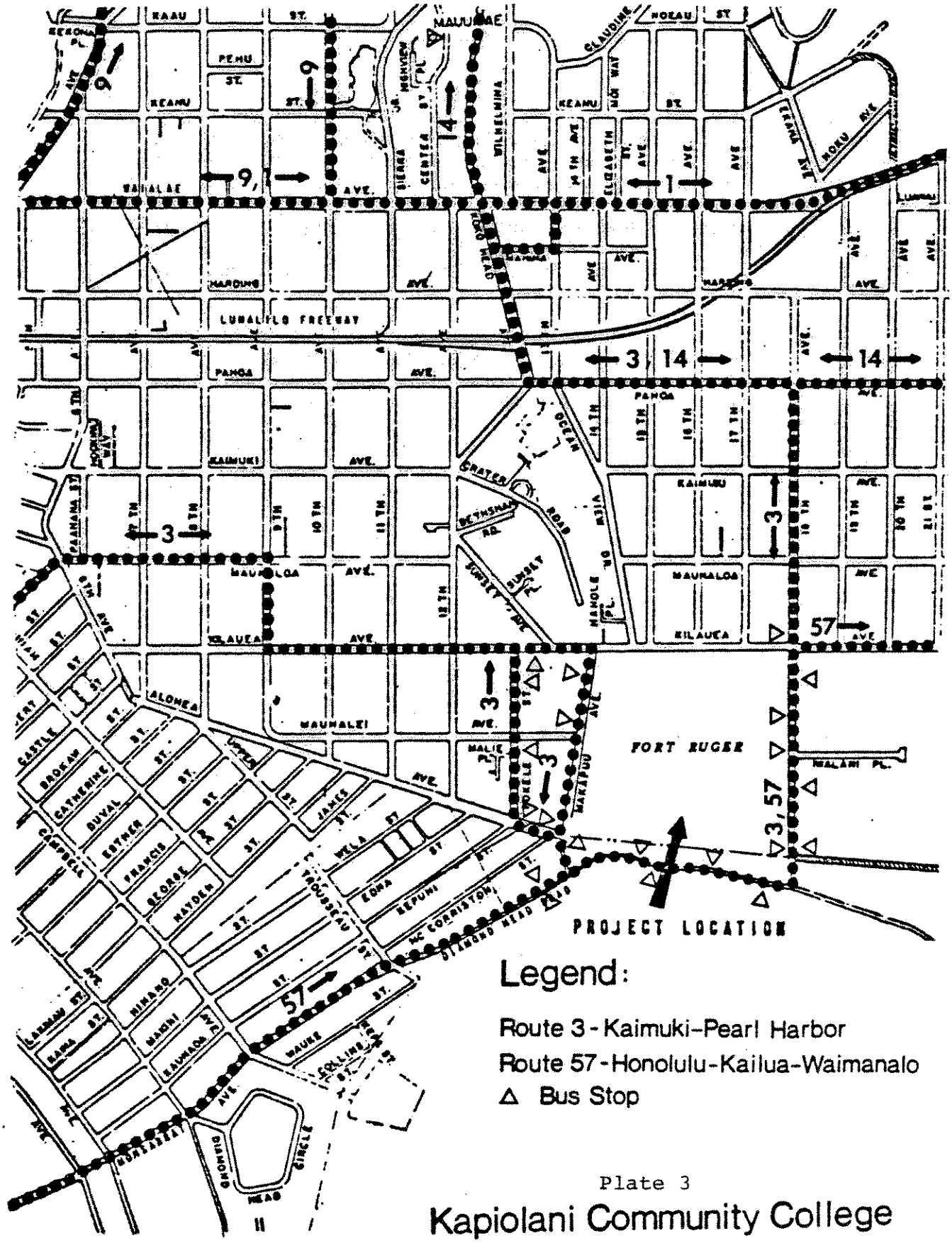


Plate 3

Kapiolani Community College City Bus Routes

The 1978 survey also indicated that approximately 52% of the Community College users would participate in a car pool and that about 48% of those who said they would not ride the bus, would car pool. The problem with car pooling is finding someone from the same area attending college during the same day and between certain times. This problem will be reduced as the Diamond Head Campus is developed and the enrollment increases. However, it is estimated that only about 15% of these people or 8% of those going to the college would actually car pool.

It is estimated that only 2% of those going to the college would ride a bicycle or walk. Thus, people riding a bicycle, walking, or riding a car to college would increase from the present 7% figure obtained in the survey to 10%. With this 10% for "other means of travel" and 25% riding the bus, the students driving to school would decrease from the 76% figure in the 1978 survey to 65%.

The 1978 survey also indicated that those driving to the college made an average of 1.5 trips per weekday. The traffic generated by the Community College when it is fully developed was computed as shown in Table 6 using the following factors:

1) The total number of students will be 6,000 (5,000 FTE) with about 300 faculty and staff.

2) The number of persons driving to the college will be 65% of the total number of students plus faculty and staff.

3) The average number of daily trips (two per round trip) will be 1.5 times the number of persons driving to college.

4) The distribution of the trips will be according to the percentages from Table 4.

5) The increase in traffic from the Community College will be 81% since approximately 19% of the students are already utilizing the Diamond Head Campus.

It should be noted that the student distribution is predominantly towards the leeward direction and the college is located away from major employment centers. Thus the directional flow of traffic to the college will be counter to the prevailing peak hour flow which should lessen traffic congestion.

Table 6

College Traffic Distribution

	Vehicular Trips Generated by College						
	Total a/		Increase Over 1979 b/		On One Trip c/		
Time	In	Out	In	Out	In	Out	Total
7:00 A.M.							
	848		687		250		250
8:00 A.M.							
	743		602		219		219
9:00 A.M.							
	255	111	207	90	75	33	108
10:00 A.M.							
	353	258	286	209	104	76	180
11:00 A.M.							
	221	289	179	234	65	85	150
12:00 Noon							
	264	479	214	388	78	141	219
1:00 P.M.							
	160	611	130	495	47	180	227
2:00 P.M.							
		390		316		115	115
3:00 P.M.							
		322		261		95	95
4:00 P.M.							
		144		117		43	43
5:00 P.M.							
		89		72		26	26
6:00 P.M.							
Totals	2844	2693	2305	2182	838	794	1632

a/ 6300 x 65% x 0.5 x 1.5 trips x % from Table 4
b/ 81% x total column
c/ Increased traffic ÷ 11 approaches x 4 times average

HIGHWAY SYSTEMS

The existing highway system serving the Fort Ruger neighborhood is shown on Plate 4 without regard to administrative systems (Federal aid, State and City). The portions of the highway system most likely to be used in reaching the campus are shown as heavy lines. They consist of Waialae Avenue, Harding Avenue, Lunalilo Freeway, Pahoa Avenue, Kaimuki Avenue, Maunaloa Avenue, Kilauea Avenue, Maunalei Avenue, Alohea Avenue, Sixth Avenue, Seventh Avenue, Tenth Avenue, Twelfth Avenue, Koko Head Avenue, Ocean View Drive, Sixteenth Avenue, Eighteenth Avenue, Twenty-first Avenue, Campbell Avenue, Monsarrat Avenue and Diamond Head Road. The college site is, therefore, well located with respect to access routes from many directions.

A review of the various major routes vehicular traffic will probably use to approach and enter the site was made as shown in Plate 4. The entry points are Diamond Head Road, Makapuu Avenue, Fifteenth Avenue, Sixteenth Avenue and Eighteenth Avenue. Thus traffic approaching the campus from various points can enter the campus after driving only a short distance around the perimeter.

Traffic heading in the southeast direction on Lunalilo Freeway may exit at Sixteenth Avenue or Koko Head Avenue. From Koko Head Avenue, they will use Pahoa Avenue, Ocean View Drive and Kilauea Avenue or a combination of Twelfth, Sunset, Kilauea, Pokele Street, Maunalei and Makapuu Avenues. From the Sixth Avenue exit, they will use Pahoa Avenue and follow closely the same routing as traffic exiting from Koko Head Avenue or proceed on either Kaimuki, Maunaloa, Kilauea, Maunalei and Alohea Avenues.

The Saint Louis Heights/Palolo Valley traffic will use Waialae, Harding and Koko Head Avenues and follow the same routes as the freeway traffic exiting at Koko Head Avenue. They will also use Seventh and Tenth Avenues to cross the freeway and follow similar routes as the freeway traffic exiting at Sixth Avenue. The Kapahulu/Kaimuki traffic will follow similar routes as the freeway traffic exiting at Sixth Avenue or use Campbell Avenue and one of the many roads between Campbell and Alohea Avenues or Diamond Head Road.

The Diamond Head/Waikiki traffic and some of the McCully traffic will use Monsarrat Avenue and Diamond Head Road route. Some of the traffic from the Manoa, McCully and Moiliili areas probably will use the same routes as the Saint Louis Heights/ Palolo Valley traffic or the Kapahulu/Kaimuki traffic.

Traffic from Maunalani Heights/Wilhelmina Rise will use Waialae and Harding Avenues and cross the freeway at Koko Head Avenue, Sixteenth Avenue or Seventeenth Avenue. From Koko

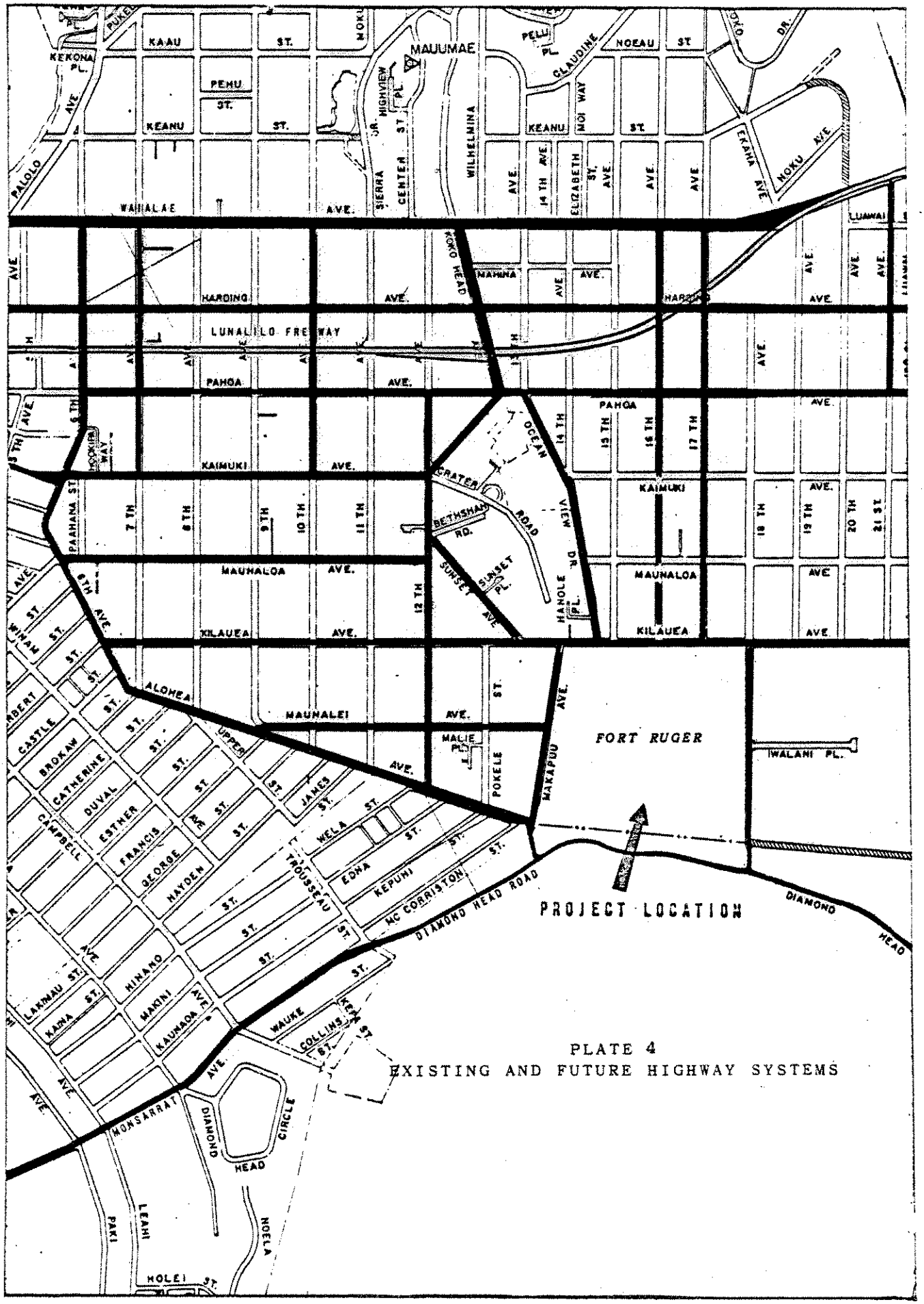


PLATE 4
EXISTING AND FUTURE HIGHWAY SYSTEMS

Head Avenue, this traffic will follow similar routes as the freeway traffic exiting at Koko Head Avenue. From Sixteenth and Seventeenth Avenues, the traffic would enter the campus at Fifteenth and Sixteenth Avenues.

Traffic heading in the northwest direction on Kalanianaòle Highway and Lunalilo Freeway will exit at Kilauea Avenue and Waialae Avenue. From the Kilauea Avenue exit, traffic could use Kilauea Avenue, Eighteenth Avenue and Diamond Head Road or proceed under the viaduct to turn left into Twenty-first Avenue and then using a combination of Harding, Pahoa, Kilauea, Fifteenth through Nineteenth Avenues and Diamond Head Road. Traffic exiting at Waialae Avenue would use Sixteenth and Seventeenth Avenues and follow the same routes as the Maunalani Heights/Wilhelmina Rise traffic.

The Waialae traffic would use Harding, Pahoa, Kilauea and Fifteenth through Nineteenth Avenues. The primary route for Kahala traffic will be Kilauea Avenue. The secondary routes will be Pahoa Avenue, Diamond Head Road and Eighteenth Avenue. Thus traffic will utilize the following 11 approaches to the campus:

Diamond Head Road (west)
Alohea Avenue
Maunalei Avenue
Kilauea Avenue (west)
Ocean View Drive
Fifteenth Avenue
Sixteenth Avenue
Seventeenth Avenue
Eighteenth Avenue
Kilauea Avenue (east)
Diamond Head Road (east)

The above review indicates that traffic will be dispersed throughout the area. Based on past experiences in other areas, this dispersal should become fairly even since traffic "seeks its own level" as people utilize alternative routes when one route becomes more congested than the other. However, to simplify evaluation of the impact of the college traffic on the neighborhood traffic, it was assumed that the peak traffic on any of the 11 approaches would be four times the average increase in college traffic. This increase is computed as shown in Table 6.

TRAFFIC VOLUMES

Traffic counts of the Fort Ruger neighborhood were obtained from the County Department of Transportation Services as shown on Plates 5 and 6 and in the Appendix. These traffic counts were taken for each 15-minute period during a 24-hour period in August 1971. They show that the major traffic movements in the area were on Diamond Head Road, Eighteenth Avenue and Kilauea Avenue. Traffic counts were also made by the County during 1973 and 1979. However, these were not as complete as the traffic counts made during 1971. The comparison of the traffic volume counts for the years 1979 and 1971 is shown in Tables A1 through A11 in the Appendix.

Lunalilo Freeway has diverted considerable through traffic from the local streets and major streets of the Kaimuki District, including Waialae Avenue and Harding Avenue. Thus, only minor increases in future traffic volumes, approximately 1.25% per year, are expected on the local streets and major streets of the Kaimuki District. An increase in traffic volumes of only 1.25% per year will be hardly noticeable.

Since peak hour traffic flows are an important consideration in the design of highways, analysis of the 24-hour volumes collected at the various intersections and sections of highways was made. It shows that the morning peak traffic is usually concentrated within a 2-hour period from 6:00 A.M. to 8:00 A.M. whereas the afternoon peak traffic is concentrated within a longer period of three hours from 3:00 P.M. to 6:00 P.M. In this connection, college trips coincide with the peak commuting hours in the morning. However, for departures, students leave college spaced out throughout the day, whereas, faculty and staff usually work longer hours so that their peak departure hours coincide with the public.

The generation of additional traffic by the college was taken from Table 6 and superimposed on the traffic in Tables A1-A11 of the Appendix. The changes in peak traffic are summarized in Table 7.

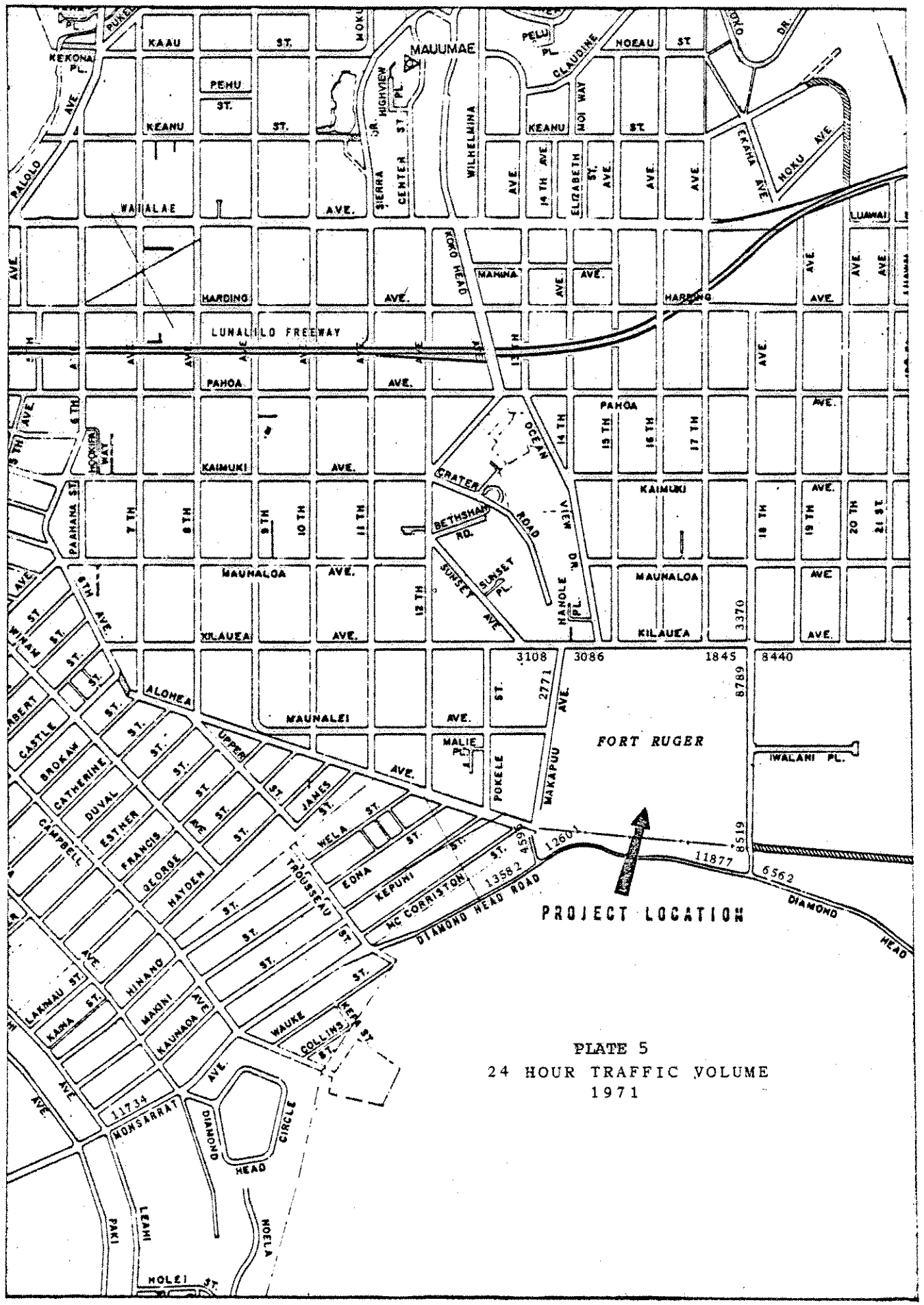


PLATE 5
24 HOUR TRAFFIC VOLUME
1971

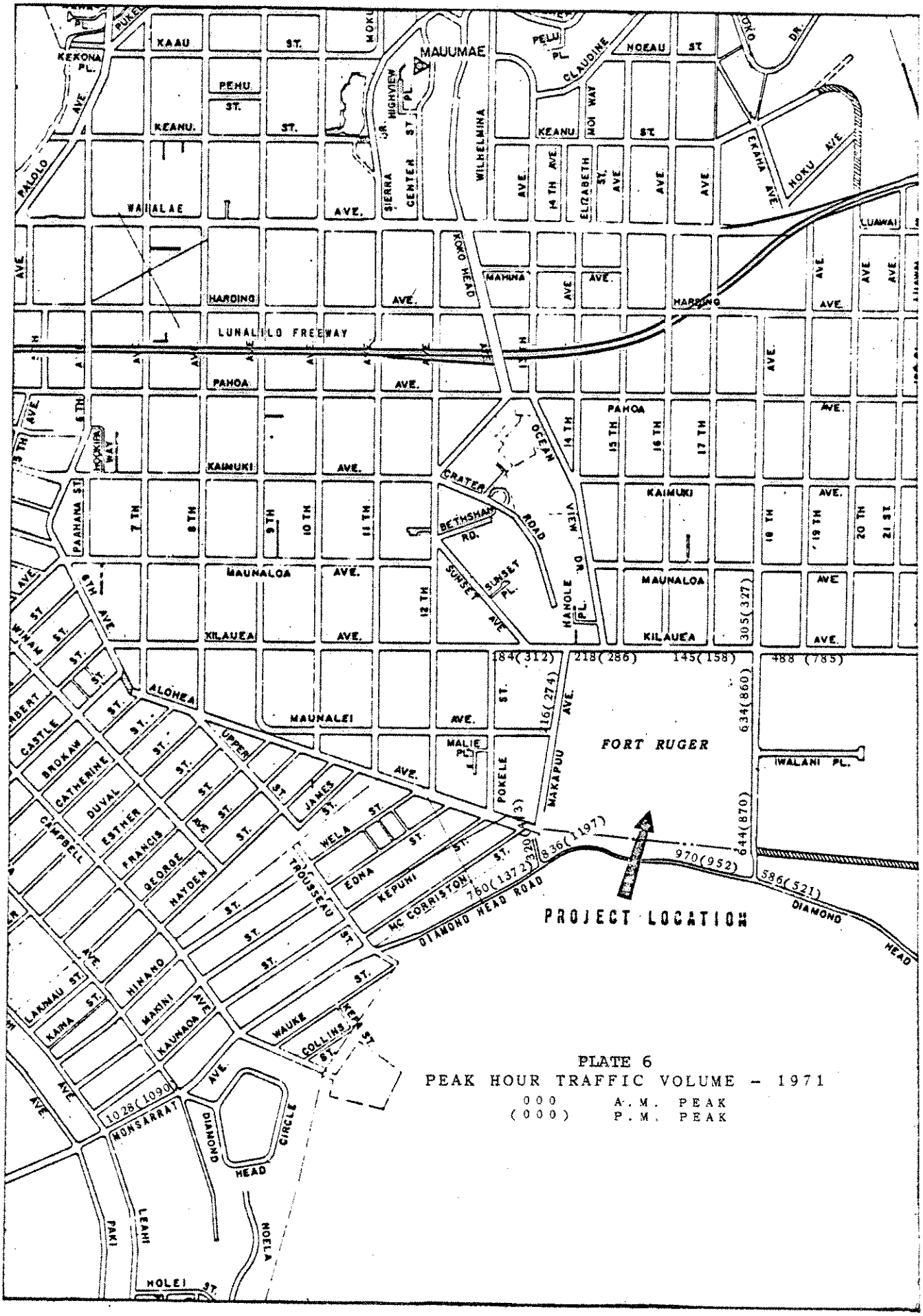


PLATE 6
PEAK HOUR TRAFFIC VOLUME - 1971

000 A.M. PEAK
(000) P.M. PEAK

Table 7

Estimated Changes in Peak Traffic

Vehicles/Hour:Time				
Present a/		Future b/		Location
A.M.	P.M.	A.M.	P.M.	
570 8-9	887 4-5	789 8-9	930 4-5	Kilauea Avenue east of 18th Avenue
655 7-8	890 4-5	905 7-8	933 4-5	18th Avenue between Diamond Head Road and Kilauea Avenue
586 7-8	521 4-5	836 7-8	611 12-1	Diamond Head Road east of 18th Avenue
970 7-8	1005 4-5	1086 7-8	1240 4-5	Diamond Head Road between 18th and Makapuu Avenues
760 7-8	1372 4-5	1010 7-8	1415 4-5	Diamond Head Road west of Makapuu Avenue
320 7-8	473 7-8	570 4-5	516 4-5	Makapuu Avenue between Diamond Head Road and Alohea Avenue
195 7-8	251 4-5	445 7-8	372 12-1	Makapuu Avenue between Alohea and Kilauea Avenues
264 7-8	266 4-5	514 7-8	427 12-1	Alohea Avenue west of Makapuu Avenue
252 7-8	321 4-5	502 7-8	432 1-2	Kilauea Avenue west of Makapuu Avenue
337 7-8	301 4-5	587 7-8	419 1-2	Kilauea Avenue between Makapuu and 16th Avenues
180 7-8	168 5-6	430 7-8	347 1-2	Kilauea Avenue between 16th and 18th Avenues
167 11-12	155 12-1	385 7-8	374 12-1	16th Avenue mauka of Kilauea Avenue
305 7-8	327 4-5	555 7-8	407 1-2	18th Avenue north of Kilauea Avenue

a/ Based on the highest peak volume from the traffic survey by the County as shown in the Appendix.

b/ Based on adding the estimated peak college traffic from Table 6.

ROADWAY CAPACITIES

The capacity of a collector street with a right-of-way width of 60 feet with no parking and at grade intersection is 1,275 vehicles per hour for both directions of travel. The capacity of a local street with a right-of-way width of 44 feet with no parking and at grade intersection is approximately 600 vehicles per hour in one direction and 900 vehicles for both directions of travel.

Nearly all of the local streets have a right-of-way width of 50 feet and pavement width of 20 feet. The capacity of such a local street is slightly lower than that of a local street with a 44-foot right-of-way and pavement width of 28 feet. However, all of the major streets are proposed on the present City and County Detailed Land Use Plan for either a 56 or 80-foot right-of-way.

Table 7 indicates that the traffic on Diamond Head Road between Makapuu and Eighteenth Avenues already exceeds the Service Level C capacity of 900 vehicles/hour and should therefore be widened according to the present County Development Plan. Table 7 also indicates that Eighteenth Avenue between Diamond Head Road and Kilauea Avenue will exceed this level when the Diamond Head Campus is fully developed. The result of traffic exceeding this service level is that traffic speed is reduced to accommodate a larger flow of vehicles. Since the projected peak is only about 4% over the Service Level C capacity, it probably does not warrant widening Eighteenth Avenue.

Although the peak hour traffic for Kilauea Avenue on the Kahala side of Eighteenth Avenue was in excess of 900 vehicles/hour, this is below the Service Level C capacity for a 4-lane roadway. The section of Kilauea Avenue between Eighteenth and Twenty-Second Avenues is partially improved but the pavement width can accommodate 4 lanes of traffic.

PARKING REQUIREMENTS

The number of parking stalls required for Kapiolani Community College at Fort Ruger is governed by the Comprehensive Zoning Code (CZC) which specifies one space per five fixed seats in the main meeting area or five spaces per classroom, whichever is greater. Using 120 classrooms and laboratories, the number of spaces required by the CZC is 600. This number was considered inadequate by the Community College because it would result in flooding the surrounding streets with parked cars and thereby impede traffic flow.

Based on the February 1973 publication, "Parking Requirement Report - Community Colleges on Oahu" prepared for DAGS by T. Y. Lin, Hawaii, Inc. with William C. Hong, Traffic Consultant, the Community College has been planned to provide a maximum of 1,200 stalls. This should reduce the need for commuters to park on the surrounding streets. These stalls have been dispersed around the perimeter of the campus to:

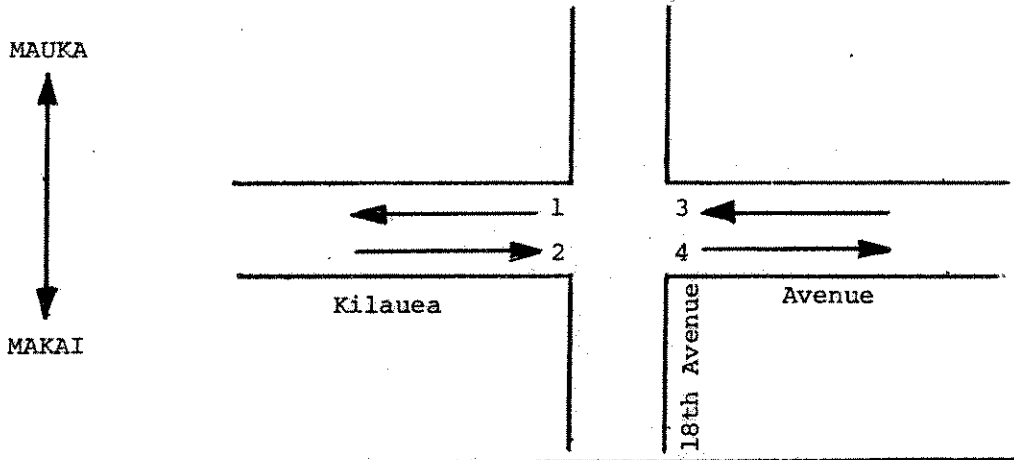
(1) Minimize the need for commuters to drive around the perimeter and thus increase the traffic volume on those streets.

(2) Provide parking spaces convenient to the various college facilities to encourage parking within the campus rather than the surrounding streets.

CONCLUSION

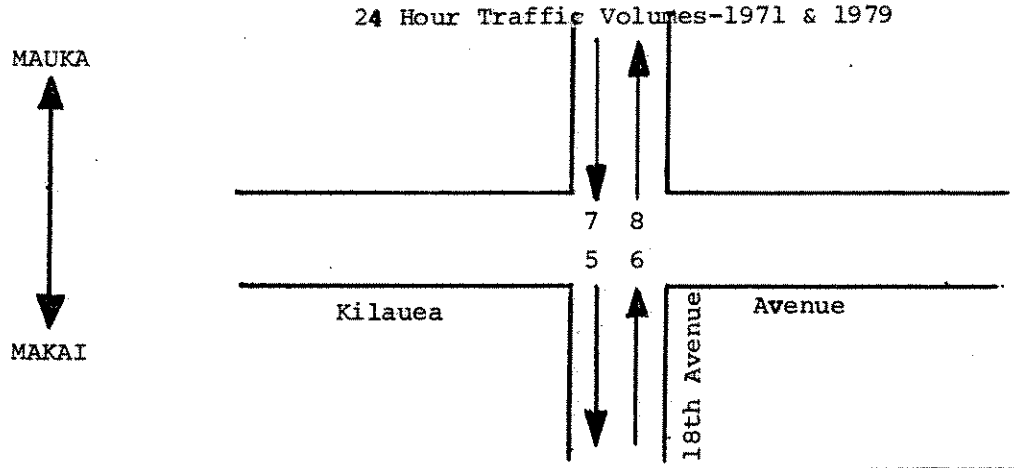
Analyzing the various factors, it may be concluded that the proposed Kapiolani Community College at Fort Ruger will not add substantially to the traffic problems to create an adverse impact. Properly planned and with adequate parking, the college should enhance the aesthetic, environmental, social and economic aspects of the neighborhood and provide a service to the community.

Table A1
24 Hour Traffic Volumes-1971 & 1979



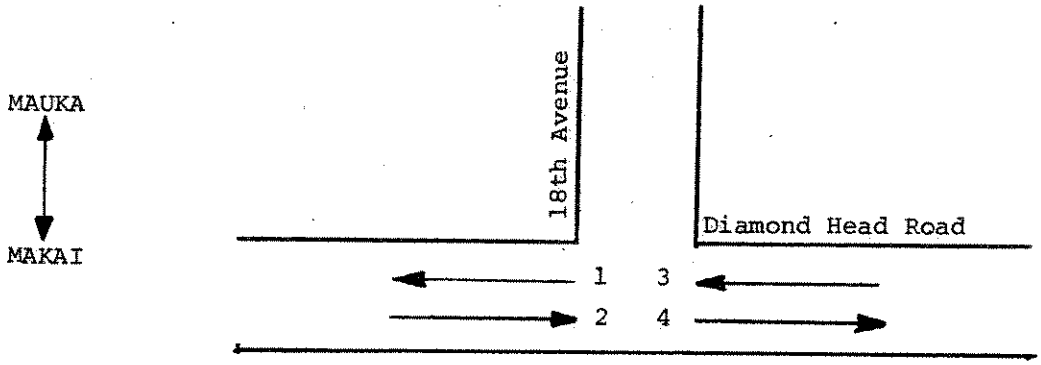
Time	No. of Vehicles									% 24 Vol 19
	Movement			Movement			Movement			
	(1) 1971	(2) 1971	Total 1971	(3) 1971	(4) 1971	Total 1971	(2) 1979	(3) 1979	Total	
4:00 - 5:00 A.M.	0	2	2	5	15	20	1	14		
5:00 - 6:00 A.M.	5	5	10	47	22	69	4	70		
6:00 - 7:00 A.M.	20	21	41	199	80	279	25	250		
7:00 - 8:00 A.M.	46	43	89	322*	161	483	50	368*		
8:00 - 9:00 A.M.	61	84*	145*	255	233*	488*	51	337		
9:00 - 10:00 A.M.	63*	60	123	237	198	435	55	212		
10:00 - 11:00 A.M.	49	60	109	231	251	482	65	246		
11:00 - 12:00 N.	43	65	108	214	233	447	72*	266		
12:00 - 1:00 P.M.	45	41	86	201	213	414	88	254		
1:00 - 2:00 P.M.	36	57	93	203	257	460	66	266		
2:00 - 3:00 P.M.	65*	61	126	205	288	493	85	260		
3:00 - 4:00 P.M.	57	69	126	233	337	570	95	330		
4:00 - 5:00 P.M.	49	91	140	250*	535	785*	117*	352*		
5:00 - 6:00 P.M.	44	114*	158*	205	544*	749	97	323		
6:00 - 7:00 P.M.	53	67	120	220	323	543	76	252		
7:00 - 8:00 P.M.	58	61	119	220	243	463	60	272		
8:00 - 9:00 P.M.	40	36	76	198	134	332	36	205		
9:00 - 10:00 P.M.	23	38	61	114	174	288	44	182		
10:00 - 11:00 P.M.	14	29	43	110	141	251	48	138		
11:00 - 12:00 M.N.	19	14	33	69	113	182	23	81		
12:00 - 1:00 A.M.	11	7	18	40	61	101	18	40		
1:00 - 2:00 A.M.	6	5	11	19	44	63	9	27		
2:00 - 3:00 A.M.	2	3	5	10	14	24	8	11		
3:00 - 4:00 A.M.	3	0	3	9	10	19	2	16		
24 Hour Volume	812	1033	1845	3816	4624	8440	1195	4772		

Table A2
24 Hour Traffic Volumes-1971 & 1979



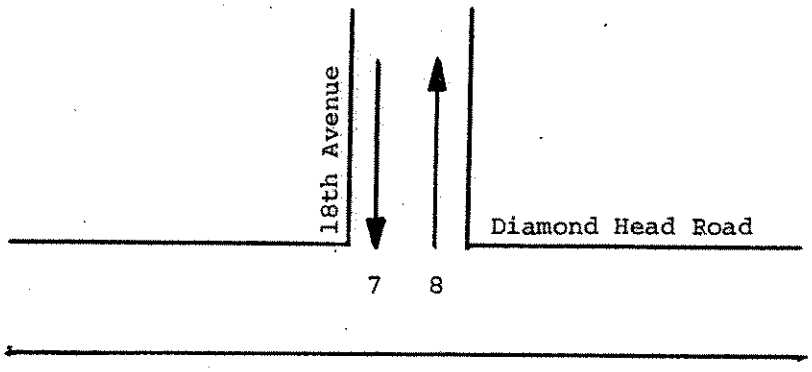
Time	No. of Vehicles									% of 24 Hou Volum 1971
	Movement			Movement			Movement			
	(5) 1971	(6) 1971	Total 1971	(7) 1971	(8) 1971	Total 1971	(6) 1979	(7) 1979	Total	
4:00 - 5:00 A.M.	5	13	18	1	1	2	24	4		
5:00 - 6:00 A.M.	59	26	85	73	10	83	39	38		
6:00 - 7:00 A.M.	277	89	366	128	39	167	100	131		
7:00 - 8:00 A.M.	464*	170	634*	230*	75	305*	177	173*		
8:00 - 9:00 A.M.	255	178	433	106	83	189	170	90		
9:00 - 10:00 A.M.	216	183	399	76	80	156	181	74		
10:00 - 11:00 A.M.	225	191	416	93	107*	200	225	87		
11:00 - 12:00 N.	214	216*	430	81	82	163	276*	80		
12:00 - 1:00 P.M.	223	230	453	97	87	184	247	98		
1:00 - 2:00 P.M.	207	257	464	82	98	180	274	72		
2:00 - 3:00 P.M.	201	296	497	78	89	167	331	77		
3:00 - 4:00 P.M.	277*	366	643	133*	122	255	431	92		
4:00 - 5:00 P.M.	257	603*	860*	117	210*	327*	534*	94		
5:00 - 6:00 P.M.	229	541	770	103	129	232	457	97*		
6:00 - 7:00 P.M.	212	324	536	88	87	175	356	72		
7:00 - 8:00 P.M.	192	226	418	69	72	141	252	59		
8:00 - 9:00 P.M.	176	154	330	42	65	107	232	50		
9:00 - 10:00 P.M.	113	176	289	44	51	95	189	36		
10:00 - 11:00 P.M.	105	169	274	24	49	73	210	33		
11:00 - 12:00 M.N.	77	149	226	36	56	92	181	36		
12:00 - 1:00 A.M.	40	80	120	19	20	39	123	18		
1:00 - 2:00 A.M.	14	56	70	6	15	21	82	11		
2:00 - 3:00 A.M.	15	25	40	2	7	9	46	1		
3:00 - 4:00 A.M.	6	12	18	3	5	8	46	7		
24 Hour Volume	4059	4730	8789	1731	1639	3370	5183	1530		

Table A3
24 Hour Traffic Volumes-1971 & 1979



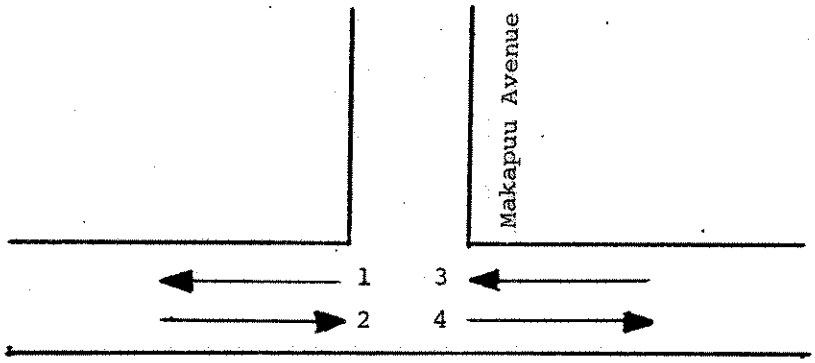
Time	No. of Vehicles									% 24 Vol 19
	Movement			Movement			Movement			
	① 1971	② 1971	Total 1971	③ 1971	④ 1971	Total 1971	② 1979	③ 1979	Total	
4:00 - 5:00 A.M.	12	19	31	6	20	26	38	7		
5:00 - 6:00 A.M.	58	38	96	27	55	82	50	18		
6:00 - 7:00 A.M.	293	128	421	118	159	277	116	105		
7:00 - 8:00 A.M.	706*	264	970*	363*	223	586*	318	349*		
8:00 - 9:00 A.M.	426	225	651	244	116	360	268	230		
9:00 - 10:00 A.M.	322	270	592	173	132	305	305	187		
10:00 - 11:00 A.M.	309	285	594	161	170	331	279	158		
11:00 - 12:00 N.	304	351*	655	167	241*	408	334*	163		
12:00 - 1:00 P.M.	298	339	637	180	212	392	347	159		
1:00 - 2:00 P.M.	279	366	645	135	191	326	358	156		
2:00 - 3:00 P.M.	303	421	724	178	224	402	439	212		
3:00 - 4:00 P.M.	316	525	841	148	299*	447	497	209		
4:00 - 5:00 P.M.	372*	633	1005*	248*	273	521*	596	230*		
5:00 - 6:00 P.M.	289	663*	952	164	256	420	603*	201		
6:00 - 7:00 P.M.	297	415	712	179	199	378	437	160		
7:00 - 8:00 P.M.	280	294	574	145	179	324	309	123		
8:00 - 9:00 P.M.	217	231	448	86	145	231	259	82		
9:00 - 10:00 P.M.	155	253	408	76	156	232	250	85		
10:00 - 11:00 P.M.	127	221	348	52	125	177	240	94		
11:00 - 12:00 M.N.	102	189	291	58	100	158	237	56		
12:00 - 1:00 A.M.	50	90	140	31	43	74	127	36		
1:00 - 2:00 A.M.	26	76	102	23	41	64	99	12		
2:00 - 3:00 A.M.	19	30	49	10	17	27	57	12		
3:00 - 4:00 A.M.	8	13	21	7	7	14	41	9		
24 Hour Volume	5568	6339	11877	2979	3583	6562	6604	3053		

Table A4
24 Hour Traffic Volumes-1971 & 1979



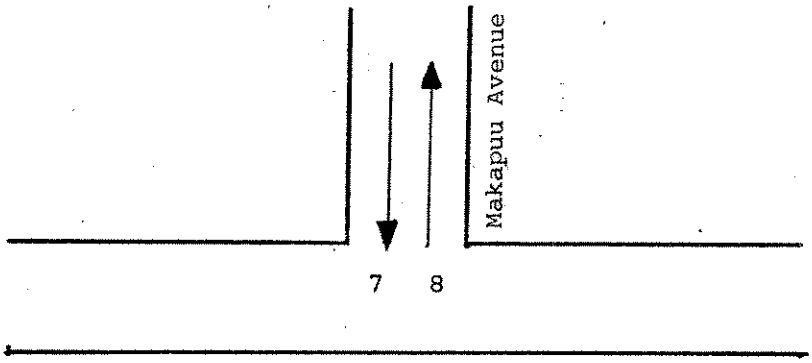
Time	No. of Vehicles									% of 24 Hou Volume 1971
	Movement			Movement			Movement			
	(7) 1971	(8) 1971	Total 1971	( ) 1971	( ) 1971	Total 1971	(7) 1979	( )	Total	
4:00 - 5:00 A.M.	5	9	14				19			
5:00 - 6:00 A.M.	49	21	70				66			
6:00 - 7:00 A.M.	244	74	318				324			
7:00 - 8:00 A.M.	479*	165	644*				490*			
8:00 - 9:00 A.M.	275	172	447				358			
9:00 - 10:00 A.M.	214	179	393				272			
10:00 - 11:00 A.M.	221	173	394				221			
11:00 - 12:00 N.	211	205*	416				204			
12:00 - 1:00 P.M.	220	225	445				301			
1:00 - 2:00 P.M.	213	246	459				266			
2:00 - 3:00 P.M.	198	290	488				315			
3:00 - 4:00 P.M.	258	349	607				322*			
4:00 - 5:00 P.M.	267*	603*	870*				387			
5:00 - 6:00 P.M.	225	522	747				285			
6:00 - 7:00 P.M.	201	301	502				224			
7:00 - 8:00 P.M.	192	211	403				231			
8:00 - 9:00 P.M.	174	139	313				156			
9:00 - 10:00 P.M.	119	165	284				101			
0:00 - 11:00 P.M.	105	137	242				117			
1:00 - 12:00 M.N.	76	130	206				92			
2:00 - 1:00 A.M.	38	76	114				31			
1:00 - 2:00 A.M.	19	39	58				19			
2:00 - 3:00 A.M.	15	24	39				11			
3:00 - 4:00 A.M.	39	7	46				5			
4 Hour Volume	4057	4462	8519				4717			

Table A5
24 Hour Traffic Volumes-1971



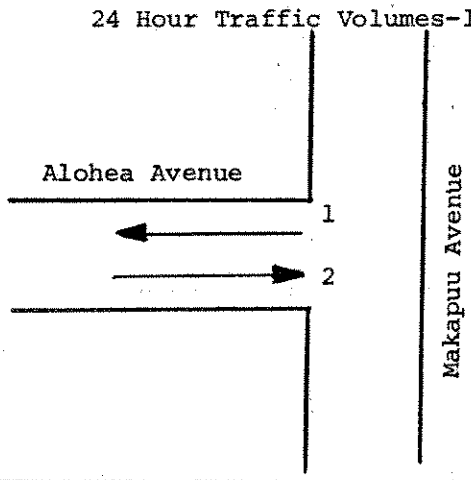
Time	No. of Vehicles									% of 24 Hour Volume 197
	① 1971	② 1971	Total 1971	③ 1971	④ 1971	Total 1971	○	○		
4:00 - 5:00 A.M.	44	23	67	16	19	35				
5:00 - 6:00 A.M.	262	32	294	61	44	105				
6:00 - 7:00 A.M.	562*	117	679	220	117	337				
7:00 - 8:00 A.M.	518	242	760*	595*	241	836*				
8:00 - 9:00 A.M.	290	280	570	526	265	791				
9:00 - 10:00 A.M.	354	246	600	380	236	616				
10:00 - 11:00 A.M.	321	309	630	291	282	573				
11:00 - 12:00 N.	356	401*	757	402	355*	757				
12:00 - 1:00 P.M.	372	435	807	361	393	754				
1:00 - 2:00 P.M.	315	342	657	327	314	641				
2:00 - 3:00 P.M.	385	387	772	373	338	711				
3:00 - 4:00 P.M.	395	500	895	366	436	802				
4:00 - 5:00 P.M.	607*	765*	1372*	511*	686*	1197*				
5:00 - 6:00 P.M.	403	720	1123	364	642	1006				
6:00 - 7:00 P.M.	387	444	831	366	406	772				
7:00 - 8:00 P.M.	293	356	649	328	323	651				
8:00 - 9:00 P.M.	249	267	516	233	244	477				
9:00 - 10:00 P.M.	174	296	470	173	260	433				
10:00 - 11:00 P.M.	135	282	417	159	240	399				
11:00 - 12:00 M.N.	72	194	266	122	167	289				
12:00 - 1:00 A.M.	46	126	172	83	102	185				
1:00 - 2:00 A.M.	26	118	144	47	100	147				
2:00 - 3:00 A.M.	20	58	78	26	42	68				
3:00 - 4:00 A.M.	17	39	56	13	33	46				
24 Hour Volume	6603	6979	13582	6343	6285	12628				

Table A6
24 Hour Traffic Volumes-1971



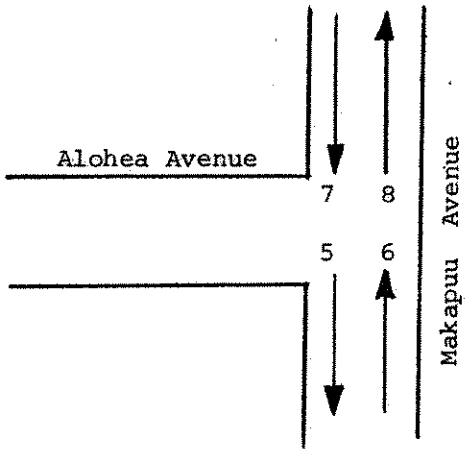
Time	No. of Vehicles									% of 24 Ho Volum 1971
	(7) 1971	(8) 1971	Total 1971	○	○		○	○		
4:00 - 5:00 A.M.	5	5	10							
5:00 - 6:00 A.M.	24	16	40							
6:00 - 7:00 A.M.	80	48	128							
7:00 - 8:00 A.M.	196*	124	320*							
8:00 - 9:00 A.M.	118	122	240							
9:00 - 10:00 A.M.	108	122	230							
10:00 - 11:00 A.M.	120	140	260							
11:00 - 12:00 N.	94	190*	284							
12:00 - 1:00 P.M.	118	142	260							
1:00 - 2:00 P.M.	105	136	241							
2:00 - 3:00 P.M.	132	167	299							
3:00 - 4:00 P.M.	121	173	294							
4:00 - 5:00 P.M.	180*	293*	473*							
5:00 - 6:00 P.M.	171	205	376							
6:00 - 7:00 P.M.	119	135	254							
7:00 - 8:00 P.M.	102	144	246							
8:00 - 9:00 P.M.	76	108	184							
9:00 - 10:00 P.M.	44	90	134							
0:00 - 11:00 P.M.	52	79	131							
1:00 - 12:00 M.N.	29	40	69							
2:00 - 1:00 A.M.	17	49	66							
1:00 - 2:00 A.M.	3	25	28							
2:00 - 3:00 A.M.	6	11	17							
3:00 - 4:00 A.M.	5	7	12							
4 Hour Volume	2025	2571	4596							

Table A7
24 Hour Traffic Volumes-1979



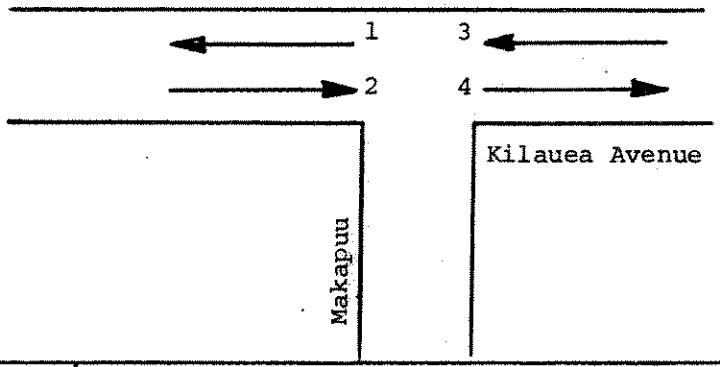
Time	No. of Vehicles									% 24 Vol 19
	Movement			Movement			Movement			
	(1) 1979	(2) 1979	Total 1979	○	○	Total	○	○	Total	
4:00 - 5:00 A.M.		4								
5:00 - 6:00 A.M.		21								
6:00 - 7:00 A.M.		68								
7:00 - 8:00 A.M.		132*								
8:00 - 9:00 A.M.		93								
9:00 - 10:00 A.M.		88								
10:00 - 11:00 A.M.		80								
11:00 - 12:00 N.		76								
12:00 - 1:00 P.M.		104								
1:00 - 2:00 P.M.		95								
2:00 - 3:00 P.M.		105								
3:00 - 4:00 P.M.		103								
4:00 - 5:00 P.M.		133*								
5:00 - 6:00 P.M.		133*								
6:00 - 7:00 P.M.		86								
7:00 - 8:00 P.M.		51								
8:00 - 9:00 P.M.		36								
9:00 - 10:00 P.M.		46								
10:00 - 11:00 P.M.		29								
11:00 - 12:00 M.N.		23								
12:00 - 1:00 A.M.		10								
1:00 - 2:00 A.M.		9								
2:00 - 3:00 A.M.		5								
3:00 - 4:00 A.M.		5								
24 Hour Volume		1535								

Table A8
24 Hour Traffic Volumes-1979



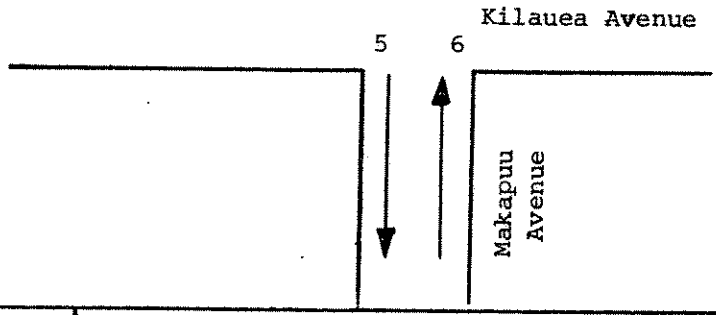
Time	No. of Vehicles									% of 24 Hou Volum 1971
	Movement			Movement			Movement			
	(5) 1979	(6) 1979	Total 1979	(7) 1979	(8) 1979	Total 1979	◯	◯	Total	
4:00 - 5:00 A.M.		10		4	8	12				
5:00 - 6:00 A.M.		30		24	9	33				
6:00 - 7:00 A.M.		83		58	59	117				
7:00 - 8:00 A.M.		208*		119*	76	195*				
8:00 - 9:00 A.M.		166		70	92*	162				
9:00 - 10:00 A.M.		136		44	67	111				
10:00 - 11:00 A.M.		126		46	89	135				
11:00 - 12:00 N.		141		66	77	143				
12:00 - 1:00 P.M.		155		52	101	153				
1:00 - 2:00 P.M.		163		48	88	136				
2:00 - 3:00 P.M.		201		69	103	172				
3:00 - 4:00 P.M.		220		76	126	202				
4:00 - 5:00 P.M.		239*		84*	167*	251*				
5:00 - 6:00 P.M.		226		80	134	214				
6:00 - 7:00 P.M.		212		52	103	155				
7:00 - 8:00 P.M.		104		46	73	119				
8:00 - 9:00 P.M.		77		50	59	109				
9:00 - 10:00 P.M.		85		27	49	76				
10:00 - 11:00 P.M.		79		29	54	83				
11:00 - 12:00 M.N.		54		18	48	66				
12:00 - 1:00 A.M.		36		6	29	35				
1:00 - 2:00 A.M.		33		4	14	18				
2:00 - 3:00 A.M.		19		2	12	14				
3:00 - 4:00 A.M.		18		2	6	8				
24 Hour Volume		2821		1076	1643	2719				

Table A9
24 Hour Traffic Volumes-1971 & 1979



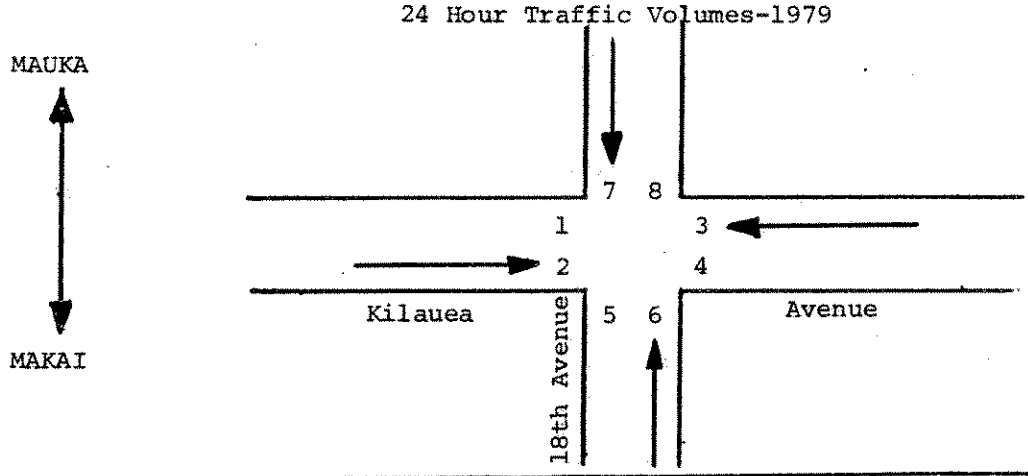
Time	No. of Vehicles									% o 24 H Volu 197
	Movement			Movement			Movement			
	① 1971	② 1971	Total 1971	③ 1971	④ 1971	Total 1971	② 1979	③ 1979	Total	
4:00 - 5:00 A.M.	3	0	3	3	2	5	5	4		
5:00 - 6:00 A.M.	14	8	22	18	5	23	15	30		
6:00 - 7:00 A.M.	51	45	96	98	30	128	68	143		
7:00 - 8:00 A.M.	88	96*	184*	174*	44	218*	164*	250*		
8:00 - 9:00 A.M.	82	73	155	105	52	157	83	153		
9:00 - 10:00 A.M.	89	60	149	91	54	145	79	78		
10:00 - 11:00 A.M.	89	68	157	86	66	152	75	89		
11:00 - 12:00 N.	106*	86	192	73	77*	150	86	94		
12:00 - 1:00 P.M.	87	93	180	87	61	148	116	110		
1:00 - 2:00 P.M.	111	72	183	92	61	153	94	100		
2:00 - 3:00 P.M.	107	98	205	79	73	152	104	144		
3:00 - 4:00 P.M.	137	98	235	103	106	209	100	119		
4:00 - 5:00 P.M.	161*	151*	312*	123*	163*	286*	160*	128*		
5:00 - 6:00 P.M.	129	122	251	114	162	276	115	116		
6:00 - 7:00 P.M.	90	93	183	99	93	192	80	103		
7:00 - 8:00 P.M.	107	68	175	117	87	204	66	96		
8:00 - 9:00 P.M.	66	73	139	62	68	130	45	79		
9:00 - 10:00 P.M.	50	37	87	54	60	114	42	56		
10:00 - 11:00 P.M.	47	36	83	49	37	86	32	46		
11:00 - 12:00 M.N.	29	23	52	30	34	64	24	27		
12:00 - 1:00 A.M.	20	6	26	19	22	41	13	20		
1:00 - 2:00 A.M.	9	8	17	10	16	26	11	8		
2:00 - 3:00 A.M.	12	6	18	9	7	16	4	11		
3:00 - 4:00 A.M.	2	2	4	3	8	11	1	6		
24 Hour Volume	1686	1422	3108	1698	1388	3086	1582	2010		

Table A10
24 Hour Traffic Volumes-1979



Time	No. of Vehicles									% of 24 Hou Volume 1971
	Movement			Movement			Movement			
	(5) 1971	(6) 1971	Total 1971	( ) 1971	( ) 1971	Total 1971	(5) 1979	(6) 1979	Total	
4:00 - 5:00 A.M.								8		
5:00 - 6:00 A.M.								9		
6:00 - 7:00 A.M.								59		
7:00 - 8:00 A.M.								76		
8:00 - 9:00 A.M.								92*		
9:00 - 10:00 A.M.								67		
10:00 - 11:00 A.M.								89		
11:00 - 12:00 N.								77		
12:00 - 1:00 P.M.								101		
1:00 - 2:00 P.M.								88		
2:00 - 3:00 P.M.								103		
3:00 - 4:00 P.M.								126		
4:00 - 5:00 P.M.								167*		
5:00 - 6:00 P.M.								134		
6:00 - 7:00 P.M.								103		
7:00 - 8:00 P.M.								73		
8:00 - 9:00 P.M.								59		
9:00 - 10:00 P.M.								49		
10:00 - 11:00 P.M.								54		
11:00 - 12:00 M.N.								48		
12:00 - 1:00 A.M.								29		
1:00 - 2:00 A.M.								14		
2:00 - 3:00 A.M.								12		
3:00 - 4:00 A.M.								6		
24 Hour Volume								1643		

Table A11
24 Hour Traffic Volumes-1979



Time	No. of Vehicles									% of 24 Hour Volume 197
	Movement			Movement			Movement			
	(2) 1979	(3) 1979	Total 1979	(6) 1979	(7) 1979	Total 1979	( ) 1979	( ) 1979	Total	
4:00 - 5:00 A.M.	7	3		0	3					
5:00 - 6:00 A.M.	13	5		0	19					
6:00 - 7:00 A.M.	59	46		3	79					
7:00 - 8:00 A.M.	163*	137*		30	105*					
8:00 - 9:00 A.M.	76	67		45	101					
9:00 - 10:00 A.M.	78	43		24	50					
10:00 - 11:00 A.M.	86	52		67	77					
11:00 - 12:00 N.	105	68		80*	87					
12:00 - 1:00 P.M.	112	70		82*	73*					
1:00 - 2:00 P.M.	100	63		68	49					
2:00 - 3:00 P.M.	111	87*		74	57					
3:00 - 4:00 P.M.	141	69		46	47					
4:00 - 5:00 P.M.	178*	47		16	38					
5:00 - 6:00 P.M.	131	54		14	42					
6:00 - 7:00 P.M.	92	50		2	30					
7:00 - 8:00 P.M.	61	40		0	25					
8:00 - 9:00 P.M.	52	37		0	10					
9:00 - 10:00 P.M.	56	25		0	16					
10:00 - 11:00 P.M.	38	27		0	17					
11:00 - 12:00 M.N.	24	10		0	8					
12:00 - 1:00 A.M.	11	8		0	6					
1:00 - 2:00 A.M.	11	2		0	1					
2:00 - 3:00 A.M.	3	3		0	3					
3:00 - 4:00 A.M.	3	4		0	1					
24 Hour Volume	1711	1017		551	944					

APPENDIX V

KAPIOLANI COMMUNITY COLLEGE - ENROLLMENT PROJECTIONS

INTRODUCTION

The official 1980-1986 enrollment projections for Kapiolani Community College are shown in Table 1. It was extracted from the State Higher Education Plan and is based on the following assumptions:

1. Enrollment of new students entering directly after graduation from Hawaii high schools will be the same percentage (of the projected number of high school seniors in the previous year in the school district(s) from which most of the students came) as in Fall 1979.
2. Enrollment of new students with other local high school background or GED certificate will vary according to the least-square trend of the past five years through Fall 1982 and be constant thereafter.
3. Enrollment of new students from out-of-state high schools will be the same percentage of total new students as in Fall 1979.
4. The distribution of new students by broad program area on each campus will be based on the estimated Fall 1979 relationship between new students by broad program area and by high school background. New students entering directly from Hawaii high schools will be distributed to broad program areas in the same pattern as Fall 1979 students under 20 years of age. New students from other sources will

Table I

FALL SEMESTER HEADCOUNT ENROLLMENT, REGULAR STUDENTS
BY CAMPUS
UNIVERSITY OF HAWAII

	ACTUAL 1/					PROJECTED 2/						
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
TOTAL *	43,575	43,069	43,459	43,480	43,099	43,270	43,306	43,190	42,759	42,153	41,355	40,672
Manoa	21,087	21,196	20,950	21,095	20,706	20,670	20,673	20,622	20,422	20,120	19,713	19,307
Undergraduates	15,878	15,579	15,396	15,343	15,076	14,933	14,900	14,813	14,613	14,319	13,904	13,498
Graduates	5,209	5,617	5,554	5,752	5,630	5,737	5,773	5,809	5,809	5,809	5,809	5,809
West Oahu	--	134	200	230	257	285	313	341	346	346	346	346
UH at Hilo	3,539	3,322	3,232	3,035	3,069	3,025	3,022	2,930	2,895	2,837	2,744	2,691
Hilo Coll/Coll of Agr	1,848	1,633	1,536	1,438	1,363	1,284	1,284	1,245	1,234	1,217	1,175	1,143
Hawaii CC	1,691	1,689	1,696	1,597	1,706	1,741	1,739	1,685	1,651	1,620	1,569	1,548
Six Community Colleges	18,949	19,217	19,077	19,120	19,067	19,290	19,378	19,305	19,106	18,842	18,552	18,328
Honolulu CC	3,982	4,422	4,382	4,377	4,568	4,631	4,637	4,581	4,500	4,413	4,317	4,242
Kapiolani CC	4,307	4,571	4,457	4,702	4,626	4,721	4,797	4,824	4,764	4,689	4,592	4,528
Kauai CC	1,181	1,125	1,191	1,103	1,085	1,086	1,067	1,070	1,060	1,038	1,030	1,027
Leeward CC	6,790	6,347	6,093	5,833	5,493	5,390	5,309	5,203	5,130	5,037	4,951	4,859
Maui CC	1,554	1,626	1,630	1,713	1,810	1,848	1,867	1,878	1,885	1,887	1,894	1,907
Windward CC	1,135	1,126	1,324	1,392	1,485	1,614	1,701	1,749	1,767	1,778	1,768	1,765

* Total excludes concurrent and other special students.

1/ Student Enrollment Reports.

2/ Office of Institutional Research & Analysis, December 1979.

be distributed to broad program areas as the comparable Fall 1979 students.

5. The total number of liberal arts, vocational education and unclassified transfer students at the six community colleges will follow the linear least-square trend of the last five years. Distribution of each program area totals by college will be based on the 1979 percentage distribution.

6. Enrollment of continuing and returning students for each program area will be a constant percentage of the previous fall total enrollment in that program. These percentages (retention rates) will be the average of the past five years for each college.

Subsequently, in Fall 1980, Kapiolani Community College asked the University of Hawaii Office of Institutional Research to re-examine the enrollment projection based on two additional factors:

1. The Fall 1980 preliminary enrollment of 5,009 which exceeded the projected enrollment of 4,721. This increase of 288 students was the largest numerical increase among the University of Hawaii campuses.

2. The State's official Series II-F population projection by age-group.

The following report on the 1985-2005 projections is the result of that request.

KAPIOLANI ENROLLMENTS THROUGH 2005

OVERVIEW

The graphs on the following pages and the preliminary revised estimate that Kapiolani is one of two campuses that will enroll students in excess of the University's Fall 1980 enrollment projection, clearly indicate the need to continue planning for the Diamond Head campus.

As the table below shows, Kapiolani will experience a slight decline in enrollments through 1985. However, beginning about 1986, enrollments will begin a period of continual growth.

	1980		UNOFFICIAL PROJECTION[1/]				
	UH Proj	Rev Est[1/]	1985	1990	1995	2000	2005
New Students	1448	1530	1385	1480	1540	1610	1670
Direct	899	950	815	900	950	1010	1060
Other Local	367	390	400	410	420	430	440
Out-of-State	182	190	170	170	170	170	170
Continuing/Returns	2719	2880	2910	2970	3010	3055	3095
Transfers	554	590	560	560	570	570	580
Total Kapiolani	4721	5000	4855	5010	5120	5235	5345

[1/] Institutional Research and Analysis
September 1980

GRAPH 1

This graph is taken from the state's official Series II-F population projections by age-group. There are two trends of immediate importance to both University and Kapiolani enrollment planning.

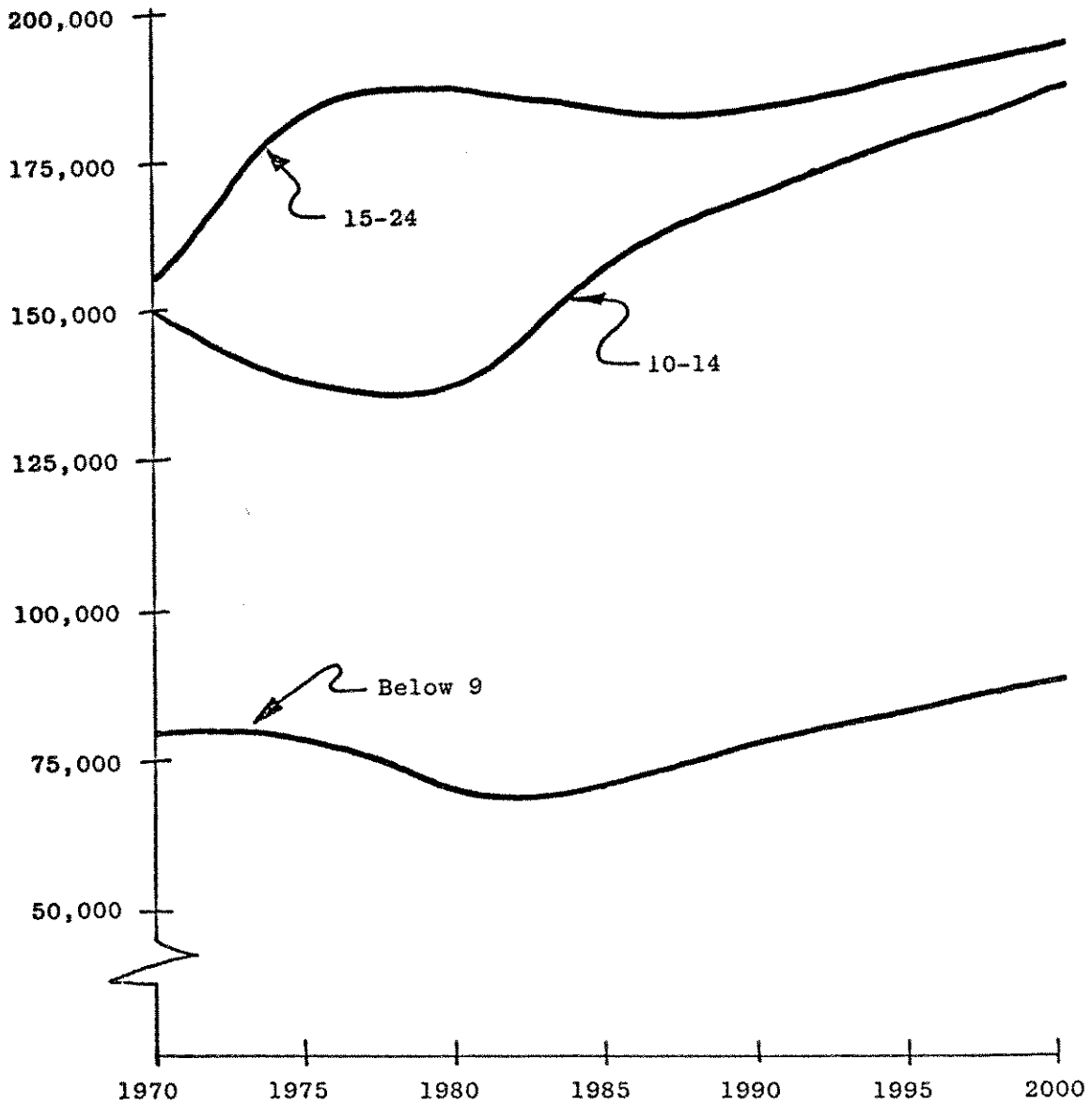
1. The age-group under 9 bottoms in the 1980-85 period and then begins to rise through 2000. This increase will in turn initiate increases in the direct entering freshman class beginning in the early- to mid-1990's.

2. The age-group 10-14 will bottom this year (1980) and begin a rapid increase through 2000. This age-group will start showing up at the university campuses as early as the mid-1980's.

Of a lesser numeric impact, but yet significant, is the age-group 15-24. This group will bottom about 1987 and then begin a steady increase as a function of the earlier age-groups. The current decline and yet to come "bottoming" explains, in part, the current stability in university enrollments. However, the upturn in this older age-group will eventually cause increased enrollments as evidenced by the increase in the average age of college students over the last ten years.

GRAPH 1

DPED SERIES II-F POPULATION PROJECTIONS[1]/



[1]/DPED, March 1, 1978

GRAPH 2

This graph was derived from the DOE K-12 projections (DOE, April 1980) for 1980 through 1985. The dotted line is projected[1/] through 2000 and is based on the lag effect and age correlations between the series II-F age-group projections, DOE actual and projected enrollments, and attrition factors from grade to grade.

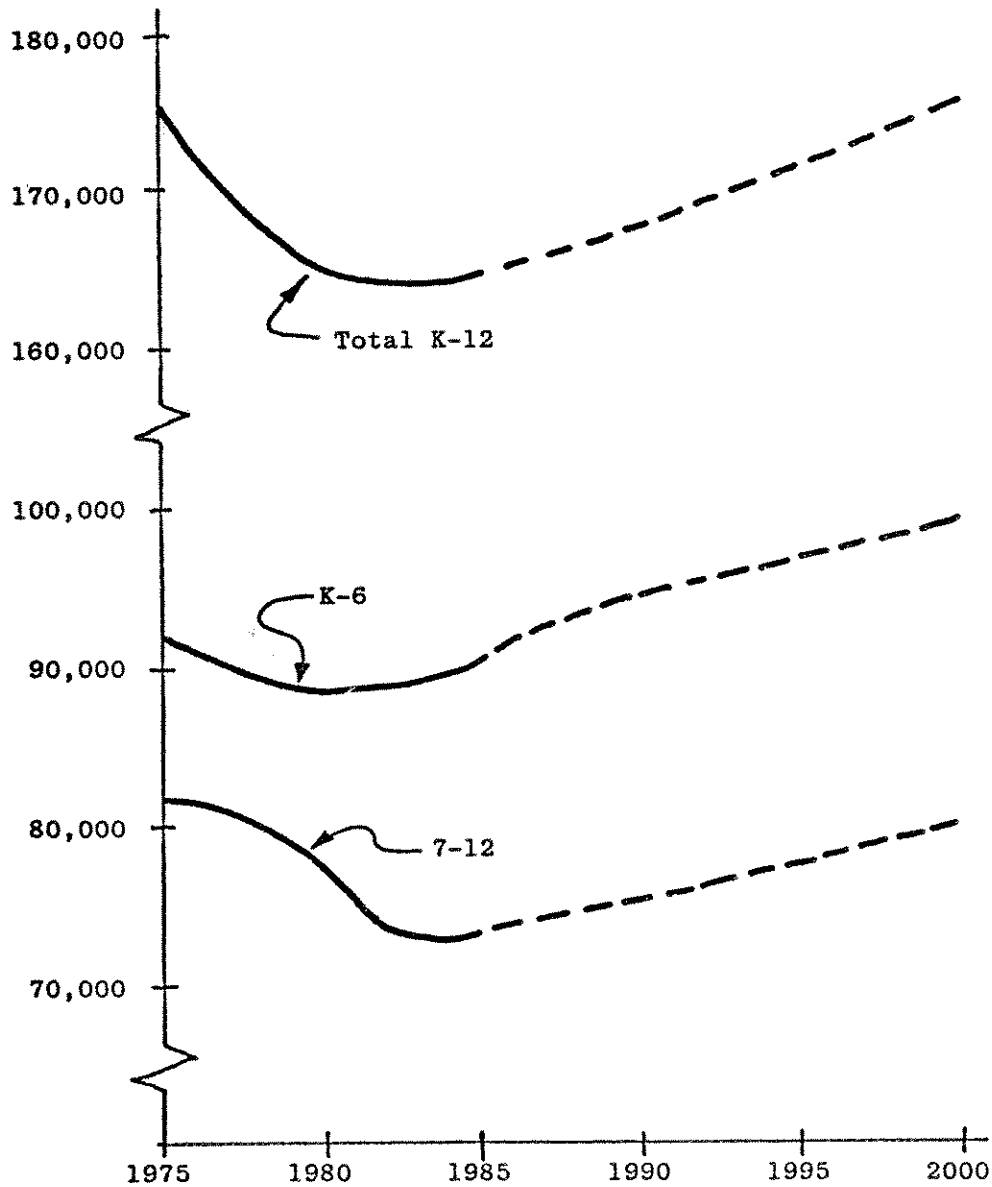
This projection is necessary as it is the Oahu high school seniors that become the direct entering students to Kapiolani.

The graph clearly shows that the current declines will bottom-out in the period 1980-85. The grades 7-12 bottom a little later and, therefore, the senior counts will rise on a lag basis to the overall K-12 increases.

1/ Institutional Research and Analysis
September 1980

GRAPH 2

DOE PROJECTIONS



Source: Solid line is the DOE projection, April 1980. Dotted line is correlated estimate based on the DPED age-group projections.

GRAPH 3

The data shown on this graph are based on actual and projected data from the previous graphs.

As previously discussed, the age-group projections and public school projections will all bottom in the 1985 period. Therefore, the Kapiolani direct entering students will also bottom in that period.. This is the primary reason for the slight decline in Kapiolani (and university) enrollments for the period 1980-86[1/].

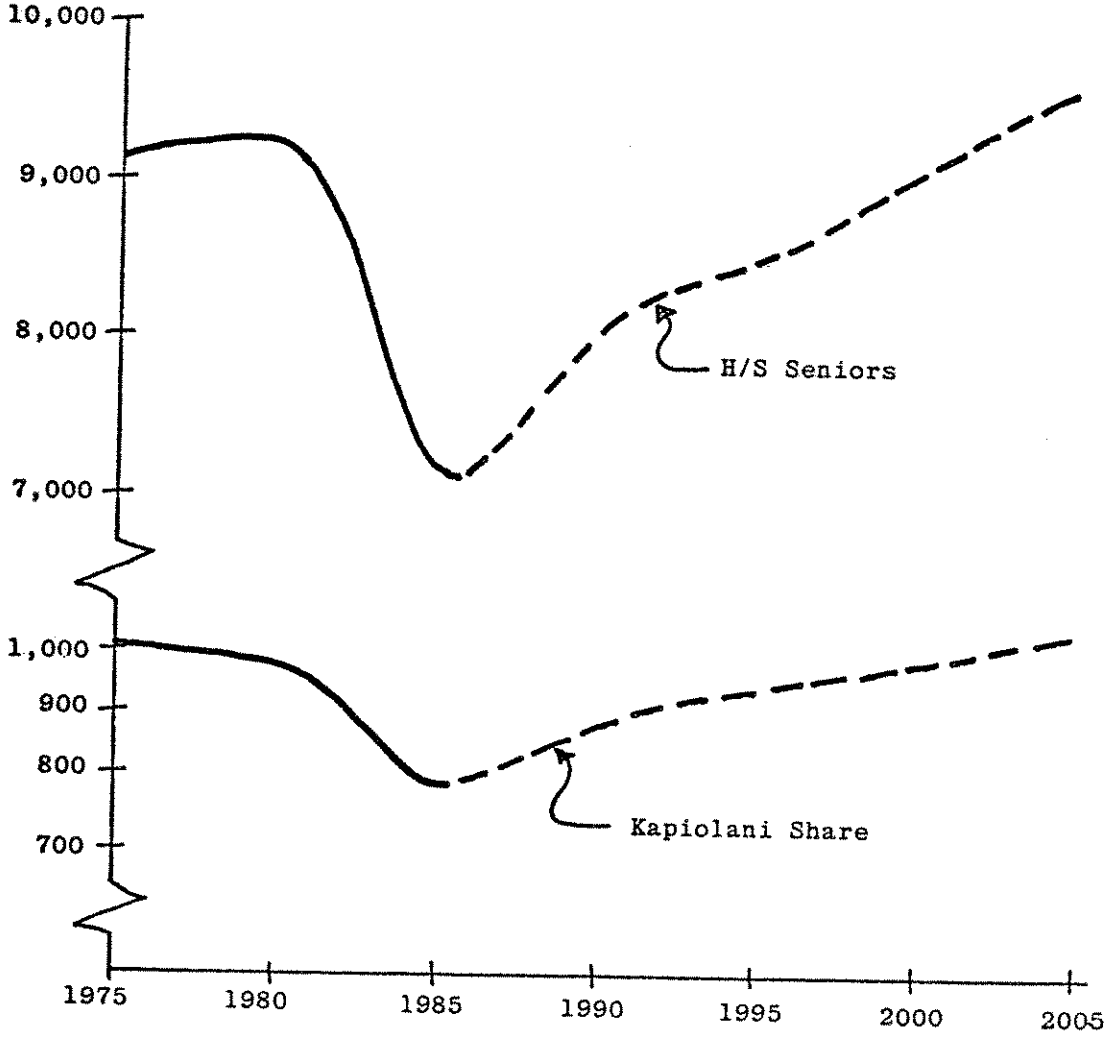
However, with the upturn in all demographics that affect entering new students (direct from high school, other returnees, etc) it is clear that Kapiolani enrollments will begin to increase in the 1985 to 1990 period and continue to increase through 2005.

The estimates for the Kapiolani share (shown on graph 3) are based on a least-squares regression over the past six years of actual Oahu high school graduates and the number entering Kapiolani.

[1/] University of Hawaii Enrollment Projections: 1980-86
Institutional Research and Analysis, January 1980

GRAPH 3

OAHU PUBLIC HIGH SCHOOL SENIORS[1/]
and
THE KAPIOLANI SHARE[2/]



[1/] Projection based on DPED age-group projections and DOE public school projections.

[2/] The Kapiolani share is based on a six-year actual correlation.

APPENDIX VI

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY

REGISTRATION FORM

AND

TESTIMONY, PROVOST OF KAPIOLANI COMMUNITY COLLEGE, UNIVERSITY OF HAWAII

APPENDIX VI

Form No. 10-300 REV. (9-77)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

APR 3 1980

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC: FORT RUGER HISTORIC DISTRICT

AND/OR COMMON:

2 LOCATION

STREET & NUMBER: Diamond Head Road — NOT FOR PUBLICATION

CITY, TOWN: Honolulu — VICINITY OF — CONGRESSIONAL DISTRICT: First

STATE: Hawaii — CODE: 15 — COUNTY: Honolulu — CODE: 03

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
X DISTRICT	X PUBLIC	X OCCUPIED	AGRICULTURE	MUSEUM
BUILDING(S)	PRIVATE	X UNOCCUPIED	COMMERCIAL	X PARK
STRUCTURE	BOTH	WORK IN PROGRESS	X EDUCATIONAL	PRIVATE RESIDENCE
SITE	PUBLIC ACQUISITION	ACCESSIBLE	ENTERTAINMENT	RELIGIOUS
OBJECT	IN PROCESS	YES: RESTRICTED	GOVERNMENT	SCIENTIFIC
	BEING CONSIDERED	X YES: UNRESTRICTED	INDUSTRIAL	TRANSPORTATION
		NO	MILITARY	OTHER:

4 OWNER OF PROPERTY

NAME: State of Hawaii

STREET & NUMBER: 1151 Punchbowl Street

CITY, TOWN: Honolulu — VICINITY OF — STATE: Hawaii

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Bureau of Conveyances

STREET & NUMBER: 1151 Punchbowl Street

CITY, TOWN: Honolulu — STATE: Hawaii

6 REPRESENTATION IN EXISTING SURVEYS

TITLE: State Historic Sites Inventory 80-14-1350

DATE: 1979 — FEDERAL X STATE COUNTY LOCAL

DEPOSITORY FOR SURVEY RECORDS: Department of Land and Natural Resources

CITY, TOWN: Honolulu — STATE: Hawaii

DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
__EXCELLENT	__DETERIORATED	X UNALTERED	X ORIGINAL SITE
__GOOD	__RUINS	__ALTERED	__MOVED DATE_____
X FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Fort Ruger Historic District is a noncontiguous district located on the mauka (mountain) side of Diamond Head. Including a parade grounds, seven buildings, a fountain and Battery Harlow, the district encompasses all the significant remnants of Oahu's earliest U.S. Army coastal defense fortification. The district embodies three distinct geographical areas, which are delineated by a heavy boundary line on the enclosed map labeled "Fort Ruger Historic District." One has officer's quarters organized around a large rolling parade gounds, the second comprises administrative facilities and runs along Diamond Head Road, and the third is Battery Harlow which is imbedded into the slope of Diamond Head crater.

Developed between 1909-1921, the remains of the fort present a unified vision of the modest architectural character of turn-of-the-century military posts in Hawaii. All the buildings are of one or two stories and with the exception of the main guardhouse (8), are of frame construction. Five of the structures are rendered in a Neo-Classical revival style further contributing to the historic character and overall homogenuity of the district.

Fort Ruger has lost much of its original fabric, as numerous buildings have been demolished in preparation for the development of the former fort as a park and community college campus. The buildings included in this nomination are those which best serve as visual reminders of the former presence of the fort. Several buildings, most of which are slated for demolition, have been excluded from this nomination, including the post exchange and a pair of barracks, which no longer retain their integrity, several bungalow NCO quarters which are isolated from the other buildings in this district, and a number of modest utilitarian outbuildings which contribute minimally to the sense of the fort's historic presence in the area. Due to the number of buildings removed from the landscape and the extensive landscaping program which the U.S. Army had undertaken in its period of occupancy, the district is now characterized by much open green space enhanced by mature specimens of ficus, kiawe and palms. The buildings included in this nomination are well-sited in relationship to the environment, creating a harmonious landscape.

The district is distinct from its surroundings, as most all the area to the north, east, and west is residential in character, and to the south lies Diamond Head National Natural Landmark, in which the fort is also included.

There are no intrusions in the district.

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The Inventory:

1-6. The Parade Grounds Area: This Area is under the jurisdiction of Kapiolani Community College and includes the parade grounds (1), three sets of officers' quarters (2, 3, 4) situated on a knoll overlooking the parade grounds, and two sets of officers' quarters (5 & 6) located on the lower side of the parade grounds. The parade grounds (1), an extensive lawn area circumscribed by a palm lined driveway, dates from the inception of Fort Ruger in 1910. On the ficus and kiawe lined mauka (mountain) and Ewa (west) sides of the grounds, lava rock walls rise to meet the driveway's road bed. On the Koko Head (east) side, a lava rock wall defines the boundary between the parade grounds and a lower level parking lot which is planted with ficus and kiawe trees. A baseball diamond with a backstop is located in the Koko Head-makai (southeast) corner of the grounds.

The three officers' quarters on the mauka (mountain) side of the parade grounds are separated from the grounds by the roadway. A lava rock retaining wall serves as a transition element between the road and the quarters. Constructed in 1911-1912, these buildings include a single field officer's quarters (3) flanked on either side by a duplex which housed junior officers (2 & 4). The field officer's quarters (3), situated at the bend in the roadway, is a two-story frame building with a square floor plan. The building is three bays wide and has an outset, flat roofed porch with four Doric columns. Two sets of French doors with sidelights originally led out to the porch. However, the lefthand doorway has been boarded over and a new single doorway has been placed to the right of the original portal. The first story features shiplap siding and the second is board and batten. 6 x 6 double hung sash windows with 4 x 4 double hung sash sidelights are located on the second story above the original entries, making for a well-proportioned symmetrical design. This dwelling sits on a lava rock foundation and has a lateral running gabled roof with overhanging eaves and exposed rafters. The flat roofed porch also has exposed rafters which lend a decorative touch. A brick chimney is on the right side of the building. The two duplexes (2 & 4) follow the same design as the field officer's quarters, only they are six bays in length, have a rectangular floor plan, and instead of an exterior chimney, have a centered one. The middle sets of French doors in these two buildings have been converted into jalousie windows.

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The officers' quarters on the lower side of the parade grounds were constructed in 1921 to house the officers of the 3rd Balloon Company. Originally three such buildings were constructed, but one has been demolished. The two remaining two-story, L-shaped structures are of similar design. These dwellings have shiplap siding, sit on lava rock foundations, and have hipped roofs with overhanging, enclosed eaves. They are two bays wide, with a pergola covered lanai (porch) situated to the right, between the wings of the L. Each bay contains a set of three 6 x 6 double hung sash windows on both the first and second stories, and access to the interior is provided off the lanai (porch) through a makai (ocean) facing door in the front wing.

7-9. The Headquarters building (7) is a single-story, U-shaped frame building in a Neo-Classical revival style. It features an inset lanai (porch) with four Doric columns and a centered entry which leads into a large hall with office spaces in the wings on either side. A pergola covers the narrow courtyard to the rear of the entry hall. The building sits on a lava rock foundation and has a flat roof with a simple cornice and parapet. All windows are double hung sash and grouped in threes; the windows on the Koko Head (southeast) side are protected from the sun by wood sun screens. A large ear pod tree is located at the right front corner of the building and a flagpole is situated to the left front.

The main guardhouse (8), is sited on the Koko Head (southeast) side of the Headquarters building (7). It also is a single-story, Neo-Classical structure and features an inset porch with a pair of Doric columns. This building differs from the Headquarters building in that it is more modest in scale and ornamentation, rectangular in floor plan, and constructed of stucco. The windows on its left side have bars.

Directly across from the Headquarters building (7), on the mauka (mountain) side of Diamond Head Road is a lava rock fountain (9). Built in 1910-1911, it is circular in shape and is distinguished by a pair of intersecting round arches which are supported in the center by a pier.

10. Battery Harlow is a massive reinforced concrete structure imbedded into the side of Diamond Head crater. It is comprised of three large bunkers separated by courtyards which were platforms from which the

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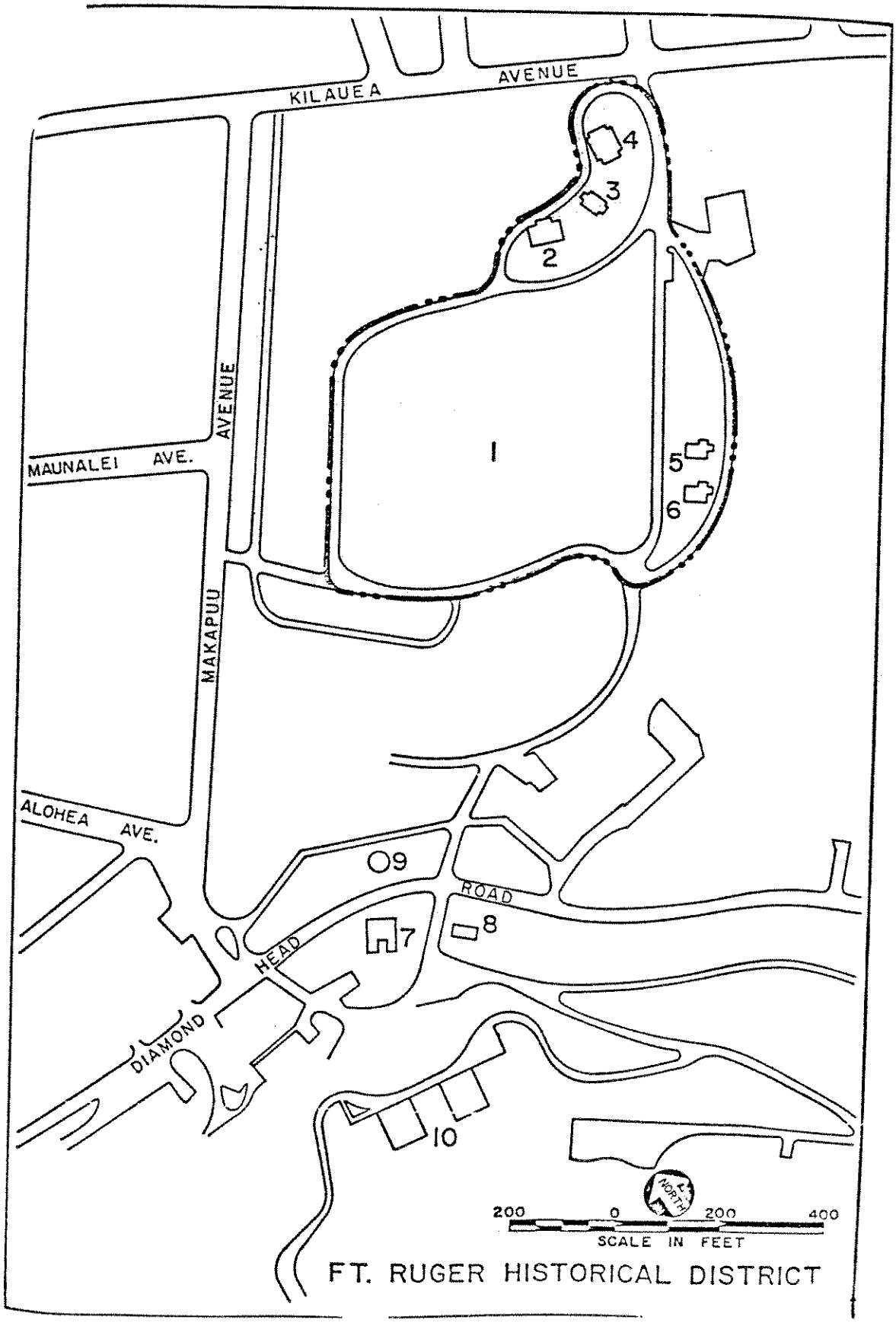
mortars were fired. The central bunker has a command post on the top. All structures are of reinforced concrete and many openings have metal doors or barred windows. This structure is now abandoned, the mortars long gone, but still it retains its impregnable character.



FT. RUGER HISTORICAL DISTRICT

SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE
__1600-1699	X ARCHITECTURE	__EDUCATION	X MILITARY	__SOCIAL/HUMANITARIAN
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	__TRANSPORTATION
X 1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)
		__INVENTION		

SPECIFIC DATES 1909-1921 BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

The structures included in the Fort Ruger Historic District are significant as tangible reminders of the former military presence at Diamond Head crater. These structures portray the architectural character of the former fort, and the role of the coast artillery units stationed there.

Fort Ruger was significant in the history of the military in Hawaii as the first coastal defense fortification established by the United States Army in the Islands, and between 1909-1921 served as the headquarters for the Coast Defenses of Oahu. Of the forts which comprised the Artillery District of Honolulu, Fort Ruger, DeRussy, Kamehameha, and Armstrong, it remains the most intact. As such, it is the best physical evidence to reflect this aspect of the military's activities on Oahu.

Following the United States' annexation of Hawaii, Guam, and the Philippines, a question arose as to what the nation's defense strategy would be for the Pacific. During the opening years of the twentieth century, two major viewpoints developed; one favored a close-in naval defense system with Pearl Harbor as the major Pacific base, while the other advocated a forward naval defense strategy with Manila as the hub of operations. President Theodore Roosevelt, in his 1905 address to Congress, settled this issue by designating Hawaii, "the most important point in the Pacific to fortify in order to conserve the interests of this country." This proclamation was based upon the fact that the effective range of a naval fleet was approximately 1500 miles, making the occupation of Hawaii a prerequisite for any enemy invasion of the west coast of America, thus the United States' retention of the Islands could preclude any such attack. The Secretary of War's Report for 1906 provided the basis for the establishment of coast artillery units in Hawaii to protect both Honolulu and Pearl Harbors, the only significant deep water ports in the territory, and in 1909, War Department Government Order No. 74 established the Artillery District of Honolulu which consisted of Forts Ruger, DeRussy, Kamehameha, and Armstrong. Fort Ruger, named in honor of Major General Thomas H. Ruger, a Civil War veteran and former superintendent of the U.S. Military Academy, and Commandant of the Command and General Staff College, was, until 1913, the only fort garrisoned, and until 1921 served as the headquarters for the Coast Defenses of Oahu.

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The 105th and 159th Coastal Artillery Companies occupied Fort Ruger on August 14, 1909, living in tents and temporary quarters. On March 17, 1910, Battery Harlow, which the companies from Fort Ruger manned, was turned over to the Coast Artillery. It was the first of the coast defense works to be completed by the Honolulu Resident Engineer. The construction of permanent buildings at the fort was commenced on April 1, 1911, and additional buildings were erected during and immediately following World War I. The army maintained the fort until after World War II, and in December 1955 the majority of the land was turned over to the State of Hawaii to be used as a Headquarters for the Hawaii National Guard. Presently, the entire area is under the jurisdiction of either Kapiolani Community College or the Division of State Parks.

Besides being important for its associations with the military's presence in Hawaii, the buildings comprising the Fort Ruger Thematic nomination are also significant in the architectural history of the Army in Hawaii. The layout of the fort and its structures' modest architectural detailing, are typical of military design efforts of the period and their use of Neo-Classical forms reflects the "approved" taste of the time. The inset lanai (porch), pergolas, and sun screens on the Headquarters Building (7), exemplify some of the attempts which were made to adapt military building practices to the climate of Hawaii. Also, the incorporation of kiawe and the use of ficus, and royal and date palms further reflects the use of common exotic plants in the landscaping of the fort.

9 MAJOR BIBLIOGRA.. HICAL REFERENCES

Manuscripts at Fort Shafter:

A History of the Hawaiian Department 1898-1935

A History of Fort Shafter 1898-1974

A History of the United States Army in Hawaii 1849-1939

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY _____

QUADRANGLE NAME _____ QUADRANGLE SCALE _____

UTM REFERENCES

	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
A				B			
C				D			
E				F			
G				H			

VERBAL BOUNDARY DESCRIPTION

TMK 3-1-42-9, 10, 20 (portions of)

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Don Hibbard, Architectural Historian and Nathan Napoka, Historian

ORGANIZATION — DATE

Department of Land and Natural Resources — March 20, 1980

STREET & NUMBER — TELEPHONE

1151 Punchbowl Street — (808) 548-6408

CITY OR TOWN — STATE

Honolulu — Hawaii

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE ___ LOCAL ___

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE State Historic Preservation Officer DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

KEEPER OF THE NATIONAL REGISTER DATE

ATTEST: DATE

CHIEF OF REGISTRATION

TESTIMONY PRESENTED TO THE
HAWAII HISTORIC PLACES REVIEW BOARD
REGARDING THE FORT RUGER HISTORIC DISTRICT
TMK 3-1-42:9, 20 (Portions of)

Joyce S. Tsunoda, Provost
Kapiolani Community College
University of Hawaii

June 9, 1980

Fort Ruger Historic District (80:14:1350)
June 9, 1980, Public Hearing of the
Hawaii Historic Places Review Board

Mr. Chairman and members of the Board:

I am Joyce Tsunoda, Provost of Kapiolani Community College, University of Hawaii. I am here on behalf of the University of Hawaii because a portion of the 52-acre community college site identified by Tax Map Key 3-1-42:09 is currently under consideration for placement on the Hawaii Register of Historic Places and nomination to the National Register.

First, let me give you some information on the Diamond Head Campus of the Kapiolani Community College. The University of Hawaii was granted a 65-year lease for the Ft. Ruger site by the Board of Land and Natural Resources for the specific purpose of constructing a community college there. Since August, 1975, when the Diamond Head Campus was first opened, the student enrollment at the Ft. Ruger Campus has grown from 750 students to approximately 1,100 and is planned to serve up to 6,000 students.

The University Administration, Board of Regents, Governor, and Legislature, as well as community agencies and groups, have looked with favor upon the development of the college at Ft. Ruger. With few exceptions, there is abundant support for the college and we are moving in the direction of fulfilling our goal. We have in our hands the Master Plan draft report for the new campus development at Ft. Ruger and a preliminary copy of the Environmental Impact Statement on the college. Design of the first increment of permanent facilities should begin by the end of 1980. Placement of the subject buildings and so-called parade ground on the Hawaii and National Registers of Historic Places could mean the demise of Kapiolani Community College since cost of building around the historical facilities would be very expensive.

Second, let me say that we are opposed to placing the parade ground and five surrounding buildings on the Historic Registers not only because of the effect it will have on the college, but because our research revealed the following:

(1) There are basic errors and omissions in the nomination form such as the inclusion of a land parcel not affected and questions on the boundary.

(2) The nomination form overemphasizes the importance of coastal defense facilities compared to other military installations regarding the nation's Pacific Defense Strategy.

(3) Previous discussions with the Division of State Parks did not indicate any consideration regarding placing a portion of the college site on the Hawaii Register of Historic Places.

(4) The Diamond Head State Monument Planning Report published in June, 1979, did not indicate preserving anything of merit.

(5) There are better examples of comparable buildings with the "ascribed architectural significance" found on Diamond Head Road.

(6) The parade ground is not as significant or exemplary as that of other parade grounds constructed during the same time period.

Let me discuss these items in more detail by referring to specific portions of the nomination form:

Physical Appearance

The first paragraph of the physical appearance section states: "The district embodies three distinct geographical areas, which are delineated by a heavy boundary line on the enclosed map labeled "Fort Ruger Historic District." However, the heavy boundary line on our copy of the map only delineates one of the three geographical areas. The facilities within the other two districts are identified except for their site boundaries so the information appears to be incomplete.

The first paragraph on Page 2 states: "The parade grounds (1), an extensive lawn area circumscribed by a palm lined driveway, dates from the inception of Fort Ruger in 1910." However, we could not find any reference concerning the actual date of construction.

We recommend that the Nomination Form be prepared like any other research papers with appropriate footnotes to identify the precise sources of information. This should then simplify the review process and enable the public and this Review Board to better determine how much of the write-up is based on solid information.

We note that the chapel near Diamond Head Road which has been mentioned as a possible historic building is not included in this nomination.

Statement of Significance

1. Third Paragraph. The third paragraph mentions the nation's defense strategy for the Pacific. It also mentions President Theodore Roosevelt's 1905 address to Congress in which he designated Hawaii as "the most important point in the Pacific to fortify in order to conserve the interests of this country." We have no comments on these statements nor on the statement on the War Department Government Order No. 74 establishing the Artillery District of Honolulu. However, we do object to the ending of this paragraph which gives the false impression that the coast artillery units represented "the" defense strategy for the Pacific. We contend that Pearl Harbor, as the major Pacific base, constituted the most significant item in the Pacific defense strategy. Thus, the Coastal Artillery units should be considered as only one of the many military installations on Oahu.

2. Second Paragraph. In regards to the second paragraph in the "Statement of Significance", our research indicates that in addition to Forts Ruger, DeRussy, Kamehameha, and Armstrong, Fort Weaver was included in the Artillery District.

Our research also indicates that Fort Ruger was not the first coastal defense fortification or military installation established by the U.S. Army in Hawaii based on the following:

1. Fort Honolulu was established in 1899 but discontinued in 1904.

2. Fort Shafter, formally established in 1907, is the oldest regular established post of the Hawaiian Department.

3. Fort Armstrong (previously known as Kaakaukukui Military Reservation from 1899) was occupied in 1907 and officially established in 1909.

4. Fort Upton, Fort DeRussy (previously Kalia Military Reservation), Fort Ruger (designated as Military Reservation in 1906), and Schofield Barracks were formally established in 1909. Some permanent buildings for Schofield Barracks were constructed from 1906 whereas construction on Fort Ruger began in 1909.

Thus the only significance of Fort Ruger in the military history of Hawaii is that it was one of the coastal defense fortifications and served as the headquarters for the Coast Defenses of Oahu between 1909-1921. On this basis, preservation of some part of Schofield Barracks, Fort Shafter, Fort Armstrong, or Fort Kamehameha may be more apropos. The officers' training and major billeting of troops, including the first and second Hawaiian infantry, were located at Schofield Barracks during World War I. The headquarters was first located at Fort Shafter and then moved to Schofield Barracks. It was Schofield Barracks and Fort Shafter which played the major roles in infantry history for both World War I and World War II.

The Hawaiian National Guard was mobilized at Fort Armstrong, and Fort Kamehameha, which was previously Fort Upton, was the major coast artillery post through World War II. Fort Kamehameha, along with Luke Field and Hickam Field played major air service roles for both wars. Although the Third Balloon Company was assigned to Fort Ruger from 1920 to 1922, another comparable company was located at Fort Shafter during the same period.

Based on the preceding, we question again the over-emphasis given on the "Statement of Significance" regarding the historical role of Fort Ruger. The June 1979 Diamond Head State Monument Planning Report which was prepared by the Division of State Parks, Outdoor Recreation and Historic Sites states:

> "The military installations--bunkers, battery and storage tunnels, communications rooms, and observation posts--constructed prior to World War II may perhaps be noteworthy for preservation; a thorough evaluation needs to be conducted to determine their significance. As most are less than 50 years old, they do not merit retention solely on architectural or historic values in accordance with the criteria established by the State Historic Preservation Office. Their permanence of construction would be a constraint in determining whether to demolish or preserve them.
>
> "The Division of State Parks, in developing public use of the crater, considers utilization of several existing structures. The Credit Union building (building 18) is considered for renovation along with several bunkers and tunnels. <u>Though not historically significant,</u>

these did play an important part in the activities in Diamond Head between 1906 and the present."

3. First Paragraph. The first paragraph in the Statement of Significance of the Ft. Ruger district is based on three factors:

   a. It portrays the role of coast artillery units stationed there.

   b. Tangible reminder of former military presence at Diamond Head Crater; and

   c. The structures portray an architectural character of the former fort.

In regards to Item (a), the role of coast artillery has already been discussed previously. We therefore feel that the administrative facilities along Diamond Head Road and Battery Harlow imbedded into the slopes of Diamond Head Crater adequately portray the role of coast artillery units stationed at Fort Ruger. These facilities are within the Diamond Head State Monument which includes much of the 755 acres in the former Fort Ruger Military Reservation.

In regards to Item (b), Battery Harlow, the headquarters building and the main guardhouse are considered to be the significant facilities. They fall within the Diamond Head State Monument and should provide adequate tangible reminders of the former military presence at Diamond Head Crater.

The most prominent feature in any military installation is the parade ground. Here the troops are mustered and reviewed. The parade ground that is now used as the play field at Fort Ruger could never reflect the traditional parade ground quality of U.S. Army forts in Hawaii and throughout the world because the field is irregular and the ground slope is steep and not uniformly oriented. It also lacks the surrounding elements of barracks and/or officers' quarters that make military parade grounds unique. (If any parade ground should be preserved, it should be that of Palm Circle at Fort Shafter. Construction of Palm Circle dates from 1907 to 1909 and most of the buildings erected around Palm Circle are still in existence.)

In regards to Item (c), the few remaining buildings that sit at the edge of the parade ground are not necessarily architecturally unique from design or construction standpoints and would be historically significant only if they were part of the total complex that once surrounded the parade ground. To discuss this further, I would like to review the architecture of some facilities.

The headquarters building, according to the historical staff report, is a single story U-shaped frame building in the neo-classical revival style. It features an inset lanai with four doric columns. A pergola covers the narrow courtyard to the rear of the entry hall. The building sits on a lava rock foundation and has a flat roof with a simple cornish and parapet.

The main guardhouse sited on the Koko Head side of the headquarters building is also a single story neo-classical structure and features an inset porch with a pair of doric columns. This building differs from the headquarters building in that it is more modest in scale and ornamentation, rectangular in floor plan and constructed of stucco.

Directly across of the headquarters building on the mountain side of Diamond Head Road is a lava rock fountain built in 1910 or 1911. It is circular in shape and it is distinguished by a pair of intersecting round arches which are supported in the center by a pier.

Battery Harlow is a massive reinforced concrete structure imbedded into the side of Diamond Head Crater. It is comprised of three large bunkers separated by courtyards which were platforms from which the motars were fired. The central bunker has a command post on the top. All structures are reinforced concrete and many openings have metal doors or barred windows still retaining its impregnable character.

I have gone at great length to describe the above facilities for the simple reason that these buildings are being saved and maintained as part of the State Monument, so there is nothing of additional significance to be preserved in the five buildings and the parade ground cited by the proposal. Whatever is deemed significant in the buildings surrounding the parade ground within the interior of the Diamond Head Campus are found in the structures that were already mentioned at great length.

Conclusion

Therefore, taking into account all that has been discussed heretofore, we would like to suggest that only the structures in the Diamond Head Road area be preserved as a complex and perhaps be set up as a museum with displays of photographs, paraphernalia, records, and newspaper clippings. This would better serve to identify the historical significance of the site, permit the ongoing use of the rest of the site and avoid the economic burden of maintaining a vast complex which usually gravitates to a point of blight and disrepair.

We hope that the Board in its wisdom will take into full account our testimony this afternoon and concur with our recommendation to reject placement of the five buildings and parade ground on the Hawaii Register or recommend their nomination to the National Register. This concludes my remarks, and I wish to thank you for the opportunity to appear before this body.