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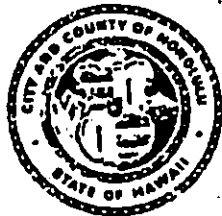
Environmental Impact Statement

PACIFIC

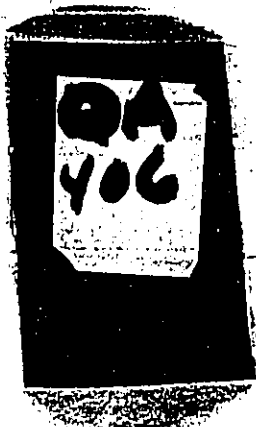
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CENTER

Prepared for:



DEPARTMENT OF HOUSING AND  
COMMUNITY DEVELOPMENT  
CITY & COUNTY OF HONOLULU



PARSONS HAWAII  
A UNIT OF THE RALPH M. PARSONS COMPANY  
Worldwide Engineers. Constructors.



Office of Environmental Quality Control  
235 S. Beretania #702  
Honolulu HI 96813  
586-4185

DATE DUE

*June 10, 1978*

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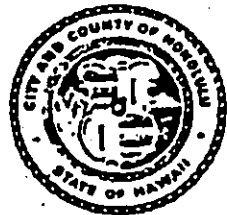
**Environmental Impact Statement**

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**DEPARTMENT OF HOUSING AND  
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**CITY & COUNTY OF HONOLULU**

**JANUARY 1989**

**PARSONS HAWAII**

A UNIT OF THE RALPH M. PARSONS COMPANY

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DRAFT  
ENVIRONMENTAL IMPACT STATEMENT  
FOR THE  
PACIFIC NATIONS CENTER

HONOLULU, HAWAII

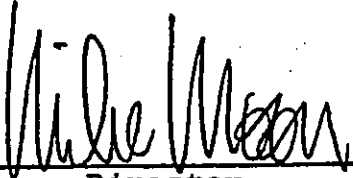
TMK: 2-1-9: 7, 8, 9, 11, 18, 27, 37, 39, 56

This environmental document is prepared pursuant to  
Chapter 343, HRS

Proposing Agency:  
Department of Housing and Community Development  
City and County of Honolulu

Accepting Authority:  
Department of Land Utilization  
City and County of Honolulu

Responsible  
Official:

  
Mike Moon, Director

Date:

12/28/88

PREPARED BY

PARSONS HAWAII

## PREFACE

This Environmental Impact Statement (EIS) discloses the impacts of developing the Expanded Block J project site to its maximum allowable limits of 1.65 million square feet. To assess the project's potential impacts on the quality of the surrounding environment, a preliminary conceptual design was developed. This Draft EIS, based on the design described herein, will be reviewed by the public and government agencies and, along with comments generated in the consultation and review process, made available to prospective developers. After review of the Draft EIS and the granting of two necessary land use approvals, the City will issue a Request for Proposals (RFP) and select a developer for the project. Purchase and consolidation of the entire superblock is planned to occur just prior to leasing of the superblock to the developer. The developer will be expected to adhere to conditions given in the RFP and attached to the various required development permits. Although future development of the Pacific Nations Center may proceed at a lesser density than described herein, the greatest impacts that could occur in developing the site are fully discussed in this document.

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**01.0 SUMMARY**

## 01.0 SUMMARY

### 01.01 BRIEF ACTION DESCRIPTION

The objectives of the proposed action are to develop the site to its fullest potential and to stimulate economic growth in Honolulu. To accomplish these objectives the Department of Housing and Community Development, City and County of Honolulu, is proposing to acquire six privately owned lots and to consolidate these lots with City-owned property to create a superblock in downtown Honolulu. The consolidated site of 5.06 acres would then be leased to a private entity for the development of a large mixed-use complex. Development of the site includes relocation of current tenants, demolition of existing structures, design and construction of the mixed-use complex (including landscaping) and operation of the new facilities.

### 01.02 SIGNIFICANT BENEFICIAL AND ADVERSE IMPACTS

The proposed project would have a number of significant beneficial impacts. The Pacific Nations Center mixed-use complex would serve many needed functions in the Honolulu area. Redevelopment of the site to its fullest potential would enhance ongoing revitalization efforts in the central business district and stimulate economic growth in Honolulu. It is estimated that tax revenues to the State would range from \$3.7 to \$14.6 million depending on the degree of secondary economic stimulation. Annual property tax revenues to the City and County of Honolulu

would total about \$3 million. How various components of the project would help to accomplish these objectives is described at the conceptual level in the Section 04.0. Specific development features are discussed in Section 05.06.

Although most potential adverse impacts could be avoided through use of proper mitigation measures, the proposed project would have some adverse impacts that are unmitigable. They are briefly described below.

#### Short-term Construction Impacts

Construction impacts cannot be avoided but are controlled by the permitting system. Noise-related adverse impacts and traffic diversions may be allowed by special permit for a specified period of time. Furthermore, construction of the project by separate phases may reduce construction impacts.

#### Traffic Impacts

The impacts at the intersection of Vineyard Boulevard and Punchbowl Street are significant but are unmitigatable unless widening of the northbound and southbound approaches is possible. At this time, widening is not possible and, therefore, the impacts cannot be mitigated.



### 01.03 PROPOSED MITIGATION MEASURES

Mitigation measures that could alleviate potentially adverse impacts are discussed in Section 10.0 and are listed below.

#### Water Quality

During construction, sediment runoff to the storm drains could increase because of erosion of exposed land. Adherence to the requirements of the Grading Ordinance should adequately mitigate this potential impact.

#### Archaeological Resources

The following recommendations are thought to best address the possibility of the presence of intact historic (or prehistoric) deposits in Block J, with the least investment of time and expense.

1. Archaeological test excavations consisting of 4-8 backhoe trenches within Block J following demolition, but preceding construction. Observation and study of the stratigraphy and content of these trenches should provide sufficient information to determine if intact, significant cultural materials are present.
2. If significant cultural materials are found in the backhoe testing then archaeological monitoring of the excavation of building foundations and utility lines should be required.

In other downtown projects archaeological monitoring has proven to be an effective means of dealing with sporadically occurring cultural deposits. Because of the common practice of mechanical demolition, filling and grading for downtown areas it is most likely that only partial preservation of former deposits will be found in Block J. The disadvantage of archaeological monitoring of construction is that partial destruction almost always accompanies the discovery of cultural material. The advantage is that the archaeologist can find more in less time and gain a broader stratigraphic and contextual perspective.

#### Public Utilities

The existing sanitary sewer system will require some modifications to accommodate the flows generated from the proposed development. The Department of Public Works has indicated that a relief sewer will be required (City and County of Honolulu, Dept of Public Works, 1988). The size and length will be determined once the demands of the project have become more defined.

The projected total electrical load is 9400 kilowatts (KW). The existing electrical substation will require some modifications to accommodate the increases in electrical consumption resulting from the proposed development. However, the existing substation would be upgraded even if the Pacific Nations Center is not built. The new substation would be upgraded on its present site or installed on an exchange property under mutually agreeable

conditions with the developer and as approved by the State Public Utilities Commission (Hawaiian Electric Company, Inc., 1988).

#### Telecommunications

The impact of the proposed project on microwave transmissions from the Honolulu Central Office of Hawaiian Telephone is of concern (Hawaiian Telephone Company, Inc., 1988). The siting of the project will require close coordination between the developer, the architect and Hawaiian Telephone representatives to help to mitigate the potential impact of blocking the microwave routes.

#### Traffic

A number of intersections in the vicinity of the project would require mitigation measures, as follows:

1. At the intersection of Vineyard Boulevard and Nuuanu Avenue, mitigation will be required. Mitigation measures required consist of an additional northbound right-turn-only lane and modification of the westbound approach to provide an optional left turn or through movement and modification of the signal phasing to allow overlapping left turns. These measures will reduce the V/C ratio to less than the 1995 cumulative-without-project condition for both morning and afternoon peak hours.

2. At the intersection of Vineyard Boulevard and Pali Highway, northbound and southbound right-turn-only lanes are required to mitigate the project-related traffic impacts.
3. The intersection of Vineyard Boulevard and Queen Emma Street should be modified to provide an optional through or left turn on the westbound approach.
4. At the intersection of Kukui Street and Queen Emma Street, the level-of-service improved with implementation of the project because traffic was added to the approaches with the least delay and the diversion of traffic to Pali Highway northbound -- decreasing the average vehicle delay and improving the V/C ratio. Therefore, no further mitigation is recommended.
5. At the intersection of Beretania Street and Nuuanu Avenue, one of the westbound right-turn-only lanes should be converted to an optional through or right turn lane.
6. At the intersection of Beretania Street and Pali Highway, an additional separate right turn lane should be provided as part of the conversion of Pali Highway from one-way to two-way.

7. At the intersection of Beretania Street and Queen Emma Street, the northbound approach should be modified to convert one through lane to an optional through or left turn lane.

#### Air Quality

Short-term impacts that would be due to construction were previously identified to be fugitive particulate matter emissions from ground disturbing activities and exhaust emissions from construction machinery. The impacts from fugitive particulate emissions could be mitigated by the application of dust suppressants such as water and chemical crusting agents on work areas and unpaved haul roads. It is estimated that spraying of these areas would result in a 50 percent reduction in emissions. Other control measures that are recommended include the coordination of all concrete pouring and paving with grading and excavation activities and good housekeeping practices. It should be noted that the State of Hawaii prohibits the generation of any visible emissions. The recommended mitigative measures for fugitive dust should control visible emissions to acceptable levels. Exhaust emissions from construction machinery could be minimized by keeping all such machinery in proper tune at all times.

Long-term impacts were identified to be attributable to the consumption of electricity and natural gas and to the generation of additional local traffic. Emissions from power generation and natural gas combustion could be minimized by the application of

energy-saving devices wherever possible. These may include set-back thermostats, solar heating devices, and maximum use of natural illumination. Vehicular emissions could be mitigated by designing comprehensive traffic reduction plans for the future tenants of the proposed project. Such plans may include incentive programs to encourage carpooling and use of public transportation. Staggered working hours may also contribute to the alleviation of traffic, especially during the peak hours, and consequently reduce traffic-related emissions.

#### Noise

A reverberent build-up of traffic noise would occur below the plaza structure along the Pali Highway and may cause uncomfortable acoustical experiences to persons on the walkways. Sound absorptive surfaces on portions of the walls and overhead should be considered to reduce the noise buildup in the space. Acoustical materials which can be cleaned periodically will be required and are available.

#### HECO Substation Noise

State-of-the-art noise mitigation techniques do exist which can provide adequate noise containment; e.g. the use of specially rated quiet transformers in conjunction with the containment of airborne noise in fully closed vaults that are either mechanically ventilated or are air conditioned to dissipate the heat generated by the transformers. There is also the possibility of directly cooling transformer oil via heat

exchangers and conventional cooling towers strategically located and properly sound treated. The cost of providing and maintaining redundant non-natural ventilation or oil cooling systems must be considered in order to decrease the probability of substation shutdown. Final noise mitigation measures for the substation will depend on the actual location of the complex with respect to interior property lines and noise sensitive uses. Also the noise control measures depend on studies of the transformer load demand; i.e. if the largest load (and therefore the need for the greatest heat dissipation) requirements are from 7 a.m. to 10 p.m.; then less noise mitigation is needed. Integrating large transformers closely into the complex requires consideration of vibrations from the transformers and probably will also require vibration isolation elements to support the transformers in order to reduce structure borne energy from emanating into the surrounding building elements.

#### Construction Noise

Since it is anticipated that noise generated during construction will exceed allowable limits in State regulations, a permit must be obtained from DOH. DOH may grant permits to operate vehicles, construction equipment, power tools, etc. which emit noise levels in excess of the allowable limits. Required permit conditions for construction activities are:

"No permit shall allow construction activities creating excessive noise...before 7:00 a.m. and after 6:00 p.m.

of the same day."

"No permit shall allow construction activities which emit noise in excess of ninety-five dB(A)...except between 9:00 a.m. and 5:30 p.m. of the same day."

"No permit shall allow construction activities which exceed the allowable noise levels on Sundays and on...[certain] holidays. Activities exceeding ninety-five dB(A) shall [also] be prohibited on Saturdays."

In addition, construction equipment and on-site vehicles or devices requiring an exhaust of gas or air must be equipped with mufflers. Also construction vehicles using trafficways must satisfy the noise level requirements defined in "Chapter 42 - Vehicular Noise Control for Oahu."

#### Vibration

Generally it is believed that because of the distance to the church facility, there should be sufficient attenuation of vibrational waves through the soil such that no damage should occur. However, structural engineers and other specialists should inspect the church buildings and provide recommendations. Consideration should be given to providing special provisions in the construction contract to: (a) Document existing conditions (including existing cracks and flaws) in the church buildings by photographs and sketches; (b) Provide vibration monitoring at



selected locations near, or on, foundations; (c) Perform tests using pile drivers or other devices at worst case locations to determine vibration movement at and/or in the structures; (d) Utilize the guidance for monitoring vibrations in existing documents (Siskind, et. al, 1980) wherein ground vibration levels near foundations are not to exceed 0.5 inches per second for normal residential construction; and (e) Provide means to immediately cease demolition or construction operations that cause excessive vibrations and to proceed only after different techniques or vibration mitigation devices are used.

Demolition of the 13-story Queen Emma Office Building could be done by several methods. If preliminary investigations show that a controlled blast will not cause damaging vibrations to the church buildings, then the total demolition airborne noise exposure would be much less than if the building is slowly dismantled by pneumatic impact tools, e.g. jack hammers, rock drills, etc. Another option is the use of a breaker ball (or headache ball) swung from a crane line.

The type and depth of piles required depends upon the soil composition and the building design. If potential vibration problems are found to exist at the church buildings from pile driving, consideration should be given to drilling prior to pile driving and/or using special vibrating devices to lessen the impact levels needed to drive conventional pilings.

It has been shown that mitigation of surface (or Rayleigh) waves can be obtained by implementing ditches between the source of

surface excitation and vibration sensitive locations (Woods, R.D., 1968). Thus, if it is found that there may be a problem with vibration at the church structures, covered ditches could be provided along portions of the Queen Emma Street boundary to reflect ground surface waves back into the project.

#### 01.04 ALTERNATIVES CONSIDERED

The four actions considered as alternatives to the proposed action are discussed in Sections 06.0 and 11.0 and are listed as follows:

- o No action - do not consolidate and redevelop the superblock
- o Reduce the scale of the project to the block bounded by Beretania, Queen Emma, Kukui and Pali Hwy
- o Limit the project to the existing Block J municipal parking lot area
- o Alternative Sites - redevelop other City properties at a smaller scale

#### 01.05 UNRESOLVED ISSUES

A summary of unresolved issues and the means to resolve them prior to initiation of the proposed action or discussion of overriding reasons for proceeding without resolution are presented in this section.

### Final Government Approvals

Prior to initiation of the proposed action the rezoning request for Kamalii Park and the amendment to the Hawaii Capital District will be granted.

### Final Design and Developer

A developer will be selected to finance, design, build and operate the Pacific Nations Center through a request for proposals process, which will be issued by the City upon approval of the Hawaii Capital District Ordinance amendment and after the 45 day comment period for the Draft Environmental Impact Statement is completed.

### Development Schedule/Timetable

Prior to initiation of the proposed action the selected developer will prepare a schedule/timetable for the project.

### Location of HECO Substation

Prior to initiation of the proposed action the selected developer will consult with HECO representatives to decide upon the final location of the upgraded substation.

01.06 COMPATIBILITY WITH LAND USE PLANS AND ISSUES

The proposed project would be compatible with the objectives and policies of The Hawaii State Plan and the Oahu General Plan, as discussed in Section 08.0. It is compatible with the State Land Use Designation and the City and County Development Plans. The BMX-4 Central Business Mixed Use zoning district (final approvals pending) would accommodate the project. Furthermore, State and local environmental policy is fulfilled with preparation of this Environmental Impact Statement.

01.07 LISTING OF NECESSARY APPROVALS AND PERMITS

Approvals

1. Rezoning of Kamalii Park from P-2 to BMX-4.  
Responsible Agency: Department of Land Utilization  
Acceptance by: City Planning Commission and City Council  
Status: Pending adoption by City Council and Mayor's approval
2. Amendment to the Hawaii Capital District boundary.  
Responsible Agency: Department of Land Utilization  
Acceptance by: City Planning Commission and City Council  
Status: Pending adoption by City Council and Mayor's approval
3. Environmental Impact Statement (EIS)  
Responsible Agency: Department of Housing and Community Development  
Acceptance by: Department of Land Utilization  
Status: Notice to Prepare EIS published in 6/8/88  
OEQC Bulletin, Draft EIS notice published in 1/8/89 OEQC Bulletin - currently available for review.
4. Determination by Federal Aviation Administration that buildings exceeding 200 feet in height, will not be an obstruction or hazard to air navigation.  
Responsible Agency: Project Developer  
Acceptance by: Federal Aviation Administration  
Status: no action necessary at this time.

Permits

(Status of all permits pending final design approval.)

City and County of Honolulu

1. Special Districts Special Design Permits  
Law(s): Chapter 46, Hawaii Revised Statutes;  
Revised City Charter, Chapter 9, 1979 Supplement  
Revised Ordinances of Honolulu, 1978, Chapter 21  
(as amended)  
Responsible Agency: Department of Land Utilization
2. Building Permit for Buildings, Electrical, Plumbing, Sidewalk/Driveway Work and Demolition.  
Law(s): Revised City Charter, Chapter 14, 1979 Supplement  
Revised Ordinances of Honolulu. 1978.  
Chapters 16, 17, 18, 19 and 25 (as amended)  
Responsible Agencies: Building Department and review by various other City agencies
3. Construction Dewatering Permit (Temporary)  
Law(s): Revised Ordinances of Honolulu, Chapter 16  
Responsible Agency: Department of Public Works

4. Grading, Grubbing and Stockpiling Permit  
Law(s): Chapter 180C, Hawaii Revised Statutes  
Revised Ordinances of Honolulu, Chapter 23  
Responsible Agency: Department of Public Works
5. Sign Permit  
Law(s): Chapter 445, Hawaii Revised Statutes  
Revised City Charter, 1973, Chapter 9, 1979 Suppl.  
Revised Ordinances of Honolulu, Chapter 21  
(as amended)  
Responsible Agencies: Building Department and review by  
Department of Land Utilization
6. Certificate of Occupancy  
Law(s): Revised Ordinances of Honolulu, Chapter 16  
Responsible Agencies: Building Department and review by  
various other City agencies
7. Water and Water System Requirements for Developments  
Law(s): Chapter 54, Hawaii Revised Statutes  
Revised City Charter, Article VII, 1979  
Supplement  
Responsible Agency: Board of Water Supply
8. Trenching Permit  
Law(s): Revised Ordinances of Honolulu, Chapter 20  
Responsible Agency: Department of Public Works
9. Street Usage Permit  
Law(s): Chapter 286, Hawaii Revised Statutes;  
City Ordinance No. 4650(76)  
Responsible Agency: Department of Transportation Services
10. Permit to Excavate Public Right-of-Way  
Law(s): Revised Ordinances of Honolulu, Chapter 20  
Responsible Agency: Department of Public Works
11. Sewer Connection Permits  
Law(s): Revised Ordinances of Honolulu, Chapter 11  
Responsible Agency: Department of Public Works
12. Sewer Extension, Oversizing and Relief Sewer Requirements  
Law(s): Revised Ordinances of Honolulu, Chapter 11  
Responsible Agency: Department of Public Works
13. Park Dedication Requirement  
Law(s): Chapter 46, Hawaii Revised Statutes,  
Revised Ordinances of Honolulu, 1978, Chapter 22,  
City Ordinance No. 4621(76) (as amended)  
Responsible Agencies: Department of Land Utilization and  
Department of Parks and Recreation

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03.0 LISTS OF FIGURES, TABLES AND APPENDICES

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**04.0 PURPOSE AND NEED FOR ACTION**

#### 04.0 PURPOSE AND NEED FOR ACTION

The Pacific Nations Center mixed-use complex would serve many needed functions in the Honolulu area. Redevelopment of the site to its fullest potential would enhance ongoing revitalization efforts in the central business district and stimulate economic growth in Honolulu. How various components of the project would help to accomplish these objectives is described at the conceptual level in the following paragraphs. Specific development features are discussed in Section 05.06.

##### International Theme

The Pacific Nations Center has been identified as a possible site for a stock exchange, for a world trade center, for the offices of international committees, and for trade delegations from Pacific Rim nations. Were the project to provide a home for some or all of these organizations, it would help to meet the City administration's objectives for Honolulu's development as well as the State's goal of increasing international involvement and financial activity.

##### Stock Exchange

Another possibility for the Pacific Nations Center would be to house the Honolulu branch of the Pacific Stock Exchange. The feasibility of the stock exchange is currently being studied. Again, it is Hawaii's location that would be the advantage, with

Honolulu being able to fill the three-hour trading lapse between the closing of the New York Stock Exchange and the opening of the Tokyo exchange. The Pacific Nations Center is an appropriate location for the trading floor and a successful stock exchange branch would help diversify Hawaii's economy.

#### Office Space

Regardless of the success in attracting either or both of the PECC or the stock exchange, the office tower in the proposed complex could greatly help downtown Honolulu meet present and future office space demand. The percentage of available office space in the downtown area is extremely low compared to national averages. The project site is an ideal location for additional office space, given its downtown setting in the central business district.

#### Residential Units

Both State and City and County goals encourage residential development near employment centers and where mixed-use areas are zoned. The residential tower planned for the Pacific Nations Center would provide attractive condominium units for people interested in its convenient, central location.



### Downtown Hotel

Lack of hotel accommodations in the Honolulu downtown area, in contrast to other major cities, has long been evident to Oahu residents and business travelers. Needs of traveling business clients, friends and relatives of downtown residents and travelers whose interests are not beachfront oriented would be met by the small-scale luxury hotel proposed for this complex. The downtown hotel would be a much needed alternative to either the Waikiki hotels or rural resorts.

### Redevelopment

Revitalization of the central business district has been an active goal of the City in recent years, affecting areas from Chinatown to the Alapai Street bus terminal. The proposed Pacific Nations Center would significantly improve the appearance and character of the downtown area by replacing the existing asphalt parking lot and buildings constructed in the 1950's and 1960's with modern, sophisticated structures and landscaped open space. The mixed-use complex would serve the needs of people in the surrounding area and could also be an important international meeting place. With its various amenities, it would attract people to the downtown area during the evening. Special activities and cultural events could be planned to enhance the site as a gathering place. Furthermore, maximizing the use of this property would generate more revenues for the City and stimulate economic growth for the State.

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## 05.0 PROJECT DESCRIPTION

## 05.0 PROJECT DESCRIPTION

The development of the property known as "Expanded Block J" into a mixed-use complex with three towers and landscaped open space is described in the following sections.

### 05.01 PROJECT LOCATION

The project site for the Pacific Nations Center is located in downtown Honolulu, Oahu, Hawaii. The site is bounded by South Beretania, Fort, Kukui, and Queen Emma Streets (See Figure 1, Project Location Map) and includes the public parking lot now called Block J, privately owned parcels and Kamalii Park. The Pali Highway extension runs through the site to meet the top of Bishop Street. The Hawaii Capital District is adjacent to the project site on the Diamond Head side and the Chinatown District is two and a half blocks towards the Ewa side. The Punchbowl District begins across Vineyard, one block past the site towards the mountains, and the downtown financial district is towards the ocean. Thus, the project site occupies a prominent location in the City, suitable for a mixed-use complex servicing people in the central business district and surrounding areas. The Central Fire Station building, is not included in the project site, and will not be altered by the proposed action.

### 05.02 STATEMENT OF OBJECTIVES

The objectives of the proposed action are to redevelop the site to its fullest potential and to stimulate economic growth in Honolulu.

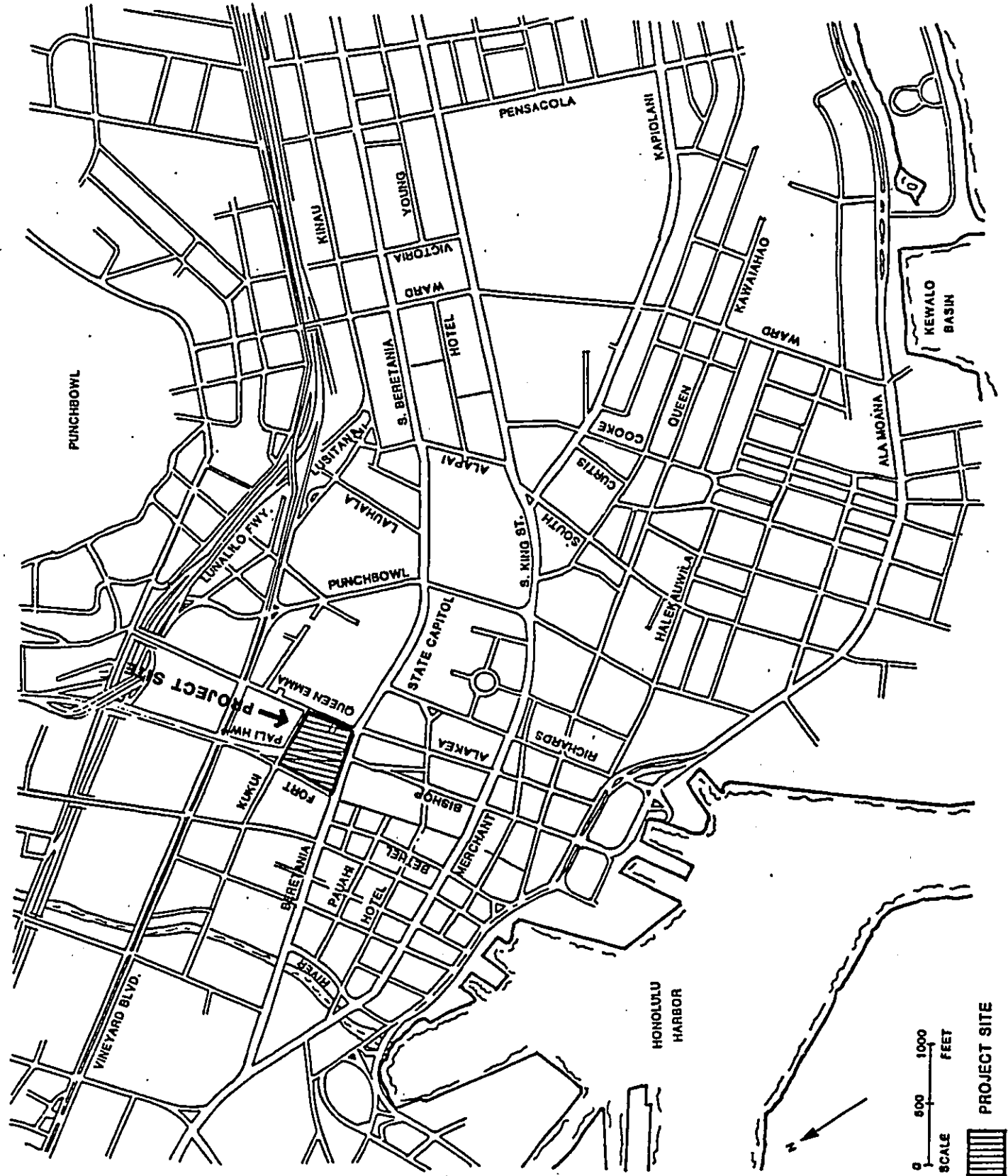


FIGURE 1 - PROJECT LOCATION MAP

#### 05.03 GENERAL DESCRIPTION OF THE ACTION

The Department of Housing and Community Development, City and County of Honolulu, is proposing to acquire six privately owned lots in the mauka/Diamond Head corner of the project site and to consolidate these lots with City-owned property to create a superblock in downtown Honolulu. The consolidated site of 5.06 acres would then be leased to a private entity through a request for proposals (RFP) process for the development of a large mixed-use complex. Rezoning of Kamalii Park from P-2 to BMX-4 and amendment of the Hawaii Capital District ordinance to exclude the majority of the project site is currently in progress. Development of the site includes relocation of current tenants, demolition of existing structures, design and construction of the mixed-use complex (including landscaping) and operation of the new facilities. The selected developer will finance the entire project.

#### 05.04 USE OF PUBLIC FUNDS OR LANDS

The use of public funds or lands are two actions that subject the development to the provisions of chapter 343, Hawaii Revised Statutes. The selected developer will finance the entire project cost, with public funds only being used to initially purchase six privately owned parcels on the site to consolidate the superblock. The City expects to recover this cost from the developer. Public lands, including public roadways, the existing City parking lot, Kamalii Park and the other lots to be purchased, would be used if the project is implemented.

#### 05.05 PHASING, TIMING AND COST ESTIMATE

Although construction of the new complex is expected to begin as early as October 1990, the phasing and timing of the work has not yet been determined.

Costs for the proposed project have been prepared by the City based on the general components of the proposed project and are estimated at approximately \$350,000,000. This figure is subject to change, as the future developer would estimate project costs based on specific design criteria and scheduling.

#### 05.06 SUMMARY TECHNICAL DATA, DIAGRAMS, ETC.

##### Development Program

The potential floor space based on the maximum allowable floor area ratio is 1.65 million square feet. The proposed action described here is based on development of the site to this maximum figure to insure that the fullest range of impacts are disclosed. A conceptual design for the Pacific Nations Center, meeting required building codes and regulations, was developed to allow analysis of potential impacts and is not intended to predetermine exact site plan or use of the property.

Preliminary tower massing alternatives, in accordance with allowable development standards and zoning regulations, suggest that three towers might be appropriate for the project site.

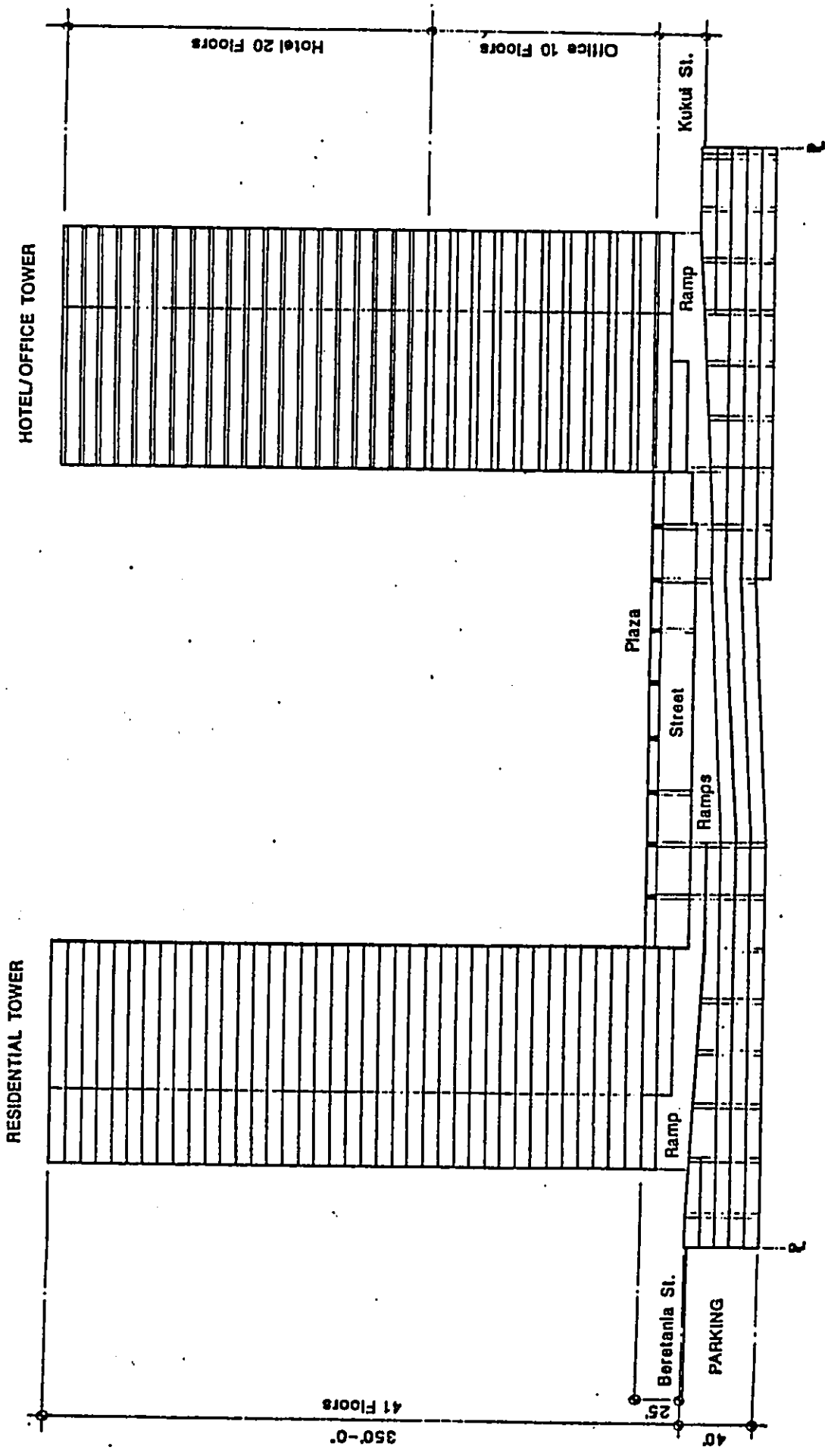
Separate towers for office space, residential units and a hotel, each with integrated commercial uses, would result in the following configurations:

TABLE 1  
TOWER MASSING

TYPE	HEIGHT	# FLOORS	TOTAL SQ.FT.
Office	350 Feet	28 Floors	544,000
Hotel/Office	350 Feet	32 Floors	486,000
Residential	350 Feet	41 Floors	610,000

Site sections allow for a one-dimensional view of the tower massing, from the first level of parking to the top floor of the buildings. Site Section A (Figure 2) shows the residential tower and the hotel/office tower as they would appear from Queen Emma Street, looking north across to Fort Street. Site Section B (Figure 3) shows the office tower fronting Beretania Street, looking east toward the mountains.

The overall development program for the project site is described in Table 2. Approximately 150,000 s.f. of commercial space would be located at the lower levels of the complex between street and plaza levels. At least 77,000 s.f. of open space would be designed into the complex including passive recreational landscaped areas and open malls. Additional open space would be



5-4a



FIGURE 2 - SITE SECTION A



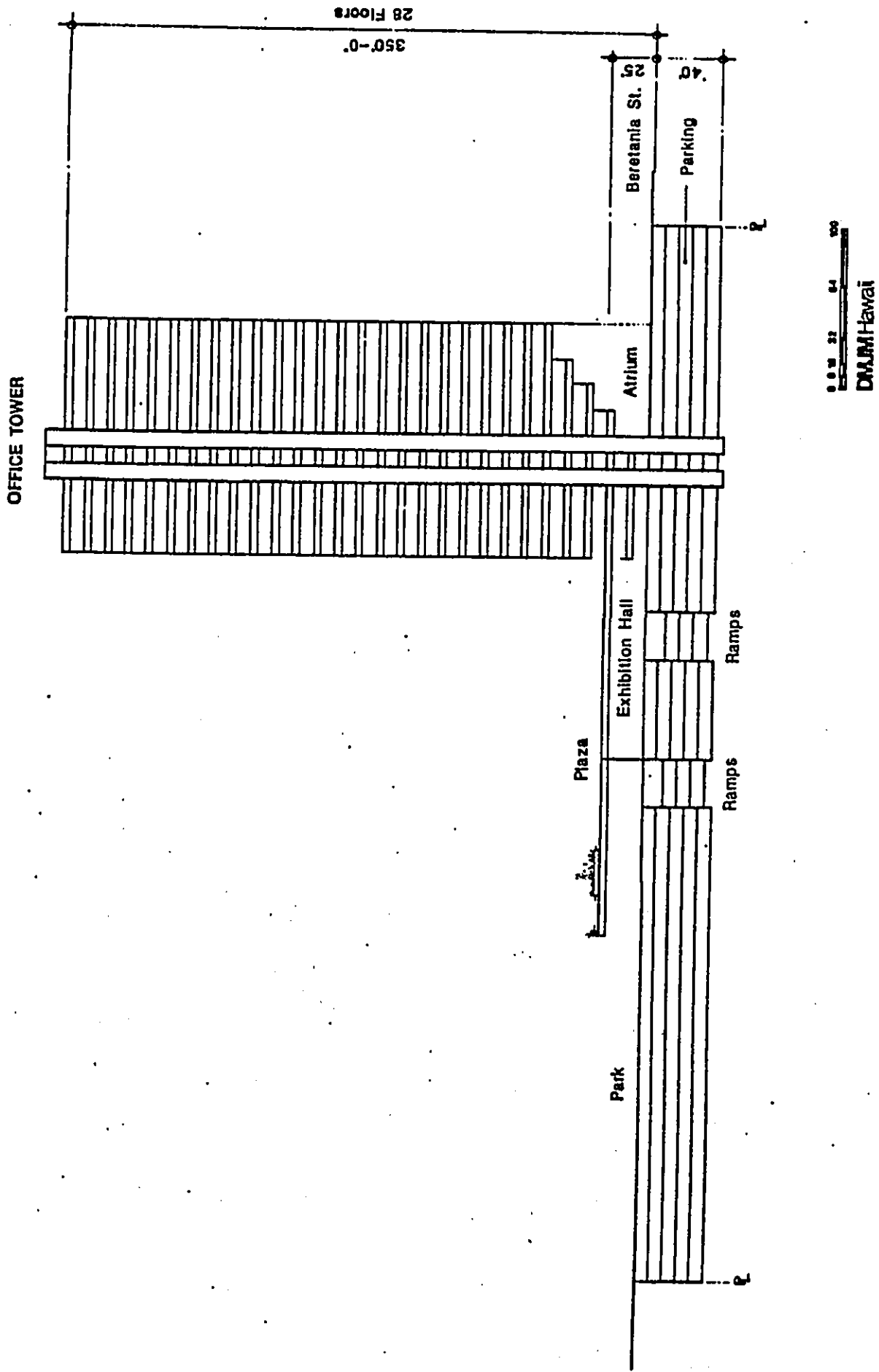


FIGURE 3 - SITE SECTION B

required under the park dedication ordinance if residential use is provided. The three towers would be served by underground parking with the approximate number of stalls totaling 2,500. A minimum of 208 parking stalls dedicated to the public will be required of the developer to replace the 208 stalls presently available to the public at the existing City lot on the project site.

TABLE 2  
DEVELOPMENT PROGRAM

TYPE OF USE	AMOUNT OF SQUARE FEET
General Office Lease Space	650,000
General Retail Lease Space	60,000
General Restaurant Lease Space	20,000
City & State Office Lease Space	50,000
Exhibit/Trade Center	30,000
Convention Center/Board Rooms	20,000
Services	22,000
<b>Hotel/Residential</b>	
- Lobby = 5,000	
- Reception/Registration = 2,000	
- Accounting/Reservations = 5,000	
- 220 Suites/Rooms @ 950 s.f. = 220,000	
- Services = 20,000	
<b>Total Hotel</b>	<b>252,000</b>
<b>Residential</b>	
- 152 One Bedrooms @ 810 s.f. = 123,000	
- 190 Two Bedrooms @ 999 s.f. = 190,000	
- 152 Three Bedrooms @ 1,215 s.f. = 185,000	
- Services = 15,000	
<b>Total Residential</b>	<b>513,000</b>
Electrical Substation	13,000
Recreational	20,000
<b>TOTAL DEVELOPMENT</b>	<b>1,650,000</b>

## Main Development Features

The main features of the Pacific Nations Center, as outlined above, would include a residential tower, office tower, hotel accommodations, open space, a relocated Hawaiian Electric Company substation and a parking structure. Realignment of Pali Highway and preservation of view corridors are two other items important to development of the site. The Site Use Analysis (Figure 4) illustrates how these main features would be developed within the project site.

### Residential Tower

A 350 foot residential tower could be constructed on the present Kamalii Park site at the northwest end (ewa side) of the site. The City is currently processing a request to rezone this portion of the site from P-2 (General Preservation District) to BMX-4 (Central Business Mixed Use District) to become a part of the superblock. The tower could be architecturally designed to take into consideration the historical character of the adjacent Central Fire Station.

### Office Tower

The office tower could be located near the corner of Beretania and Queen Emma Streets. Its height would be 350 feet, which is already allowed by zoning regulations on this portion of the site. It would function as the gateway to downtown's financial

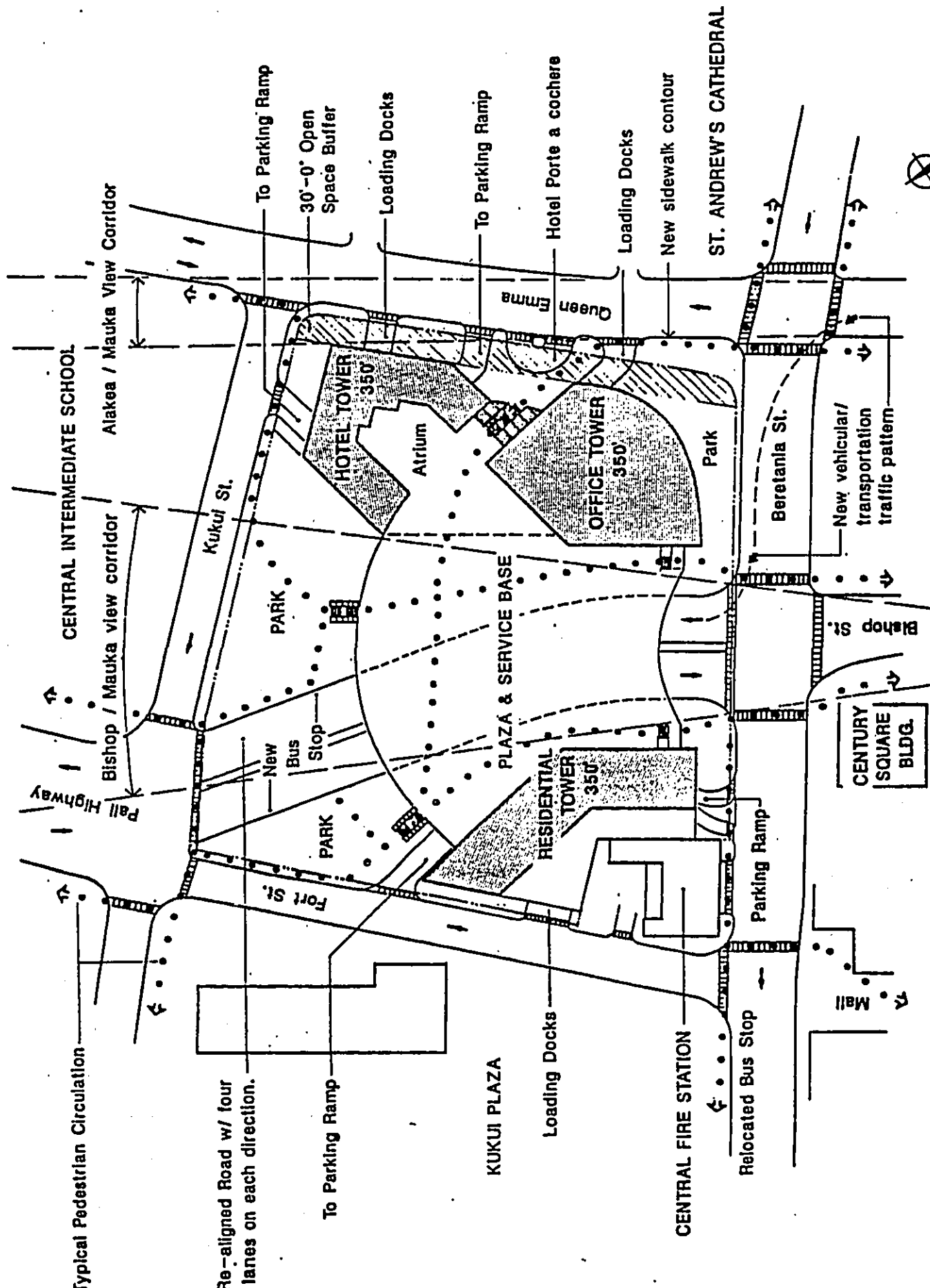


FIGURE 4 - SITE USE ANALYSIS

district with its proximity to Bishop Street. Commercial uses, such as general retail or restaurant space, and services related to financial businesses (i.e. Pacific Stock Exchange or possibly a World Trade Center) that may occupy the office space, would be located in the lower floors of the building.

#### Hotel Accommodations

A small-scale luxury hotel could be located on the northeast end (mauka side) of the site. This hotel tower would be 350 feet in height and also include several floors of office space. The City is currently processing amendments to the Hawaii Capital District including one that would exclude the majority of the project site from the special district. The hotel would not serve as a self-contained resort, but rather would utilize services already available in the downtown community such as restaurants, dry cleaners, stores and markets, as well as the new services provided in other portions of the complex.

#### Open Space

The amount of open space required to be designed into a project is a function of the ratio of land area to the allowed buildable area in a zoned district, as put forth in the Land Use Ordinance (LUO). For the proposed action, the developer would be required to provide approximately 77,000 square feet of open space in order to obtain the maximum floor area allowed under the BMX-4 zoning. This open space, shown as park and plaza area in the

Site Use Analysis, may take a variety of forms. For example, passive recreational activities, such as are found in the Hawaii Capital District or a Bishop Square/Tamarind Park type of mall, can be compatible with the proposed project's downtown setting. Also, an elevated plaza level will help to capture vistas of the Koolaus while offering facilities for such amenities as open air concerts in the daytime and special events in the evening. Attracting people to the downtown area after business hours is the goal of many downtown merchants. The developer will be subject to the park dedication ordinance if residential uses are proposed and must provide additional open space.

#### Hawaiian Electric Company Substation

The existing Hawaiian Electric Company substation will be upgraded in the near future to accommodate increased demand for electricity in the downtown area. The new substation may be relocated and integrated into the project design in a manner determined best by the electric company and the project developer. The new substation would be designed so as not to violate applicable noise standards and insure maximum safety to building occupants as well as surrounding areas.

#### Parking Structure

A five level underground parking structure with approximately 2,500 stalls would accommodate project needs including the required 208 public parking stalls to replace the existing 208

stalls now on the site. How this large a number of parking stalls may be designed into the project is important for analysis of traffic, noise and air quality impacts. The parking levels are illustrated in Figure 5, showing the first level of parking (Level 01), and Figure 6, showing the configuration of the remaining four levels (Levels 02 - 05). The internal circulation pattern allows multi-directional movements. External access would include multiple entries/exits, one for each of the four block faces around the project site, as shown in the Site Use Analysis. Speed ramps and/or slanted slabs can facilitate use of the parking structure and safety features could be incorporated into the design of the structure.

#### Realignment of Pali Highway

The Pali Highway extension runs through the project site and ends at Beretania Street. Realignment of the highway and reconfiguration of the lanes to allow two directions of traffic would allow for more efficient use of the project site. Although many engineering alternatives are available, keeping the highway at its existing ground level would allow for a more efficient underground parking structure. Pali Highway will continue to serve as a main access for commuter traffic to the downtown area. The number of lanes and two-directional flow would ease the movement of traffic in the area.



PARKING SUMMARY	
Level 01	440
Levels 02 to 05	535 ea.
Total	2580 Stalls

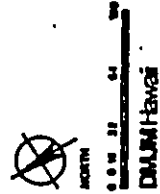
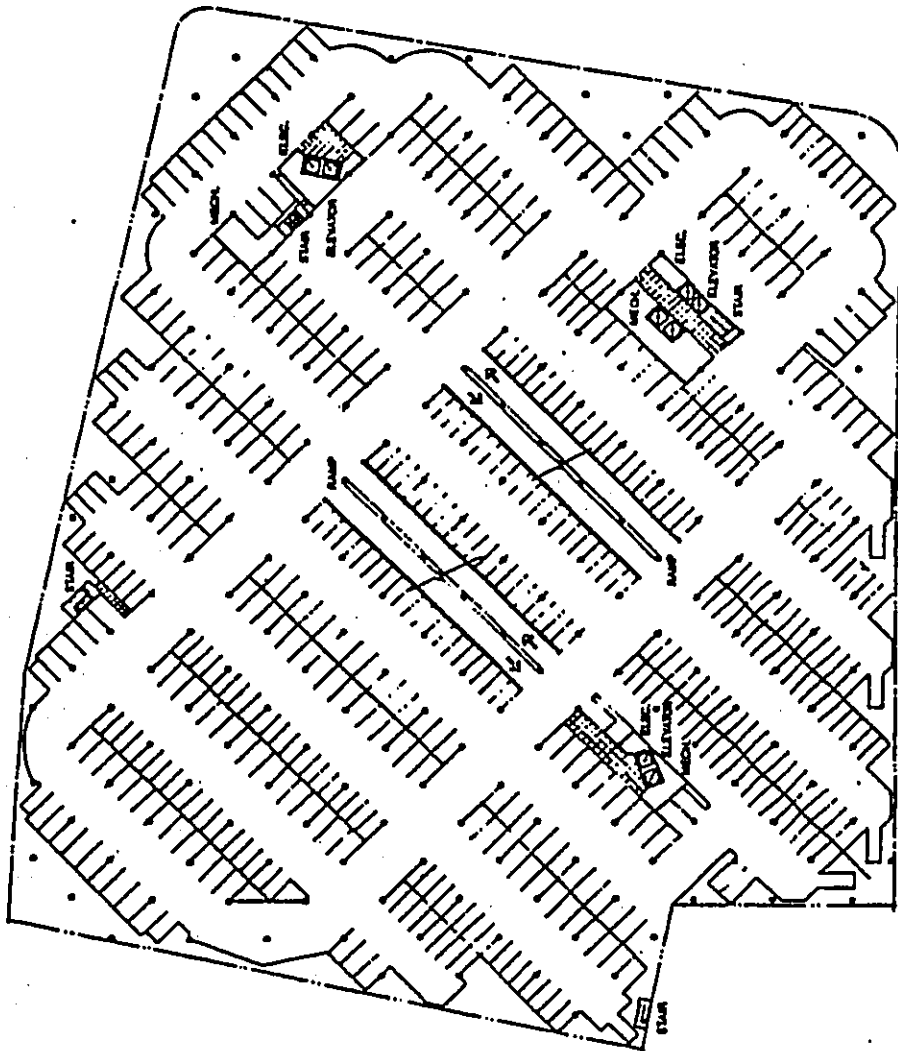
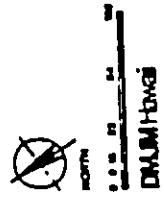
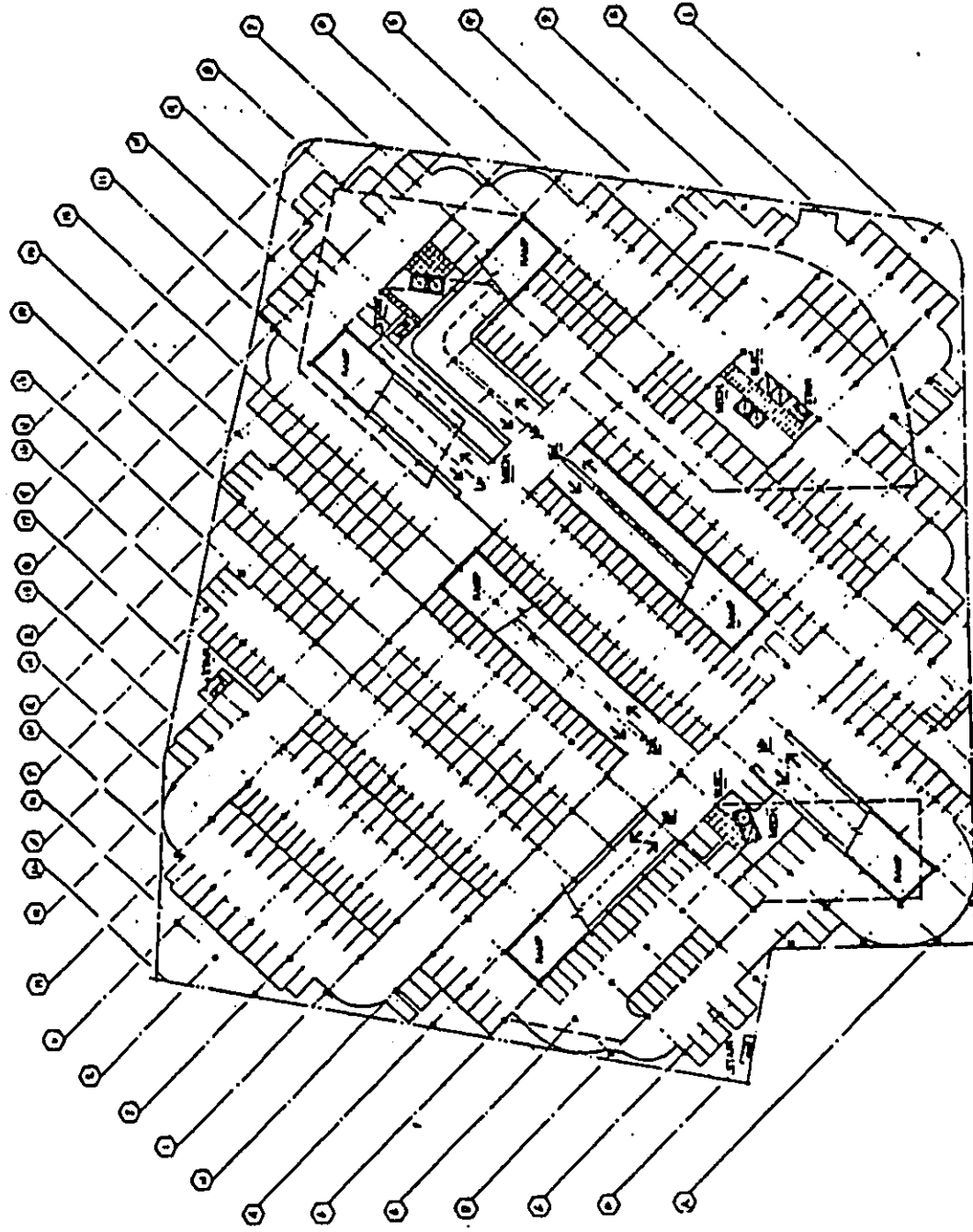


FIGURE 5 - PARKING LEVEL 01

**PARKING SUMMARY**

Standard Stalls	246
Compact Stalls	194
<b>Total</b>	<b>440</b>



**FIGURE 6 - PARKING LEVELS 02-05**

5-10b

## View Corridors

The view corridor looking toward the mountains along Bishop Street is valued as an important visual resource by the public. A similar view corridor exists looking toward the mountains along Alakea Street. The project will be designed so as not to obstruct these view corridors. (Views are further discussed in Sections 07.0 and 10.0)

## Additional Development Features

Several other important features are noted in the Site Use Analysis, such as traffic circulation patterns, locations for required loading docks, hotel amenities (hotel porte a cochere and atrium), new bus stops and typical pedestrian circulation patterns.

## Pedestrian Circulation

Pedestrian circulation is a critical issue for a project of this size. Development may draw pedestrian traffic into and through the site. Sidewalks would exist along the block faces as well. Existing crosswalks around the site would be maintained and perhaps new crosswalks delineated where necessary for safety purposes.

In addition to driving in and parking at the complex, people may arrive at the site by bus or bicycle, or as passengers being

dropped off. A parking area at street level for bicycles and mopeds may be an advantageous feature on site. However, as a safety precaution, they would not be allowed to mix with pedestrians within the complex. Current bicycle paths near the site would not be altered or restricted.

Within the complex, stairs, escalators and elevators would facilitate movement between street level, plaza level and the towers.

Handicapped access to the various levels would be provided through elevators at all building lobbies. Also, elevators could be located near key intersections to facilitate handicapped access into the various building levels.

#### Street Level Plan

The Street Level Plan (Figure 7) is shown over a grid system to allow spatial analysis of the various features required for development of the site as proposed. The location of tower entrances and lobbies, service corridors, areas for trash, maintenance, laundry, luggage storage for the hotel, and mechanical and electrical maintenance rooms associated with vital building functions are part of the street level requirements for the development.

section - A

section - B

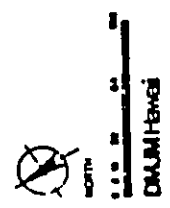
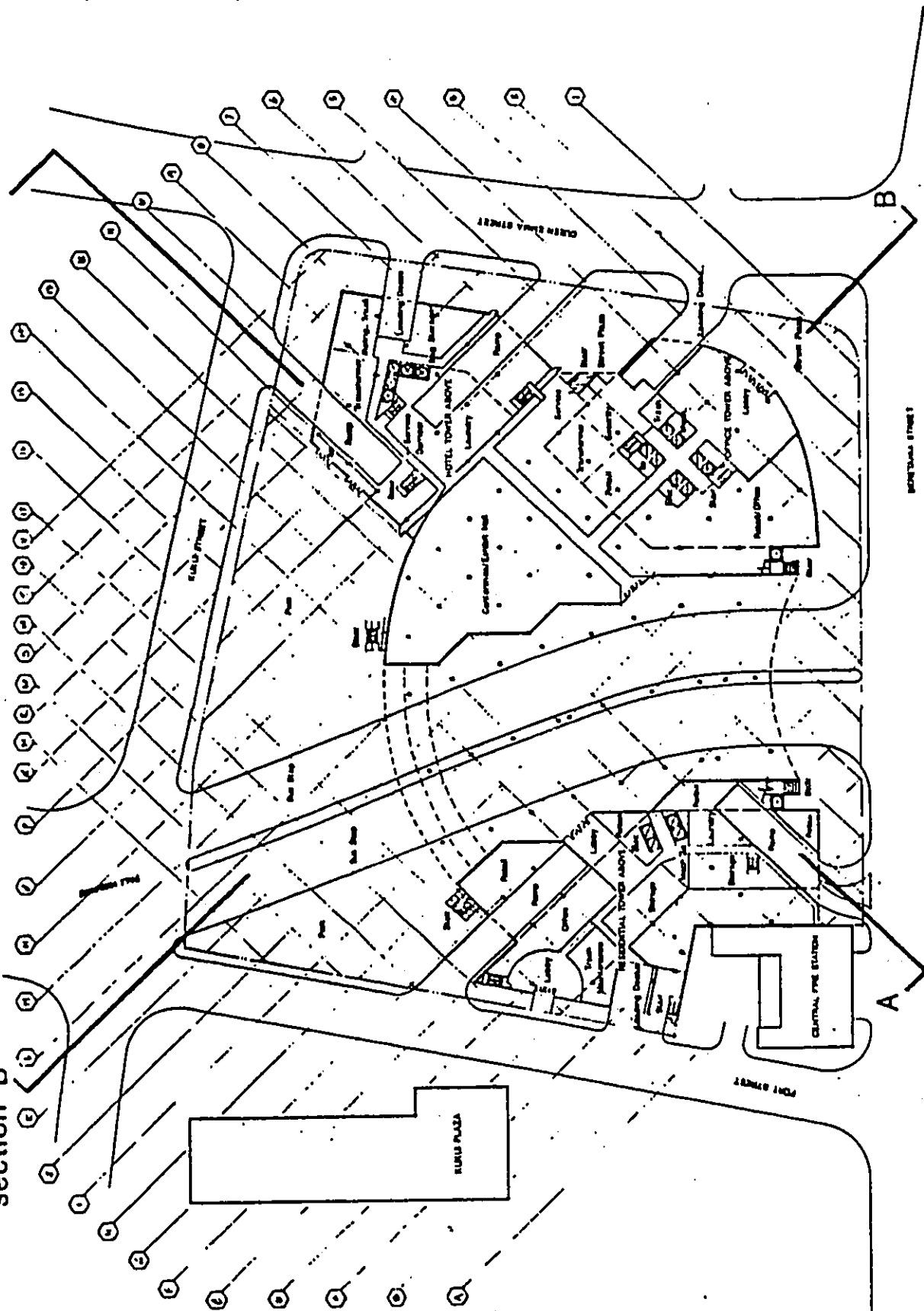


FIGURE 7 - STREET LEVEL PLAN

5-12a

## Plaza Level Plan

The Plaza Level Plan (Figure 8) allows visual perception of both the indoor and outdoor features on the site. A large percentage of the site remains in landscaped park and open space on the plaza level and also on the surrounding street level areas. This figure illustrates the advantages of realigning the Pali Highway extension. The existing street pattern is symbolized by long dashed lines, while the proposed alignment is drawn in with short dashed lines. The alignment would be under the plaza level through a wide tunnel.

This plan responds to the specific spatial requirements of the site, allowing for uninterrupted view corridors, while providing an amphitheater-like setting with the Koolaus in the background.

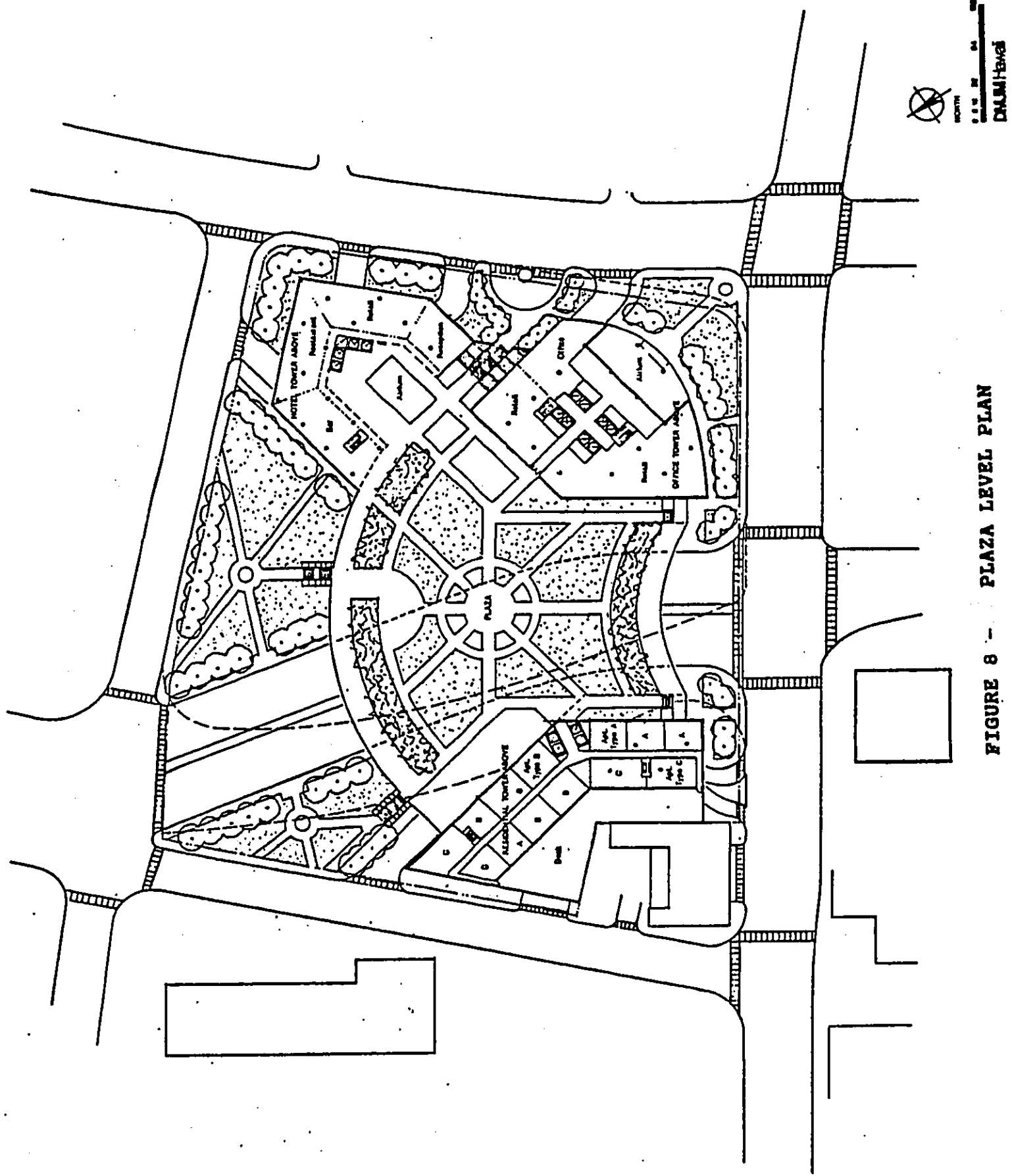


FIGURE 8 - PLAZA LEVEL PLAN

5-13a

## 05.07 HISTORIC PERSPECTIVE

### Early History of the Site

According to research performed by archaeologist M.J. Tomonari-Tuggle, the project site was slow to urbanize compared to the central core of the downtown area. In 1850, the Block J area was "still largely a collection of native houses and farmlands" (Tomonari-Tuggle, 1983). By 1900 many commercial and residential structures were built on Block J reflecting the growth of Honolulu as the urban center of the islands. In the 1930's the Federal New Deal targeted slum areas for demolition including Block J. During the early 1950's, the federal government instituted the urban renewal program. Shortly thereafter, the Kukui Urban Renewal Plan was implemented which guided development at and near Block J. In 1955 the City and County razed the buildings in most Block J and built the existing public parking lot. This brief summarization of the early history of the project site does not include its cultural or archaeological significance, which are respectively addressed in Sections 07.06 and 10.03 of this report.

### Date of Existing Land Uses

The construction dates of the existing structures on the proposed superblock span 38 years. The oldest structure on the site, the Hawaiian Electric Company substation, is 57 years old and is currently being redesigned for an upgrade in the near future.



The following table lists all of the existing structures and their construction dates. Their present locations on the site are shown by corresponding letter symbols in Figure 9.

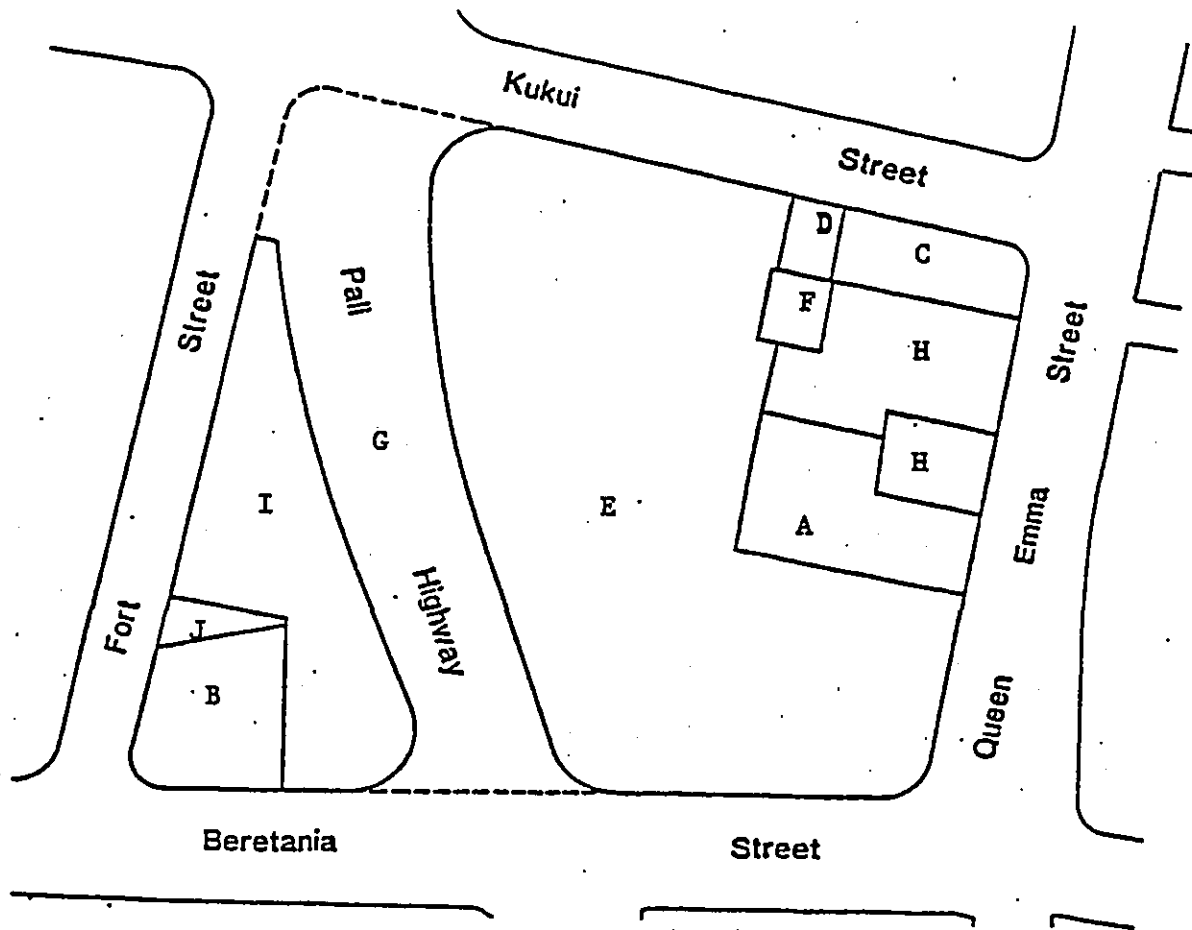
TABLE 3  
EXISTING STRUCTURES

SYMBOL	TYPE/USE	SQ.FT.	DATE BUILT
A.	Substation (HECO)	13,246	1931
B.	Central Fire Station	9,729	1936
C.	3-story medical building	6,044	1950
D.	2-story medical building	1,768	1955
E.	Public parking lot	103,139	1955
F.	3-story medical building	2,424	1962
G.	Public Highway (Pali Hwy)	44,870	1962
H.	13-story medical building	16,918	1963
I.	Public park (Kamalii Park)	30,276	1967
J.	Storage shed	1,715	1969

Source: Tax Map Office, City and County of Honolulu, 1988.

#### Recent Development Proposals

At least five development proposals have been considered for portions of the project site. In the 1960s a 17-story office building was proposed for the site of the City parking lot. In the early 1970s a commercial office building was proposed,



**FIGURE 9 - EXISTING STRUCTURES**

Note - See Table 3

followed by a residential development proposal in the late 1970s. In 1980 a large residential tower was proposed. The most recent proposal was in 1983 for Pali Park, a 432 unit condominium. For many different reasons the private developers and the City did not implement any of these proposals.

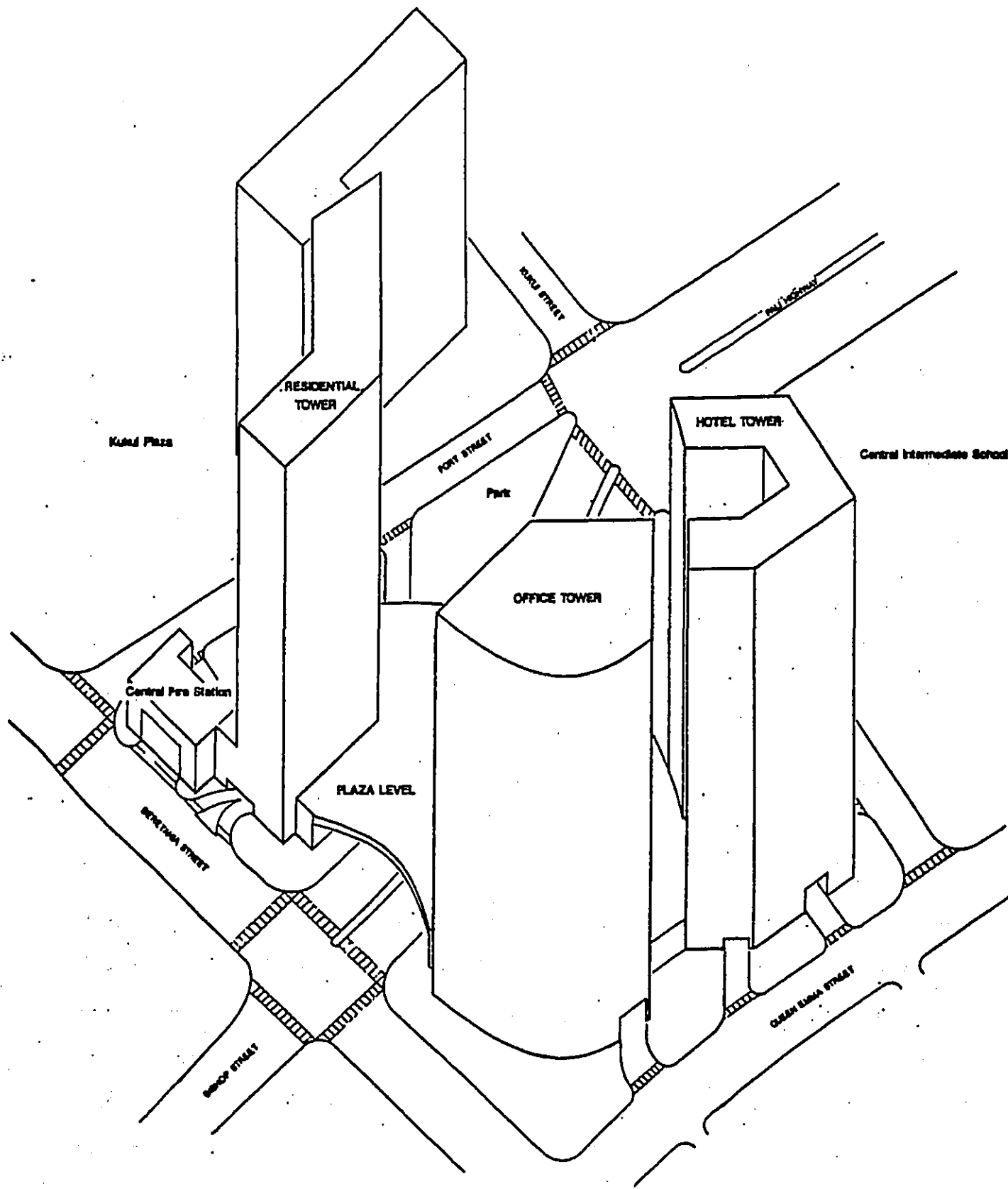
Consolidation of the properties into a superblock to be leased to one developer makes the current proposed action the preferred scenario because it discourages piecemeal development. Spot development in the privately-owned parcels would be inevitable as the existing structures become older and beyond repair. This also allows for continuity of design and efficiency of function and better planned open space. As one of the few properties suitable for redevelopment in the central business district, a master planned design would best meet Honolulu's present and future needs.

**06.0 ALTERNATIVES TO THE PROPOSED ACTION**

## 06.0 ALTERNATIVES TO THE PROPOSED ACTION

Four alternatives to the proposed action were determined to be feasible, though not preferred by the City and County of Honolulu. Selection of the concept, discussed herein as the preferred alternative, was made after a variety of public participation activities took place. Activities that contributed to conceptualization of the Pacific Nations Center included meetings of a Mayor's Advisory Committee formed in 1987, consisting of 15 members from the business community, neighborhood boards and special interest groups. Needs that could be met by redevelopment of the site have been expressed by people during many presentations made by the Department of Housing and Community Development during the past few years. Many local newspaper articles discussing possibilities for the project site have been published to generate public interest. The site was also studied while the new Land Use Ordinance was being revised, which required extensive review by the public and government agencies.

Massing diagrams for the proposed project and the two alternatives that allow partial development of the site are shown in axonometric projection (in which a rectangular solid appears as inclined and shows three dimensions) to aid in the comparison of the alternatives. Figure 10 - Proposed Action, is to be compared with similar Figures 11 and 12 for Alternatives 2 and 3, discussed below.



DMJM Hawaii

FIGURE 10 - PROPOSED ACTION

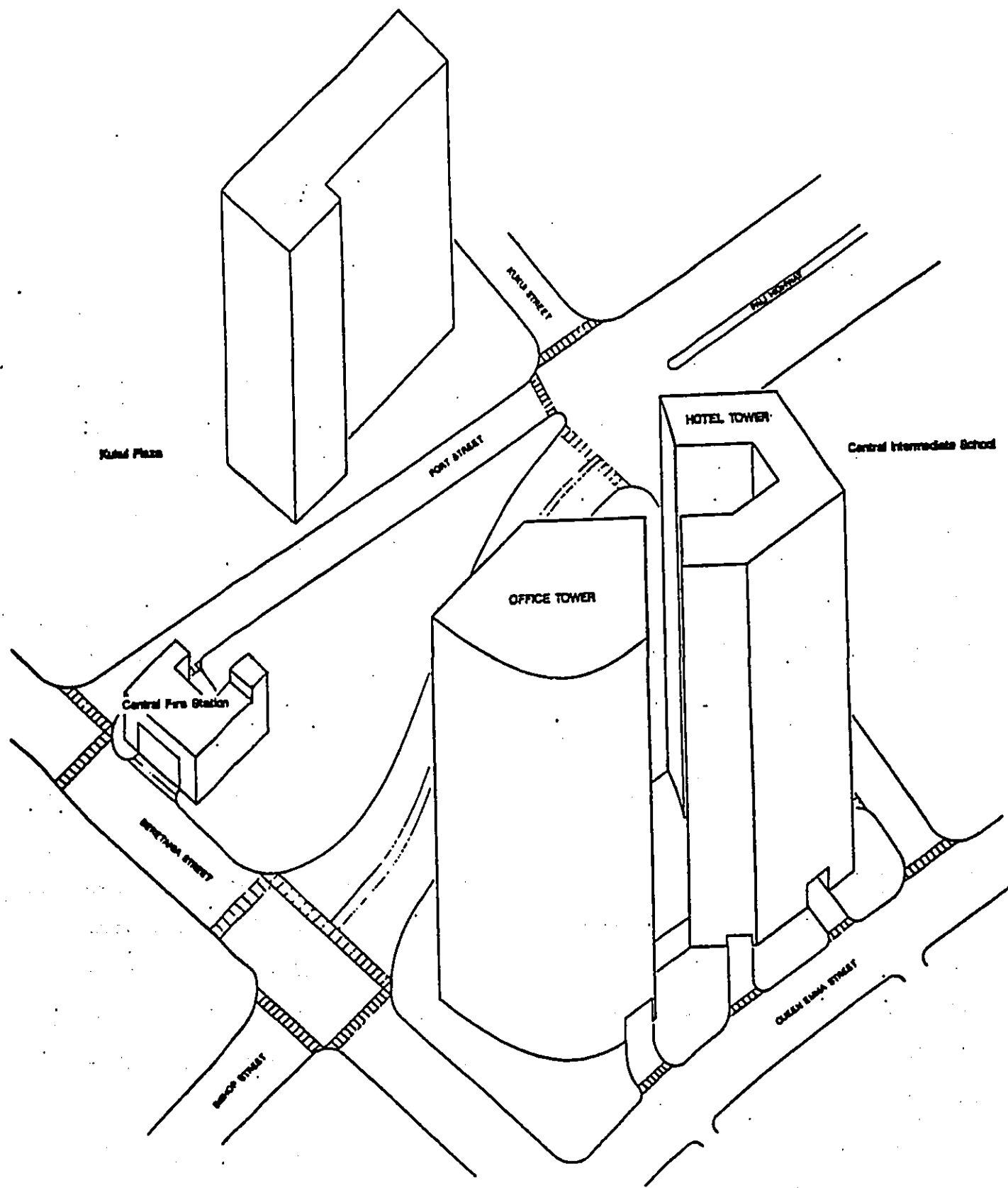
6-1a

#### 06.01 ALTERNATIVE 1 - NO ACTION

If the project is not implemented, the public parking facility will continue to benefit downtown merchants, and the existing structures would remain until the owners are ready to redevelop their respective sites. However, the location of this site is too significant to leave as a single level parking lot. The current uses are a gross under-utilization of the site. Eventually, growing demand for commercial and residential space in downtown will force redevelopment of the parking lot. Spot development on the individual private properties in the near future would also be inevitable. If the proposed project is not implemented now, the opportunity for capitalizing on the prime location of this site for development of a significant project would be lost, along with the revenues which could be generated by the project.

#### 06.02 ALTERNATIVE 2 - REDUCE SCALE OF THE PROJECT

Reducing the scale of the project to the block bounded by Pali Highway, Beretania, Queen Emma and Kukui Streets would reduce the maximum allowable floor area but would still allow for a major development. This alternative would include 143,400 square feet of land to be developed. (See Figure 11.) However, this alternative would reduce the amount of revenues received by the City and may render the project less feasible for the private developer. The City would also forego an opportunity to utilize almost 77,000 square feet of prime property at the Kamalii Park site which could otherwise be used more productively.



DMJM Hawaii

FIGURE 11 - ALTERNATIVE 2

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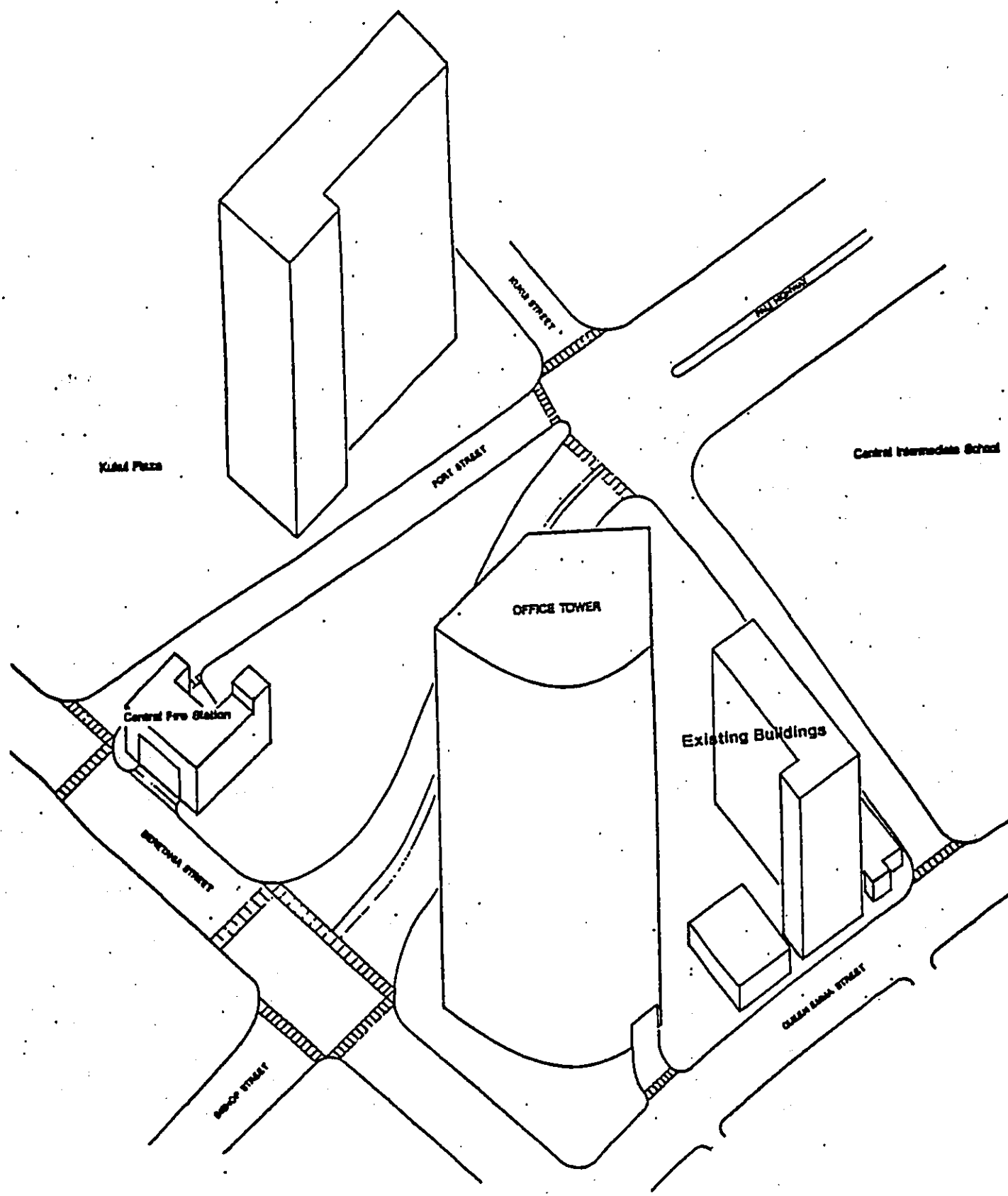


#### 06.03 ALTERNATIVE 3 - LIMIT THE PROJECT

Limiting the project to the existing municipal parking lot area would include 103,139 square feet of land to be developed. (See Figure 12.) Numerous attempts have been made in the past to redevelop this parcel, from a medical office building to a 50-story tower. The latest proposal was a 432-unit condominium. None of these attempts have succeeded and the area remains a blight. In addition, the opportunity to develop a large complex would be lost as would additional revenues from the larger site.

#### 06.04 ALTERNATIVE 4 - OTHER SITES

Other municipal parking lots in the downtown area are being evaluated as to their potentials for redevelopment. Where feasible, the City intends to use such underdeveloped facilities to provide additional residential and commercial space in the downtown area. However, the other sites are too small and do not have the same potential for development as the proposed project site and are therefore being planned for smaller developments. City acquisition of other privately-owned parcels is also a possibility. However, these parcels are generally too small and the necessity for acquisition of five acres of land would render the project infeasible.



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FIGURE 12 - ALTERNATIVE 3

**07.0 DESCRIPTION OF THE ENVIRONMENTAL SETTING**

## 07.0 DESCRIPTION OF THE ENVIRONMENTAL SETTING

### 07.01 CLIMATE AND METEOROLOGY

Downtown Honolulu receives a yearly average rainfall of 24 inches. Hawaii, in general, has a small seasonal variation in average temperature ranging from about 74-75°F in March to 79-80°F in September. Northeasterly tradewinds prevail across the islands. Honolulu's average windspeed for the month of January is 9.3 miles per hour, and it reaches 12.8 miles per hour in July. Through the months of October to April, Kona storms with southerly winds may be experienced. Relative humidity for Honolulu remains between 60% and 80% on a year-round average (University of Hawaii, 1984).

### 07.02 TOPOGRAPHY, GEOLOGY AND SOILS

The project site is flat to gently sloping with the elevation ranging from 22 to 28 feet above sea level. It is not subject to hazardous landslides, falling rocks or other unstable geological conditions.

Geologically, the site is located on the Honolulu coastal plain, a broad sedimentary plain, in places overlain by tuff cones and ash deposits. The plain contains numerous artificially filled marshes. At the shore, earthy and calcareous sediments, collectively termed caprock, are at least 1,000 feet thick and overlie the Koolau aquifer (Takasaki, 1977). The caprock forms a

wedge-shaped barrier, progressively thinning inland. At the project site, the caprock layer is probably less than half the thickness of that at the shoreline. Deposits in the caprock consist of terrestrial alluvium, marine sediments, calcareous reef deposits, pyroclastic rocks of the Honolulu volcanic series, and weathered basalt, with the first three predominant. The deposits in the caprock vary in their permeability, but the net collective permeability of the layer is low in comparison to the water-bearing basalt (Visher and Mink, 1964).

The subsurface soils consist of silty sand and cinders down to depths ranging from six to ten feet. The entire site is underlain with a fairly thick layer of coral stratum. The water table is 26 to 27 feet below the existing ground level (pers. comm., Ernest K. Hirata, Hirata & Associates, Inc., October 7, 1988).

#### 07.03 NATURAL HAZARDS

##### Tsunami Hazard

According to the Civil Defense "Tsunami Inundation Maps," the project site is inland from the inundation area, which extends from Ala Moana Boulevard to the shoreline (Hawaiian Telephone Company, 1988). Therefore, the site would not be affected by tsunami activity.

## Flood Hazard

The project site is in Zone X according to the National Flood Insurance Program's Flood Insurance Rate Map, revised September 4, 1987 as shown in Figure 13 and determined by the U.S. Department of the Army (pers. comm., William Chang, Planning Branch, U.S. Army Engineer District, Honolulu, December 1, 1988). Zone X is the designation for areas determined to be outside the 500-year flood plain. Zone X covers the majority of the downtown area. Nevertheless, the project would be designed and constructed in compliance with the Federal Flood Insurance Program, the City and County of Honolulu Drainage Standards, and the City's Grading Ordinance.

### 07.04 HYDROLOGY AND WATER QUALITY

There are no surface water resources within the site. The closest water feature is the Nuuanu Stream approximately 1,600 feet from the middle of the project site. Honolulu Harbor is approximately one-fourth mile away. Beneath the project site, however, are significant groundwater resources. An extensive basal aquifer containing large supplies of fresh water underlies all of southern Oahu. The caprock near the coast, being less permeable than water-bearing lava flows nearer the Koolau Range, retards the seaward flow of groundwater and results in a higher water table than would exist absent the caprock. Central Honolulu has the highest water table in southern Oahu. The basal groundwater is under artesian pressure; water levels range from

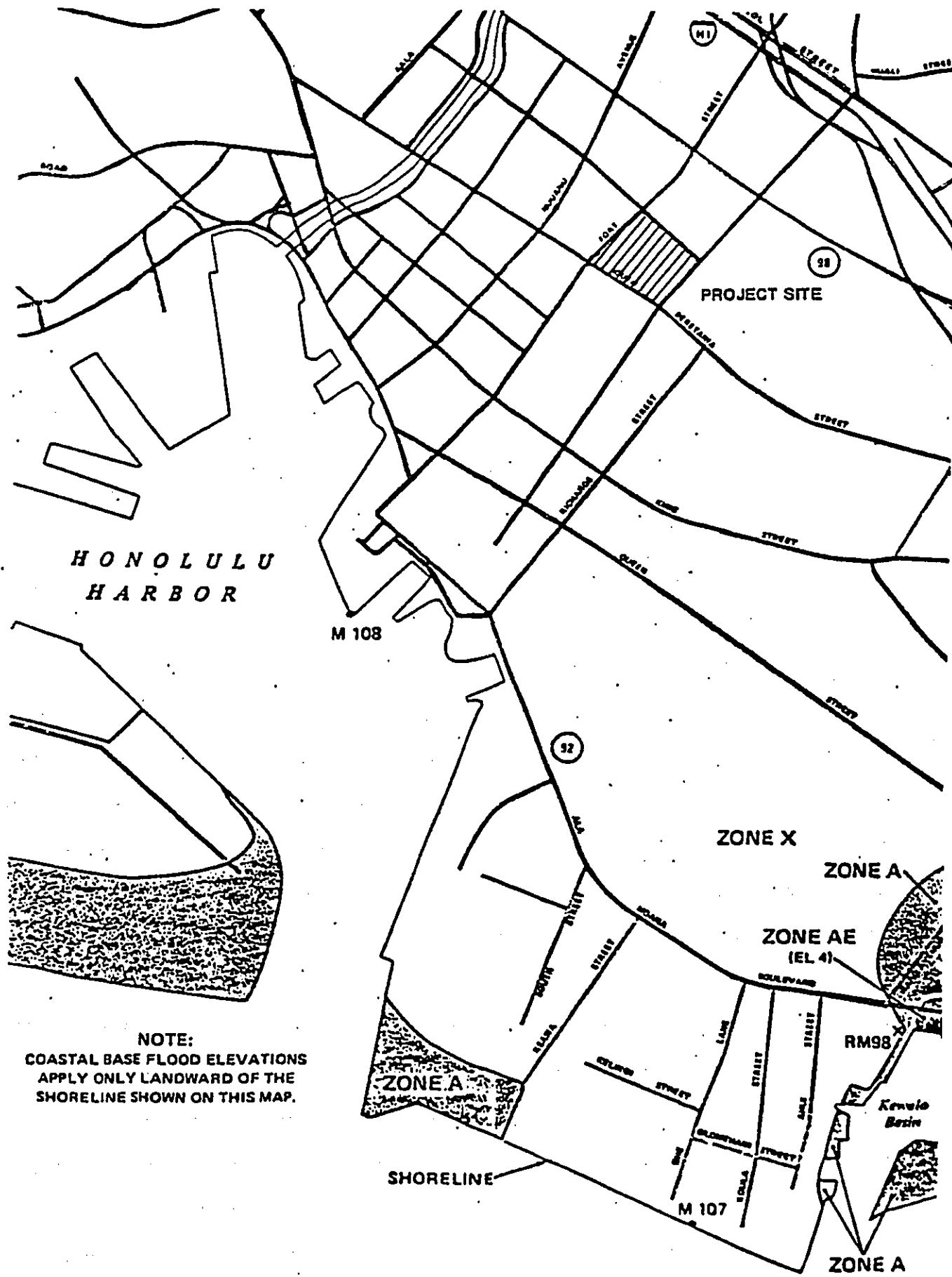


FIGURE 13 - FLOOD HAZARD DESIGNATION

7-3a

10 to 30 feet above sea level. This corresponds to the area of thickest potable groundwater, about 1,000 feet, measured as the depth to the 250 mg/l chloride level, the potable water standard (Swain, 1973). In the coastal caprock area which includes the project site, water levels are 1-3 feet above sea level.

Because fresh water is lower in specific gravity (has lower concentrations of dissolved solids) than seawater, the fresh water floats on top of the seawater which saturates lower geological strata. This fresh water "lens" displaces seawater below it in a ratio approximating 1:40 for fresh water above and below sea level, respectively. Typically, the lens is thickest near the middle of the island, thinning towards the coast, with seepage to the sea occurring very close to the shoreline. Recharge to the groundwater is from rainfall on the Koolau Range.

At the interface between the fresh water lens and the underlying seawater, there is a transition zone of brackish water which varies in thickness due to natural factors such as fluctuations in recharge and discharge rates and tidal cycles, and also due to pumping from wells in the aquifer.

Although the capacity of the caprock to store and transmit water is small compared to that of the basalt aquifer, caprock does contain large quantities of water. Fresh water in the caprock accumulates from rainfall, return irrigation and leakage upward from the artesian portion of the basaltic aquifer. Along the shore, sea water moves readily into the caprock, as evidenced by



the high efficiency in transmitting tidal fluctuations. Caprock water is generally of poor quality due to its relatively high chloride content and is developed for agricultural and industrial purposes only. In Honolulu, caprock water has been developed for purposes such as irrigation and equipment cooling.

Dissolved constituents enter the groundwater from the sea, the atmosphere, the surface layer of soil and vegetation, the rocks through which the water percolates, components of irrigation waters (such as fertilizers) and from waste injection wells. The sea is the primary source of dissolved solids to groundwater, and chloride, being the most abundant ion in seawater (and one which neither reacts with other dissolved constituents nor is subject to appreciable ion exchange), is used as an index of the chemical quality of groundwater.

The chloride content in the caprock under Honolulu varies with distance from the shoreline. Near Honolulu Harbor, levels range to near 18,000 mg/l, close to those of full-strength seawater.

The flow gradient for the basal water aquifer in central Honolulu is toward Pearl Harbor to the northwest, rather than directly from the midline of the Koolau Range to the sea as might be expected. This is because of a marked curvature in the equipotential surface lines for water storage heads around Pearl Harbor. In other words, "downhill" for basal groundwater in central Honolulu is toward Pearl Harbor rather than toward the sea. The pollution potential of the caprock water is generally

high for both point and nonpoint sources, but the pollution potential of the volcanic aquifer underlying the sedimentary deposits in the coastal plain is low with the exception of seawater intrusion due to overpumping of potable water source wells (Takasaki, 1977).

There are numerous injection wells for waste discharge in central Honolulu, including those for thermal water, car-wash return and rain water. Scattered cesspools and abandoned cesspools exist. According to the "Water Quality Management Plan for the City and County of Honolulu" (DOH and City and County of Honolulu, 1980), the Honolulu population on cesspools (principally the communities of Nuuanu and Makiki Heights) is 15,270. Approximately 1,527,000 gallons of waste per day are disposed of into 4,491 cesspools, of which about 7% are defective. The chief recipient of injected waste is caprock water. However, none of these sources are close enough to impact water quality beneath the project site. In any event, because of the large head difference between water in caprock and Koolau lavas, pollutants would not enter artesian-water resources from the caprock water.

#### 07.05 FLORA AND FAUNA

The portion of the project site bounded by Beretania, Queen Emma, and Kukui Streets and Pali Highway has minimal landscaping. Most of the surface area is covered with blacktop materials or concrete. Notable vegetation consists of 33 trees in and around the parking lot and alongside the buildings. Along the Pali

Highway median, which runs through the project site, are eight palm trees and grass landscaping. Kamalii Park, on the remainder of the project site, is a landscaped urban park with 30-40 trees and shrubs, cement planters, benches and grass areas.

None of the trees on the project site are listed on the "Register of Exceptional Trees" according to Honolulu Revised Ordinance No. 78-91, Protective Regulations of Exceptional Trees.

Urban bird species that frequent the trees and the vegetation mentioned above are the only notable fauna on the site. No candidate, endangered or threatened plant or animal species are known to exist on the site or use the site as habitat (U.S. Department of the Interior, Fish and Wildlife Service, 1988).

#### 07.06 HISTORIC SITES

While the history of the project site is interesting (as described in Section 05.0, Historic Perspective) the buildings on the site are not listed as significant historic sites. Adjacent to the project site, located on the northwest corner of the proposed superblock is the Central Fire Station (104 South Beretania Street). The significance of this structure and also of the nearby St. Andrew's Cathedral and Washington Place is discussed below.

### Central Fire Station

As described in the National Register of Historic Places Inventory - Nomination Form, fire stations are viewed as prominent and vital public institutions within a community and thus, over time, may become important landmarks in an area (U.S. Dept. of the Interior, 1979). The Central Fire Station was built in 1934 along with six other fire stations erected on Oahu within the ten year period 1924-1934. The Central Fire Station, once similar to the others in a thematic Spanish Mission style, is now known for its unique Art Deco aluminum doorways. The doors were designed by C.W. Dickey, one of the foremost architects practicing in Hawaii in the 1920's and 1930's, and engineer John M. Young. The site has been in use as a fire station for 91 years, as this present structure replaced the earlier Romanesque Revival blue stone station of 1897. The Central Fire Station is listed on both the State and National Registers of Historic Sites.

### St. Andrew's Cathedral

Located at the corner of Beretania and Queen Emma Streets and next to the project site, is St. Andrew's Cathedral, built between 1867 and 1902, with its architectural design credited to B.F. Ingelow. The following passage from Old Honolulu: A Guide to Oahu's Historic Buildings (Historic Buildings Task Force, 1969) describes its historic significance:

"The Episcopal Church was brought to Hawaii in 1861 by Kamehameha IV and Queen Emma. A projected cathedral became a memorial to Kamehameha and was named St. Andrew's for the saint's feast day on which he died in 1863. In 1866, after the Queen toured England and obtained plans from a British architect and funds, a simple wooden church was built to serve the congregation while the cathedral was constructed. The cornerstone was laid in 1867, but work languished until 1884. Cut stone for the arches, columns and windows was brought from England; local beach stone was used for the walls. The chancel was finished in time for Christmas services in 1886, and the cathedral completed and consecrated in 1902. In 1958 the front was extended to incorporate a stained glass wall. St. Andrew's is the cathedral for Episcopal Diocese of Hawaii."

St. Andrew's Cathedral was placed on the National Register of Historic Places in 1973.

#### Washington Place

Washington Place, at 320 South Beretania Street, on the Diamond Head side of St. Andrew's Cathedral, is another significant historic site described in Old Honolulu:

"Early in the 1840's successful merchant and ship's captain John Dominis undertook to build a suitable

Honolulu residence. Isaac Hart, a "master-mechanic," was hired to superintend the construction. Captain Dominis was lost at sea before the house was completed, but Mrs. Dominis finished it and lived there until her death in 1889. Their son, John Owen Dominis, lived in the home until his death in 1891, when it was inherited by his wife, Queen Liliuokalani. Deposed in 1893, Liliuokalani retired to the home where she continued to receive the honors due a Queen until her death in 1917. The Territory purchased Washington Place for a governor's mansion in 1921. The name, Washington Place, had been bestowed on the property by U.S. Commissioner Anthony Ten Eyck. Although extensively repaired and modified over the years, Washington Place is the oldest continuously-occupied residence in Honolulu."

Washington Place was also placed on the National Register of Historic Places in 1973.

## 07.07 LAND USES AND COMMUNITIES

### Other Projects

Other new and proposed major development projects in the study area have been identified and are discussed below. Included are Downtown projects that are under construction or are to be fully constructed by the year 1995. These projects are between Nimitz/Ala Moana Boulevard up to Vineyard and between River and Punchbowl Streets, which delineate the Downtown area.

Listed in the following table are future projects that are within the boundaries of River to Punchbowl Streets and Vineyard Boulevard to King Street. These projects would generate traffic that would use the same main roadways and highway ramps as would traffic generated by the Pacific Nations Center. New projects outside of these boundaries have other main roadways available to enter and exit the downtown area.

Additionally, the City Financial Tower at Richards and Merchant, (187,000 sq. ft. of office space), the River/Nimitz project (90 residential units and 8,961 sq. ft. of commercial space) and the Alakea/Richards project (recently proposed to accommodate approximately 269,000 sq. ft. of office space and 12,750 of retail space) would be a part of the surrounding environment by the Pacific Nations Center project design year.

Another project that may be built in the study area in the future (beyond 1995) is the Honolulu Rapid Transit System. A separate

Environmental Impact Statement is currently being prepared to evaluate the alternative alignments for the system from the Waiawa Interchange through Downtown Honolulu to the University of Hawaii Manoa Campus and Waikiki. The rapid transit EIS preparation notice was published in the October 8, 1988 OEQC Bulletin, and its results may be available for public review in 1989. The opportunity for a rapid transit station to be located at the Pacific Nations Center may exist in the future, however, it is not a part of this proposed action.



TABLE 4

## NEW AND PROPOSED MAJOR DEVELOPMENT PROJECTS IN THE STUDY AREA

TITLE/LOCATION	SQUARE FEET/USE
1. Chinatown Gateway Plaza @ Hotel, Nuuanu & Bethel	200 condo. 25,000 SF retail
2. Maunakea Marketplace @ Hotel, Maunakea & Pauahi	29,100 SF retail 27,400 SF office 9,000 restaurant
3. Hemmeter Headquarters @ Richards & Beretania	115,000 SF office
4. Pan Pacific Plaza @ Hotel & Bishop	450,000 SF office
5. Asia Mall @ Beretania & Maunakea	20,000 SF retail
6. Honolulu Park Place @ Bertania & Nuuanu	509,734 SF condo.
7. Hawaii National Bank @ Smith & King	81,000 SF office

### Project Area

The project site is in the zone which was identified as the Kukui Urban Renewal Plan area, which was instituted when the Honolulu Redevelopment Agency (predecessor to DHCD) was responsible for urban development in the city. In the Kukui Urban Renewal Plan the project site is designated partially for commercial use and partially as a transportation hub (Sasaki, Walker and Associates, Inc., and Lemmon, Freeth, Haines, and Jones, 1962). The (unofficial) Gruen Plan for Downtown Honolulu, which did much to spur Downtown renovation and development, called for a superblock uniting the project site with the block where Kukui Plaza now stands (Gruen, 1968). The present project involves a more dense development than any envisioned before 1980, but it is related to earlier conceptions of the site and its surroundings.

### Current Land Uses

The various land uses found in the area surrounding the project site are functionally interrelated:

- o The urban core, the Central Business District, with half the state's office space (Grubb and Ellis, 1988), is densely developed and generally devoted to offices and services for office personnel;
- o Land along the edge of the urban area, including the project site, is devoted to a mix of less intensive uses, many of which support the nearby urban core (e.g.,

transportation, parking), and some of which follow from the historical fact that much of this zone was a site of extensive urban renewal;

- o Honolulu's government offices are centralized in a zone that has relatively large open spaces.. This area resembles the business district in its concentration on a single institutional function, and resembles the area at the edge of the business district, as it has a relatively low-density spatial organization; and
- o Along the edge of the urban center and in nearby areas are high-density residential zones, with many residents working in the urban center.

The various uses and characteristics noted above are present in the study area identified for this social impact assessment. The study area consists of Census Tracts 40, 41 and 42 (see Figure 14):

TRACT 40, "Downtown": Bounded by Nuuanu Avenue, South Beretania, Richards Street and Nimitz Highway, this is the Central Business District.

TRACT 41, "Queen's Hospital Area": Bounded by Queen Emma Street, Iolani Avenue, Ward Avenue, South King Street, Alapai Street, and South Beretania, this tract includes the various uses mauka of the project.

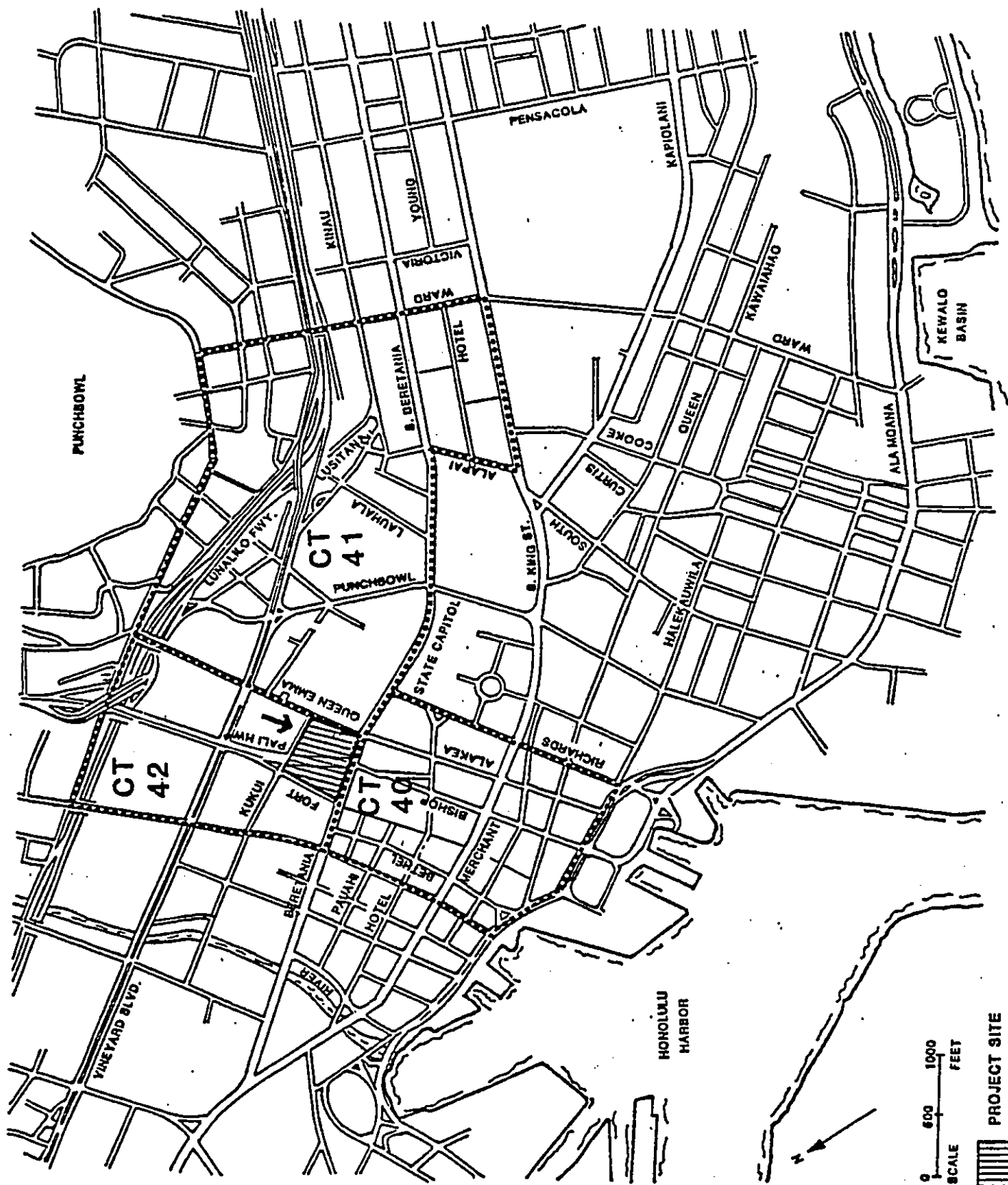


FIGURE 14 - CENSUS TRACT LOCATION

TRACT 42, "Project Area": Bounded by Nuuanu Avenue, Iolani Avenue, Queen Emma Street and South Beretania Street, this includes the project site and nearby apartment buildings.

The brief labels in quotes above are used to identify these tracts in this report, and are meant only as reminders.

Commercial and residential growth in central Honolulu extends beyond the study area. To place study area conditions and trends in perspective, reference will occasionally be made to Honolulu's "larger urban zone," including Chinatown, the State Capitol area, the King St. and Kapiolani Boulevard corridors (and hence both the Ala Moana area and Kakaako), along with the study area. Waikiki is excluded from this larger zone as it is a distinctive resort and residential district.

#### Non-Residential Land Uses In The Study Area

Far more people visit and work in the study area than live there. The daytime population of workers, customers, clients and visitors in the Downtown area alone is estimated as at least 53,000 (pers. comm., William A. Grant, Executive Director, Downtown Improvement Association, October 25, 1988), over six times the resident population of the entire study area. The users of the project site and adjoining areas are mainly non-residents:

- o The Project Site. The project site's professional offices attract a range of clients, including medical patients and

students. The metered parking stalls on the project site are used at times by customers or clients of the project site offices, but also by customers of nearby Downtown businesses. The parking area is used some evenings and weekends by people attending events such as Hoolaule'a at St. Andrew's Priory, Aloha Week celebrations, and Chinese New Year's festivities. Kamali'i Park has few users other than persons walking across it and a few street people. Pali Highway, which passes through the project site, is a major access road to Downtown.

- o The Rest of Census Tract 42. This Census Tract had a 1985 resident population of 2,604. Kukui Plaza, next to the project site, is a major residential complex with 908 units in two buildings. It also includes 55 commercial tenants. Mauka of the project site is Central Intermediate School. This has about 400 students, from a district stretching from the Punchbowl area to Mayor Wright housing (pers. comm., Richard Anbe, Principal, October 11, 1988). On the mauka side of Vineyard Boulevard are the Nuuanu YMCA and the Queen Emma Gardens apartment complex with 587 units. Kukui Plaza and Queen Emma Gardens were partially developed for families with low and moderate incomes. Most Kukui Plaza units now house owner-occupants, many of whom are long-term residents. Queen Emma Gardens is devoted to rental units. Despite increases at Queen Emma Gardens for long-term tenants rates are still below market rates (Smith, 1988).
  
- o Census Tract 40, The Central Business District. Office workers are the major users of this area. They are joined by

a variety of others, customers of Downtown businesses, students at Hawaii Pacific College, people changing busses, older people who use parts of Fort Street Mall as a meeting place, and street people, some of whom get food at the Catholic Diocese of Hawaii building, across Beretania Street from the project site.

The district has few after-hours attractions at present. The major source of entertainment in the area, Hawaii Theatre, is only open for special events. However, the recent opening of a police sub-station at the edge of the district may make Downtown seem safer to Honolulu residents than before.

- o Census Tract 41, The Queen's Hospital Area. This tract includes Queen's Hospital, St. Andrew's Cathedral, St. Andrew's Priory School, Washington Place (the Governor's residence), several government office buildings, and the Pacific Club. All these sites attract non-residents to the area for business, worship, recreation or tourism. Mauka and towards Ward Avenue, this tract has a residential population greater than that of the other two tracts of the study area.

#### Housing Characteristics Of The Study Area

Because the study area combines all three census tracts, a large portion of the downtown area is represented in this document. Nearly all the residents of the study area are housed in apartment buildings. The number of housing units in the area nearly doubled in the 1970's, but has increased little since then

(see Table 5). The total of year-round housing units for the study area in 1980 was 4,570. The total vacancy rate was 6.7%, thus the total year-round occupied units was 4,262.

The large majority of housing units in the study area was rented, rather than owner-occupied, in both 1970 and 1980. Over the decade of the 1970's, the proportion of owner-occupants in all tracts of the study area increased. This trend appears to have continued, for example, over 70 percent of the units in Kukui Plaza, adjoining the project site, are now owner-occupied (pers. comm., Geoffrey E. Darr, General Manager, Kukui Plaza, September 30, 1988).

In the larger urban zone including the study area, two sorts of new housing units have recently been built, more expensive condominium projects and rental apartment buildings.

Honolulu Tower, built in 1982, added relatively spacious condominium units to the in-town housing stock. More recently, upscale condominium projects in Kakaako (Royal Capitol Plaza and Waterfront Plaza) have sold well. Construction is just beginning on the latter project, but all the units were presold (Downtown Improvement Association, October 1988).

The City and County of Honolulu has completed a rental project in Chinatown, Hale Pauahi, with 396 units. Earmarked for low-income residents are 51% of the units, while the balance are available to the open market. Another project on which construction recently began, Chinatown Gateway, is in the study area. It will



TABLE 5 - HOUSING STOCK AND CHARACTERISTICS, CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		STUDY AREA (Combined Tracts 42, 40, and 41)		CENSUS TRACT 42 (Project Site)		CENSUS TRACT 40 (Downtown)		CENSUS TRACT 41 (Queen's Hospital)	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
TOTAL YEAR-ROUND HOUSING UNITS	174,107	250,866	2,598	4,570	642	1,590	63	608	1,903	2,372
vacant (Total)	5.4%	8.2%	4.7%	6.7%	1.9%	4.2%	1.9%	18.1%	5.7%	5.8%
vacant for sale	0.6%	0.5%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%
vacant for rent	2.5%	3.0%	3.1%	3.6%	0.3%	1.8%	0.0%	9.4%	4.1%	3.2%
held for owner-occupied	N/A	0.9%	N/A	0.6%	N/A	0.1%	N/A	3.8%	N/A	0.1%
use other	N/A	3.2%	N/A	2.6%	N/A	2.1%	N/A	4.9%	N/A	2.2%
TOTAL YEAR-ROUND OCCUPIED UNITS	164,763	228,666	2,477	4,262	630	1,624	62	498	1,796	2,240
TENURE										
owner-occupied	45.0%	49.5%	8.9%	26.7%	0.6%	31.1%	0.0%	35.1%	12.1%	21.7%
renter-occupied	55.0%	50.5%	91.1%	73.3%	99.5%	68.9%	100.0%	64.9%	87.9%	78.3%
SELECTED CONDITIONS										
lacking some or all plumbing	3.5%	1.5%	11.2%	6.6%	2.7%	4.8%	0.2%	30.9%	12.1%	2.5%
1.51 or more persons/room	6.9%	7.4%	8.4%	7.8%	1.3%	5.0%	11.5%	3.8%	12.3%	10.6%
PERSONS PER HOUSEHOLD	3.60	3.16	2.15	1.82	1.81	1.73	1.19	1.57	2.27	1.83
MEDIAN CASH RENT (renter-occ'd)	\$130	\$279	N/A	N/A	\$189	\$347	\$58	\$250	\$101	\$271
as % of median family income	13.0%	14.2%	N/A	N/A	16.6%	17.7%	N/A	9.4%	13.5%	18.1%
MEDIAN VALUES (owner-occ'd)	\$38,100	\$130,400	N/A	N/A	N/A	N/A	N/A	N/A	\$35,800	\$107,600
MEDIAN MONTHLY MORTGAGE (owner-occ'd)	N/A	\$494	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$430
as % of median family income	N/A	26.2%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28.8%

NOTES: \* For 1980, median values are for non-condominium housing units.  
 \*\* Figures based on 16 percent sample; numbers hence represent estimates.

"N/A": Not Available.

SOURCES: U.S. Bureau of the Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1973.

have 200 one-bedroom rental units. Approximately 20% of the units will be reserved for low- and moderate-income renters.

Single-family housing is absent from most of the study area. In 1980, it provided less than 10 percent of the residential units in Tract 41.

In Census Tract 42, including the project site, vacancy rates have been much lower than those of both the total study area and the City and County. Estimates for 1985 (Honolulu Department of General Planning, 1987) yield the following residential vacancy rates:

City and County of Honolulu	7.6%
Study Area	5.9%
Census Tract 42 (Project Area)	4.2%
Census Tract 40 (Downtown)	14.9%
Census Tract 41 (Queen's Hospital)	5.1%

A trend towards high occupancy levels can be seen. The financial district (C.T. 40), however, still has a high proportion of vacant residential units.

#### Population Trends and Characteristics

Oahu's 1986 resident population was 816,700, including armed forces stationed or homeported in Hawaii and residents temporarily absent. This has risen from 762,565 in 1980, a

change of 7.1 percent (State of Hawaii, Dept. of Business and Economic Development, 1987).

The study area contained nearly 8,000 residents in 1985 (Honolulu Department of General Planning, 1987).

The population of the City and County has grown regularly over the last four decades (see Table 6). The study area's population has changed little in that time. Tract 42, containing the project site, lost most of its population by 1960 as a result of clearing for urban renewal, and it remains much less densely populated than in 1950.

Detailed census data (Table 7) bring out differences between Tract 41 (including Queens Hospital), on the one hand, and Tracts 42 and 40, on the other hand. The people in the Downtown and Project Site tracts are older. A higher proportion of the resident population is college-educated. Many are Caucasian, and many are Mainland-born. In contrast, the people of Tract 41 more closely resemble the entire City and County population in age, education, ethnicity, and origin.

In all the tracts of the study area, most of the population in 1970 and 1980 had not lived in the same house for the previous five years, the people of the study area are somewhat less rooted in their homes than others on Oahu. This trend is strongest in Tract 40 (Downtown), where a third of the 1980 residents had come from other states in the previous five years.

TABLE 6 - POPULATION TRENDS, CITY AND COUNTY OF HONOLULU AND STUDY AREA

City and County of Honolulu	April 1, 1950	April 1, 1960	April 1, 1970	April 1, 1980	July 1, 1985 (est.)	Average Annual Rate of Growth				
						1950-60	1960-70	1970-80	1980-85	1950-85
Census Tract 42	353,020	600,409	630,628	762,565	814,842	3.6%	2.3%	1.9%	1.3%	2.4%
Census Tract 40	4,093	991	1,182	2,637	2,904	-13.2%	1.8%	8.5%	-0.2%	-1.3%
Census Tract 41	376	288	100	820	1,066	-2.6%	-10.0%	23.4%	5.1%	3.0%
Total Study Area	4,699	6,842	4,087	4,320	4,313	0.1%	-1.3%	0.5%	.0%	-0.2%
	9,088	6,842	5,359	7,777	7,983	-4.1%	-1.0%	3.8%	0.5%	-0.4%

SOURCES: U.S. Bureau of the Census, 1972 and 1981a; Hawaii State Department of Planning and Economic Development, 1987, and Hawaii State Department of Business and Economic Development, 1987.

**TABLE 7**

**TOTAL POPULATION AND DEMOGRAPHIC BREAKDOWNS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980**

	CITY AND COUNTY OF HONOLULU		STUDY AREA (Combined Tracts 42, 40, and 41)		CENSUS TRACT 42 (Project Site)		CENSUS TRACT 40 (Downtown)		CENSUS TRACT 41 (Queen's Hospital)	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
<b>TOTAL POPULATION</b>	630,528	762,565	5,359	7,777	1,162	2,637	100	820	4,097	4,320
<b>Ethnicity</b>										
Caucasian	41.2%	33.1%	N/A	39.6%	N/A	43.2%	N/A	63.0%	N/A	32.9%
Japanese	26.8%	24.9%	N/A	22.2%	N/A	23.3%	N/A	12.8%	N/A	23.3%
Chinese	7.7%	6.9%	N/A	10.2%	N/A	14.3%	N/A	2.4%	N/A	9.1%
Filipino	10.4%	12.8%	N/A	6.8%	N/A	4.6%	N/A	7.2%	N/A	8.0%
Hawaiian	8.5%	10.5%	N/A	7.4%	N/A	4.3%	N/A	3.7%	N/A	10.0%
Other	5.5%	11.8%	N/A	13.9%	N/A	10.3%	N/A	10.9%	N/A	16.7%
<b>Age</b>										
Less than 5 yr.	9.3%	7.9%	7.1%	5.2%	5.6%	4.3%	0.0%	2.3%	7.6%	6.3%
5 to 17 yr.	26.2%	20.2%	12.3%	8.3%	7.2%	6.9%	1.0%	4.9%	14.0%	9.8%
18 to 64 yr.	59.5%	64.6%	70.0%	74.7%	75.0%	74.3%	76.0%	81.0%	68.4%	73.8%
65 or more yr.	5.0%	7.3%	10.7%	11.8%	12.2%	14.6%	23.0%	11.8%	9.9%	10.1%
Median age (yrs.)	24.6	28.1	N/A	N/A	N/A	39.2	N/A	42.6	N/A	30.6
<b>Place of Birth*</b>										
Hawaii	56.1%	55.1%	N/A	48.6%	N/A	45.1%	N/A	46.0%	N/A	51.3%
Other U.S.**	NC	30.1%	N/A	33.7%	N/A	40.3%	N/A	44.0%	N/A	27.7%
Foreign	NC	14.8%	N/A	17.7%	N/A	14.6%	N/A	12.8%	N/A	20.5%
<b>Residence 5 Yrs. Before†</b> (people aged 5 or more)										
Same house	42.5%	48.2%	32.0%	25.6%	27.6%	23.5%	23.0%	31.9%	33.7%	25.7%
Same county	23.9%	25.5%	N/A	52.5%	N/A	58.8%	N/A	31.2%	N/A	52.7%
Other county	1.2%	1.3%	N/A	1.8%	N/A	2.1%	N/A	3.4%	N/A	1.3%
Other state	20.9%	18.4%	N/A	12.3%	N/A	10.6%	N/A	33.5%	N/A	9.1%
Other country	11.5%	6.6%	7.6%	7.8%	8.8%	5.0%	17.5%	0.0%	5.8%	11.1%
<b>Education†</b> (people aged 25 or more)										
Less than H.S.	20.8%	14.4%	25.0%	13.3%	6.7%	13.0%	39.8%	4.3%	31.6%	15.6%
H.S. graduate only	37.5%	35.5%	27.8%	32.1%	34.8%	27.6%	9.3%	39.5%	25.9%	33.8%
Some post H.S.	12.9%	18.3%	16.0%	21.3%	28.4%	20.7%	9.3%	19.8%	11.4%	22.1%
College, 4+ yr.	15.5%	21.7%	18.9%	26.2%	24.2%	32.7%	21.3%	31.5%	16.7%	20.1%

**NOTES:**

- \* Figures based on 15 percent sample; numbers hence represent estimates.
- \*\* Includes persons born in U.S. territories, or born abroad or at sea to U.S. parents.
- † "NC": 1970 categories not comparable to 1980 ones.
- ‡ "N/A": Not Available.

SOURCES: U.S. Bureau of the Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1973.

### Family and Income Characteristics

Relatively few people in the study area lived in families in 1980, evidenced by an average family size of only 1.82 persons per household, compared to islandwide family size of 3.15 persons. Also, only a third of the families had dependent children, a proportion well below the islandwide average. These facts are due in part to the aging population, many families could have had children who are no longer dependents, and the small size of apartments in multi-story buildings, which mainly attract single people or couples without children.

The percentage of female-headed families was higher than in the City and County overall. The percentage of families with female heads and dependent children was not, however, particularly high in the study area. Nor was the proportion of low-income families elevated in Tracts 42 and 40.

Family incomes varied greatly among the three tracts of the study area in 1980 (with median family incomes ranging between \$8,888 and \$32,004.) In Tract 42 (including the project site), incomes approximated the island average. Higher family incomes were recorded in Tract 40 (Downtown) and lower incomes were found in Tract 41 (the Queen's Hospital area).

### Labor Force characteristics

Adults in the study area are likely to be in the labor force and the rate of labor force participation by study area residents was

well above the rate for the entire City and County of Honolulu in both 1970 and 1980 (see Table 8). Two-thirds of the residents were in white collar occupations somewhat more than the larger population. Few were in the armed forces.

Residents of different tracts of the study area experienced very different levels of unemployment. Unemployment was extremely rare in both 1970 and 1980 in Tract 42, where the project is situated, but at levels above the City and County average in the other two tracts of the study area.

Census data show that few study area residents have had especially long commutes, but the average 1980 commuting time of 17.7 minutes was not much shorter than that of the larger City and County workforce of 22.6 minutes. In part this is due to the many residents who walked to work. Some 25.7 percent of the resident workforce, as compared to 8.4 percent for Oahu as a whole, walked to work in 1980 (U.S. Bureau of the Census, 1981, 1983).

#### Issues and Concerns

Interviews with members of the community brought out both issues of general concern with regard to the project and the viewpoints prevalent in specific groups. The most widely shared concerns had to do with traffic and with building design. A segment of the resident population expressed concern about the loss of Kamalii Park and also the need for more active recreational space in the downtown area.

TABLE 8 - LABOR FORCE SIZE AND CHARACTERISTICS, CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		STUDY AREA (Combined Tracts 42, 40, and 41)		CENSUS TRACT 42 (Project Site)		CENSUS TRACT 40 (Downtown)		CENSUS TRACT 41 (Queen's Hospital)	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
<b>POTENTIAL LABOR FORCE (Aged 16+)</b>	427,601	674,903	4,315	6,871	1,021	2,373	113	738	3,181	3,780
not in labor force	33.0%	30.8%	30.7%	24.7%	29.2%	28.0%	13.3%	17.6%	31.8%	25.2%
armed forces	11.5%	10.1%	4.8%	1.1%	6.3%	0.9%	.0%	2.2%	4.6%	1.0%
civilian labor force	88.6%	59.1%	64.4%	74.2%	64.5%	73.1%	86.7%	80.2%	63.6%	73.8%
<b>CIVILIAN LABOR FORCE</b>	237,338	339,863	2,780	6,100	659	1,735	98	692	2,023	2,773
unemployed	3.0%	4.6%	4.1%	4.4%	0.5%	0.3%	6.1%	9.0%	5.2%	6.0%
<b>TOTAL EMPLOYED, CIVILIAN LABOR FORCE</b>	230,252	324,113	2,656	4,876	656	1,729	92	639	1,918	2,607
<b>OCCUPATION:</b>										
service	18.0%	17.6%	18.3%	16.4%	10.8%	13.1%	30.4%	14.8%	20.4%	18.8%
manager./profes.	NC	24.7%	NC	30.5%	NC	41.1%	NC	28.9%	NC	23.9%
technical, sales & adminis.	NC	33.8%	NC	36.9%	NC	34.3%	NC	42.9%	NC	37.4%
farm/fish/forest	NC	1.8%	NC	1.3%	NC	1.1%	NC	2.6%	NC	1.2%
precision/craft/repair	NC	11.3%	NC	8.0%	NC	6.7%	NC	4.3%	NC	9.7%
operators/fabri-cators/laborers	NC	10.9%	NC	6.8%	NC	3.7%	NC	6.5%	NC	9.2%
<b>INDUSTRY (selected):</b>										
agric., forest, fish, mining	2.1%	1.7%	N/A	1.5%	N/A	1.7%	N/A	1.3%	N/A	1.5%
construction	9.5%	6.0%	6.3%	4.4%	2.0%	1.6%	0.0%	8.2%	8.0%	5.4%
manufacturing	10.3%	7.7%	8.7%	7.2%	6.5%	5.8%	12.0%	8.9%	6.6%	7.7%
retail trade	18.0%	20.5%	15.4%	16.3%	16.6%	15.9%	21.7%	12.2%	14.7%	17.4%
financial, insur., real estate	5.6%	8.1%	7.4%	12.2%	10.1%	9.8%	0.0%	25.8%	6.8%	10.9%
personal, entertain. & recreat. services	7.6%	8.1%	N/A	6.9%	N/A	6.1%	N/A	4.3%	N/A	6.1%
health, educ.; & professional	18.1%	18.5%	24.0%	18.6%	23.3%	22.2%	18.5%	13.9%	24.5%	17.2%
public admin.	12.6%	10.9%	9.9%	12.0%	18.3%	13.7%	12.0%	6.9%	7.0%	11.9%
<b>COMMUTE TO WORK 45 minutes or more mean travel (mins.)</b>	N/A	13.4%	N/A	5.1%	N/A	2.5%	N/A	13.9%	N/A	5.1%
	N/A	22.6	N/A	17.7	N/A	17.3	N/A	18.8	N/A	17.8

NOTES: All figures based on 15 percent sample; numbers hence represent estimates.

"NC": 1970 categories not comparable to 1980 ones.  
 "N/A": Not Available.

SOURCES: U.S. Bureau of the Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1973.



Traffic congestion was seen as an existing problem, which many thought will be much worse during the project's construction. When the project is operational, some persons saw it as adding to Downtown traffic, while others saw it as having a positive impact on congestion by capturing traffic which otherwise would go down Bishop Street.

Building design was of concern for several reasons. Many people wanted mountain views to remain. Setbacks and building design were treated as important both for the project and for the project's relation to nearby structures of historical value. Wind patterns and reflected heat (from mirrored buildings) were also of concern.

Persons interviewed for the social impact assessment included members of four groups:

- o Representatives of the Downtown business community: these were strongly supportive of the project as contributing to Honolulu's prosperity.
  
- o Persons affiliated with nearby non-residential land users: These largely viewed the project as an asset to the area, so long as certain potential problems were controlled. Their major concerns were that vibration during construction might affect nearby structures, and that wind patterns changed by the project could pose safety problems at the project site and nearby.

- o Owners and tenants of on-site properties expressed concern about relocation and were mixed in their reactions to the project.
  
- o Area residents found many of the proposed features of the project appealing, although they were concerned about construction impacts and view planes. Some area residents felt the project was an inappropriate use of the Block J site.

Many of the project's expected impacts are positive. Potentially negative impacts largely depend on political and design processes which are to continue in the coming months. Questions about traffic, design, and project feasibility can be raised again later with regard to a more detailed design presented by a developer.

The complete Social Impact Assessment for the proposed Pacific Nations Center is contained in this document as Appendix E.

## 7.08 ECONOMY

### Market Indicators

As the Pacific Nations Center project is now in an early stage of its development process, a full-scale market feasibility study is not yet appropriate. Such a study or studies will be required of prospective developers as a part of their development proposal containing specific building details.

The following section is limited to a preliminary discussion of indicators of supply and demand for six potential major project components: office space, executive hotel, luxury condominiums, retail, restaurants, and parking.

In most cases, the available indicators yield the tentative conclusion that the Pacific Nations Center will meet future demand for space. For some of the components of the project, however, it is not possible at this time to reach any conclusions about the future balance of supply and demand.

Some indicators could be further refined if pricing data, unavailable at this time, were used to identify markets more precisely.

#### Office Space: Current Supply/Demand Conditions

Grubb & Ellis, a commercial real estate brokerage, produces quarterly reports which provide an overview of the Hawaii real

estate market for investors. The July 1988 report estimates office space supply in Downtown Honolulu as of the end of 1987. At that time, the approximate inventory was 4,568,000 square feet, of which 257,000 sq. ft. were vacant, suggesting a vacancy rate of 5.6%. Also, the Building Owners and Managers Association (BOMA) sponsors a twice-yearly survey of select buildings, comprising more than 80% of total Downtown office space. For June 1988, BOMA Downtown buildings contained 4,290,794 sq. ft. of office space, including 191,560 vacant sq. ft. vacant, for a vacancy rate of 4.5%.

The Grubb & Ellis survey covers nearly all Downtown Honolulu office space, so it is used to estimate the current vacancy rate. The BOMA survey can be used to learn of historical changes in demand. Table 9 indicates the 1988 BOMA 4.5% vacancy rate to be the lowest in the past six years, indicating a tight supply in comparison to current demand.

#### Office Space: Future Supply/Demand Indicators

The annual increase in office space in Downtown Honolulu has been estimated at 250,000 sq. ft. per year, based on historical trends (Downtown Improvement Association, 1988). Also, approximately 50,000 sq. ft. of office space is withdrawn from the Downtown Honolulu office market every year, according to a study by Williams-Kuebelbeck & Associates in 1983 (Group 70, 1983). This would suggest a demand for 300,000 sq. ft. of office space every year in Downtown Honolulu.

TABLE 9 - DOWNTOWN HONOLULU OFFICE SPACE OCCUPANCY SURVEY,  
MAY 1982 TO MAY 1988

NO./YR.	NO. OF BUILDINGS SURVEYED	TOTAL COMPETITIVE SPACE (1)	VACANT COMPETITIVE SPACE	OCCUPIED NON-COMPETITIVE SPACE	VACANCY RATE (competitive space only)	VACANCY RATE (all space in buildings surveyed)
05/88	26	3,814,014	191,560	476,780	5.0%	4.5%
10/87	25	3,759,037	215,977	486,603	5.7%	5.1%
05/87	27	3,752,589	270,122	479,901	7.2%	6.4%
10/86	26	3,659,905	390,279	493,046	10.7%	7.4%
05/86	25	3,628,888	413,447	490,192	11.4%	10.0%
10/85	22	3,339,991	382,474	598,748	11.5%	9.7%
05/85	20	3,286,655	523,532	556,775	15.9%	13.6%
10/84	22	3,411,582	550,725	544,427	16.1%	13.9%
05/84	22	3,415,936	558,101	544,936	17.2%	14.8%
10/83	26	3,516,793	716,782	594,422	20.4%	17.4%
05/83	23	2,842,732	238,592	525,203	8.4%	7.1%
10/82	21	2,827,421	201,986	547,660	7.1%	6.0%
05/82	24	2,880,095	269,502	525,491	9.4%	7.9%

NOTES: All space measured in square feet. Executive Center and Century Square are excluded from all calculations

(1) When a building's net leasable space is wholly owned or leased by one company that is considered by BOMA to be a permanent occupant, its space in the building is considered "non-competitive."

SOURCE: Study by Hastings, Martin, Conboy, Braig & Associates, Ltd., May 1988, in Building Owners and Managers Association (BOMA) Newsletter, July/August 1988.

Between the end of 1988 and 1992, at least six new office building projects are scheduled to be completed in Downtown Honolulu. These are expected to add about 1,000,000 sq. ft. of new office space to the Downtown inventory (see Table 10).

At a projected 300,000 sq. ft. annual absorption rate, Downtown should be able to use over 1.3 million sq. ft. of new office space by mid-1992 (see Table 11) and is already experiencing a rise in lease rents. Under this assumption, the Downtown vacancy rate would fall to an impossibly low 0.4% (and theoretically to 0.0% in 1993) resulting in, in all probability, steeper increases in office lease rents.

As indicated in Table 11, estimates of the Downtown office annual absorption rate by other knowledgeable parties are lower. These yield somewhat higher projected vacancy rates for 1992 and beyond (assuming that additional supply is limited to the currently-known new buildings). Both estimates result in higher projected vacancy rates (8.3% and 10.6%, respectively) for 1992. These rates are well above the recent level of 5.6%, but still below the high rates of 1984. By 1994, both estimates result in projected rates, 1.2% and 4.7%, respectively, below the current level.

Actual absorption rates will depend on economic conditions, not historical trends. A proposed Honolulu floor of the Pacific Stock Exchange and other new ventures now under study could generate appreciable new demand for office space.

TABLE 10

## NEW OFFICE BUILDING PROJECTS FOR DOWNTOWN HONOLULU, 1988 TO 1992

<u>Project</u>	<u>Sq. Ft.</u>	<u>Expected Completion</u>
City Financial Tower	187,000	1989
Hemmeter Building	115,000	1989
Hawaii National Bank	181,000	1990
Pan Pacific Plaza	450,000	1991
Alakea/Richards	180,000	1991
SUBTOTAL	1,113,000	
State Office Tower *	160,000	1991
TOTAL	1,273,000	

## NOTE:

The State Office Tower will not affect the supply of private-sector office space until 1995. Initially, it will house agencies now in State buildings while those buildings will be closed for asbestos removal. In 1995, it will become available for other State agencies -- some of which now lease space in Downtown buildings. (Much, but not all, of the private space now being leased by the State is located in Downtown Honolulu.)

Square footage estimates were collected in October, 1988 and may have changed for some of the projects, such as Alakea/Richards project.

**TABLE 11 - FUTURE OFFICE VACANCY RATES, BASED ON DIFFERENT ASSUMED ABSORPTION RATES**

JAN. 1988 Office Space	4,568,000 sq.ft. Grubb & Ellis
JAN. 1988 Vacant Office Space	257,000 sq.ft. Grubb & Ellis
JAN. 1988 Vacancy Rate	5.6%
Foreseeable Additional Space (1)	1,113,000
Expected Office Space, Mid-1992	5,681,000 sq.ft.

Alternative Absorption Rates (in sq.ft./year)	300,000 (2)	200,000 (3)	170,000 (4)
Years (1988 to Mid-1992)	4.5	4.5	4.5
Expected New Demand	1,350,000	900,000	765,000
Foreseeable Additional Space Minus New Demand	(237,000)	213,000	348,000
Plus 1988 Vacant Space	20,000	470,000	605,000
Estimated Mid-1992 Vacancy Rate (Based on 1992 Space)	0.4%	8.3%	10.6%

**YEAR 1993 IF NO NEW PROJECTS**

Total Vacant Space	(280,000)	270,000	435,000
Vacancy Rate	0.0%	4.8%	7.7%

**YEAR 1994 IF NO NEW PROJECTS**

Total Vacant Space	(580,000)	70,000	265,000
Vacancy Rate	0.0%	1.2%	4.7%

**NOTES:**

- (1) From Table 10
- (2) Downtown Improvement Association (1988) and personal communication, William A. Grant, Executive Director, Downtown Improvement Association, October 6, 1988.
- (3) Andrew Friedlander, President of Monroe & Friedlander, Inc., cited in Dougherty (1988).
- (4) Alan Conboy, Senior Vice President of Hastings, Conboy, Braig & Associates, Ltd., cited in Dougherty (1988).



There are no official criteria for "normal" or preferable office vacancy rates. Rates around 10 percent are often considered healthy in Mainland cities, while lower rates in Honolulu have been seen as appropriate, as the sources of new demand (firms already located in Honolulu) are well known (personal communication, Alan J. Conboy, Senior Vice President, Hastings, Conboy, Braig & Associates, Ltd., and Bill Joor, Vice President, Commercial Real Estate, Chaney, Brooks Realty Inc., November 2, 1988). It seems likely, then, that an increase in office vacancy rates would correlate with growth and diversification of Downtown Honolulu's business.

The impact of the Pacific Nations Center would depend on when its office space comes on line and whether it is all developed at one time. For example, if the absorption rate does turn out to be 300,000 square feet annually from now until 1992, then provision of 700,000 square feet of new space at that time would yield a vacancy rate of 11.3%, a high figure, if still less than the highest rates of the 1980's. Again, with an absorption rate of 300,000 square feet per year, if the buildings listed in Table M2 and 700,000 square feet of new space at the Pacific Nations Center come on line by 1994, then vacancy rates Downtown would fall as low as 1.9% in 1994, far below the current tight rates. Development could be phased to coincide with economy.

#### Executive Hotel: Current Supply/Demand Conditions

The concept of an executive hotel has been suggested repeatedly as part of development projects for Downtown Honolulu. No

current Downtown hotel exists. Nor is there an executive hotel, offering suites and services tailored to a business clientele, in Hawaii. Thus, current demand cannot be estimated from the use of existing facilities.

#### Executive Hotel: Future Supply/Demand Indicators

Three types of demand indicators for the proposed executive hotel at the Pacific Nations Center are available: (1) studies relating to past proposals for Downtown hotel projects; (2) survey data; and (3) anecdotal evidence from comments by members of the Downtown business and residential communities.

Past Studies: The Aloha Tower Corporation received studies from The American Cities Corporation (1980) and Group 70 (1983) for proposed projects at the Aloha Tower site.

The assumptions and findings of the two Aloha Tower Plaza studies are shown in Table 12. Both treated the demand for Downtown hotel space as a function of business travelers, excluding persons declaring themselves as travelling for both business and pleasure. The later study included Eastbound business travelers as well as Westbound travelers.

The American Cities Corporation study estimated demand for three years: for 1978, 450 rooms; for 1980, 480 rooms; and for 1985, 570 rooms. The study done by Williams-Kuebelbeck for the Group 70 plan suggested the following demand: 1,055 rooms for 1980; 1,250 for 1985; and 1,550 for 1990 (for executive hotels in the

TABLE 12 - ESTIMATES OF DEMAND FOR AN EXECUTIVE HOTEL DOWNTOWN

	Estimates for the year 1980:	
	1980 AMERICAN CITY CORP. STUDY:	1983 WILLIAMS- KUEBELBECK STUDY:
Westbound visitors, destination Hawaii	2,922,408 (est.)	2,718,863 (actual)
Eastbound visitors, destination Hawaii	NA	790,650 (actual)
Business travelers:		
- Westbound (as a percentage of Westbound total)	70,137 2.4%	79,558 2.9%
- Eastbound (as a percentage of Eastbound total)	NA NA	15,813 2.0%
Total Business	70,137	95,371
Average business stay on Oahu	5 nights	5 nights
Total number business room nights on Oahu	350,685	476,855
Occupancy	80.0%	80.0%
Share of business travelers in hotels	80.0%	80.0%
Total supportable rooms from business visitors, Oahu	960	1,306
Downtown share of business travelers	50.0%	60.0%
Business travelers supportable Downtown	480	780
Non-business Travelers Downtown	NA	275
Total room potential	480	1,055

NOTE: NA: "Not applicable" -- factor not used in calculations for the study.

SOURCES: American City Corporation, 1980; Williams-Kuebelbeck in Group 70, 1983.

Downtown area, no single hotel was ever planned to meet all the demand this study estimated).

Also in 1983, the Central Pacific Development Corporation submitted a proposal to the City and County of Honolulu for a building on the Kaahumanu Garage site. This was to have included a 400-room hotel as well as an office complex. Central Pacific Development (1983) provided no quantitative estimate of demand, but cited the American Cities Corporation study and accepted the general assumption of "a recognized demand" for Downtown hotel space.

Surveys and Data: The estimates reported above depended on a survey of business travelers conducted for The Downtown Improvement Association (Travel Marketing Inc., 1978). That study produced the critical assumptions that 50% of all business travelers to Oahu would stay in Downtown Honolulu and that the average length of stay would be five nights.

The 50% capture rate is a particularly critical assumption. The validity of the assumption is subject to several qualifications:

- o The survey is now a decade old;
- o That survey consisted of an airport intercept of just 200 business travelers, including Mainland and interisland travelers, but no Eastbound travelers;

- o About two-thirds of the respondents preferred a "few-frills" hotel, while less than a third preferred a "luxury" establishment; and
- o The 50% capture rate comes from answers to a question on the likelihood of staying at a Downtown hotel such as the one actually preferred by respondents, i.e., merging the "few-frills" and "luxury" concepts.

Using American City Corporation data in Table 12, the total room potential for 1987 would be approximately 609. Additional 1987 data available from Hawaii Visitors Bureau includes the following:

- o Total westbound visitors to Hawaii and beyond was 4,204,010;
- o Total westbound business travelers to Hawaii was 88,990;
- o Total eastbound travels to Hawaii and beyond was 1,595,820.

Furthermore, the number of visitors traveling to Hawaii for business has increased 27% between the years 1980 and 1987. Meanwhile, the number of visitors traveling to Hawaii for business and pleasure has increased more dramatically (Hawaii Visitors Bureau, 1988).

Developers will be required to prepare a market study, including a current analysis of business traveler's preferences, updating the assumption of a 50% capture rate, if hotel use were proposed on the Pacific Nations Center site.

Anecdotal evidence for the demand for a Downtown executive hotel came from interviews with residents and business people for the Pacific Nations Center Social Impact Assessment by Community Resources, Inc. Many of the people interviewed expressed support for a Downtown hotel and said that their guests might stay at such a hotel. Several business people commented, however, that their guests wanted to be in Waikiki. A few people thought that visitors would only stay at a hotel on the waterfront. Several suggested that first-time visitors would only stay in Waikiki, but that many repeat visitors to Hawaii would prefer to stay elsewhere. In sum, overall reactions were mixed.

Future Alternative Supply: Recently the idea of a 400-room Downtown waterfront hotel, similar to that proposed by the Aloha Tower Development Corporation in the past, has been suggested as part of the State's waterfront redevelopment plan. Studies being done for this project suggest that a 400-room hotel can be sustained on the Downtown waterfront (pers. comm., David Curry, Planner, Helber Hastert & Kimura, October 14, 1988).

Such a hotel would presumably draw at least in part on the same market as the hotel in the Pacific Nations Center. (No timetable for such a hotel has been announced and it is possible that a waterfront hotel would open some years after the Pacific Nations

Center hotel.) Therefore, the available data are not current enough to support any prediction of demand (or lack of demand) for Downtown hotel space. Two additional points deserve consideration:

- o Since 1980, the number of Westbound business travelers has increased slightly, at a rate far below the rate of increase of all Westbound visitors (Hawaii Visitors Bureau, 1988).
- o The proportion of repeat visitors has grown over the past decade.

These points suggest that the market for an executive hotel has probably increased marginally over time.

#### Condominiums: Current Supply/Demand Conditions

In and around Downtown, upscale condominium buildings built after 1980 include Honolulu Tower with 395 units and Royal Capitol Plaza with 288 units. Construction has begun on the luxury condominiums at One Waterfront Tower (304 units). Honolulu Park Place, two blocks from the project site, is to have 347 "luxury units" in a 40-story building, to be completed in 1990 (Wiles, 1988).

#### Condominiums: Future Supply/Demand Indicators

The best available indicator of demand for new condominiums is the demand for closely comparable units in Downtown and adjacent areas. At present, the demand is strong:

- o All the units at One Waterfront Tower have been sold (Downtown Improvement Association, October, 1988);
- o All the units at Royal Capitol Plaza were sold prior to the completion of construction of that project (pers. comm., Dwayne Komine, Resident Manager, Royal Capitol Plaza, November 2, 1988), however, a large portion of the units were purchased by one buyer; and
- o Would-be investors in the Honolulu Park Place building waited in line up to two nights to pay to reserve units, and in one morning, 250 reservations were taken (for 219 units then available) (Wiles, 1988).

Market studies for existing luxury condominiums in or near the Downtown are not public. The developers of both Royal Capitol Plaza and One Waterfront Tower are reported to be planning new luxury condominium projects in Kakaako (pers. comm., Dwayne Komine, November 2, 1988 and Valery Thornton, Bruce Stark Realty, October 12, 1988).

The indicators listed here suggest that both demand and developer interest in building upscale condominiums in central Honolulu are strong.



The Pacific Nations Center could combine condominiums with a range of amenities, such as retail and restaurant space, found in none of the projects discussed above. Presumably, those amenities would help to increase demand for the project, but the actual level of demand cannot be reliably established without a separate study dealing with the specifics of the project to be built, which will be required of the developer as part of the proposal.

#### Retail: Current Supply/Demand Conditions

In a yet-unpublished study, total retail space in Downtown Honolulu is estimated at about 530,000 sq. ft. (pers. comm., Kurt Kamikawa, Peat Marwick Main & Co., October 12, 1988). Approximately half that space is located in office buildings. BOMA has recorded the amount of retail space in major office buildings since 1982 (see Table 13). Table 13 shows the amount of retail space in office buildings has remained stable since 1982, and vacancy rates are low.

As a general rule, office buildings maintain the ground level floor as retail. Almost all major buildings in the BOMA survey of Downtown office buildings have retail space on the ground floor.

Although calculations for demand of retail space used retail space in office buildings, the central business district also includes one large department store (Liberty House), one large

**TABLE 13**  
**RETAIL SPACE OCCUPIED IN DOWNTOWN HONOLULU OFFICE BUILDINGS**

MO./YR.	I TOTAL SQ. FT. AVAILABLE	II SQ. FT. RENTED	III SQ. FT. VACANT	VACANCY RATE
05/88	242,489	223,120	10,369	4.3%
10/87	223,935	211,184	12,751	5.7%
05/87	223,706	210,291	13,415	6.0%
10/86	233,055	222,700	10,257	4.4%
05/86	223,917	209,336	14,581	6.5%
10/85	219,148	202,847	16,301	7.5%
05/85	204,050	201,775	2,275	1.1%
10/84	217,634	205,989	11,645	5.4%
05/84	229,116	217,887	11,229	4.9%
10/83	243,279	212,157	31,122	12.8%
05/83	249,245	231,666	17,579	7.1%
10/82	212,937	200,136	12,801	6.0%
05/82	251,506	239,988	11,518	4.6%

NOTES: All space measured in square feet.  
 Column II = Column I - Column III

SOURCE: Study by Hastings, Martin, Conboy, Braig & Associates Ltd.,  
 May 1988, in Building Owners and Managers Association  
 newsletter, July/August 1988.

drug store (Longs Drugs), a large variety store (Woolworth) and numerous small and medium sized speciality shops.

#### Retail: Future Supply/Demand Indicators

Demand for retail space in Downtown is dependent on the Downtown work force, the resident population of the area near Downtown, and others visiting or passing through the Downtown area. Inasmuch as all three groups are expected to increase over time, the demand for retail space will presumably increase as well. Workers, hotel guests, and residents of the Pacific Nations Center would contribute to this added demand.

No publicly available market studies deal with Downtown retail space. To reach an estimate of the demand for retail space at the project, it is useful to examine the ratio between Downtown office workers and Downtown retail spaces. The work-force numbers about 27,000 (based on estimates by Kurt Kamikawa, Peat Marwick Main & Co., and by Community Resources, Inc.). Dividing 530,000 (sq. ft.) by 27,000 (workers) generates a ratio of 19.6 sq. ft. of retail space per office worker. The Pacific Nations Center is expected to house a few less than 4,000 office workers (assuming 90% occupancy). Using this figure to estimate demand, a demand for over 75,000 sq. ft. of new retail space is suggested.

(The preceding calculation should be viewed with caution. The office workforce is taken as a variable since the number of office workers in the project can be estimated and the demand

approximated is demand from the various populations in the Downtown area now, not only demand from office workers. The calculation suggests that office workers, Downtown residents, and visitors combined will create increased demand comparable to the amount of retail space in the project. No claim is made that the Pacific Nations Center workforce will support the retail space. Instead, an incremental addition to Downtown's consumers, as represented by that workforce, may well do so.)

#### Restaurants: Current Supply/Demand Conditions

Downtown currently supports several different types of eating establishments. For purposes of this discussion, plate lunch places, inexpensive cafes, and national fast food chains will be considered fast food establishments, while more expensive "sit-down" restaurants and fine dining establishments will be considered non-fast food. Table 14 presents a Community Resources, Inc. survey of Downtown non-fast food eating establishments.

(Floor space is minimized in many Downtown fast food restaurants, many of which provide no table service. Hence no clear relation exists between demand for such food and square footage occupied by fast food restaurants. Accordingly, these are not included in the survey.)

#### Restaurant: Future Supply/Demand Indicators

The Pacific Nations Center's workforce will support a minimum of

**TABLE 14**  
**SURVEY OF NON-FAST FOOD RESTAURANTS IN DOWNTOWN HONOLULU, 1988**

Restaurant -----	Maximum Capacity (1) -----
Alakea Bar & Grill	66
Arthur's Restaurant	140
Bishop St. Cafe	62
Cafe Che Pasta	147
Croissanterie	120
Flamingo Coffee Shop	96
Fortune Gate Seafood Restaurant	190
The Ground Floor	54
Heidi's Bistro	115
Jake's Downtown	300
The Landing	125
Liberty House	100
Murphy's	143
The Quiet Corner	174
Yong Sing	280
<hr style="border-top: 1px dashed black;"/>	
TOTAL	2,112
 Square Footage	 31,680
Estimated Downtown Worker Population (2)	27,000
 Square Feet of Restaurant Space per Downtown Worker	  1.17

**NOTES:**

- (1) The maximum capacity of restaurants is defined as one customer per 15 sq. ft. of restaurant space (Unified Building Code Table 33A).
- (2) Based on estimates by Kurt Kamikawa, Peat Marwick Main & Co., and by Community Resources, Inc.

approximately 2,500 sq. ft. of fast food restaurant space (assumption by Community Resources, Inc.). The ratio of office workers Downtown to non-fast food restaurant space shown in Table 14 can be used to estimate the new demand for restaurant space from Downtown workers, residents and visitors:

- o Pacific Nations Center Office Workforce            3950 persons
- o Restaurant Space per Office Worker                1.17 sq. ft.
- o New Demand    4600 sq. ft

Including the space occupied by fast food outlets, approximately 7,000 square feet of space could serve the type and needs of consumers now present in the Downtown area. Hotel guests and perhaps the residents of Pacific Nations Center can be expected to generate additional demand. The strength of that demand cannot be estimated with any percision at this time.

**Parking: Current Supply/Demand Conditions**

The Oahu Metropolitan Planning Organization (1983) defines Downtown Honolulu as containing four "sub-areas":

- o The Financial District Sub-area (bounded by Beretania, Richards, Nimitz and Nuuanu):
- o The Kukui Redevelopment Sub-area (bounded by Vineyard, Alakea, Beretania and Aala);
- o The Chinatown Sub-area (bounded by Beretania, Nuuanu, Nimitz and River; and

- o The Civic Center Sub-area (bounded by Vineyard, South-Alapai, Nimitz-Ala Moana and Richards-Alakea).

The first three sub-areas are relevant to this study, as a high proportion of the parking spaces in them are used by Downtown workers and visitors to the Downtown area. These areas are termed here the "parking study area." (The Civic Center sub-area is excluded as civil service workers, persons visiting government offices, and persons visiting Queen's Hospital are likely to have different parking patterns which are not pertinent to this study.

A survey in The Downtowner (Vol. 29, No. 6, June 29, 1988) found 16,780 off street parking stalls available in the parking study area. That publication reports that 80% of persons in Downtown on weekdays travel by car. A 1981 survey by the Oahu Metropolitan Planning Organization (1983) showed that 55% of Downtown workers drive to work. Another 19% ride to work in a car.

Monthly parking spaces in Downtown office buildings currently are full. Monthly prices have risen to at least \$100 per stall, while short-term parking prices have recently increased. (Somewhat lower monthly rates now exist in lots and buildings on the outer edge of the parking study area, outside Downtown proper.)

#### Parking: Future Supply/Demand Indicators

The net increase in parking spaces in the parking study area was estimated by Community Resources, Inc. at 2,678 stalls. (This estimate draws on information about buildings under way or planned in the parking study area, not just Downtown, and excludes spaces in residential buildings taken to be dedicated to residential use.)

The estimated 2,678 increase is 15.9% of the current capacity, and 13.8% of the enlarged inventory of 19,458 off-street parking spaces (existing plus planned new parking facilities).

When the Pacific Nations Center is built, the net on-site increase in parking spaces will total 2,173 (treating both private and public spaces now on-site as part of the inventory that will be replaced.) This would constitute 10% of the total inventory in the parking study area.

The anticipated increase in parking may seem large, but demand from office workers is high, and other users of the Pacific Nations Center site will need parking as well. If the ratio between office workers and available parking stays constant, the increment of office workers on-site indicates a demand for all the Pacific Nations Center parking that can be allotted to commercial space. Additional demand can be expected from project residents. It is not clear how many hotel guests will need parking spaces, since no hotel comparable to the project hotel



exists in Hawaii. Developers must, however, follow Land Use Ordinance standards of one stall per four hotel rooms.

All indications suggest that the demand for parking at the Pacific Nations Center will be extremely strong.

## 7.09 UTILITIES AND PUBLIC SERVICES

### Utilities

#### Water Supply

The site is currently supplied from the Honolulu Board of Water Supply. Potable water is supplied by underground water distribution mains. There is an 18-inch water main beneath Beretania Street which is connected to a branch main running parallel to the Queen Emma Street center line. A 12-inch line lying beneath Kukui Street is connected to both the 8-inch line at Queen Emma Street and the line located under Fort Street.

#### Sanitary Sewer

The existing site is currently ringed by an 8-inch underground sanitary sewer line. These underground mains are part of the City and County Department of Public Works sewer collection system. The 8-inch line lies beneath Beretania, Queen Emma, Fort Street and portions of Kukui Street. Two 6-inch sewer lines, one of which appears to be inactive, lie beneath the existing parking lot. Flows from Queen Emma and the diamond head portion of the

Beretania line flow toward the 8-inch line located below Alakea Street, while the remainder of the lines flow toward an 8-inch line located below Fort Street.

#### Storm Drainage

The existing site contains both single story and multi-story structures, an asphalt concrete parking lot and an urban park. The parking lot is drained by means of "sheet flows" across the site. The high point is approximately half way along Kukui Street. From there, storm water flows toward Pali Highway and Beretania Street. Catch basins located at low points (Kukui Street and Pali Highway intersection, Kukui Street and Queen Emma intersection, and Beretania and Alakea intersection) collect surface run-off and feed an underground storm water system. There exists a series of 18 and 24-inch storm water mains running beneath Kukui Street with storm water flows going from Queen Emma Street toward Fort Street. A 24-inch storm water main carries flows away from the site. The storm water flow collected at the Beretania and Alakea intersection flows into an 18-inch storm water line running beneath Alakea Street.

#### Natural Gas Service

Natural gas is supplied to the area via a 10-inch main running parallel to the Beretania Street center line. A 4-inch branch line parallels the larger 10-inch line from Alakea to Fort Street and beyond. A similar situation exists beneath Queen Emma Street, which houses a 6-inch main, (connected to the 10-inch

main) and a 2-inch branch line which is connected to the 6-inch branch line. Both of these lines run toward and beyond Kukui Street. A small 1-inch gas line runs below Kukui Street and supplies one of the structures located along this street. A 2-inch gas line runs below Fort Street parallel to its center line. It is connected to the 4-inch line at Beretania Street and runs toward and beyond Kukui Street.

#### Electrical Power Services

Power is supplied to the area from HECO's distribution grid via the substation located on the site. The site is served by a series of underground distribution cables.

#### Communications Services

The area is served by an underground network of communications cables which is owned and operated by Hawaiian Telephone Company. The extent of relocation of these utilities to facilitate development of the site is unknown at this time. As construction plans develop, the extent of any relocations will be more apparent. Hawaiian Telephone also transmits communication signals using microwave dishes, some of which are located on top of their building at Beretania and Bishop Streets.

#### Public Services

Fire protection for the proposed project would be provided by the Central, Kakaako and Pawa Fire Stations. Police protection

downtown substation. Healthcare services in the area include Straub Clinic and Hospital on King Street and The Queen's Medical Center on Punchbowl Street. The State Department of Social Services and Housing is located on Punchbowl Street. There is also a Welfare Unit on Bethel Street. The closest childcare facilities are the Bamboo Shoots daycare center (enrollment - 39) at Kukui Plaza and The Early Education Center (enrollment - 260) next to the Honolulu Municipal Building. Royal Elementary is two blocks from the site (enrollment - 414), Central Intermediate is one block away (enrollment - 281), and McKinley High School is one mile away (enrollment - 2,288). These are the public schools which serve the area. Public Transit needs are met by The Bus service provided jointly by MTL, Inc. and the City and County of Honolulu. Buses along Beretania stop in front of Block J and include routes that serve a great majority of the island. Active recreational areas include three neighborhood playgrounds: Beretania Community Park (between Aala and Liliha Streets), Kauluwela Playground (at Aala Street and Vineyard Boulevard) and Kamamalu Playground (at Queen Emma Street and Vineyard Boulevard). Numerous passive recreational areas exist within the Hawaii Capital District and several urban malls and open spaces, such as Fort Street Mall and Tamerind Park, exist downtown. Foster Botanic Gardens (at Nuuanu Avenue and Vineyard Boulevard) provides a specialized type of park area.

## 07.10 TRAFFIC

### Analysis of Existing Traffic Conditions

This section presents and discusses the existing traffic volumes on the roadways in the vicinity of the proposed project, the level-of-service concept, and the results of the level-of-service analysis. The purpose of this analysis is to establish the base conditions for the determination of the project's traffic impacts which are presented in Section 10.06.

The intersections which were analyzed to establish the base conditions were determined based upon the access routes to and departure routes from the project location. The intersections at which a level-of-service analysis was conducted are:

1. Vineyard Boulevard and Nuuanu Avenue
2. Vineyard Boulevard and Pali Highway
3. Vineyard Boulevard and Queen Emma Street
4. Pali Highway and Kukui Street
5. Kukui Street and Queen Emma Street
6. Beretania Street and Nuuanu Avenue
7. Beretania Street and Pali Highway (Bishop Street)
8. Beretania Street and Queen Emma Street (Alakea Street)
9. Hotel Street and Nuuanu Avenue
10. Hotel Street and Bishop Street
11. Vineyard Boulevard and Punchbowl Street
12. Beretania Street and Punchbowl Street
13. King Street and Punchbowl Street

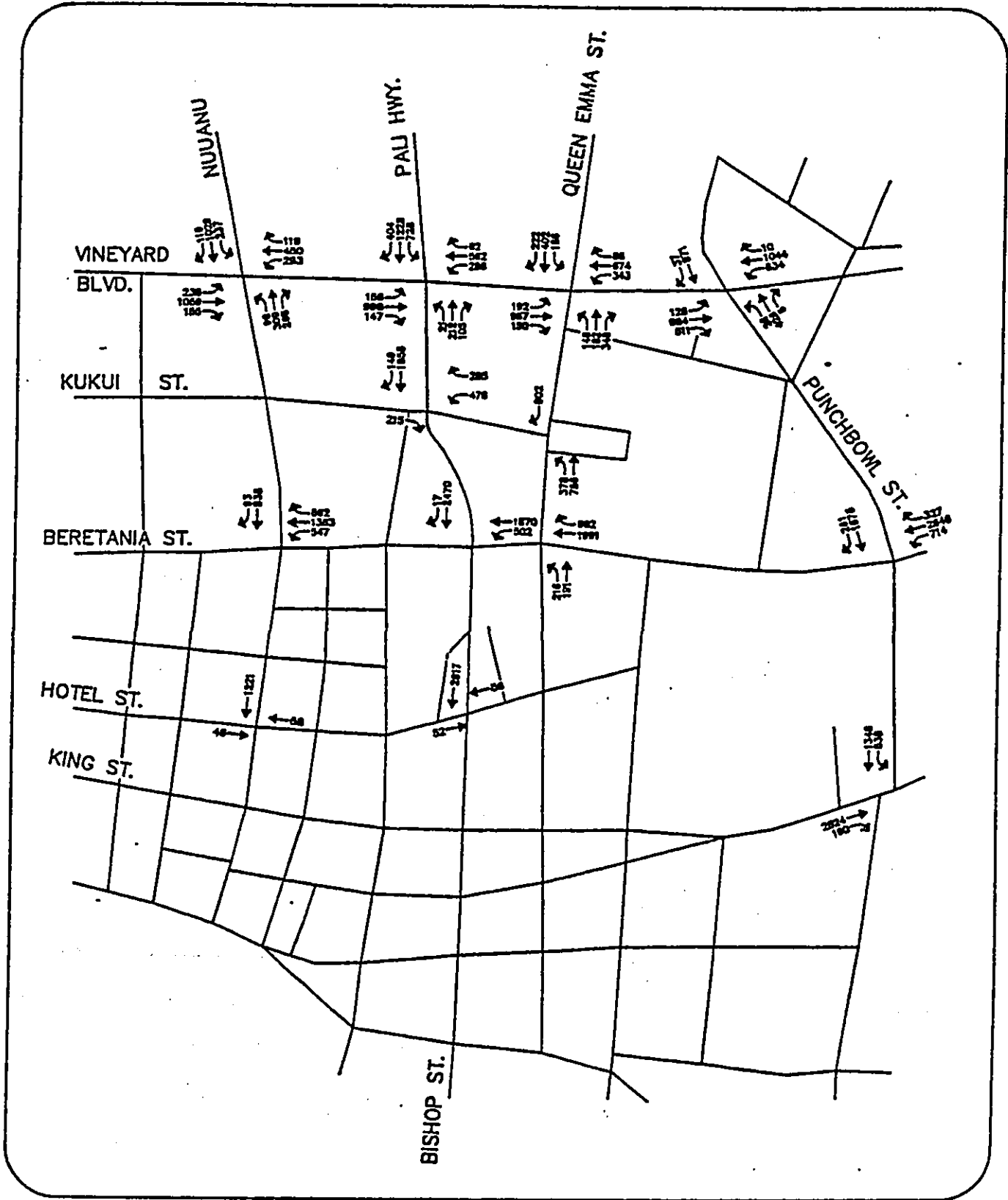
### Existing Traffic Volumes

The existing morning and afternoon peak-hour traffic volumes at the first ten intersections were obtained from field traffic counts conducted specifically for this study during September, 1988. Data for the last three intersections (along Punchbowl Street) were obtained in October, 1987. The results of these traffic counts are summarized for the morning and afternoon peak hours in Figures 15 and 16, respectively.

### Level-of-Service Concept

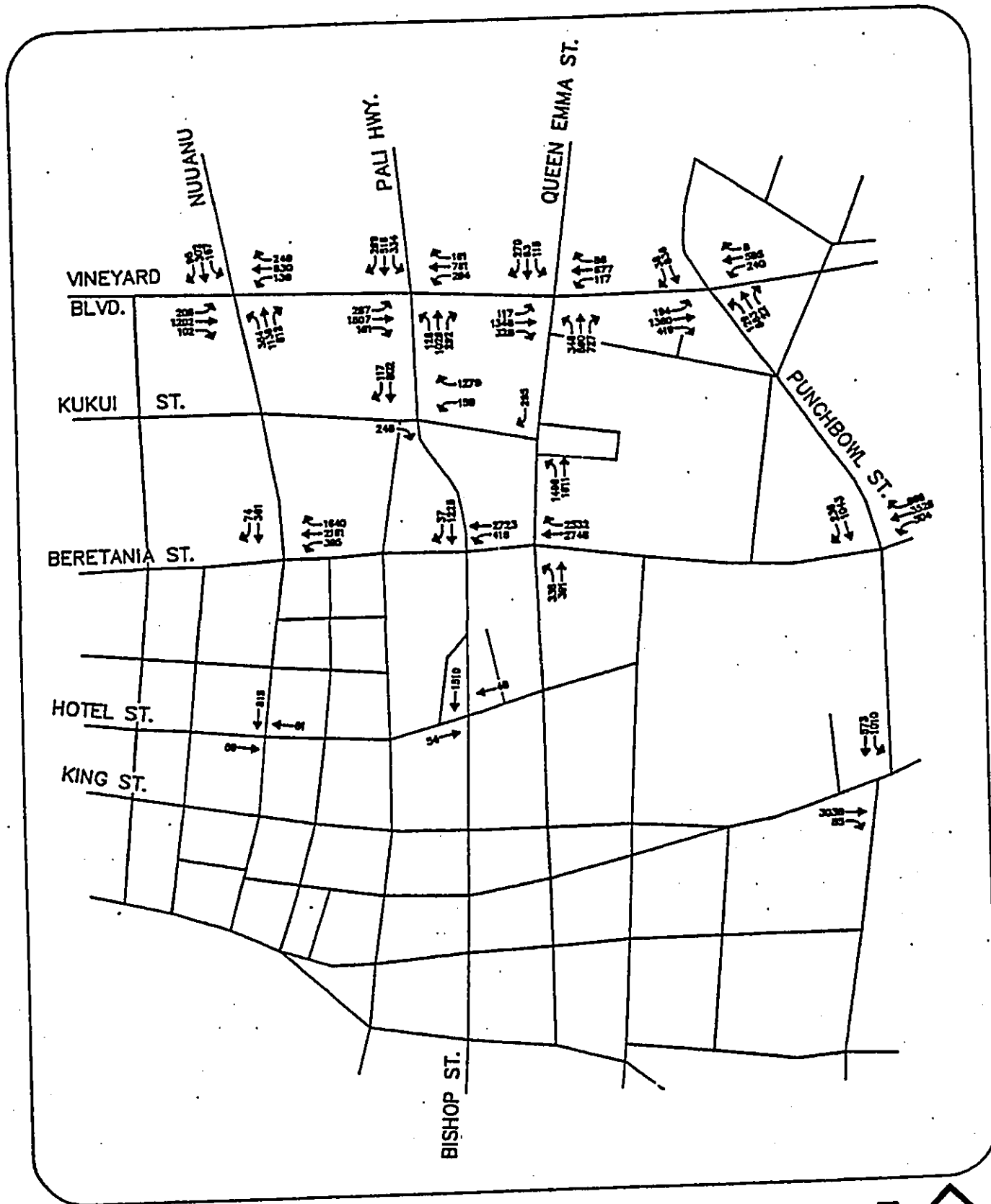
The operational method described in the 1985 Highway Capacity Manual (HCM) was used to analyze the operational efficiency of the intersections adjacent to the subject project. This method involves the calculation of a volume/capacity (V/C) ratio which is related to a level-of-service.

"Level-of-service" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. Level-of-service is a qualitative measure of the effect of a number of factors which include speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort, convenience, and operating cost. There are six levels-of-service, A through F, which relate to the driving conditions from best to worst, respectively. The characteristics of traffic operations for these levels-of-service are summarized



EXISTING AM PEAK HOUR TRAFFIC VOLUMES  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER

FIGURE  
 15



**EXISTING PM PEAK HOUR TRAFFIC VOLUMES**  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER

FIGURE  
 16



in Table 15. In general, Level-of-Service A represents free-flow conditions with no congestion. Level-of-Service F, on the other hand, represents severe congestion with stop-and-go conditions. Many communities have adopted Level-of-Service D as the acceptable level-of-service when future conditions are being analyzed. Corresponding to each level-of-service shown in the table is a volume/capacity ratio. This is the ratio of either existing or projected traffic volumes to the capacity of the intersection. Capacity is defined as the maximum number of vehicles that can be handled by the roadway during a specified period of time. The capacity of a particular roadway is dependent upon its physical characteristics such as the number of lanes, the operational characteristics of the roadway (one-way, two-way, turn prohibitions, bus stops, etc.), the type of traffic using the roadway (trucks, buses, etc.), and turning movements.

#### Existing Level-of-Service Analysis

The results of the level-of-service analysis for the existing traffic conditions at the intersections studied are summarized in Table 16. The conclusions are as follows:

1. Except for four intersections, all the intersections operate at LOS E or F during one or both of the weekday peak hours, which indicates significant delays to peak hour traffic.

TABLE 15

INTERSECTION LEVEL-OF-SERVICE DEFINITIONS (1)  
 PACIFIC NATIONS CENTER TRAFFIC STUDY  
 October 1988

Level of Service	Interpretation	Volume/ Capacity (2) Ratio	Stopped Delay Per Vehicle (Seconds)
A,B	Uncongested operations; all vehicles clear in a single signal cycle.	0.000-0.700	< 15.0
C	Light congestion; occasional backups on critical approaches.	0.701-0.800	15.1-25.0
D	Congestion on critical approaches, but intersection functional. Vehicles required to wait through more than one cycle during short peaks. No long-standing lines formed.	0.801-0.900	25.1-40.0
E	Severe congestion with some long-standing lines on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements.	0.901-1.000	40.1-60.0
F	Total breakdown with stop-and-go operation.	1.001+	> 60.0

## NOTES:

(1) Source: Highway Capacity Manual, 1985.

(2) Volume/Level-of-Service E Capacity.

TABLE 16

LEVEL-OF-SERVICE ANALYSIS FOR EXISTING CONDITIONS  
TRAFFIC STUDY FOR PACIFIC NATIONS CENTER  
OCTOBER, 1988

Intersection	Existing AM Peak Hour		Existing PM Peak Hour	
	V/C(1)	LOS(2)	V/C(1)	LOS(2)
Vineyard Bl. @ Nuuanu Ave.	0.824	D	1.062	F
Vineyard Bl. @ Pali Highway	1.249	F	1.360	F
Vineyard Bl. @ Queen Emma St.	1.187	F	1.765	F
Kukui St. @ Pali Highway	0.785	C	.329	A
Kukui St. @ Queen Emma St.	0.406	A	1.135	F
Beretania St. @ Nuuanu	0.765	C	0.966	E
Beretania St. @ Pali Hwy/Bishop St.	0.916	E	0.723	C
Beretania St. @ Queen Emma St/ Alakea St.	.937	A	2.576	F
Hotel St. @ Nuuanu	0.516	A	0.359	A
Hotel St. @ Bishop St.	0.496	A	0.303	A
Vineyard Bl. @ Punchbowl St.	1.165	F	1.039	F
Punchbowl St. @ Beretania St.	1.096	F	1.078	F
Punchbowl St. @ King St.	0.748	C	0.872	D

## NOTES:

- (1) V/C = Volume to capacity ratio  
(2) LOS = Level-of-Service

2. All of the intersections north of the project site (along Vineyard Street, Kukui Street, Pali Highway and Queen Emma Street) operate at Level-of-Service F during the afternoon peak hours. This indicates that traffic approaching and departing the site from the north will have long delays due to congestion.

#### 07.11 AIR QUALITY

##### Air Quality Standards

A summary of the federal National Ambient Air Quality Standards (NAAQS) and the State of Hawaii ambient standards are presented in Table 17. The federal standards are divided into primary and secondary standards while those for the State of Hawaii are at a single level. Primary standards are intended to protect public health with an adequate margin of safety while secondary standards are designed to protect public welfare such as visibility, comfort levels, wildlife, vegetation, property, soils, water, climate and economic values.

In general, the ambient standards of the State of Hawaii are the same as the federal primary or secondary standards. However, in the case of carbon monoxide and ozone, the state standards are more stringent. In April, 1986, the Governor of Hawaii signed amendments to Chapter 59 (Ambient Air Quality Standards) of the Hawaii Administrative Rules, making the state's standards for particulate matter and sulfur dioxide the same as national

TABLE 17

SUMMARY OF FEDERAL AND STATE OF HAWAII AMBIENT  
AIR QUALITY STANDARDS

Pollutant	Averaging Time	Federal Primary Standard	Federal Secondary Standard	State Standard
Total Suspended Particulate Matter (TSP)	Annual Geometric Mean	-	-	60
(micrograms per cubic meter)	Maximum 24-hr Average	-	-	150
PM-10	Annual Geometric Mean	50	-	-
(micrograms per cubic meter)	Maximum 24-hr Average	150	-	-
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	80	-	80
(micrograms per cubic meter)	Maximum 24-hr Average	365	-	365
	Maximum 3-hr Average	-	1,300	1,300
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	100	100	70
(micrograms per cubic meter)				
Carbon Monoxide (CO)	Maximum 8-hr Average	10	10	5
(milligrams per cubic meter)	Maximum 1-hr Average	40	40	10
Photochemical Oxidants (as O <sub>3</sub> ) (micrograms per cubic meter)	Maximum 1-hr Average	235	235	100
Lead (Pb) (micrograms per cubic meter)	Maximum Quarterly Average	1.5	1.5	1.5

standards. On July 1, 1987 the U.S. Environmental Protection Agency (EPA) revised the standard for particulate matter to apply only to particles with an aerodynamic diameter of 10 microns or less (inhalable portion only). The State of Hawaii has not adopted the federal PM-10 standard, nor has it developed its own PM-10 standard, so that the state particulate matter standard is different from the federal standard.

The NAAQS are set in Title 40, Part 50 of the Code of Federal Regulations (40CFR50) while the ambient air quality standards for the State of Hawaii are defined in Chapter 11-59 of the Hawaii Administrative Rules.

#### Existing Air Quality

Air quality in the State of Hawaii is monitored by the State Department of Health (DOH). The DOH maintains a network of air quality monitoring stations throughout the state. The monitoring station located at the DOH building at the corner of Punchbowl and Beretania Streets is closest to the project site and the air quality data collected at this site would closely represent the air quality in the project area. A five-year summary of the data collected at this DOH monitoring site is presented in Table 18.

#### Climate and Meteorology

The climate in Hawaii is mild with very minimal seasonal variation due to the tempering effect of the surrounding ocean.

**TABLE 18**  
**SUMMARY OF AIR QUALITY DATA, 1982-1986**

Pollutant	1982	1983	1984	1985	1986
<b>Total Suspended Particulates (TSP)</b>					
Maximum 24-hr average concentration, $\mu\text{g}/\text{m}^3$ <sup>a</sup>	42	58	48	48	61
Days exceeding state standard	0	0	0	0	0
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>					
Maximum 24-hr average concentration, $\mu\text{g}/\text{m}^3$	38	16	<5	<5	6
Days exceeding state standard	0	0	0	0	0
<b>Photochemical Oxidants (O<sub>3</sub>)</b>					
Maximum 24-hr average concentration, $\mu\text{g}/\text{m}^3$	151	123	104	198	88
Days exceeding state standard	2	2	1	3	0
<b>Carbon Monoxide (CO)</b>					
Maximum 1-hr average concentration, $\text{mg}/\text{m}^3$ <sup>b</sup>	-	8.6	10.9	10.4	13.5
Days exceeding state standard	-	0	1	1	3
<b>Lead (Pb)</b>					
Maximum quarterly average, $\mu\text{g}/\text{m}^3$	.21	-	0.3	0.1	0.1

<sup>a</sup> $\mu\text{g}/\text{m}^3$  - micrograms per cubic meter  
<sup>b</sup> $\text{mg}/\text{m}^3$  - milligrams per cubic meter

Maximum temperatures range from the high 70's in the winter and mid-80's in the summer while minimum temperatures are from the mid-60's to the low 70's. Annual rainfall averages about 23 inches. Winds are generally from the northeast with velocities frequently less than 10 miles per hour. Stable climatological conditions (Pasquill-Gifford stability categories E and F) occur about 28 percent of the time. It is during such stable conditions that the greatest potential for air pollutant buildup from ground level sources exists.

#### 7.12 NOISE

##### Potentially Noise Sensitive Neighboring Locations

Figure 17 shows the closest neighboring locations that may experience noise impact during construction and from normal project operations. The most noise sensitive entities are St. Andrew's Priory, Central Intermediate School, and residential units in Kukui Plaza which elect to use natural ventilation. The occupants of low-rise apartment buildings and centrally air conditioned high-rise buildings should experience considerably less noise impact from the project. Naturally ventilated units in Queen Emma Gardens should not have any long term noise impact from the project due to the relatively great distance and the high background noise at Queen Emma due to traffic on the Freeway and other roads.



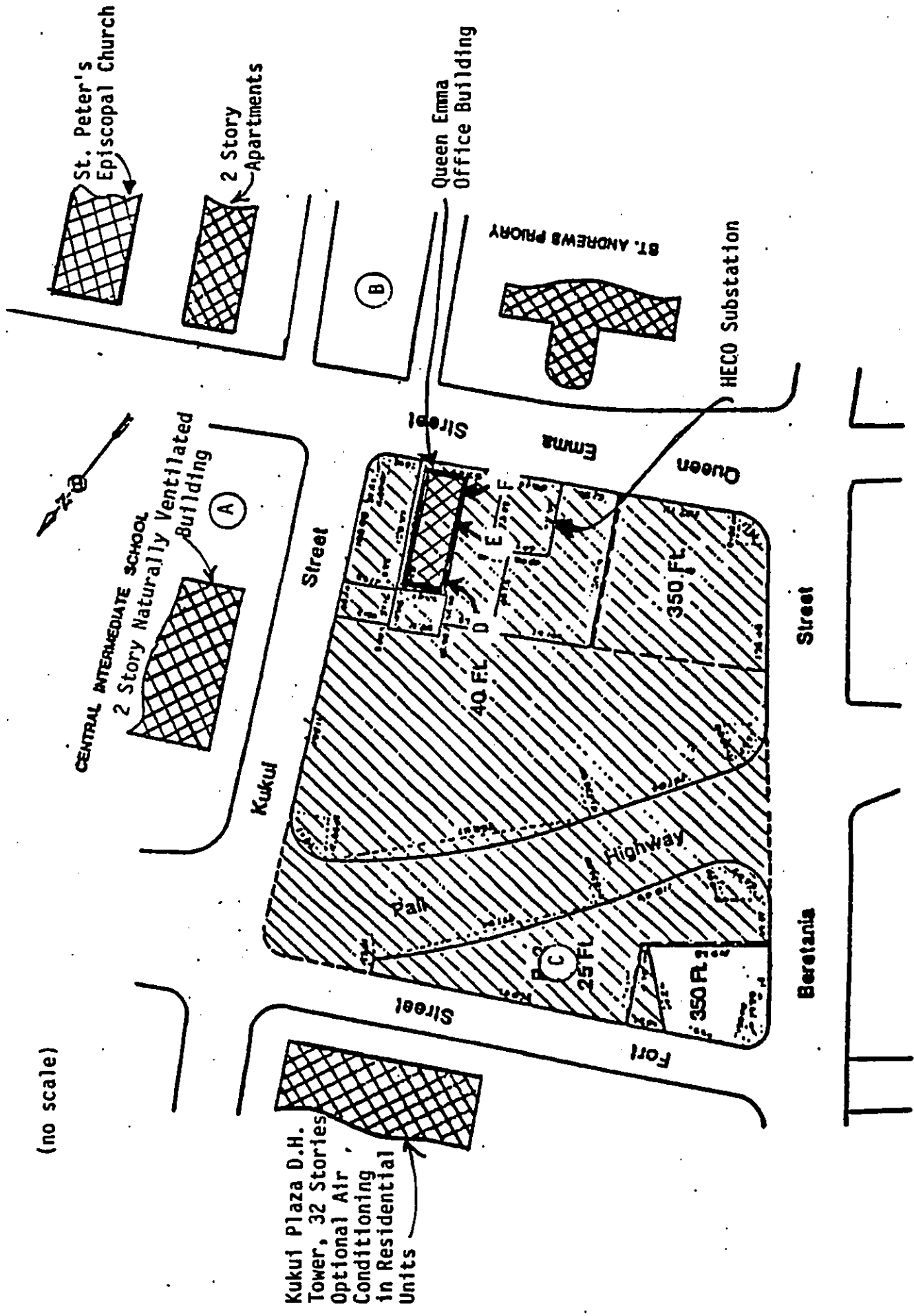
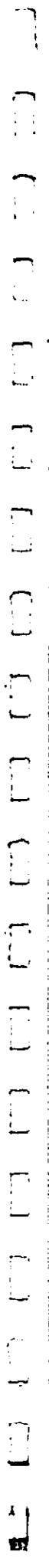


FIGURE 17 - POTENTIALLY NOISE SENSITIVE NEIGHBORS



## The Existing Noise Environment

The exterior noise levels at the neighboring buildings are primarily caused by motor vehicles moving on the Pali Highway, Beretania Street, Queen Emma Street, and Kukui Street. Averaged noise level measurements made on September 13, 1988 in mid-morning along the roadways with the microphone about 6 feet above the ground were about 62 dBA over a 10-minute period. Traffic counts including the mix of vehicles were also made during the noise sample periods in order to validate the Federal Highway Administration's (FHWA) Traffic Noise Prediction Model (Federal Highway Administration, 1978). Figure 18 also shows the noise level measurement locations. Table 19 summarizes the comparison of the measured 10 minute Equivalent Noise Levels ( $L_{eq}$  [10 minutes]) with predicted hourly noise levels ( $L_{eq}$  [60 minutes]). The fact that the two values agree within about 2 dB for measurements of traffic that was not continuously flowing is considered acceptable.

Averaged noise levels over the same time period experienced by persons on the lanais of the high-rise buildings in the area would be somewhat greater due to more contributing noise sources with direct sound propagation paths to the listeners. Traffic noise levels do not usually increase at the lanais on the upper floors. The effect of longer propagation distances is offset by more traffic noise sources contributing directly without shielding to the total noise level at the listener's ears. In fact, studies (Darby, 1971) have shown that traffic noise levels

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K-E 1 DAY BY HOURS & 1/8 DIVISIONS  
SCALE & MARKS TO BE USED

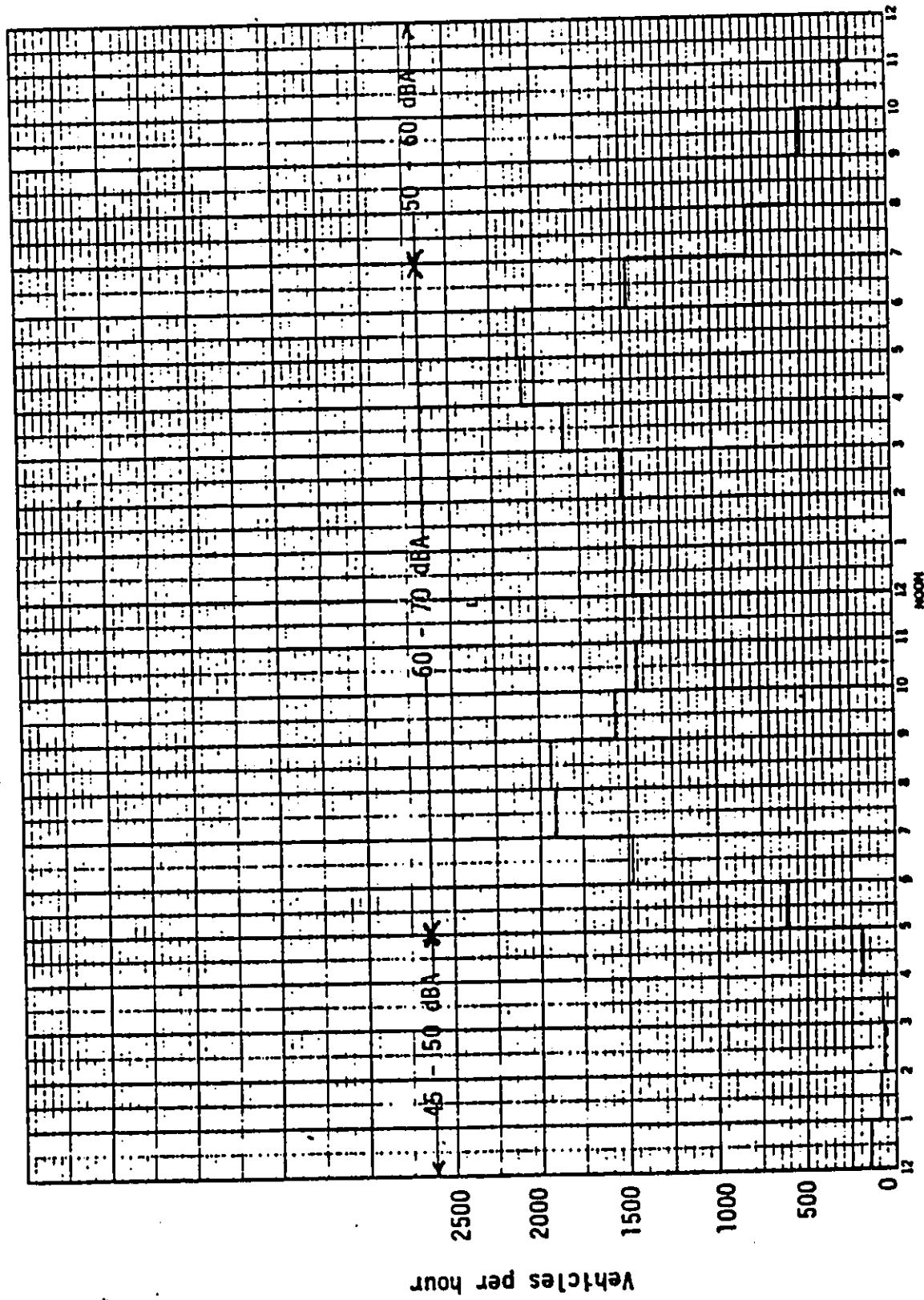


FIGURE 18 - TYPICAL HOURLY TRAFFIC VOLUMES ON PALLI HIGHWAY NEAR PROJECT AND ESTIMATED RANGE OF HOURLY TRAFFIC NOISE LEVELS AT 250'

**TABLE 19**  
**COMPARISONS OF PREDICTED AND MEASURED TRAFFIC NOISE LEVELS**

Location	Roadway	Distance to Center of Roadway (feet)	Measured $L_{eq}$ [10 minutes] (dBA)	Predicted $L_{eq}$ [60 minutes] (dBA)
A	Kukui Street	70	61.6	60.5
	Queen Emma Street	155		
B	Queen Emma Street	80	61.9	63.3
C	Pali Highway	70	61.7	63.2

Note: Microphone was about 6' above ground.  
Measurements were made September 13, 1988;  
9:39 a.m. to 11:25 a.m.

on the upper floors can be significantly greater than on the lower floors, sometimes increasing approximately 1 dB/floor up to about 18 floors.

Noise level measurements were made on open lanais of the Queen Emma Office Building. The data are summarized in Table 20 where it can be seen that averaged noise levels are higher than at ground level and are somewhat greater on the 12th floor compared to the 6th floor.

The manner in which traffic noise decreases at night is shown in Figure 18 where it can be seen that between midnight and 5 a.m., when only one to three vehicles may pass by each minute, the average hourly traffic noise could be lower than 50 dBA. During the period from 6 a.m. to 6 p.m., when typically there are more than 25 vehicles passing each minute, the average hourly traffic noise level is greater than 60 dBA.

Aircraft flyovers also contributed somewhat to the background noise in the area. During tradewind conditions (which occur about 95% of the time) there are typically about 80 propeller aircraft per day departing from Honolulu International Airport (HIA) flight patterns approximately 1,500 feet from the project area. During Kona conditions (occurring about 5% of the time), a mix of heavy jet and propeller aircraft pass on approach flight patterns approximately 4,500 to 6,000 feet on either side of the project site. Although aircraft noise from HIA causes a day-night level ( $L_{dn}$ ) of well below 60 dB when averaged over a

TABLE 20 - SUMMARY OF AMBIENT NOISE SURVEY ON OPEN LANAIS OF THE  
 QUEEN EMMA OFFICE BUILDING

Floor	Location *	Time (mid day)	L <sub>10</sub> ** (dBA)	L <sub>50</sub> <sup>+</sup> (dBA)	Maximum Noise Levels from Heavy Trucks (dBA)			Number of Aircraft Heard ++
					Queen Emma	Beretania	Pal1	
6	D	11:34 - 11:59	67	65	68 - 74	65 - 68	66 - 70	3
6	E	12:12 - 12:37	67	65	68 - 74	66 - 71	66 - 68	3
6	F	12:46 - 12:54	67	63	67 - 72	66 - 71	66 - 68	0
12	D	12:59 - 1:07	69	65	68 - 76	66 - 68	66 - 68	1
12	E	1:11 - 1:19	69	65	68 - 76	66 - 68	66 - 68	1
12	F	1:22 - 1:30	67	65	68 - 76	66 - 68	66 - 68	1

7-832

\* See Figure 17

\*\* L<sub>10</sub> is the noise level exceeded 10% of the time

+ L<sub>50</sub> is the noise level exceeded 50% of the time

++ Maximum Aircraft Noise Levels were typically in the range of 66 to 70 dBA

year at the project site; the noise from single aircraft events can often be heard during lulls in the traffic noise. Aircraft noise data are from "Honolulu International Airport Master Plan Update and Noise Compatibility Program - Inventory of Existing Noise Mitigation Programs and Noise Map Information" (State of Hawaii, Department of Transportation, 1987).

Other noises heard in the project neighborhood were from people talking or shouting in the streets; mopeds and motorcycles; trash collection operations; loud amplified music from automobiles; and construction activities in the area.

#### 07.13 VIEWS

The view corridor looking towards the mountains along Bishop Street is valued as an important visual resource by the public and currently allows a narrow, uninterrupted view of the sky and clouds above a portion of the Koolau Mountains. The view corridor looking towards the mountains along Alakea Street is similar. These two view corridors are shown in perspective renderings with and without the proposed project in Section 10.09, Impact on Views.

The view of Punchbowl crater from the project site is extremely limited at present. This is due to the location of the project site and the existing buildings and trees on and around the site. A small portion of the side of the ridge is visible at street level from the sidewalk in front of Century Square, across

Beretania Street. Most of the Punchbowl landmark is, nevertheless, blocked by the existing buildings on the site and is not currently considered a visual resource from the project area.



08.0 RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES AND CONTROLS

**08.0 RELATIONSHIP OF THE PROPOSED ACTION  
TO LAND USE PLANS, POLICIES AND CONTROLS**

08.0 RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS,  
POLICIES AND CONTROLS

08.01 STATE OF HAWAII

The Hawaii State Plan

The Hawaii State Plan sets forth goals, objectives and policies that direct development in the State to reflect the needs and desires of the people (Dept. of Planning and Economic Development, 1978). It is a tool for dealing positively with change. Several objectives and policies would be met with implementation of the Pacific Nations Center mixed use facility. They are stated as follows:

"Expand Hawaii's national and international marketing, communication, and organizational ties, to increase the State's capacity to adjust to and capitalize upon economic changes and opportunities occurring outside the State."

"Enhance Hawaii's role as a center for international trade, finance, services, technology, education, culture and the arts."

"Promote the visual and aesthetic enjoyment of mountains, ocean vistas, scenic landscapes, and other natural features."

"Encourage design and construction practices that enhance the physical qualities of Hawaii's communities."

"Encourage urban developments in close proximity to existing services and facilities."

"Promote design and location of housing developments taking into account the physical setting, accessibility to public facilities and services, and other concerns of existing communities and surrounding areas."

#### State Land Use District

The State Land Use designation for the project site and the surrounding area is Urban, as shown in Figure 19. The Pacific Nations Center would be compatible with this designation.

#### State Environmental Policy

As required by Chapter 343, Hawaii Revised Statutes, for projects using county lands and/or county funds, early assessment of the project was made, and it was determined that preparation of an EIS would be necessary. This ensures that environmental concerns are being given appropriate consideration in the planning process for the project. Identifying environmental concerns, obtaining various relevant data, conducting necessary studies, receiving public and agency input, evaluating alternatives, and proposing measures for minimizing adverse impacts are all tasks to be

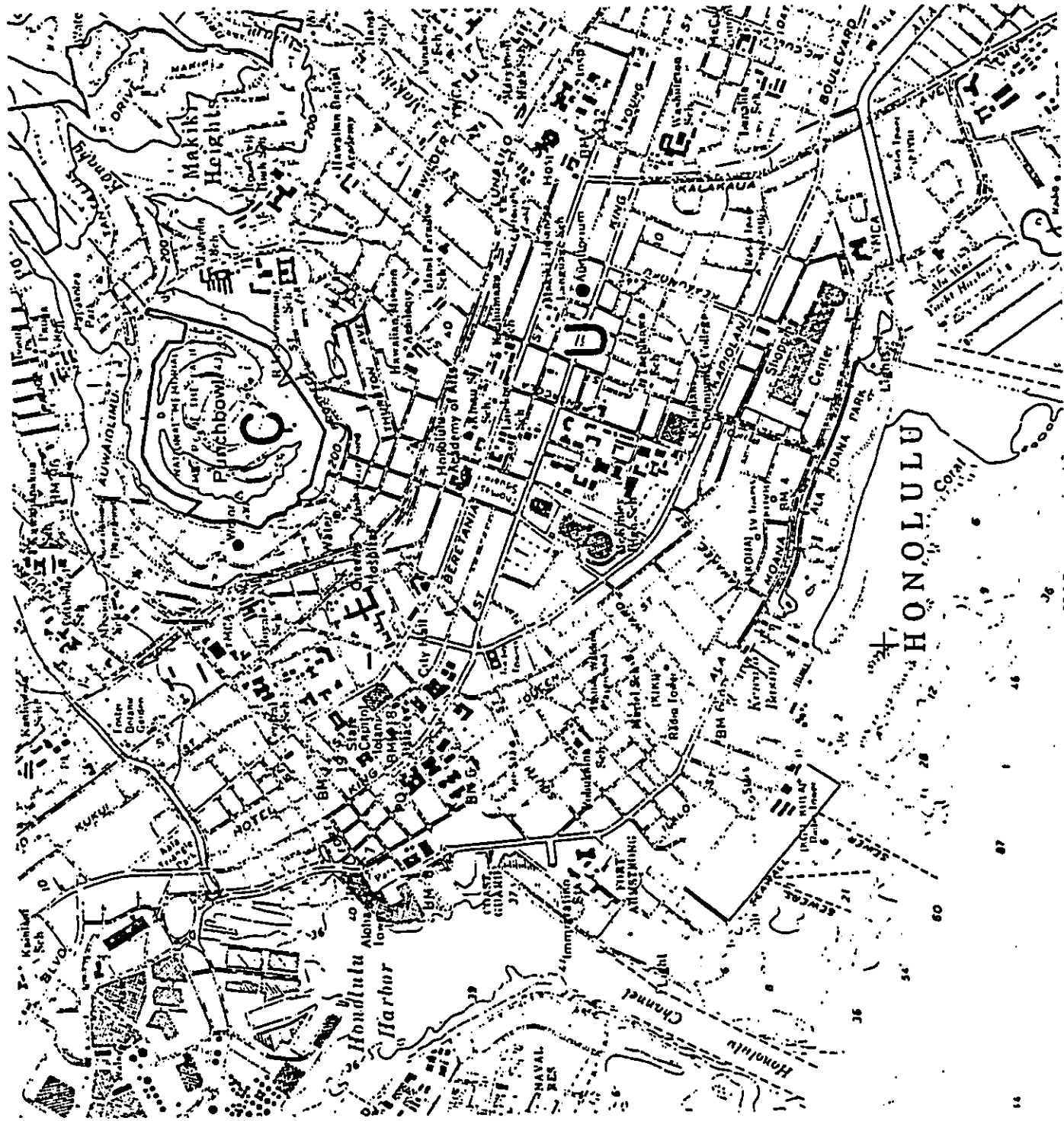


FIGURE 19 - STATE LAND USE DESIGNATION

accomplished prior to implementation of the project, thus complying with environmental policy.

08.02 CITY AND COUNTY OF HONOLULU

The General Plan

The objectives and policies of The General Plan identify actions and directives for City and County government to take to benefit the people of Oahu as growth and development occur on the island. The Pacific Nations Center mixed use facility would conform with the General Plan, especially in the following areas of concern:

"Facilitate the full development of the primary urban center."

"Encourage the establishment of mixed-use districts with appropriate design and development controls to insure an attractive living environment and compatibility with surrounding land uses."

"Encourage the development in appropriate locations on Oahu of trade, communications and other industries of a nonpolluting nature."

"Protect Oahu's scenic views, especially those seen from highly developed and heavily travelled areas."

"Encourage innovative residential development which

will result in lower costs, added convenience and privacy, and the more efficient use of streets and utilities."

"Encourage residential developments that offer a variety of homes to people of different income levels and to families of various sizes."

"Encourage residential development near employment centers."

"Encourage the development of attractive residential communities in downtown and other business centers."

"Maintain and improve downtown as the financial and office center of the Island and as a major retail center."

"Provide for more compact development and intensive use of urban lands where compatible with the physical and social character of existing communities."

#### Development Plans

The Development Plans help to implement the General Plan by establishing controls for geographical regions of the island. The project site is located within the Primary Urban Center Development Plan region and is designated as Park, Commercial, and Public Roadway.

## Land Use Ordinance

In 1986, a new Land Use Ordinance (Chapter 21 of the Revised Ordinances of Honolulu) replaced the old Comprehensive Zoning Code. The purpose of the Land Use Ordinance (LUO) is to regulate land use in a manner that will encourage orderly development in accordance with adopted land use policies.

The project area is in the BMX-4 Central Business Mixed Use zoning district, as shown in Figure 20. The intent of the BMX-4 Central Business Mixed Use district is to set apart that portion of Honolulu which forms the City's center for financial, office and government activities and housing. It is intended for the downtown area and not intended for general application. It provides the highest land use intensity for commerce, business and housing. The proposed project would be compatible with existing commercial and residential uses in the area.

The Land Use Ordinance also regulates Special Districts within the City and County of Honolulu. The purpose of a Special District is to provide a means by which certain areas in the community in need of restoration, preservation, redevelopment or rejuvenation may be regulated to encourage development which protects and/or enhances the physical and visual aspects of an area for the benefit of the community as a whole. The project area bounded by Queen Emma, Kukui, Beretania and Pali Highway is currently in the Hawaii Capital District, which limits building heights to 40 feet over most of the block, as shown in Figure 20. The Hawaii Capital District Ordinance is currently being amended

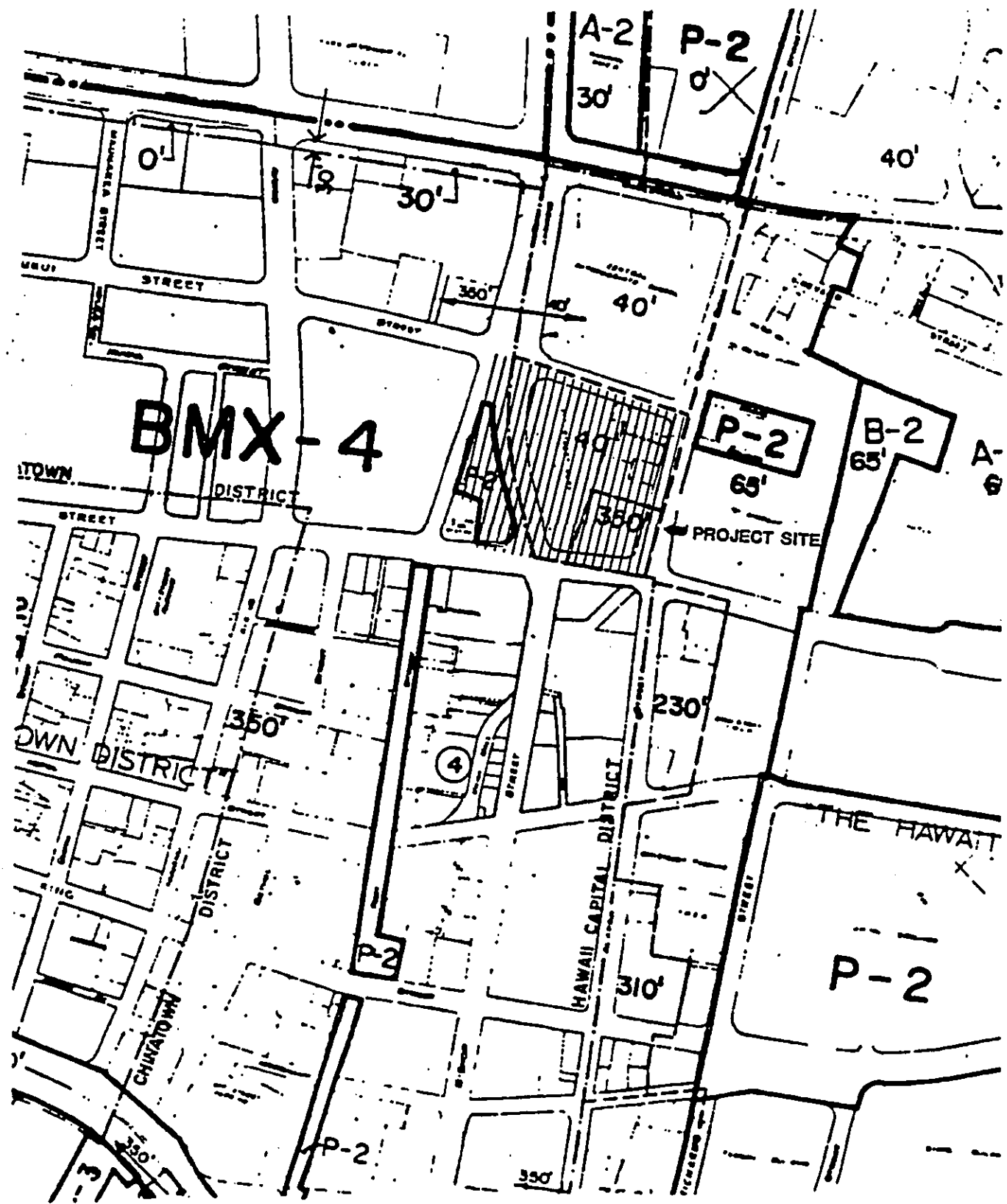


FIGURE 20 - EXISTING ZONING



to exclude the entire block from the special district, except for the frontage along Queen Emma Street.

The Kamalii Park area, within the project site, is currently under review for rezoning. The park is zoned P-2, General Preservation District, and would be rezoned BMX-4, Central Business Mixed Use, to complete the superbblock concept.

**09.0 LIST OF NECESSARY APPROVALS AND THEIR STATUS**

09.0 LIST OF NECESSARY APPROVALS AND THEIR STATUS

Approvals

1. Rezoning of Kamalii Park from P-2 to BMX-4.  
Responsible Agency: Department of Land Utilization  
Acceptance by: City Planning Commission and City Council  
Status: Pending adoption by City Council and Mayor's approval.
2. Amendment to the Hawaii Capital District boundary.  
Responsible Agency: Department of Land Utilization  
Acceptance by: City Planning Commission and City Council  
Status: Pending adoption by City Council and Mayor's approval.
3. Environmental Impact Statement (EIS)  
Responsible Agency: Department of Housing and Community Development  
Acceptance by: Department of Land Utilization  
Status: Notice to Prepare EIS published in 6/8/88  
OEQC Bulletin, Draft EIS notice published in  
1/8/89 OEQC Bulletin - currently available  
for review.
4. Determination by Federal Aviation Administration that  
buildings exceeding 200 feet in height, will not be an  
obstruction or hazard to air navigation.  
Responsible Agency: Project Developer  
Acceptance by: Federal Aviation Administration  
Status: no action necessary at this time.

Permits

(Status of all permits pending final design approval.)

City and County of Honolulu

1. Special Districts Special Design Permits  
Law(s): Chapter 46, Hawaii Revised Statutes;  
Revised City Charter, Chapter 9, 1979 Supplement  
Revised Ordinances of Honolulu, 1978, Chapter 21  
(as amended)  
Responsible Agency: Department of Land Utilization
2. Building Permit for Buildings, Electrical, Plumbing,  
Sidewalk/Driveway Work and Demolition.  
Law(s): Revised City Charter, Chapter 14, 1979 Supplement  
Revised Ordinances of Honolulu. 1978.  
Chapters 16, 17, 18, 19 and 25, (as amended)  
Responsible Agencies: Building Department and review by  
various other City agencies
3. Construction Dewatering Permit (Temporary)  
Law(s): Revised Ordinances of Honolulu, Chapter 16  
Responsible Agency: Department of Public Works

4. Grading, Grubbing and Stockpiling Permit  
Law(s): Chapter 180C, Hawaii Revised Statutes  
Revised Ordinances of Honolulu, Chapter 23  
Responsible Agency: Department of Public Works
5. Sign Permit  
Law(s): Chapter 445, Hawaii Revised Statutes  
Revised City Charter, 1973, Chapter 9, 1979 Suppl.  
Revised Ordinances of Honolulu, Chapter 21  
Responsible Agencies: Building Department and review by  
Department of Land Utilization
6. Certificate of Occupancy  
Law(s): Revised Ordinances of Honolulu, Chapter 16  
Responsible Agencies: Building Department and review by  
various other City agencies
7. Water and Water System Requirements for Developments  
Law(s): Chapter 54, Hawaii Revised Statutes  
Revised City Charter, Article VII, 1979  
Supplement  
Responsible Agency: Board of Water Supply
8. Trenching Permit  
Law(s): Revised Ordinances of Honolulu, 1978, Chapter 20  
Responsible Agency: Department of Public Works
9. Street Usage Permit  
Law(s): Chapter 286, Hawaii Revised Statutes;  
City Ordinance No. 4650(76)  
Responsible Agency: Department of Transportation Services
10. Permit to Excavate Public Right-of-Way  
Law(s): Revised Ordinances of Honolulu, Chapter 20  
Responsible Agency: Department of Public Works
11. Sewer Connection Permits  
Law(s): Revised Ordinances of Honolulu, Chapter 11  
Responsible Agency: Department of Public Works
12. Sewer Extension, Oversizing and Relief Sewer Requirements  
Law(s): Revised Ordinances of Honolulu, Chapter 11  
Responsible Agency: Department of Public Works
13. Park Dedication Requirement  
Law(s): Chapter 46, Hawaii Revised Statutes,  
Revised Ordinances of Honolulu, Chapter 22,  
City Ordinance No. 4621(76) as amended  
Responsible Agencies: Department of Land Utilization and  
Department of Parks and Recreation

**10.0 PROBABLE DIRECT, INDIRECT AND  
CUMULATIVE IMPACTS OF THE PROPOSED  
ACTION ON THE ENVIRONMENT**

10.0 PROBABLE DIRECT, INDIRECT AND CUMULATIVE IMPACTS OF THE  
PROPOSED ACTION ON THE ENVIRONMENT AND MITIGATION MEASURES

10.01 IMPACTS TO WATER QUALITY

The proposed action would alter the site and its uses in ways which could be beneficial to water quality in the following manner. A majority of the site, covered with asphalt pavement over the parking lot, is unable to absorb rainfall. The new development however, would include landscaping which would absorb some rainfall and decrease water runoff. Because the project would be developed over parking facilities, no fertilizers or pesticides that may possibly be used to maintain the grounds would enter the groundwater recharge system, although stormwater runoff could direct those chemicals through the drainage system to coastal waters. During construction, sediment runoff to the storm drains could increase because of erosion of exposed land. Adherence to the requirements of the Grading Ordinance should adequately mitigate this potential impact.

10.02 IMPACTS TO HISTORIC SITES AND ARCHAEOLOGICAL  
RESOURCES

Historic Sites

Visual impacts of the proposed project on historic buildings in the area, namely the Central Fire Station and St. Andrew's

Cathedral, would be great given the mass of the buildings which could be developed at the site at maximum build-out density and the proximity of the development to these historic structures, especially to the fire station. The two-story Central Fire Station, with its hose drying tower, was long ago considered tall, but appears as a low-rise building with the additional highrises now in place and those proposed for development. Its noteworthy architectural elements, however, would remain unchanged.

The proposed Hawaii Capital District boundary which extends 30 feet into the project site from the property line, would lessen the impact on St. Andrew's Cathedral. This strip may be developed to a maximum of 40 feet in height.

#### Archaeological Resources

##### Update of Archaeological Research In Downtown Honolulu

Most of the archaeological research in downtown Honolulu has taken place since 1983 and has involved at least one urban parcel in the neighborhood of Block J.

In 1984, Archaeological Consultants of Hawaii's Joseph Kennedy conducted subsurface testing of a parking lot at the corner of Hotel and Bethel Streets for a proposed office tower project. The purpose of the testing was to locate the foundation and

basement of the old International Hotel. The discovery of present day trash at the base of the excavations 12 feet below the surface lead to the realization that the entire deposit to coral substrate was recently imported fill which was graded into the parcel to create a stable surface for the parking lot. The original deposits representing the historic era had been removed. In this case, although historic research showed significant buildings had been present, no archaeological value remained (Kennedy, 1984).

In 1986, Stephen Athens conducted archaeological monitoring for the foundation trenching of the Judiciary Parking Garage at Pohukaina and South Streets in Kaka'ako. He reports that the subsurface deposits consist of a 19th Century mixed trash layer which was apparently dumped to stabilize swampy deposits. The bottle ages were mixed and the trash layer is interpreted as an imported fill. No structural remains or traditional Hawaiian remains were found (Athens, 1986).

In 1987 the Bishop Museum performed monitoring and excavation during construction of the makai parking garage on the corner of Punchbowl and Halekauwila Streets. Both prehistoric and historic era use of the site was indicated. Seven human burials were found some of which were prehistoric. Prehistoric artifacts were recovered and a buried A-horizon was dated to before 1400 AD. The property was used in the mid-to-late-19th Century for trash dumping. Of great interest was the recognition of an old shoreline deposit (Clark, 1987).



Since 1986, Cultural Surveys Hawaii has been monitoring construction trenching for the Kaka'ako Improvement District. This trenching has been exclusively within Kaka'ako Streets. So far, two cemeteries have been discovered; one at South Street and Quinn Lane and the other at Queen and Punchbowl Streets. A major layer of historic fill containing mixed 19th Century artifacts (bottles, metal objects, etc.) has been traced over much of the Kaka'ako area. Underlying this fill are sandy shoreline deposits and gleyed ponded sediments of former fish and salt ponds.

Other projects have been undertaken in downtown Honolulu, but results are not yet available. Griffen et al. presents a useful summary of archaeological potential for the Kaka'ako area and draws special attention to the likelihood of as yet undiscovered cemeteries, as well as the possibility of intact, prehistoric sites along the old shoreline.

#### Archaeological Significance of Block J

As part of the Tomonari-Tuggle investigation of Block J, 10 soil borings were examined for cultural material, and profile descriptions were made (Figure 21) (Tomonari-Tuggle, 1983). A fairly uniform gravelly silty clay containing concrete, bottle glass, and metal fragments extended to a depth of between 2-3 feet. This layer could be a demolition layer containing material from former structures on Block J or it could be a transported

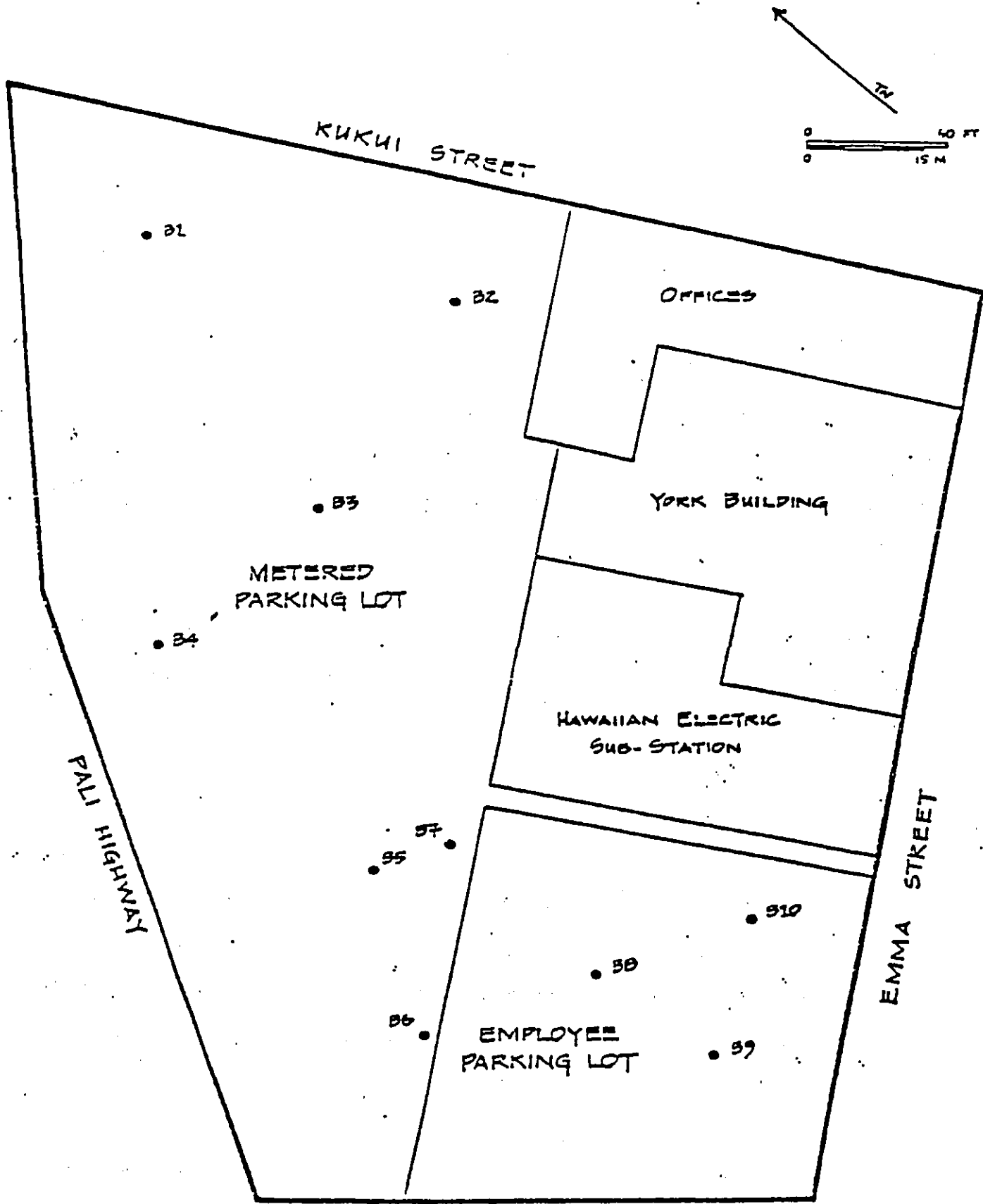


FIGURE 21 - BLOCK J IN 1983

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fill carried to the site from another location which happens to contain historic era materials. Below this layer, at a depth of 3-5 feet, is a naturally deposited volcanic cinder layer which is almost certainly the Late Pleistocene Black Tantalus and Sugar Loaf Ash deposit identified by Stearns in a core taken from the grounds of Iolani Palace (Stearns, 1939). This deposit predates the arrival of the first Hawaiians and is of geologic interest only. It should be noted that at Queen Street and King Street adjacent to Punchbowl Street historic burials were intrusive into this ash deposit, but no cultural material has ever been found to be contemporaneous with the ash.

In the context of recent archaeological projects in downtown Honolulu, the following observations relevant to the potential of Block J are offered:

1. The historical significance of the 18th and 19th Century use of Block J as presented by Tomonari-Tuggle is not disputed. Of immediate concern to the proposed development and to the design of mitigation procedures is--to what extent is the historical (and possibly prehistoric) activity represented by what survives under the present buildings and parking lot?
2. With the presently available information on corings in Block J, it is unclear whether deposits associated with former activities are still present and whether they are

intact and unmixed. As shown by other downtown archaeological investigations all the in situ fill could have been removed and replaced with more suitable soil material. It is also possible that intact foundations, historic dumps, agricultural features and even burials survive within the deposits. The lesson of recent projects is that the location and extent of intact deposits is almost impossible to predict and their occurrence is largely dependent on post depositional demolition, filling and grading procedures.

#### Recommendations

The following recommendations are thought to best address the possibility of the presence of intact historic (or prehistoric) deposits in Block J, with the least investment of time and expense.

1. Archaeological test excavations consisting of 4-8 backhoe trenches within Block J following demolition, but preceding construction. Observation and study of the stratigraphy and content of these trenches should provide sufficient information to determine if intact, significant cultural materials are present.
2. If significant cultural materials are found in the backhoe testing, then archaeological monitoring of the excavation

of building foundations and utility lines should be required. In other downtown projects, archaeological monitoring has proven to be an effective means of dealing with sporadically occurring cultural deposits. Because of the common practice of mechanical demolition, filling and grading for downtown areas it is most likely that only partial preservation of former deposits will be found in Block J. The disadvantage of archaeological monitoring of construction is that partial destruction almost always accompanies the discovery of cultural material. The advantage is that the archaeologist can find more in less time and gain a broader stratigraphic and contextual perspective.

#### 10.03 SOCIAL IMPACTS

Specific impacts of the Pacific Nations Center include:

**Displacement:** The on-site office buildings are to be acquired at fair market value. They house over 60 tenants, mostly professional offices. Tenants will be able to remain on-site until construction begins. Tenants will be eligible for relocation assistance.

**Population Impacts:** The Pacific Nations Center could have an estimated 914 residents. That number is well within City and County population guidelines for the Development Plan Area in

which the project is located. The maximum de facto population of the project is forecast as over 8,000 in the daytime and over 1,100 at night.

Impacts on Nearby Land Users: During construction, the project may inconvenience students and persons attending nearby churches and businesses. Traffic impacts during construction, the extent of which cannot be fully specified yet, will affect all nearby institutions.

When the project is operational, the added population may increase attendance slightly at adjacent churches and schools. The restaurant, commercial, and parking facilities of the project will be an amenity for nearby residents and occupants of nearby offices.

The Pacific Nations Center is one of several projects which are changing central Honolulu. The cumulative impacts of those projects are likely to include:

- o Expansion of the Downtown area;
- o Increased evening and weekend activity in Downtown and Chinatown; and
- o Changing traffic patterns at non-rush-hour times.

As a large mixed-use facility, the project will define the character of the surrounding area in a way that the current structures on-site do not.

The complete Social Impact Assessment for the Proposed Pacific Nations Center is contained in this document as Appendix E.

#### Residential Population

Based on the preliminary conceptual design, the project will add to the residential population of the area as approximately 494 condominium apartments could be accommodated on site and added to the available housing stock. The condominiums are expected to include a range of units, from one to three bedrooms in size.

An estimate of the population added at the project site can be derived from the density of population of the study area. The most recent estimates (Honolulu Department of General Planning, 1987) show for 1985:

Study area population:	7,983 persons
Total housing units:	4,313 units
Persons per unit:	1.85

Applying the ratio derived above, the project site could have a resident population of approximately 914 persons when the condominium units are built and occupied.

Relationship of Resident Population to  
City and County Population Guidelines

The City and County's General Plan mandates the establishment of guidelines for growth in the different Development Plan areas of Oahu. The potential increase in the Primary Urban Center's residential population attributable to the project is small compared to the growth projected by City guidelines. The project's population impact is hence in conformity with City policy.

De Facto Population

Since the proposed project will include many different uses, the on-site population will vary greatly from hour to hour and day to day. An estimate of on-site population for times of full occupancy and high business activity can be derived from the assumptions shown in Table 21, which projects a peak de facto population of 8,101 persons. Table 22 shows the peak late night on-site population of 1,152 people.

It should be stressed that Table 21 shows a highest use scenario, with maximal estimates of on-site population. It represents activity on a weekday that is also a peak shopping day, such as a Friday just before Christmas. On most weekdays, fewer customers would be expected in retail spaces.



TABLE 21 - DE FACTO ON-SITE POPULATION AT DAYTIME PEAK

Segments of the Population	Number of People
Residential Population 494 units @ 1.85 persons/unit (assuming half the residents are on-site at peak time)	457
Hotel Guests 220 rooms @ 70% occupancy, 1.25 persons per room (assuming half on-site at peak)	96
Hotel workers (1) (assuming three on-site workers in five present at peak time)	106
Office Workers 1 person per 160 sq.ft. 700,000 sq.ft.	4,375
Retail space (2) 1 person per 30 sq.ft. 40,000 sq.ft. (3)	1,333
1 person per 50 sq.ft. 20,000 sq.ft.	400
Restaurant space (2) One-quarter of occupancy load (Occupancy load: 1 person per 15 sq.ft.) 20,000 sq.ft.	333
Exhibit area and Meeting Space (4) 1 person per 50 sq.ft. 50,000 sq.ft.	1,000
TOTAL	8,101

- NOTES:
- (1) The Draft Environmental Impact Statement shows 176
  - (2) Based on Uniform Building Code.
  - (3) Solely for estimation purposes, it was assumed that 40,000 sq. ft. of retail space are on a ground floor, and the rest on a higher floor.
  - (4) Estimates allow for space devoted to exhibits.

SOURCES: Honolulu Department of General Planning, 1987;  
American Institute of Architects and Hoke, 1988.

**TABLE 22 - DE FACTO ON-SITE POPULATION AT LATE NIGHT PEAK**

<u>Segments of the Population</u>	<u>Number of People</u>
Residential Population 494 units @ 1.85 persons/unit	914
Hotel Guests 220 rooms @ 70% occupancy, 1.25 persons per room	193
Hotel workers (assuming one worker in five on-site at peak time)	35
Rest of Building	10
	-----
<b>TOTAL</b>	<b>1,152</b> =====

**SOURCES:** Honolulu Department of General Planning, 1987;  
American Institute of Architects and Hoke, 1988.

## 10.04 ECONOMIC AND FISCAL IMPACTS

### Economic Impacts

This section examines economic impacts of the Pacific Nations Center by estimating employment and income effects attributable to the project.

#### Employment Impacts

The project will generate both short-term employment, during construction, and long-term employment during the operational phase. Employment impacts include:

- o Direct employment -- jobs created both on-site and elsewhere as new income attributable to the project is spent;
- o Indirect employment -- jobs created as establishments receiving direct income purchase goods and services; and
- o Induced employment -- jobs created as employees spend their wages in the local economy or support government jobs through taxes.

## Construction Phase

During construction, the project will create direct construction jobs, both on-site and off-site. Construction further contributes to the State economy, generating indirect and induced employment.

Construction jobs are estimated in Table 23. Construction of the project will generate an estimated 3,019 person-years of direct employment. Based on industry practice, the on-site direct employment is estimated as 2,415 person-years.

The Department of Housing and Community Development has estimated that the project might be built in two years (construction time only). In that case an average of 1,208 workers would be on-site (2,415 divided by 2). It is also possible that the project would be built in phases, with one tower built first and other towers later. In that event, the project would probably demand a large number of workers at first, for work on roads, the parking facility and ground-level space, then project construction would continue, at varying levels of employment, over several years.

Some phases of construction are more labor-intensive than others, so the demand for construction workers on the project will not be constant during the construction phase.

**TABLE 23 - CONSTRUCTION PHASE EMPLOYMENT AND INCOMES**

Construction Costs:	\$288,000,000	(1)
Average Amount of Construction Spending per Construction Job	\$95,410	(2)
Direct Construction Jobs (Construction Costs divided by average construction spending per job)	3,019 jobs	
On-site Direct Construction Jobs	2,415 jobs	(3)
-----		
Industry Employment Multiplier	2.6	(4)
Direct, Indirect and Induced Jobs	7,848	
-----		
Direct Construction Jobs	3,019	
Average Construction Wage, 1987	\$30,645	
Direct Income	\$92,503,511	
Industry Income Multiplier	2.3	(5)
Total Income	\$212,758,076	
-----		

**NOTES:**

- (1) Based on estimate by Department of Housing and Community Development, City and County of Honolulu.
- (2) Hawaii Department of Business and Economic Development, 1987, pp. 351-52, 562. (DATABOOK)
- (3) Based on estimate that 80 percent of construction jobs will be on site.
- (4) Employment-based model, (No. 20), Hawaii Department of Planning and Economic Development, 1977.
- (5) Income model, (No. 18), Hawaii Department of Planning and Economic Development, 1977.

Since no project construction schedule exists, and basic construction and design decisions have not been made, no more specific estimation of direct on-site construction employment in any month or year is appropriate.

Indirect and induced employment attributable to the project's construction will amount to approximately 4,829 person-years. The total employment impact of the construction phase is estimated as 7,848 person-years.

#### Operational Phase

The employment impacts of the Pacific Nations Center when it is fully operational can be estimated using two scenarios, which indicate much of the range of possible impacts. These scenarios are:

- o Local Growth Scenario: In this scenario, it is assumed that the offices at the Pacific Nations Center are occupied only by firms already in Hawaii. The only source of new income at the project from outside Hawaii is assumed to be the hotel.

Table 24 shows a model (DBED Input-Output Model) for estimating the economic impacts of the hotel at the Pacific Nations Center. Assumptions are made about room rates, based on comparison to executive suite hotels on the mainland, and the spending patterns of executive visitors. These are used with State estimates of the impact of visitor spending.

TABLE 24 - MODEL OF VISITOR SPENDING

Part A: Economic Activity Generated by Visitor-Related Spending (in 1986 Dollars)

INDUSTRY	A DOLLARS SPENT (millions)	B PERCENT OF IN-STATE TOTAL SPENDING	C DIRECT JOBS (thousands)	D PERCENT OF IN-STATE TOTAL JOBS	E RATIO OF DOLLARS TO JOBS	F TYPE II MULTIPLIER	G TOTAL JOBS (thousands)
Agriculture	\$25.50	0.72%	0.30	0.28%	118.33	2.00	0.60
Trails	\$51.80	1.05%	1.60	1.47%	32.37	1.63	2.60
Other Manufacturing	\$163.60	3.10%	1.60	1.47%	98.00	3.13	5.00
Air Transport	\$485.80	9.80%	6.20	6.69%	78.35	2.23	13.80
Other Transport	\$188.00	3.79%	1.90	1.74%	98.95	1.95	3.70
Wholesale Trade	\$133.80	2.70%	2.90	2.66%	48.14	2.03	5.90
Eating and Drinking	\$1,163.90	23.48%	27.70	26.41%	42.02	1.72	47.70
Other Retail	\$529.00	10.67%	21.10	19.36%	25.07	1.53	32.20
Hotels	\$1,756.10	35.43%	31.20	28.62%	56.29	1.93	60.30
Other Services	\$468.70	9.26%	14.50	13.30%	31.63	1.68	24.40
TOTAL	\$4,966.20	100.00%	109.00	100.00%			196.30

Part B: Expenditures of Visitors at the Pacific Nations Center Hotel

INDUSTRY	ASSUMED PERCENTAGE OF SPENDING	AVERAGE DAILY SPENDING PER PERSON	MILLIONS SPENT PER YEAR	RATIO OF DOLLARS TO JOBS	DIRECT JOBS	TYPE II MULTIPLIER	TOTAL JOBS
Agriculture	0.50%	\$1.48	\$0.11	118.33	1	2.00	2
Textile	0.50%	\$1.48	\$0.11	32.37	3	1.63	6
Other Manufacturing	1.00%	\$2.96	\$0.22	98.00	2	3.13	7
Air Transport	7.00%	\$20.72	\$1.56	78.35	20	2.23	44
Other Transport	1.50%	\$4.44	\$0.33	98.95	3	1.95	7
Wholesale Trade	1.00%	\$2.96	\$0.22	48.14	6	2.03	10
Eating and Drinking	25.00%	\$74.00	\$5.57	42.02	133	1.72	228
Other Retail	7.50%	\$22.20	\$1.67	25.07	67	1.53	102
Hotels	50.00%	\$148.00	\$11.14	56.29	198	1.93	383
Other Services	8.00%	\$17.76	\$1.34	31.63	42	1.68	71
TOTAL	100.00%	\$296.00	\$23.28		474		859

NOTES: Part A is calculated from Hawaii State Department of Business and Economic Development, 1987, p. 231, which shows estimates based on updating the State Input-Output Model.

Columns in Part A: A - Millions of dollars.  
 B - Industry dollars as percentage of total in-state expenditures.  
 C - Direct jobs attributable to visitor expenditures.  
 D - Direct jobs in each industry (shown in C) as percentage of total direct jobs.  
 E - Ratio of expenditures (in millions of dollars) to direct jobs (in thousands).  
 F - Column C divided by column E: ratio of total jobs to direct jobs.  
 G - Direct, indirect and induced jobs attributable to visitor expenditures.

Assumptions for Part B:  
 Based on a 220-room hotel with 76 percent occupancy, an average room rate of \$165 per night, and an average party size of 1.26 persons per room. Spending assumptions shown in Part B, Column A.

The table shows that spending by visitors while they are at the hotel will generate:

- 198 direct jobs in the hotel industry (of which 176 are estimated to be on-site jobs at the hotel);
- 474 direct jobs in Hawaii; and
- a total of 859 direct, indirect, and induced jobs.

The income effects of visitor spending (discussed below) follow from the calculations in Table 24; those income effects are shown in Table 25.

- o Economic Catalyst Scenario: In this scenario, it is assumed that the project houses new financial-sector ventures, such as a stock exchange floor, offices of brokers not currently in Hawaii, and an international business center. To estimate their impact, it is further assumed that one-quarter of the office space on-site is devoted to new business.

Table 26 shows the economic impacts of the Economic Catalyst Scenario. The new financial sector activity would account for:

- 1,094 direct jobs (all on-site), and
- 2,844 direct, indirect, and induced jobs.



TABLE 25 - IMPACT OF SPENDING BY VISITORS AT THE PACIFIC NATIONS CENTER  
HOTEL ON PERSONAL AND HOUSEHOLD INCOMES IN HAWAII

INDUSTRY	DIRECT JOBS (1)	INDUSTRY AVERAGE ANNUAL WAGE	DIRECT INCOME	INDUSTRY INCOME MULTIPLIER	TOTAL INCOME
Agriculture	1	\$18,661	\$18,661	1.8	\$29,990
Textile	3	\$11,240	\$33,720	1.9	\$64,068
Other Manufacturing	2	\$20,084	\$40,168	2.1	\$84,353
Air Transportation	20	\$25,756	\$515,100	1.7	\$875,670
Other Transportation	3	\$21,539	\$64,617	2.0	\$129,234
Wholesale Trade	5	\$21,666	\$108,330	1.9	\$205,827
Eating and Drink	133	\$8,812	\$1,171,996	2.6	\$2,929,990
Other Retail	67	\$11,634	\$779,478	1.8	\$1,403,060
Hotels	198	\$15,383	\$3,045,834	2.3	\$7,005,418
Other Services	42	\$17,579	\$738,318	1.9	\$1,402,804
TOTAL			\$6,514,222		\$14,130,414

NOTE: (1) From Table 24.

SOURCES:  
Hawaii State Department of Labor and Industrial Relations, 1988.  
Hawaii State Department of Planning and Economic Development, 1977.

Combining the above employment impact with the employment impact of the hotel, the total employment impact of the Pacific Nations Center under the Economic Catalyst Scenario is estimated as:

- 1,568 direct jobs, and
- 3,703 direct, indirect, and induced jobs.

(The methods used to estimate the economic impacts of the hotel and the new financial industry activities at the Pacific Nations Center are somewhat different. With the hotel, it is possible to estimate visitor spending patterns, and hence to identify economic impacts in an input-output model. With the financial sector, the new inputs remain to be estimated. Until studies for the proposed Pacific Stock Exchange floor and the proposed World Trade Center are available, a less sophisticated approach, based on the site rather than income inputs, must suffice.)

At present, it is not possible to judge which of the two scenarios is more realistic. They indicate a range of likely outcomes of the Pacific Nations Center's operations.

#### Income Effects

New inputs to the economy generate jobs, and hence the income of those employed. Direct income, sometimes termed personal income, is defined as the wages and salaries paid to those directly employed due to an input to the economy. As indirect and induced

jobs are created by the circulation of money in the economy, further income is generated. Total income, sometimes termed household income, is defined as the total income generated through direct, indirect and induced employment.

Personal and household income do not exhaust the total in-State output of the new contributions to the economy. These provide a more precise estimate of the effects of new inputs to the economy than output calculations (personal communication, John Mapes, Economist, Hawaii Department of Business and Economic Development, November 10, 1988).

#### Construction Phase

Income impacts can be estimated using recent data on average industry wages (State of Hawaii, Department of Labor and Industrial Relations, 1988) and models of the income impacts of new jobs (based on the State's Input-Output Matrix, State of Hawaii, Department of Planning and Economic Development, 1977), as shown in Table 23.

During construction, the Pacific Nations Center will generate over \$90,000,000 in direct income, and over \$200,000,000 in total income in Hawaii.

## Operational Phase

According to the Local Growth Scenario, new income would be limited to the impacts derived from the hotel. By this scenario, the project would contribute approximately \$6,500,000 in direct income (shown in Table 25) annually, due to spending by visitors while they are staying at the hotel. Total income generated by visitor spending is estimated at about \$14,000,000 annually.

The Economic Catalyst Scenario calls for income effects attributable to new jobs in offices and at the hotel, as shown in Table 26.

Direct income generated by the financial sector at the project is likely to exceed \$23,000,000 annually. Combining the direct income generated by hotel visitor spending with the financial sector personal income increment, the direct income added by the project, assuming the Economic Catalyst Scenario, would total about \$30,000,000.

Total income derived from the new financial sector operations would total about \$60,000,000, and total income attributable to the various activities at the project would amount to about \$75,000,000, according to the Economic Catalyst Scenario.

TABLE 26 - EMPLOYMENT AND INCOME EFFECTS OF OPERATIONAL PHASE,  
PACIFIC NATIONS CENTER, ECONOMIC CATALYST SCENARIO

A. ASSUMPTIONS

1. New business in the financial industry will be attracted to the Pacific Nations Center, and will occupy one quarter of available office space.
2. Salaries in the additional financial industry offices will be at the same level as salaries in the present Hawaii financial banking and real estate industries.
3. Employee density is 1 worker per 160 sq.ft. of office space.

B. DIRECT EMPLOYMENT -- FINANCIAL INDUSTRY

Total Office Space	700,000 sq.ft.
New Financial Offices	175,000 sq.ft.
Direct Employment	1,094 jobs

C. EMPLOYMENT AND INCOME EFFECTS -- FINANCIAL INDUSTRY

Direct Employment	1,094	
Industry Employment Multiplier	2.6	(1)
Total Employment (Direct, Indirect, and Induced Jobs)	2,844	
-----		
Direct Jobs	1,094	
Average Financial Industry Wage or Salary, 1987	\$21,345	(2, 5)
Direct Income	\$23,346,094	
-----		
Direct Jobs	1,094	
Industry Income Multiplier	2.6	(3)
Total Income	\$60,699,844	(5)

D. TOTAL EMPLOYMENT AND INCOME EFFECTS

Direct Financial Employment	1,094	
Direct Employment Derived from Spending by Visitors at Pacific Nations Center Hotel	474	(4)
Total Direct Employment	1,568	
-----		
Total Financial Employment	2,844	
Total Visitor-derived Employment	859	(4)
Total Employment (Direct, Indirect, and Induced)	3,703	
-----		
Financial Industry Personal Income	\$23,346,094	
Personal Income, derived from Visitor Spending	\$6,514,222	(6)
Combined Direct Income	\$29,860,316	
-----		

Total Income derived from Financial Industry	\$60,699,844	
Total Income Derived from Visitor Spending	\$14,130,414	(6)
Combined Total Income	\$74,830,258	

---

NOTES:

- (1) Hawaii State Department of Planning and Economic Development, 1977 (No. 20).
- (2) Hawaii State Department of Labor and Industrial Relations, 1988.
- (3) Hawaii State Department of Planning and Economic Development, 1977 (No. 18).
- (4) From Table 24.
- (5) 1987 Dollars.
- (6) From Table 25.

### Fiscal Impacts

Fiscal impacts are identified by calculating the cost to government bodies of developing a project, the government revenues lost when a project makes existing land uses impossible, the revenues accruing to government through construction, and the government revenues generated through the operations of the project.

As the City has not yet sought a developer for the Pacific Nations Center, some of the costs and revenues, which would depend on the City's agreement with the eventual developer, cannot be specified. Nonetheless, it is possible to show how the fiscal impacts of the project will differ from the existing situation.

The estimates provided here indicate the order of magnitude of the impacts in question, rather than the precise amounts which will accrue to the City and the State.

The City stands to earn at least \$2,900,000 annually from the project when it is operational (in current dollars). That sum is over twelve times the revenues accruing to the City from existing on-site uses. The fiscal impact of the project for the State of Hawaii is estimated to be at least as great as the impact for the City and County of Honolulu. The paragraphs below explain how these figures were arrived at.

## Development and Construction Phases

The City and County currently derives revenues from the project site from two sources. The City received \$186,214 (gross) from parking fees in the Municipal lot for the fiscal year beginning July 1987. The City also earned about \$53,000 in property taxes from the site (based on 1988 real estate tax assessments and rates).

Development of the project may involve potential costs and the loss of income from the site during construction. The City is paying for the preparation of the Draft Environmental Impact Statement, and will pay to appraise the private properties on the project site. As part of the project development, the private parcels will be acquired, but the cost of acquisition will be eventually borne by the developer of the project, since the developer will pay the City a premium for development rights. The amount of the premium will be negotiated with the selected developer, as well as lease fees during the construction period.

The City will receive building permit fees for construction of the project. Based on an estimated construction cost of \$288,000,000, the permit fees are expected to be \$328,692. This source of income will then cover much of the revenue lost from the site during construction. It is possible that the developer's premium will cover some or all of the remaining lost revenue.



During construction, the State of Hawaii will earn revenue from the project through the general excise tax and through income taxes on wages and salaries. These taxes are estimated in Table 27, which shows income to the State government of over \$47,000,000 from construction (in 1988 dollars).

#### Operational Phase

The operational phase of the project will provide revenues to the City from property taxes and lease payments by the developer. The lease payments have not been set.

The assessed value of a planned structure for property taxes can be estimated on the basis of development costs (pers. comm., Wayne Kaneko, Tax Appraiser, Real Property Assessment Division, Honolulu Department of Finance, November 9, 1988).

Table 28 identifies the amount of space in the Pacific Nations Center devoted to various taxable uses. (Office space counts as "commercial" for property tax purposes.) In Table 29, the annual property taxes of the project are calculated, using 1988 tax rates to estimate future rates. The annual income to the City from property taxes on the project should be about \$3,000,000.

If it is assumed that office space in the project is occupied by businesses already in Hawaii (the Local Growth Scenario) then the State will earn revenues from the project's operations through

TABLE 27 - STATE REVENUES FROM CONSTRUCTION PHASE

A. General Excise Tax		
Construction Costs		\$233,000,000 (1)
4% of Construction Costs		\$9,320,000
B. Income Taxes from Construction Phase Incomes		
Total Incomes		\$212,758,076
Ratio of State Revenues To Incomes		0.18 (2)
State Income Tax Revenues		\$38,296,454
C. Total State Revenues		\$47,616,454

NOTES:

- (1) Estimated by Honolulu Department of Housing and Community Development.
- (2) Hawaii Department of Business and Economic Development, 1987

**TABLE 28 - AREAS IN PACIFIC NATIONS PROJECT DEVOTED TO DIFFERENT TAXABLE USES**

<b>COMMERCIAL USE</b>	
-----	
General Office Lease Space	650,000 sq.ft.
General Retail Lease Space	60,000 sq.ft.
General Restaurant Lease Space	20,000 sq.ft.
City & State Office Lease Space	50,000 sq.ft.
Exhibit / Trade Center	30,000 sq.ft.
Convention Center / Board Rooms	20,000 sq.ft.
Services	22,000 sq.ft.
Recreational Space	20,000 sq.ft.
	-----
Total Commercial Area	872,000 sq.ft.
Total Taxable Commercial Area	822,000 sq.ft.
Hotel Space	252,000 sq.ft.
Residential Space	526,000 sq.ft.
	-----
Total Project Space	1,650,000 sq.ft.

**TABLE 29 - PROPERTY TAX REVENUE TO CITY AND COUNTY OF HONOLULU**

**A. Assessment of Project Components based on Development Costs**

Total Development Cost	\$350,000,000
Area in Major Uses	1,650,000 sq.ft.
Development Cost per Square Foot	\$212.12
Taxable Commercial Space (excluding State and City offices)	822,000 sq.ft.
Development Cost	\$174,363,636
Hotel Space	252,000 sq.ft.
Development Cost	\$53,454,545
Residential Space	526,000 sq.ft.
Development Cost	\$111,575,758

**B. Property Taxes (Based on 1988 Rates)**

Commercial Tax Rate of \$9.45 per \$1000 of assessed value	\$1,647,736
Hotel Tax Rate of \$10.71 Per \$1000 of assessed Value	\$572,498
Residential Tax Rate of \$6.25 Per \$1000 of Assessed Value	\$697,348
-----	
Total Property Tax Per Year	\$2,917,583

**NOTES:**

Development cost estimate provided by Honolulu Department of Housing and Community Development.

Parking spaces in the project are assumed to be allocated to the different uses in proportion to the area they occupy in the building.

Does not include owner-occupant exemptions, however, such exemptions will apply to market prices (presumably higher than development costs).

excise taxes on parking, and through visitor spending. The State's revenues derived from visitor spending can be estimated in several ways. A minimal estimate, comparable to those used for the other inputs under study, can be derived by calculating the State's revenues from hotel rooms (through the transient accomodation tax and general excise tax) and from household income derived from spending by hotel guests. Table 30 shows these calculations, and estimates the State revenues derived from the Center's operations as over \$3,000,000.

According to the Economic Catalyst Scenario, new financial industry operations will also be located at the project. The amount of input from these operations to the State cannot be estimated, but an assumption made about the number of new jobs created can yield an estimate of the household income created by those new operations. Table 31 shows that nearly \$11,000,000 would accrue to the State annually through income taxes on the household income generated by those operations. The revenues annually accruing to the State under this scenario would total at least \$14,000,000.

**TABLE 30 - STATE REVENUES DERIVED FROM PACIFIC NATIONS CENTER,  
OPERATIONS PHASE, LOCAL GROWTH SCENARIO**

General Excise Tax Revenues from		
Parking:		
stalls	2,500	
Assumed yearly receipts/stall	\$1,200	
Total receipts	\$3,000,000	
Excise tax (@ 4% of receipts)		\$120,000
Tax Revenues from Hotel Rooms:		
Number of Hotel Rooms	220	
Occupancy	75%	
Receipts (@ \$185/room)	\$11,141,625	
Excise tax (@ 4% of receipts)		\$445,665
Transient Accomodation Tax (@ 5% of receipts)		\$557,081
Income Taxes:		
Total income derived from Visitor Spending by hotel guests	\$14,130,414	
Income tax (@ 18% of total income)		\$2,543,475
-----		
Total State Revenues		\$3,666,221

TABLE 31 - STATE REVENUES DERIVED FROM PACIFIC NATIONS CENTER,  
OPERATIONS PHASE, ECONOMIC CATALYST SCENARIO

General Excise Tax Revenues from		
Parking:		
stalls	2,500	
Assumed yearly receipts/stall	\$1,200	
Total receipts	\$3,000,000	
Excise tax (@ 4% of total)		\$120,000
Tax Revenues from Hotel Rooms		
Number of Hotel Rooms	220	
Occupancy	75%	
Receipts (@ \$185/room)	\$11,141,625	
Excise Tax (@ 4% of receipts)		\$445,665
Transient Accomodation Tax (@ 5% of receipts)		\$557,081
Income Taxes:		
Total income derived from Visitor Spending by hotel guests	\$14,130,414	
Total income derived from financial sector	\$60,699,844	
Income tax (@ 18% of total income)		\$13,469,446
-----		
Total State Revenues		\$14,592,193

## 10.05 IMPACTS TO UTILITIES AND PUBLIC SERVICES

### Utilities

#### Water Supply

The preliminary analysis indicates that water requirements for the new site would be 177,000 gallons per day (GPD). This consumption figure includes requirements for office, retail, hotel and residential areas. Fire water flows in the order of 2000 to 4000 gallons per minute (GPM) would also be required, depending on the evaluation of flows and classifications assigned to the various areas of the complex.

Initial indication from the Honolulu Board of Water Supply is that the existing water system is adequate to serve the proposed project (City and County of Honolulu, Board of Water Supply, 1988a). The availability of water will again be reviewed when building permit applications are submitted (City and County of Honolulu, Board of Water Supply, 1988b).

#### Sanitary Sewer

The existing sanitary sewer system will require some modifications to accommodate the flows generated from the proposed development. The Department of Public Works has indicated that a relief sewer will be required (City and County of Honolulu, Dept of Public Works, 1988). The size and length will be determined once the demands of the project have become more defined.



### Storm Drainage

According to preliminary plans, no additional paved areas, which would contribute to storm runoff are anticipated at this time. As with the other utilities, as the project becomes more defined the diversion of storm water into the existing system will need to be reviewed so that no one segment becomes overloaded. A drainage report would be submitted to the Drainage Section, Division of Engineering, during the preparation of construction plans.

### Electrical Power

The projected total electrical load is 9400 kilowatts (KW). The existing electrical substation will require some modifications to accommodate the increases in electrical consumption resulting from the proposed development. The existing substation would be upgraded on its present site or installed on an exchange property under mutually agreeable conditions with the developer and as approved by the State Public Utilities Commission (Hawaiian Electric Company, Inc., 1988).

### Telecommunications

Telecommunications for the new site would have to serve an addition of 494 new residences, 220 hotel rooms and over 780,000 square feet of office and retail space.

The major concern at this time is the impact of the proposed project on microwave transmissions from the Honolulu Central Office of Hawaiian Telephone (Hawaiian Telephone Company, Inc., 1988). The critical item of concern is the siting of the project in relation to existing microwave routes. Close coordination between the developer, the architect and Hawaiian Telephone representatives will be required to mitigate the potential impact of blocking the microwave routes. A potential mitigation measure, if it becomes necessary, would be to relocate the microwave transmitters to the top of one of the towers.

#### 10.05 PUBLIC SERVICES

##### Public Services

Existing fire and police protection, healthcare services, social services, childcare services, public schools, the public transportation system and solid waste disposal services are believed to be adequate to meet the needs of the residents, workers and visitors using the Pacific Nations Center.

Although the small urban-style Kamalii Park (30,276 square feet) would be removed from use, the proposed development would include at least 77,000 sq. ft. of public open space and developers would be subject to compliance with the City's Park Dedication Ordinance No. 4521, as specified in the Park Dedication Rules and Regulations.

## Solid Waste Disposal

The City and County of Honolulu maintains its own workforce to collect refuse from both residential and commercial properties if curbside pick up or good access is available. Loading zones and access areas, as shown in the preliminary plans, are necessary. For large facilities, such as the Pacific Nations Center, private collectors offer competitive rates for their services and may be less expensive than the City. If project completion occurs after 1991, the refuse would most likely be disposed of at the Campbell Industrial Park H-Power facility (Pers. comm., Mr. Young, Dept. of Public Works, City and County of Honolulu, November 18, 1988).

## 10.06 TRAFFIC IMPACTS

### 1995 Background Cumulative Traffic Conditions

Background cumulative traffic conditions are defined as the traffic conditions resulting from background growth and related projects. The purpose of this section is to discuss the assumptions and data used to estimate 1995 background cumulative traffic conditions.

#### Background Traffic Growth Rate

In order to evaluate the traffic impacts of the proposed project, it is necessary to estimate the future background traffic conditions. This future traffic is typically estimated by applying an annual growth rate to the existing volumes.

Based on input from the City and County of Honolulu, it was determined that the background traffic growth rate may be expected to range between 1 and 1.5 percent per year. Therefore, a growth rate of 1.5 percent per year was used for this study.

#### Related Projects

The second component in estimating future background traffic conditions is the traffic generated by related projects in the vicinity. Related projects are defined as those projects that are under construction or have been approved for construction by

the City and which would significantly impact traffic in the study area.

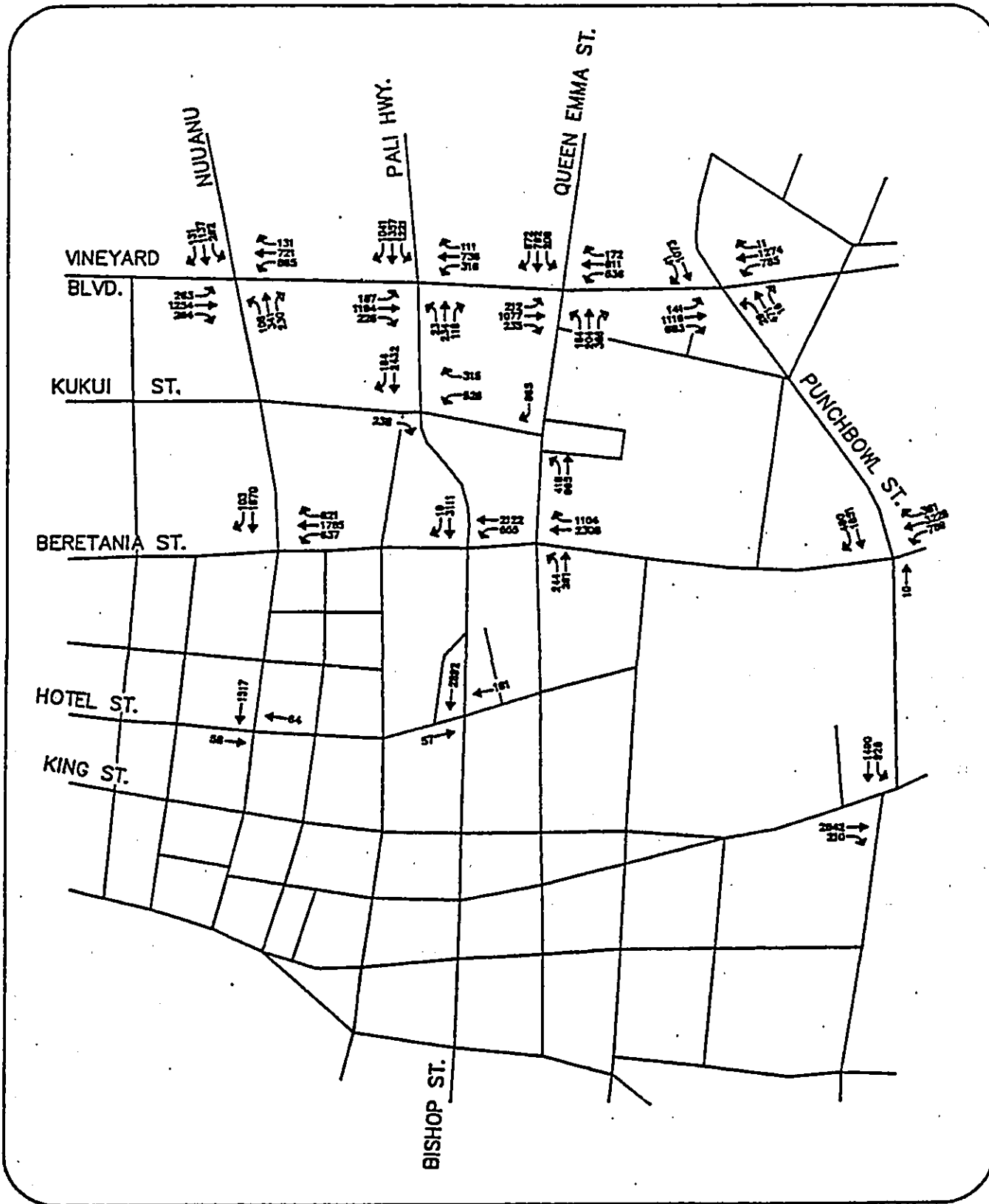
Based upon the information obtained from the City Department of Housing and Community Development and information obtained from other traffic studies conducted for sites in the vicinity, seven projects were identified that were either under construction or in the final planning stages and would have a potential impact on the intersections under study. These projects are listed in Section 7.07.

#### 1995 Background Cumulative Traffic Volumes

Future traffic volumes are obtained by superimposing background growth and related project traffic onto existing traffic volumes. The resulting AM and PM cumulative traffic volumes are presented in Figures 22 and 23 for AM and PM peak hours, respectively.

#### Project-Related Traffic Impacts

The methodology used to identify the traffic-related impacts of the proposed project involves the determination of weekday and peak-hour trips that would be generated by the proposed development, distribution and assignment of these trips on the approach routes, and finally, determination of the levels-of-services resulting from implementation of the project.

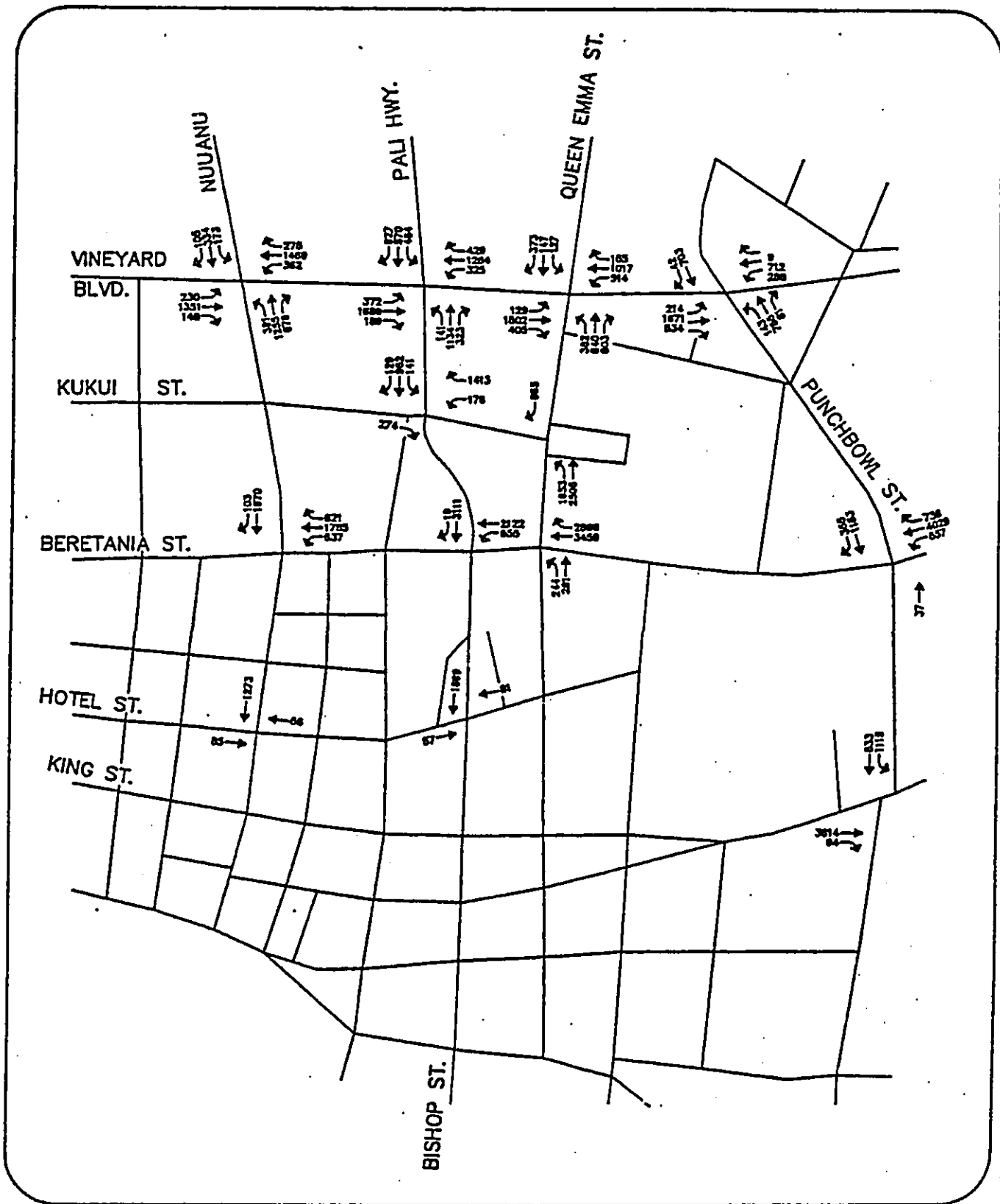


1995 CUMULATIVE AM PEAK HOUR TRAFFIC VOLUMES  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER



FIGURE

22



1995 CUMULATIVE PM PEAK HOUR TRAFFIC VOLUMES

BARTON-ASCHMAN ASSOCIATES, INC.

PACIFIC NATIONS CENTER



FIGURE

23

## Traffic Generation

Future traffic volumes for the proposed project were determined using traffic generation rates contained in the ITE Informational Report, Trip Generation (Fourth Edition, 1987).

The trip generation rates used were obtained directly from the ITE Trip Generation Manual except for the Exhibit/Trade Center. Trip rates for the Trade Center were obtained from a trip generation study for the Anaheim Convention Center conducted by Barton-Aschman. The generation rates used and the resulting volume of traffic generated are summarized in Table 32 for the AM and PM peak hours and the average weekday. As shown, it is anticipated that the proposed development would generate 1,856 trips during the morning peak hour -- 1,426 inbound and 430 outbound. During the afternoon peak hour, it is anticipated that 623 inbound trips will be generated and 1,606 outbound trips will be generated for a total of 2,230 trips. The total weekday traffic volume is estimated to be 18,376 trips per day.

## Trip Distribution

The project-related trips were distributed based on the future distribution of population and the anticipated approach routes. This information was obtained from reports provided by the City. The approach distribution used is shown in Figure 24.

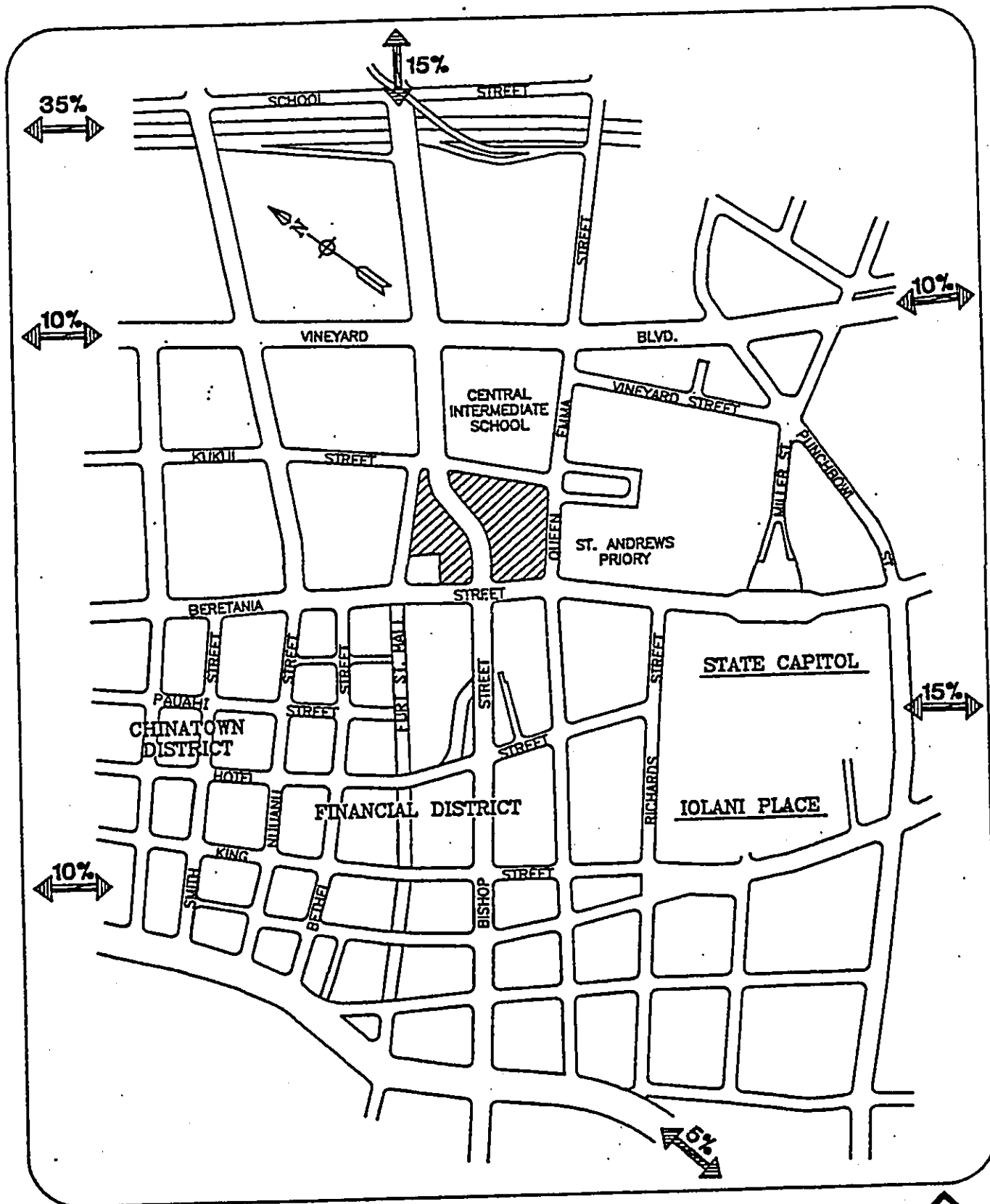


TABLE 32  
PROJECT TRIP GENERATION ANALYSIS  
PACIFIC NATIONS CENTER TRAFFIC STUDY

October 1988

LAND USE CODE	DESCRIPTION	TRIPS GENERATED						GENERATION RATES							
		AM PEAK HOUR			PM PEAK HOUR			AM PEAK HOUR			PM PEAK HOUR				
		DAILY TOTAL	TOTAL	IN	OUT	TOTAL	IN	OUT	DAILY TOTAL	TOTAL	IN	OUT			
710	Offices	5,590	1,004	873	131	930	149	781	8,600	1,545	87	13	1,430	16	84
820	Retail/Shopping	5,438	132	92	40	492	231	261	90,630	2,198	70	30	8,198	47	53
310	Hotel	1,915	155	102	53	146	79	67	8,704	0,704	66	34	0,664	54	46
730	City/State Office	600	294	247	47	271	43	228	12,000	5,880	84	16	5,429	16	84
222	Apartments	2,074	177	106	71	159	40	119	4,198	0,358	60	40	0,322	25	75
832	Restaurant	4,018	382	214	168	399	211	188	200,895	19,111	56	44	19,929	53	47
NA	Exhibit Hall	1,686	0	0	0	169	5	164	56,200	Closed			5,620	3	97
	Less Existing Medical Offices	21,321	2,144	1,634	510	2,566	758	1,808							
	Net	721	34	19	15	77	21	56							
	Less 15% Interaction	20,600	2,110	1,615	495	2,089	737	1,752							
	Offsite Trips Distributed	3,090	317	242	74	373	111	263							
		17,510	1,793	1,373	421	2,116	626	1,489							

10-12-88



**TRIP DISTRIBUTION**  
**BARTON-ASCHMAN ASSOCIATES, INC.**  
**PACIFIC NATIONS CENTER**

**FIGURE**  
**24**

## Trip Assignment

Using the trip generation and trip distribution previously discussed, project-related traffic was assigned to the various movements at the adjacent intersections. The trip assignments for the AM and PM peak hours are shown in Figures 25 and 26.

### 1995 Cumulative Plus Project Peak-Hour Traffic Volumes

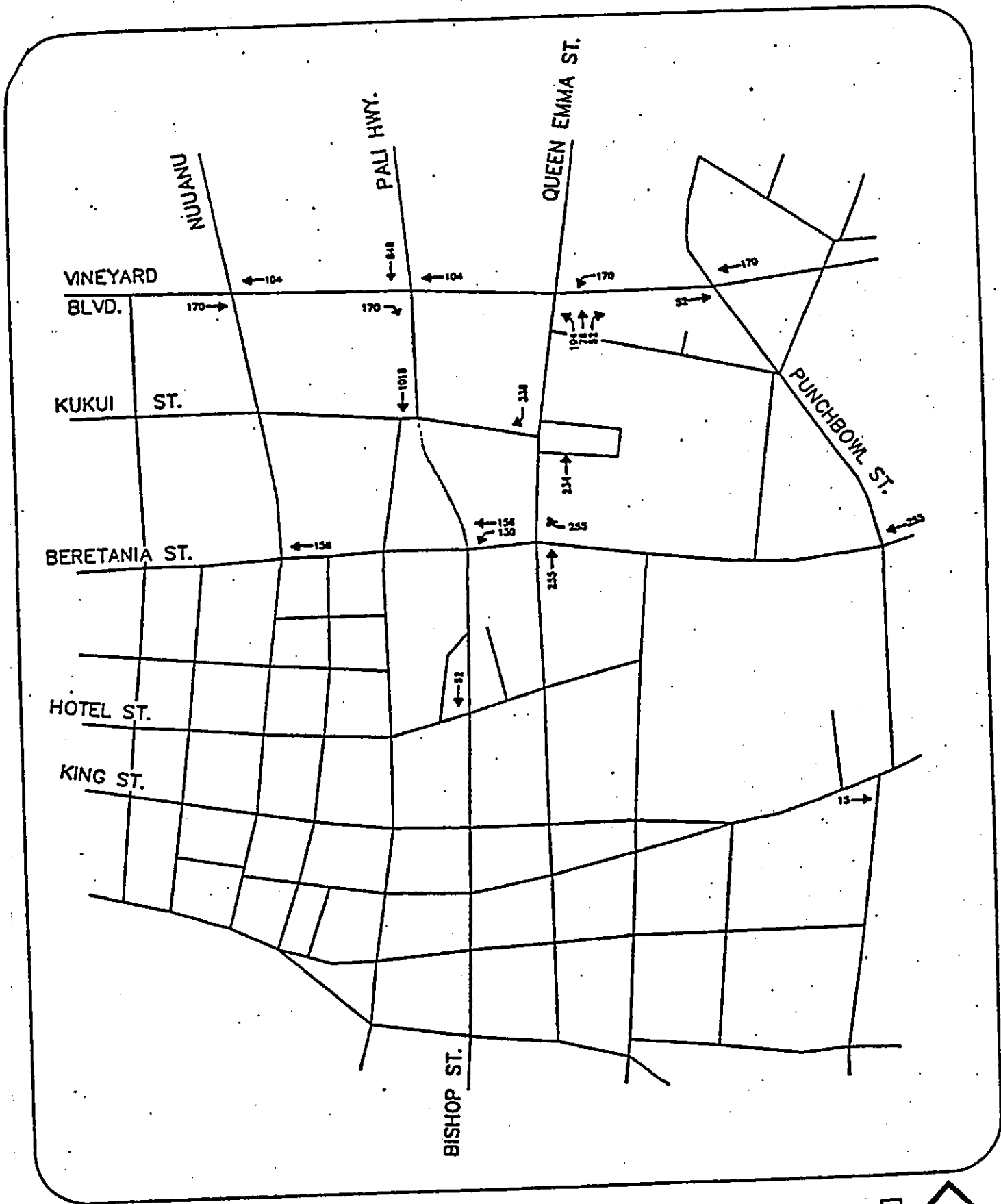
Future traffic volumes were determined by superimposing the project-generated traffic on the 1995 cumulative traffic volumes. The resulting traffic volumes are shown for the AM and PM peak-hour conditions in Figures 27 and 28, respectively.

### Summary of Impacts and Mitigation Measures

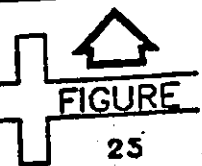
The paragraphs below present the results of the level-of-service analysis, which identifies the project-related impacts. In addition, any mitigation measures necessary and implementable are identified.

### Definition of Significant Traffic Impacts

Criteria for determining if a project has a significant impact which must be mitigated have been established, based on traffic impact study guidelines used in various cities. Generally these criteria are that if the level of service without the project is E or F and the volume/capacity (V/C) ratio changes are 0.030 or

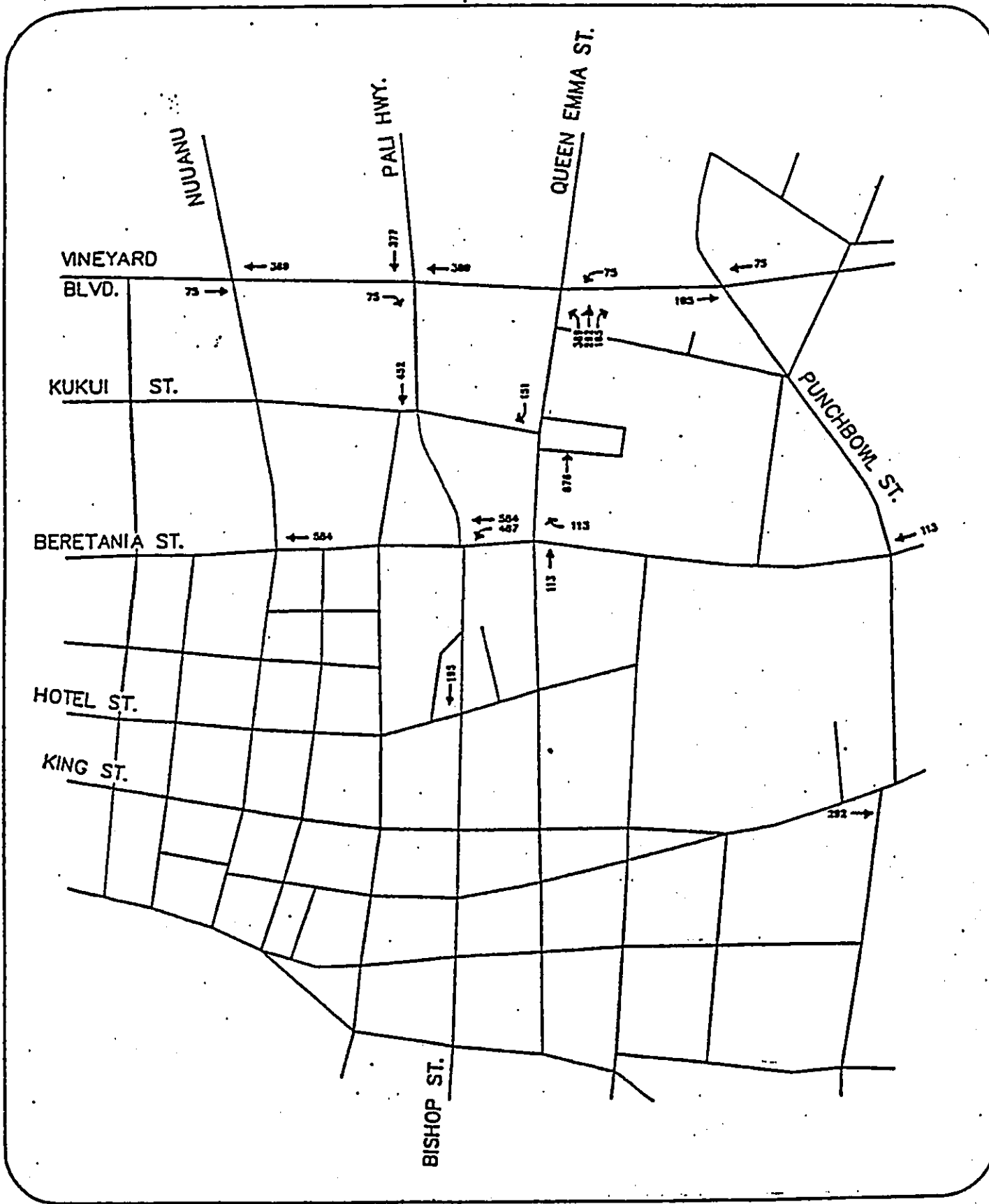


1995 AM PEAK HOUR PROJECT TRIPS  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER



FIGURE

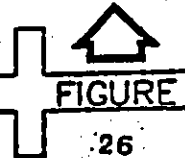
25



1995 PM PEAK HOUR PROJECT TRIPS

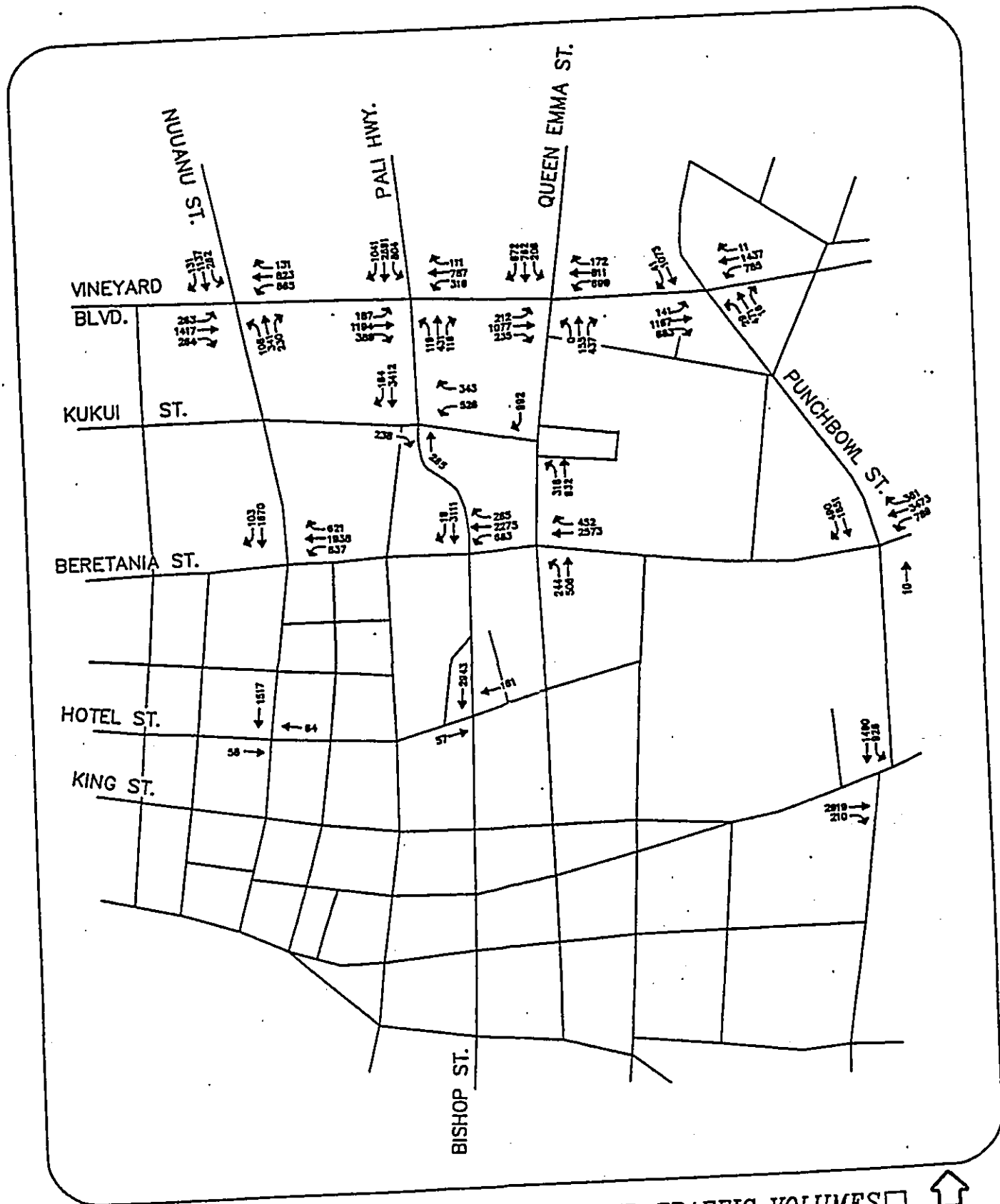
BARTON-ASCHMAN ASSOCIATES, INC.

PACIFIC NATIONS CENTER



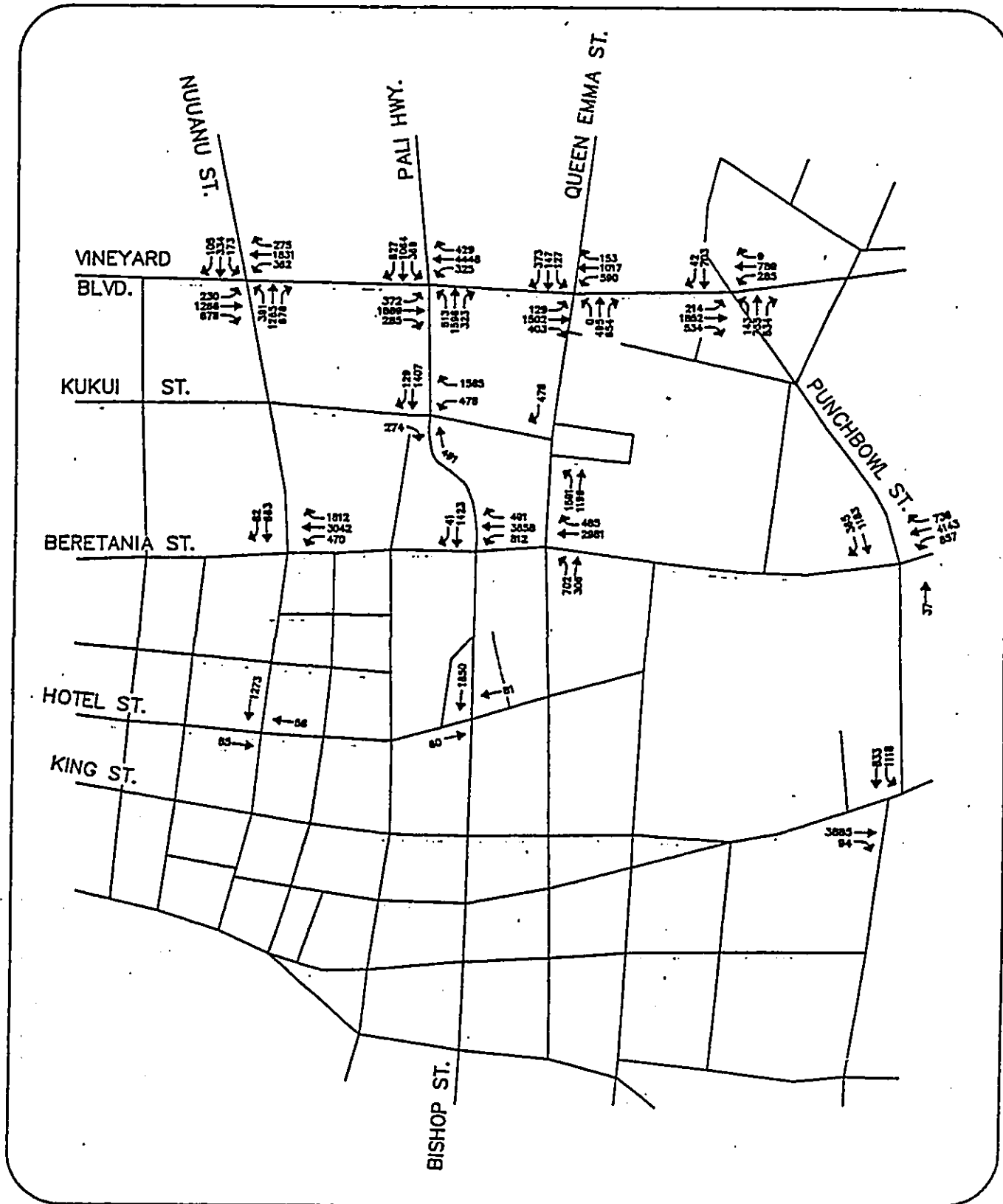
26

10-29b



1995 CUMULATIVE + PROJECT AM PEAK HOUR TRAFFIC VOLUMES  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER

↑  
 FIGURE



1995 CUMULATIVE + PROJECT PM PEAK HOUR TRAFFIC VOLUMES  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER



FIGURE

28

less, then the project's traffic impact is considered insignificant. However, if the V/C ratio change is greater than 0.030, then mitigation measures which will reduce the V/C ratio change to less than 0.030 must be identified. For this project, the 0.030 criteria has been used because of the large traffic volumes on the adjacent streets.

If the level-of-service with the project is D or better, then no mitigation measures need to be identified.

#### Project-Related Traffic Impacts

The projected traffic impacts are summarized in Table 33. The results are as follows:

1. At the intersection of Vineyard Boulevard and Nuuanu Avenue, mitigation will be required. Mitigation measures required consist of an additional northbound right-turn-only lane and modification of the westbound approach to provide an optional left turn or through movement and modification of the signal phasing to allow overlapping left turns. These measures will reduce the V/C ratio to less than the 1995 cumulative-without-project condition for both morning and afternoon peak hours.
2. At the intersection of Vineyard Boulevard and Pali Highway, northbound and southbound right-turn-only



TABLE 33

LEVEL-OF-SERVICE ANALYSIS FOR 1995 CONDITIONS  
TRAFFIC STUDY FOR PACIFIC NATIONS CENTER  
OCTOBER, 1988

INTERSECTION	AM PEAK HOUR			PM PEAK HOUR		
	W/O PROJECT V/C(1)	LOS(2)	V/C(3) CHANGE	W/O PROJECT V/C(1)	LOS(2)	V/C(3) CHANGE
1. Vineyard Bl. @ Maunaloa Ave.	1.700	F	0.042(*)	1.530	F	0.091(*)
			(-0.316)			(-0.330)
2. Vineyard Bl. @ Pali Highway	1.919	F	0.250(*)	1.824	F	0.131(*)
			(-0.011)			(-0.246)
3. Vineyard Bl. @ Queen Emma St.	1.969	F	0.445(*)	2.675	F	-0.078
			(-0.264)			(-1.198)
4. Kukui St. @ Pali Highway	0.483	A	—	0.189	A	—
			—			-0.171
5. Kukui St. @ Queen Emma St.	0.294	A	—	1.078	F	N.C.(4)
			—			N.C.
6. Beretania St. @ Maunaloa	1.036	F	0.039(*)	1.178	F	0.198(*)
			(-0.012)			0.112
7. Beretania St. @ Pali Hwy/Bishop St.	1.067	F	(-0.031)	0.828	D	0.269(*)
			(-0.035)			(0.003)
8. Beretania St. @ Queen Emma St./ Alakea St.	0.607	A	—	0.817	D	N.C.(4)
			—			N.C.
9. Hotel St. @ Maunaloa	0.636	A	N.C.	0.555	A	—
			N.C.			—
10. Hotel St. @ Bishop St.	0.569	A	—	0.369	A	0.049(*)
			—			0.023
11. Vineyard Bl. @ Punchbowl St.	1.347	F	0.014	1.179	F	0.024
			0.027			
12. Punchbowl St. @ Beretania St.	1.291	F	0.027	1.200	F	
			0.011			
13. Punchbowl St. @ King St.	0.844	D	0.011	1.004	E	

(1) V/C = Volume to Capacity Ratio

(2) LOS = Level of Service

(3) V/C Change calculated only if LOS is E or F

(4) NC = No Change

lanes are required to mitigate the project-related traffic impacts.

3. The intersection of Vineyard Boulevard and Queen Emma Street should be modified to provide an optional through or left turn on the westbound approach.
4. No mitigation is required at the intersection of Kukui Street and Pali Highway.
5. At the intersection of Kukui Street and Queen Emma Street, the level-of-service improved with implementation of the project because traffic was added to the approaches with the least delay and the diversion of traffic to Pali Highway northbound -- decreasing the average vehicle delay and improving the V/C ratio. Therefore, no mitigation is recommended.
6. At the intersection of Beretania Street and Nuuanu Avenue, one of the westbound right-turn-only lanes should be converted to an optional through or right turn lane.
7. At the intersection of Beretania Street and Pali Highway, an additional separate right turn lane should be provided as part of the conversion of Pali Highway from one-way to two-way.

8. At the intersection of Beretania Street and Queen Emma Street, the northbound approach should be modified to convert one through lane to an optional through or left turn lane.
9. No mitigation is required at the intersection of Hotel Street and Nuuanu Avenue.
10. No mitigation is required at the Hotel Street - Bishop Street intersection.
11. The impacts at the intersection of Vineyard Boulevard and Punchbowl Street are significant but are unmitigatable unless widening of the northbound and southbound approaches is possible. At this time, widening is not possible and, therefore, the impacts cannot be mitigated.
12. The project's impacts at the intersection of Punchbowl Street and Beretania Street are not significant. Therefore, no mitigation measures are required at this location.
13. No mitigation is required at the Punchbowl Street - King Street intersection.

## Pali Highway

Part of the plan is to convert Pali Highway from one-way to two-way between Beretania Street and Kukui Street. This measure will have a positive impact along Queen Emma Street by diverting northbound traffic to Pali Highway. A preliminary analysis indicates that the traffic can be accommodated with the mitigation measures recommended in the previous section.

### Construction-Related Impacts

Construction-related traffic impacts will be short-term. Construction would be completed prior to the 1995 design year used in this study meaning that background conditions will not be as severe as used to analyze the traffic impacts. However, construction traffic is typically scheduled for off-peak hours.

### Driveway and Loading Zone Locations

The proposed development plan was reviewed during the preparation of the traffic impact analysis relative to the location of driveways. It was determined that the following criteria should be used in the design and location of the driveways:

1. No driveways (or loading zones) will be located along the Pali Highway.

2. Driveways allowing left turns only (in and out) should be located along Queen Emma Street, Kukui Street and Fort Street; and right turns only along Beretania Street.
3. Commercial loading zones should be located on-site and have separate driveways. Deliveries should be scheduled for off-peak hours.
4. Passenger loading zones should be located along Queen Emma Street, Kukui Street, and Fort Street and should have pull-outs to minimize disruption of traffic flows.

## 10.07 AIR QUALITY IMPACTS

Impacts of the proposed development on local air quality during construction and operation are discussed in the following paragraphs. Impacts from construction activities are emissions of fugitive dust from grading and demolition of existing facilities and exhaust emissions from heavy-duty construction machinery. Impacts from operation of the development are basically considered indirect and include emissions from associated traffic, power generations, and natural gas combustion.

### Construction Emissions

Emissions from construction activities are generated from ground preparation and exhaust emissions from heavy-duty construction machinery. In order to quantify these impacts, well-defined construction and machinery mobilization schedules are necessary. However, since these items are not available at this time, impacts are evaluated on a unit time basis of one month and an assumed construction machinery composite.

The emission factor developed by the EPA provides a monthly estimate of fugitive particulate emissions of 1.2 tons per acre under conditions of medium activity, moderate soil silt content (30 percent) and semiarid climates. For a total project site of 5.06 acres, the emissions of fugitive particulate matter would total 6.1 tons per month.

For exhaust emissions from construction machinery, an average construction machinery composite was assumed to be on site and that construction work would average 8 hours per day, 25 days per month. The monthly emissions are estimated using EPA emission factors and are presented in Table 34.

#### Operation Emissions

During the operation of the proposed project, the sources of emissions impacting local air quality would be traditional sources such as additional vehicular traffic, natural gas combustion and off-site power generating facilities that would provide the additional requirements of the project. Table 35 presents project-related emissions, estimated using factors published by the EPA and the South Coast Air Quality Management District in California.

Traffic in the downtown area is expected to increase from local growth. Traffic studies conducted for the project indicate that the project will contribute to this traffic increase. The primary air pollutant of concern from vehicular traffic is carbon monoxide (CO). In order to determine the impact of increased traffic from local growth and from the proposed project on local air quality, dispersion modeling studies were conducted using the model CALINE-4.

Major intersections which bound the project site as well as nearby intersections that could be impacted were analyzed using

TABLE 34 - MONTHLY CONSTRUCTION MACHINERY EXHAUST EMISSIONS

Equipment	Number of Units	Emissions, lbs/month				
		CO	HC	NO <sub>x</sub>	SO <sub>x</sub>	TSP
Grader	1	30	8	11	17	12
Bulldozer	1	360	38	832	108	51
Loader	2	52	100	756	73	68
Backhoe	1	135	31	338	29	28
Dump truck	1	46	16	95	18	18
Forklift	2	270	61	676	57	56
Crane	1	135	31	338	114	28
<b>TOTAL</b>		<b>1,028</b>	<b>285</b>	<b>3,046</b>	<b>416</b>	<b>261</b>



**TABLE 35 - PROJECT-RELATED MOBILE AND STATIONARY SOURCE EMISSIONS**

Source	Emissions, tons/month				
	CO	HC	NO <sub>x</sub>	SO <sub>x</sub>	TSP
Electricity generation	0.5	0.1	6.1	7.3 <sup>b</sup>	0.7
Natural gas combustion	0.1	neg	0.3	neg	neg
Vehicular traffic	24.8	4.1	5.0	neg	1.2
<b>TOTAL</b>	<b>25.4</b>	<b>4.2</b>	<b>11.4</b>	<b>7.3</b>	<b>1.9</b>

<sup>a</sup>neg - negligible

<sup>b</sup>based on a maximum sulfur content of 0.5 percent

the results of the traffic study, local meteorological conditions, and the dispersion model CALINE-4. To indicate the impact of traffic on localized carbon monoxide concentrations, background concentrations were assumed to be zero. A uniform wind speed of one meter per second at a predominant northeasterly wind direction ( $70^{\circ}$ ) was assumed. Stability category D was assumed to represent the most stable atmospheric condition that would likely occur in an urban setting. A receptor height of 1.3 meters to estimate the normal human breathing zone was used.

The results of the dispersion modeling studies are shown in Table 36. Dispersion modeling studies were conducted for existing conditions as well as in the project year, with and without the project. The numbers represent the predicted maximum curbside concentrations. Curbside concentrations were predicted for all intersection corners. Concentrations at the southwest corner were predicted to be the highest, which reflects the predominant northeasterly wind direction.

In general, there is a decline in curbside carbon monoxide concentrations from 1988 to the project year, 1995. Although the traffic study indicates an overall increase in local traffic, the decline is due to federal emission standards for newly manufactured vehicles and the mandated availability of cleaner burning fuels. Of the eight receptor sites evaluated, three sites were found to be in exceedance of the 8-hour CO state standard at existing conditions. In the project year, two sites were found to be in exceedance of the 8-hour standard with and without the project. Of the eight receptor sites studied, none

**TABLE 36 - MAXIMUM CURBSIDE CARBON MONOXIDE CONCENTRATIONS**

Intersection	CO Concentration, mg/m <sup>3</sup>		
	Existing 1988	No Project 1995	With Project 1995
<b>Vineyard Boulevard</b>			
1. At Nuuanu	5.5	6.0	5.8
2. At Pali Highway	5.2	6.7	6.2
3. At Queen Emma Street	3.6	3.3	3.6
<b>Kukui Street</b>			
1. At Pali Highway	0.6	0.6	0.8
2. At Queen Emma Street	0.1	0.1	0.1
<b>Beretania Street</b>			
1. At Nuuanu	4.1	4.5	4.5
2. At Pali Highway	5.0	4.6	4.5
3. At Queen Emma Street	2.1	2.2	2.5

would exceed the state 1-hour CO standard for all conditions. Project-related increases ranged from 4 percent at Beretania Street and Nuuanu Avenue up to 33 percent at Kukui Street and Pali Highway. It should be noted that the occurrence of worst case meteorological conditions assumed here is very minimal.

Three sensitive receptors were identified near the project site. These are three schools, namely, Central Intermediate School on the north, St. Andrews Priory on the east, and Bamboo Shoots Pre-School on the west. Predicted CO concentrations at the nearest receptor sites to these schools either remained at existing levels or declined.

#### Mitigation Measures

Short-term impacts that would be due to construction were previously identified to be fugitive particulate matter emissions from ground disturbing activities and exhaust emissions from construction machinery. The impacts from fugitive particulate emissions could be mitigated by the application of dust suppressants such as water and chemical crusting agents on work areas and unpaved haul roads. It is estimated that spraying of these areas would result in a 50 percent reduction in emissions. Other control measures that are recommended include the coordination of all concrete pouring and paving with grading and excavation activities and good housekeeping practices. It should be noted that the State of Hawaii prohibits the generation of any visible emissions. The recommended mitigative measures for fugitive dust should control visible emissions to acceptable

levels. Exhaust emissions from construction machinery could be minimized by keeping all such machinery in proper tune at all times. The developer will be required to comply with all Department of Health regulations.

Long-term impacts were identified to be attributable to the consumption of electricity and natural gas and to the generation of additional local traffic. Emissions from power generation and natural gas combustion could be minimized by the application of energy-saving devices wherever possible. These may include set-back thermostats, solar heating devices, and maximum use of natural illumination. Vehicular emissions could be mitigated by designing comprehensive traffic reduction plans for the future tenants of the proposed project. Such plans may include incentive programs to encourage carpooling and use of public transportation. Staggered working hours may also contribute to the alleviation of traffic, especially during the peak hours, and consequently reduce traffic-related emissions.

## 10.08 NOISE AND VIBRATION IMPACTS

### Noise Impacts

The project is predicted to cause an increase in traffic volumes on Beretania Street and the Pali Highway while traffic volumes on Queen Emma and Kukui Streets will decrease (Barton-Aschman Associates, Inc., 1988). Table 37 shows the predicted two-way traffic volumes caused by the project as well as the changes in traffic noise levels attributable to the traffic changes if the average vehicle speed and the mix of vehicles are the same upon project completion. From the table it can be seen that during the noisiest hours, the predicted traffic noise level increase is 2.8 decibels on Beretania Street, and only about 0.1 decibels on Pali Highway. On the more noise sensitive streets, Kukui and Queen Emma, traffic noise reductions of 0.1 decibels and 3.2 decibels are predicted.

Other considerations are that some of the proposed buildings would block (or shield) traffic noise from some of the distant roadways, but others may tend to trap, or cause a reverberant noise buildup of sounds from the roadway in the space between existing buildings and the new buildings.

As discussed in Section 05.0, Project Description, a plaza structure may pass over the Pali Highway. The detailed acoustical effects in urban settings are difficult to predict (Bolt, Beranek, and Newman, Inc., 1973) and are dependent on the final configuration of the new buildings. In general, it is

TABLE 37

PREDICTED P.M. PEAK TRAFFIC VOLUMES AND TRAFFIC NOISE LEVEL CHANGES IN 1995 WITH AND WITHOUT THE PROJECT

<u>Street</u>	<u>Traffic Volume (veh/hour)</u>		<u>Traffic Noise Level Change Δ dB</u>
	<u>Without Project</u>	<u>With Project</u>	
Kukui	2124	2054	-0.1
Queen Emma	4358	2787	-1.9
Barretania	2677	5059	2.8
Pali	2271	2302	0.1

believed that one effect may tend to counteract the other on the average. For example, loud diesel trucks and buses on the Pali Highway between Kukui and Beretania Streets can presently be heard in the Saint Andrew's complex, but the proposed plaza structure (including the Pali overpass) should shield such events. However, there would be some acoustical reflections of Queen Emma traffic noise from the walls of the new plaza structure, but these could be minimized if irregular surfaces and openings (e.g. loading docks and parking ramps) are featured in the new building. Occupants in the upper floors of the Diamond Head Tower in Kukui Plaza would have some shielding of Pali Highway noise if a plaza is constructed over Pali Highway as shown in the conceptual site plan. The proposed residential tower is staggered such that a "canyon effect" would not be formed by it and the Kukui Plaza Tower.

A reverberent build-up of traffic noise would occur below the plaza structure along the Pali Highway and could create uncomfortable noise levels to persons on the walkways. Sound absorptive surfaces on portions of the walls and overhead should be considered to reduce the noise buildup in the space. Acoustical materials which can be cleaned periodically would be required and are available.

Persons on the plaza at locations away from the edge would enjoy a "quiet oasis effect" from traffic noise as can be experienced in the elevated landscaped gardens at Kukui Plaza. Office, hotel, and condo units in the new towers should utilize central air conditioning so windows and/or lanai doors can be closed in



order to block traffic noise..

#### Equipment and Other Noises

The air conditioning equipment; exhaust fans; trash compactors; and any other stationary equipment on the project site would not exceed the allowable noise levels in City and State ordinances (State of Hawaii, Dept. of Health, 1981a), (City and County of Honolulu, 1986b). Similarly, the design of the below ground parking garage could be designed such that tire squeals and vehicle exhaust noises would not violate the State regulations (State of Hawaii, Dept. of Health, 1981a).

#### Noise from Commercial Tenant Operations

Trash pickup and delivery vehicles could be operated and scheduled to cause minimum disturbance to neighboring apartments and Saint Andrew's Cathedral complex if complaints arise. Minimally, these operations would meet State requirements (State of Hawaii, Dept. of Health, 1981a). On-site commercial uses would not cause "unreasonable" or "excessive" noise as defined in "Chapter 43 - Community Noise Control for Oahu" (State of Hawaii, Dept. of Health, 1981a).

#### HECO Substation

It is understood that the existing HECO substation may be expanded to four or five 10 mva transformers and may be relocated. The containment of the characteristic hum noise from

transformers must be taken into account with respect to meeting local noise regulations and not causing annoyance to occupants on and near the project site. Transformer noises would probably be masked by traffic sounds during the daytime, but as can be seen in Figure 18, the hum may become perceptible to condominium occupants between midnight and 4 or 5 a.m. State-of-the-art noise mitigation techniques do exist which can provide adequate noise containment; e.g., the use of specially rated quiet transformers in conjunction with the containment of airborne noise in fully closed vaults that are either mechanically ventilated or are air conditioned to dissipate the heat generated by the transformers. There is also the possibility of directly cooling transformer oil via heat exchangers and conventional cooling towers strategically located and properly sound treated. The cost of providing and maintaining redundant non-natural ventilation or oil cooling systems must be considered in order to decrease the probability of substation shutdown. Final noise mitigation measures for the substation will depend on the actual location of the complex with respect to interior property lines and noise sensitive uses. Also the noise control measures depend on studies of the transformer load demand; i.e. if the largest load (and therefore the need for the greatest heat dissipation) requirements are from 7 a.m. to 10 p.m.; then less noise mitigation is needed. Integrating large transformers closely into the complex requires consideration of vibrations from the transformers and probably would also require vibration isolation elements to support the transformers in order to reduce structure borne energy from emanating into the surrounding building elements.

### Noise Impact from Construction

Development of the project site would involve demolition, site preparation, and the construction of infrastructure and buildings. The various construction phases of a development project may generate significant amounts of noise; the actual amounts are dependent upon the methods employed during each stage of the process. Typical construction equipment noise ranges in dB(A) are shown on Figure 29. Pile-drivers; earthmoving equipment such as bulldozers; and diesel powered trucks would probably be the loudest equipment used during construction.

Because it is anticipated that noise generated during construction would exceed allowable limits in State regulations, a permit would be obtained from Department of Health. Department of Health may grant permits to operate vehicles, construction equipment, power tools, etc. which emit noise levels in excess of the allowable limits. Required permit conditions for construction activities are:

"No permit shall allow construction activities creating excessive noise...before 7:00 a.m. and after 6:00 p.m. of the same day."

"No permit shall allow construction activities which emit noise in excess of ninety-five dB(A)...except between 9:00 a.m. and 5:30 p.m. of the same day."

		NOISE LEVEL (dBA) AT 50 FT					
		60	70	80	90	100	110
EQUIPMENT POWERED BY INTERNAL COMBUSTION ENGINES	EARTH MOVING	COMPACTERS (ROLLERS)		H			
		FRONT LOADERS		—			
		BACKHOES		—			
		TRACTORS		—			
		SCRAPERS, GRADERS			—		
		PAVERS				H	
		TRUCKS				—	
EQUIPMENT POWERED BY INTERNAL COMBUSTION ENGINES	MATERIALS HANDLING	CONCRETE MIXERS		—			
		CONCRETE PUMPS			H		
		CRANES (MOVABLE)		—			
		CRANES (DERRICK)				H	
EQUIPMENT POWERED BY INTERNAL COMBUSTION ENGINES	STATIONARY	PUMPS		H			
		GENERATORS		—			
		COMPRESSORS		—			
EQUIPMENT POWERED BY INTERNAL COMBUSTION ENGINES	IMPACT EQUIPMENT	PNEUMATIC WRENCHES			—		
		JACK HAMMERS AND ROCK DRILLS			—		
		PILE DRIVERS (PEAKS)				—	
EQUIPMENT POWERED BY INTERNAL COMBUSTION ENGINES	OTHER	VIBRATOR		—			
		SAWS		—			

Note: Based on Limited Available Data Samples

FIGURE 29 - CONSTRUCTION EQUIPMENT NOISE RANGES

"No permit shall allow construction activities which exceed the allowable noise levels on Sundays and on... [certain] holidays. Activities exceeding ninety-five dB(A) shall [also] be prohibited on Saturdays."

In addition, construction equipment and on-site vehicles or devices requiring an exhaust of gas or air must be equipped with mufflers. Also, construction vehicles using trafficways must satisfy the noise level requirements defined in "Chapter 42 - Vehicular Noise Control for Oahu" (State of Hawaii, Dept. of Health, 1981a).

#### Vibration Impacts

Potential damage to the structure at Saint Andrew's Cathedral and Priory caused by demolition and construction vibrations are of concern. It is understood that the original construction of the Cathedral building is over 125 years old and all other buildings are at least 50 years old. The distance from the project property line to the nearest building at Saint Andrew's is greater than 100 feet.

Two basic types of excitations would cause forces (perhaps of insignificant magnitude) to be transmitted from the project site to nearby locations. The first is surface excitation, such as caused by excavation activity from heavy machinery; the collapse of a building from a controlled blast, the driving of a pile at shallow depths, etc. Three major force wave types are produced

by the surface excitation: a compressional wave that is very much like a sound wave; a shear wave in which the motion is transverse to the direction of wave propagation; and a Rayleigh wave, which is a combination of shear and compressional, confined to the surface and propagating out in a cylindrical fashion. Typically, about 67% of the total ground wave energy is in the Rayleigh type, about 26% in the shear wave, and only 7% in the compressional or sound wave. Like sound waves, the compressional and shear waves have an amplitude that decays at 6dB for doubling the distance as one progresses away from the source. The surface wave, however, dissipates at only 3 dB for doubling the distance.

The second type of excitation is from underground sources such as caused by deep pile driving. The underground excitation produces basically only compressional and shear waves.

The actual movement of buildings caused by the various force waves propagating through the soil depends highly on the type and size of the building's foundation, e.g. pilings or massive masonry blocks, as well as the characteristics of the building elements, e.g. stone walls including mortar type and condition; plaster on lath; gypboard, etc. Generally it is believed that because of the distance to the church facility, there should be sufficient attenuation of vibrational waves through the soil such that no damage should occur. However, structural engineers and other specialists should inspect the church buildings and provide recommendations. Consideration should be given to providing special provisions in the construction contract to: (a) Document existing conditions (including existing cracks and flaws) in the

church buildings by photographs and sketches; (b) Provide vibration monitoring at selected locations near, or on, foundations; (c) Perform tests using pile drivers or other devices at worst case locations to determine vibration movement at and/or in the structures; (d) Utilize the guidance for monitoring vibrations in existing documents (Siskind, et al, 1980), wherein ground vibration levels near foundations are not to exceed 0.5 inches per second for normal residential construction; and (e) Provide means to immediately cease demolition or construction operations that cause excessive vibrations and to proceed only after different techniques or vibration mitigation devices are used.

Demolition of the 13 story Queen Emma Office Building could be done by several methods. If preliminary investigations show that a controlled blast will not cause damaging vibrations to the church buildings, then the total demolition airborne noise exposure would be much less than if the building is slowly dismantled by pneumatic impact tools, e.g. jack hammers, rock drills, etc. Another option is the use of a breaker ball (or headache ball) swung from a crane line.

The type and depth of piles required depends upon the soil composition and the building design. If potential vibration problems are found to exist at the church buildings from pile driving, consideration should be given to drilling prior to pile driving and/or using special vibrating devices to lessen the impact levels needed to drive conventional pilings.

It has been shown that mitigation of surface (or Rayleigh) waves can be obtained by implementing ditches between the source of surface excitation and vibration sensitive locations (Woods, R.D., 1968). Thus, if it is found that there may be a problem with vibration at the church structures, covered ditches could be provided along portions of the Queen Emma Street boundary to reflect ground surface waves back into the project.

#### Noise Mitigation Measures

The design of the facility would include noise mitigation measures in the planning of the location and orientation of the air conditioning equipment, exhaust fans, trash compactors, transformers, and loading docks, such that local noise regulations would be satisfied. Cooling towers, air supply fans, and exhaust fans must be adequately distant to the property lines and/or incorporate duct silencers as required. Loading dock areas may require acoustically absorptive treatments to reduce reverberent noise buildup in otherwise hard, reflective spaces.



#### 10.09 IMPACT ON VIEWS

View corridors represent a long-distance, linear pattern. Continuity is the important concept in assessing view corridors. Continuity is the uninterrupted flow of pattern elements in a landscape and the maintenance of visual relationships between immediately connected or related landscape components. As can be seen in Figure 30, Existing Bishop Street View Corridor and Figure 31, Bishop Street View Corridor With Project, the view corridor would not be interrupted by development of the proposed project. Similarly, a comparison of Figure 32, Existing Alakea Street View Corridor and Figure 33, Alakea Street View Corridor With Project yields the same conclusion. In fact, with the demolition of the existing 13-story building on the project site, the view corridor would be widened, as well as preserved, with development of the proposed project. However, views from existing highrises, such as Kukui Plaza and Century Square, would be altered by construction of the proposed project.

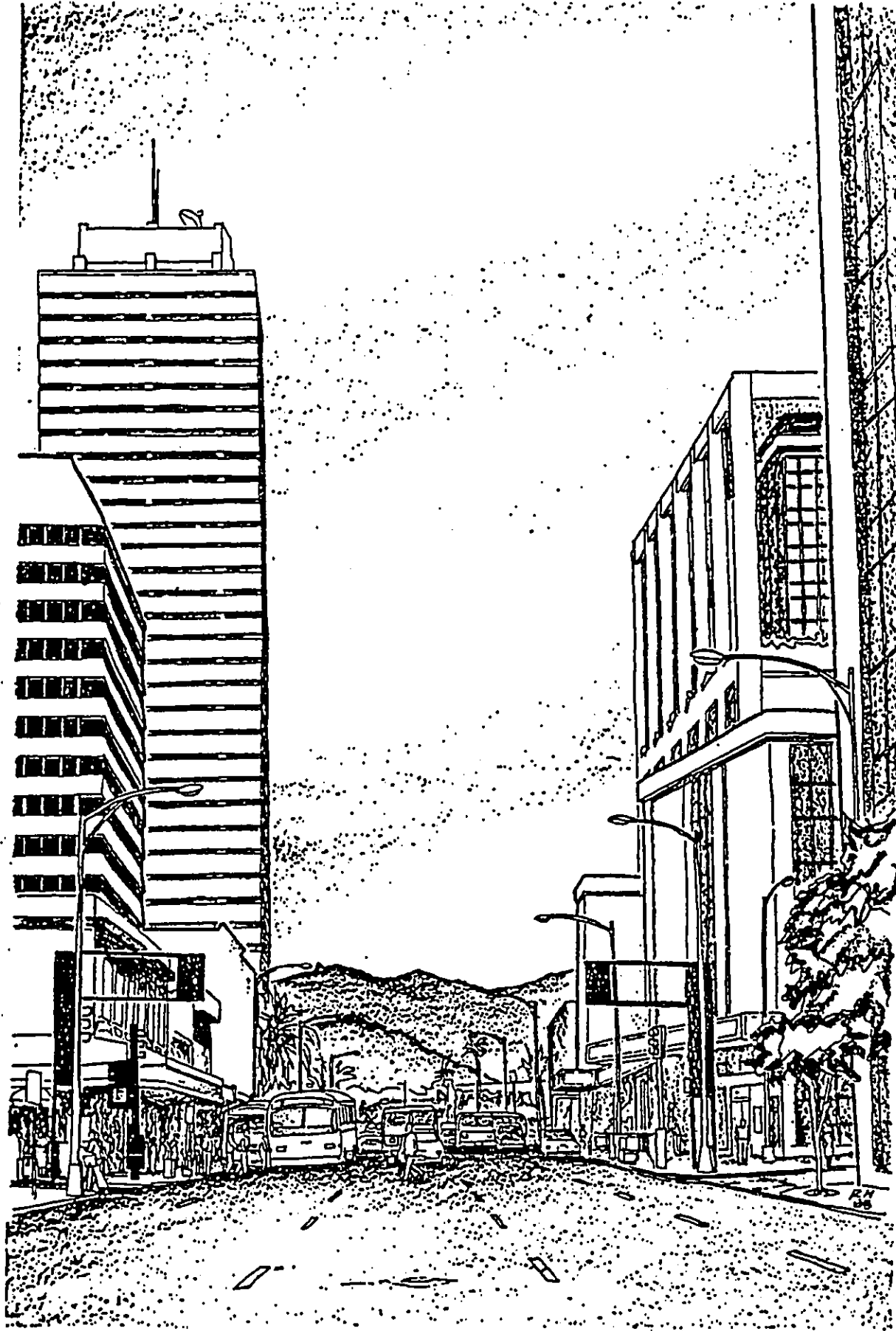


FIGURE 30 - EXISTING BISHOP STREET VIEW CORRIDOR

DMJM Hawaii

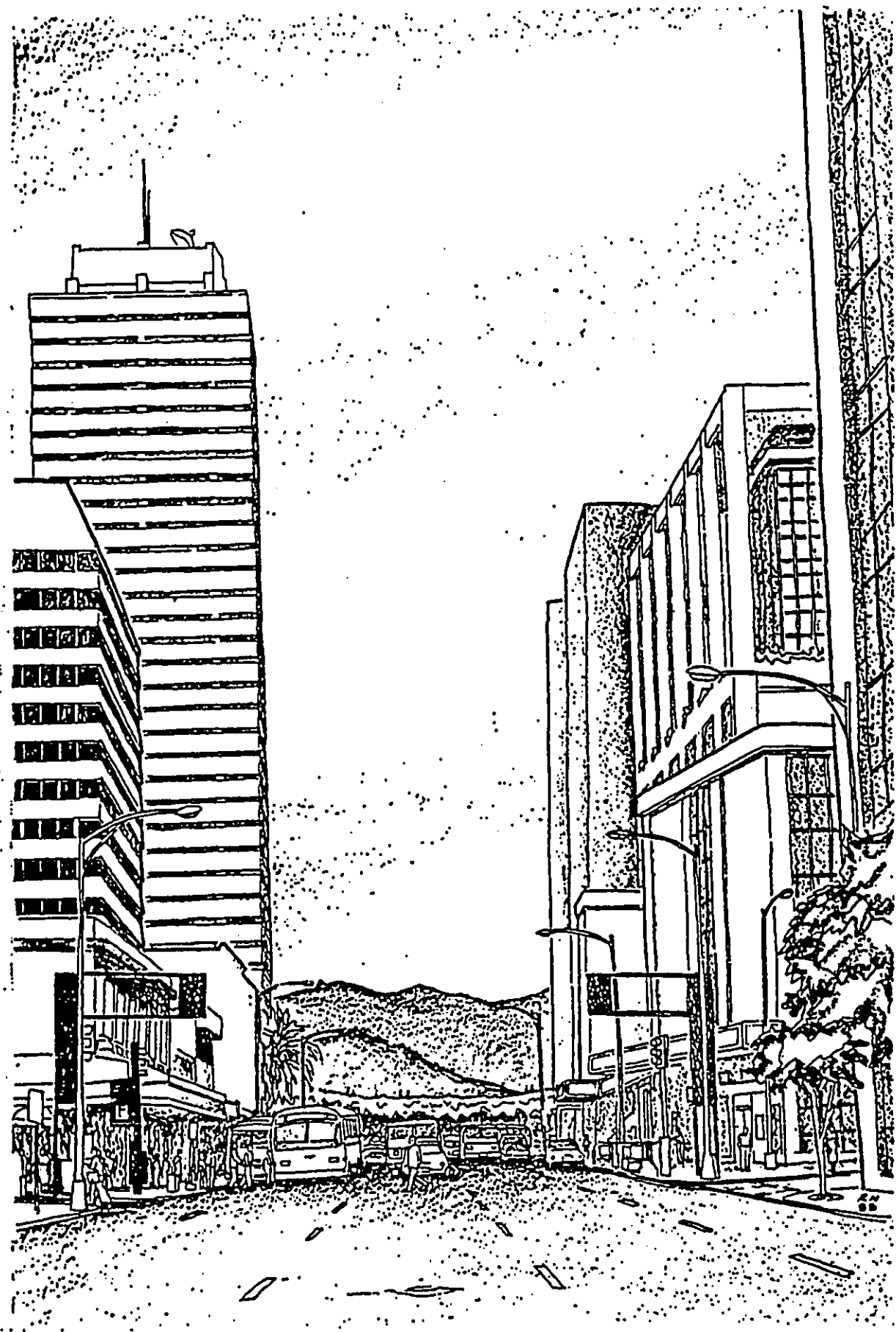


FIGURE 31 - BISHOP STREET VIEW CORRIDOR WITH PROJECT

**DMJM** Hawaii

10-49b



FIGURE 32 - EXISTING ALAKEA STREET VIEW CORRIDOR

DMJM Hawaii

10-49c

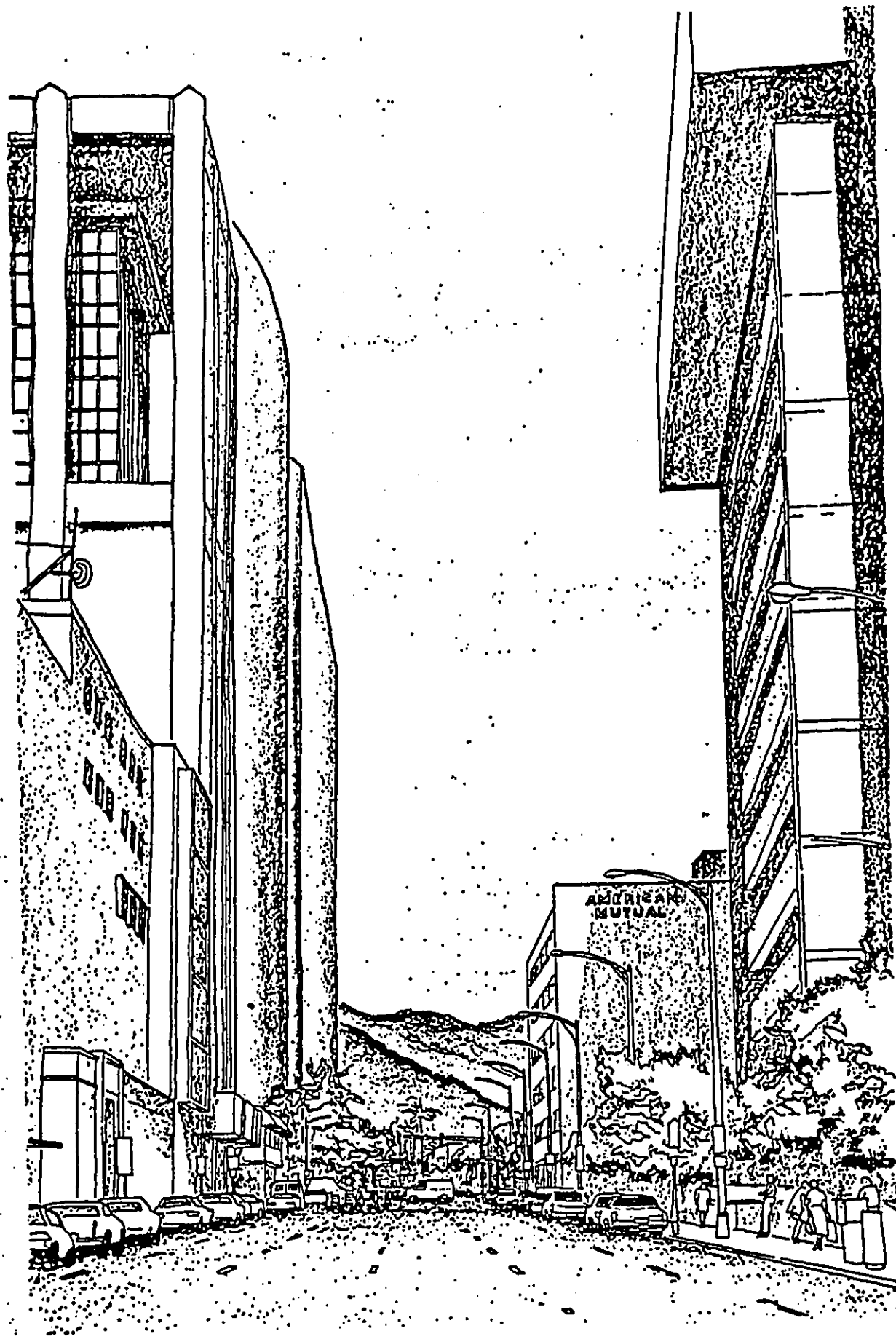


FIGURE 33 - ALAKEA STREET VIEW CORRIDOR WITH PROJECT

DMJM Hawaii

10-49d

**11.0 COMPARISON OF THE IMPACTS OF THE PROPOSED  
ACTION WITH THOSE OF THE ALTERNATIVES**

## 11.0 COMPARISON OF THE IMPACTS OF THE PROPOSED ACTION WITH THOSE OF THE ALTERNATIVES

The two greatest impacts of the proposed action are those caused by on-site construction and increased traffic in the vicinity. They are each discussed in the following paragraphs in relation to the four alternative described in Section 06.0.

### Impacts Due to Construction

Each of the three alternatives would have short-term impacts at the construction stage, similar to the proposed action. The no-action alternative would eventually give way to spot development on the site at some unknown level of intensity. The second alternative would involve redevelopment of the parking lot and the existing building fronting Queen Emma and Kukui Streets. Demolition impacts would be the same as for the proposed action. The third alternative, developing only the parking lot would involve less construction because of its smaller area and would not include demolition of any buildings.

None of these four alternatives would be large enough to have the beneficial impacts of the proposed action. The significant contributions of the large-scale, mixed-use development: downtown housing units, leaseable office space, a downtown hotel and various public amenities (shopping, restaurants, etc.) and possibly a Pacific Stock Exchange, a World Trade Center, and a center for the Pacific Economic Cooperation Conference would not

be realized. Additionally, the large amount of revenues to the City and County and to the State, would not be generated.

#### Traffic Impacts

The smaller-scale developments of the alternatives may or may not lessen the impact of traffic in the vicinity. Traffic conditions at the 1995 design year have not been predicted for this wide variety of alternatives. Generally, however, a larger master-planned development can better control future traffic patterns than the smaller spot developments.



**12.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM  
USES OF HUMANITY'S ENVIRONMENT AND  
THE MAINTENANCE AND ENHANCEMENT  
OF LONG-TERM PRODUCTIVITY**

12.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF HUMANITY'S  
ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF  
LONG-TERM PRODUCTIVITY

The local short-term uses of the property at Expanded Block J afforded by developing and operating the Pacific Nations Center would result in the enhancement of that property's long-term productivity. Placement of the residential, office and hotel towers in the downtown central business district would maintain the preferred land use pattern for the long-term.

Future options for the land would not be permanently foreclosed, as the property could, again, be redeveloped in the future. The current redevelopment concept allows new opportunities for using the land. In addition to public amenities such as shops, banks and restaurants, the open space surrounding the buildings would be appropriate for picnic activities and possibly community events. Opportunities such as these do not presently exist at the site. Therefore, the proposed action does not narrow the range of beneficial uses of the environment, but broadens it.

The proposed action does not pose long-term risks to health or safety.

13.0 IRREVERSIBLE AND IRRETRIEVABLE  
COMMITMENTS OF RESOURCES

**13.0 IRREVERSIBLE AND IRRETRIEVABLE  
COMMITMENTS OF RESOURCES**

### 13.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Should the proposed action be implemented, several types of resources would be committed to use. Redevelopment of the land would represent the use of one resource. This would not, however, become an irreversible commitment.

The commitment of materials and labor are other resources. Some of the building materials could be recycled if necessary at some future date, but others could not, thus becoming an irretrievable commitment. Labor involved to plan, construct and operate the project would be an irretrievable and irreversible resource but would be compensated with wages.

The project area, being a part of a prominent view corridor, represents a valued public resource. Rather than loss or destruction of the resource, redevelopment of the site would both respect the view corridor and enable more people to enjoy the views from the project area.

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

**14.0 UNAVOIDABLE IMPACTS**

#### 14.0 UNAVOIDABLE IMPACTS

The purpose of this section is to address all probable adverse environmental effects which cannot be avoided, discuss the rationale for proceeding and indicate what other interests and considerations of governmental policies are thought to offset the effects. Where possible, reasonable alternatives to the proposed action that would avoid some or all of the adverse environmental effects are discussed.

##### Short-term Construction Impacts

Construction impacts cannot be avoided but are controlled by the permitting system. Noise-related adverse impacts and traffic diversions may be allowed by special permit for a specified period of time. Furthermore, construction of the project by separate phases may reduce construction impacts to insignificant levels.

##### Impacts on Traffic

Operation of a large-scale, mixed-use facility would have adverse impacts to a few intersections that cannot be avoided. The benefits of the project, and the governmental objectives and policies that it fulfills, however, are rationale for proceeding.

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**15.0 SUMMARY OF UNRESOLVED ISSUES**

## 15.0 SUMMARY OF UNRESOLVED ISSUES

A summary of unresolved issues and the means to resolve them prior to initiation of the proposed action or discussion of overriding reasons for proceeding without resolution are presented in this section.

### Final Government Approvals

Prior to initiation of the proposed action, the rezoning request for Kamalii Park and the amendment to the Hawaii Capital District will be granted.

### Final Design and Developer

A developer will be selected to finance, design, build and operate the Pacific Nations Center through a request for proposals process, which will be issued by the City upon approval of the Capital District Ordinance amendment and after the 45 day comment period for the Draft Environmental Impact Statement is completed.

### Development Schedule/Timetable

Prior to initiation of the proposed action the selected developer will prepare a schedule/timetable for the project.



Location of HECO Substation

Prior to initiation of the proposed action the selected developer will consult with HECO representatives to decide upon the final location of the upgraded substation.

**APPENDIX A**

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**APPENDIX B**

**Consultation And Review**

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B. CONSULTATION AND REVIEW

1. AGENCIES, ORGANIZATIONS AND INDIVIDUALS RESPONDING TO THE  
EIS PREPARATION NOTICE

(See Appendix H for Reproductions of Comments and Responses)

AGENCIES CONSULTED IN PREPARATION OF THE EIS

	<u>Comments Received</u>
<u>Federal</u>	
U.S. Army Corps of Engineers	6/27/88
U.S. Environmental Protection Agency, Region IX	
U.S. Department of the Interior - Fish and Wildlife Service	6/21/88
U.S. Department of Agriculture - Soil Conservation Service	6/17/88
U.S. Department of Housing and Urban Development	6/28/88
Federal Highway Administration	6/07/88
<u>State of Hawaii</u>	
Department of Health	6/27/88
Department of Land and Natural Resources	7/14/88
Department of Business and Economic Development	6/20/88
Office of State Planning	
Department of Transportation, Division of Highways	7/19/88
Housing Finance and Development Corporation	6/09/88
Environmental Center, University of Hawaii	7/07/88
Office of Environmental Quality Control	
Department of Agriculture	6/24/88
Department of Education	6/16/88
Land Use Commission	6/06/88
DBED (Marketing & Development Division)	6/30/88
<u>City and County of Honolulu</u>	
Board of Water Supply	7/07/88
Department of General Planning	6/29/88
Department of Land Utilization	7/14/88
Department of Public Works	6/21/88
Department of Transportation Services	6/7 & 6/28/88
Building Department	6/15/88
Department of Parks and Recreation	6/21/88
Fire Department	7/01/88
Police Department	7/05/88
Office of Human Resources	6/21/88

Others

Hawaiian Electric Company	6/23/88
Hawaiian Telephone Company	6/25/88
GASCO, Inc.	
American Lung Association	6/17/88
Downtown Improvement Association	6/27 & 7/11/88
Downtown Neighborhood Board No. 13	
Kailua Neighborhood Board No. 31	
Downtown Business Council	7/12/88
American Institute of Architects	7/01/88
Historic Hawaii'i Foundation	
American Society of Landscape Architects	
Kukui Plaza	
Honolulu Tower Association	7/07/88
St. Andrews Cathedral	6/15/88
St. Andrews Priory School	
Chamber of Commerce of Hawaii	
Economic Development Corporation of Honolulu	7/01/88
Building Owners and Managers Association of Hawaii	6/28/88
Cathedral of Our Lady of Peace	
KHVV - News Radio 99 (1001 Bishop Street, Suite 660)	
KIKI - 83 AM Stereo (Davies Pacific Center, Suite 1700)	
KMAI HOT - 194 FM (Davies Pacific Center, Suite 1700)	
K-POI FM 98 ROCK (741 Bishop Street)	
HWHE-TV (1188 Bishop Street, Suite 502)	
KCCN Hawaiian Radio (Pioneer Plaza, Suite 400)	7/27/88
Century Square	
Pacific Rim Foundation	
Alexander and Baldwin	
Mr. Lowell Chung	
Mrs. Mazie Young	
Mr. Mervin Lee	
Mr. Winston Mirikitani	

**APPENDIX C**

**Persons, Firms or Agencies**

**Preparing This Statement**

C. PERSONS, FIRMS OR AGENCIES PREPARING THIS STATEMENT

PARSONS HAWAII

1. George J. Krasnick

Educational Background: Master of Science, Biological Oceanography.

Professional Experience: Over seventeen years experience in project management and technical production of environmental assessments and impact analyses.

Responsibilities: Project Manager; coordinated efforts with subconsultants on technical environmental support studies; overall preparation of the EIS document.

2. Juliane L. Mansur

Educational Background: Master's Degree, Urban and Regional Planning.

Professional Experience: Over four years experience in the field of Land Use/Environmental Planning and ten years experience studying environmental issues in Hawaii.

Responsibilities: Project Planner, coordinated efforts with subconsultants on technical environmental support studies; overall preparation of the EIS document.

3. Joseph D'Aquila

Educational Background: Bachelor of Science, Mechanical Engineering.

Professional Experience: Over eighteen years mechanical engineering experience involving design of mechanical systems and utilities for a wide variety of projects.

Responsibilities: Assessment of project's effect on public utilities and infrastructure.

CULTURAL SURVEYS HAWAII

1. Hallett Hammatt

Educational Background: Ph.D, Anthropology.

Professional Experience: Twenty-five years experience in archaeological survey and excavation, and twelve years of experience in Hawaii with 250 projects.

Responsibilities: Evaluation of archaeological impacts.

**COMMUNITY RESOURCES, INC.**

1. John M. Knox

Educational Background: Ph.D, Social Psychology.

Professional Experience: Over eight years experience in community dialogue and social impact assessment.

Responsibilities: Assessment of impacts of the proposed project to surrounding communities and land uses; study of economic and fiscal aspects of the project.

2. John T. Kirkpatrick

Educational Background: Ph.D., Anthropology.

Professional Experience: Over four years of fieldwork in Hawaii and elsewhere in the Pacific; one year of experience in social impact assessment.

Responsibilities: Assessment of social impacts of the proposed project to surrounding communities and land uses and study of economic and fiscal aspects of the project.

**BARTON-ASCHMAN ASSOCIATES, INC.**

1. Phillip Rowell

Educational Background: Master of Science Degree in Civil Engineering.

Professional Experience: Over seventeen years experience in traffic impact analysis and transportation planning.

Responsibilities: Prepared traffic impact analysis for project site and surrounding vicinity.

**ENGINEERING-SCIENCE, INC.**

1. Elvira Gaddi

Educational Background: Master of Science Degree in Chemical Engineering; M.S. candidate, Environmental Engineering.

Professional Experience: Over fourteen years experience in environmental assessment, design and engineering.

Responsibilities: Prepared air quality impact analysis.

**DARBY & ASSOCIATES**

1. Ronald A. Darby

Educational Background: Master of Science, Engineering.

Professional Experience: Over twenty-nine years of experience in acoustics and noise control engineering.

Responsibilities: Prepared noise impact analysis.

**DANIEL, MANN, JOHNSON, & MENDENHALL**

Professional Experience: For over forty years, Daniel, Mann, Johnson & Mendenhall have provided architecture, engineering, program and construction management and design/build services to a wide range of clients.

Responsibilities: Building envelope definition and preliminary design for analysis of proposed project.

**APPENDIX D**

**Archaeological Impact Analysis**



ARCHAEOLOGICAL ASSESSMENT  
OF BLOCK J, HONOLULU  
SITE OF THE PROPOSED  
PACIFIC NATIONS CENTER

by Hallett H. Hammatt, Ph.D.

Prepared for  
Parsons Hawaii

by  
Cultural Surveys Hawaii

November 1988

## ABSTRACT

The urban block of downtown Honolulu known as Block J, lying between Fort, Queen Emma, Kukui and S. Beretania Streets is proposed for development of the Pacific Nations Center. Historical research by M. J. Tomonari-Tuggle in 1983 documented the development of the block from agricultural and to residential and commercial use spanning the last 130 years. Important former buildings included the residence of the French Consulate (J. Dudoit) in 1850 and the Chinese YMCA and the Dickson House at the turn of the Century. The parcel is presently in use for parking, office buildings and an Electric Substation. The study of 10 soil borings taken from subsurface deposits show scattered historic debris. However, it is uncertain whether intact, unmixed cultural deposits or features have survived the 1955 demolition of the block. Limited subsurface testing following demolition and preceding construction is recommended with possible construction monitoring depending on the results of the testing.

#### ACKNOWLEDGEMENTS

Juliane Mansur of Parsons Hawaii offered Valuable assistance and coordination in this project and provided much useful information. The 1983 report of Myra Tomonori-Tuggle was the source for virtually all historic information on Block J. Her thorough historic research on this parcel is to be complemented. Typing was performed by Ms. Vicki Creed of Windward Processing.

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## I. INTRODUCTION AND SCOPE OF WORK

### SCOPE OF WORK

This report contains the results of an archaeological assessment of Block J, Downtown Honolulu (Fig 1), and consists of the following elements:

1. summary of available historical documentation mostly abstracted from a report on the project area, prepared by M.J. Tomonari-Tuggle in 1983.
2. An assessment of the archaeological potential of Block J in the perspective of recent archaeological research performed in various locations in downtown Honolulu.
3. A recommended plan for addressing and mitigating archaeological impact in view of the proposed development of the Pacific Nations Center on the site.

Historical information on the past use of Block J has already been researched by Tomonari-Tuggle. For this reason, historical search for the purposes of the present project was minimal.

### DESCRIPTION OF THE PROJECT AREA

The parcel of land referred to as Block J is a truncated triangular block in downtown Honolulu which is bounded by the mauka/makai running Pali Highway & Fort Street on the west and Queen Emma Street on the east with S. Beretania Street on the makai side and Kukui Street on the mauka side. The block comprises 5 acres of land which is presented in use as municipal parking (on the west side), a small park, an office building and an electrical substation on the east and northeast side.

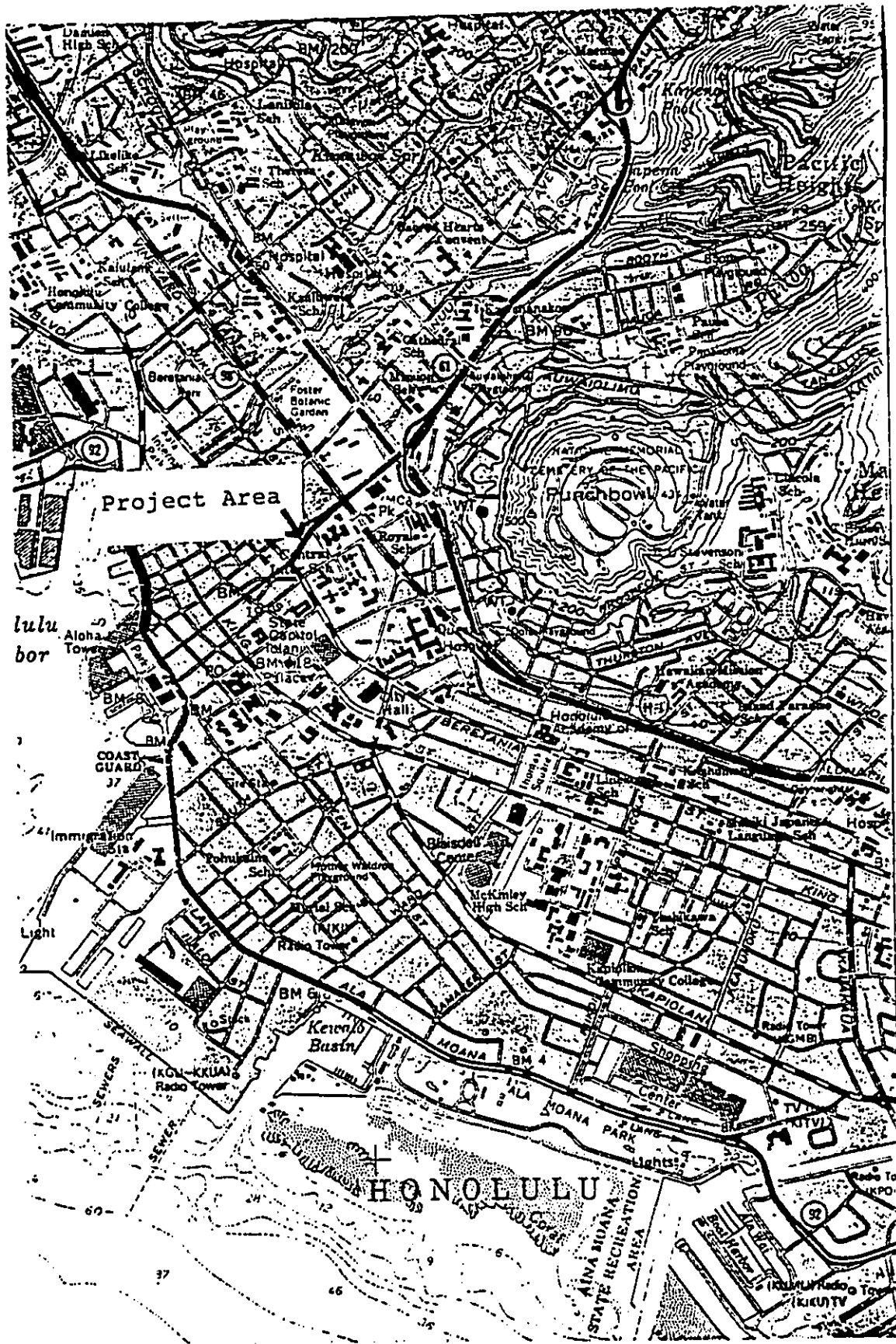


Figure 1 U.S.G.S. Honolulu Quad Map Showing Project Area

## II. HISTORICAL SUMMARY OF BLOCK J

The following summary is abstracted largely from Tuggle's historic research (Tomonari-Tuggle, 1983).

The settlement of Honolulu derived its name from the ahupua'a of that name. The ancient land unit included the surrounding valleys and was noted for its lo'i - irrigated taro lands watered by auwai and ditches tapped from Nu'uuanu and Pauoa Streams. The coastal settlement was known as Kou. By the 1820s the community of Honolulu had grown to thousands of residents and because of the excellent harbor became the trading and commercial center of the Island. In 1845 the capital of the kingdom of Hawaii was moved to Honolulu and became the political and social center.

In 1850 (Fig. 2) Block J was still on the fringes of the urban center. The Land Court Awards show at least 21 taro patches and 9 house sites on the mauka side. One of these L.C.A.'s was claimed by Leleiohoku - the husband of Princess Ruth Keelikolani. A potato patch belonging to Gideon La'anue, a high-ranking chief was also on the property. On the makai side, fronting Beretania Street were 14 houses occupied by Hawaiians (presumably wood frames). In the makai west corner was the house of Jules Dudoit, the French consul to Hawaii (only the kitchen of this house is presently in the project area, the rest being cut off by the Fort Street widening, according to the Tomonari-Tuggle map, Ibid.:6).

By 1900 (Fig. 3) the block was entirely developed as a residential and commercial area with more than 30 wood frame buildings. The two notable buildings were the Dickson house on the



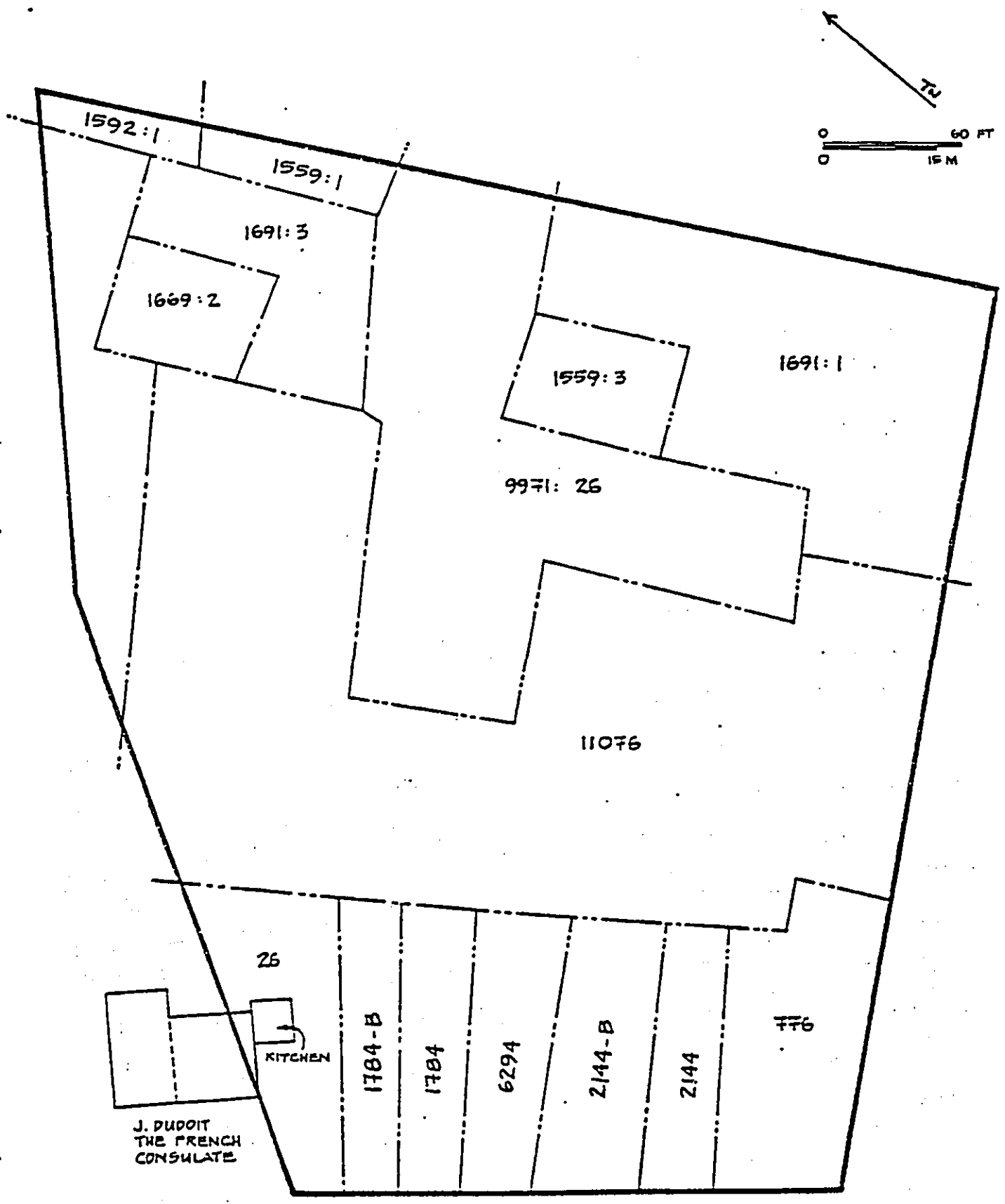


Figure 2 Block J in 1850, from Tomonari-Tuggle, 1983

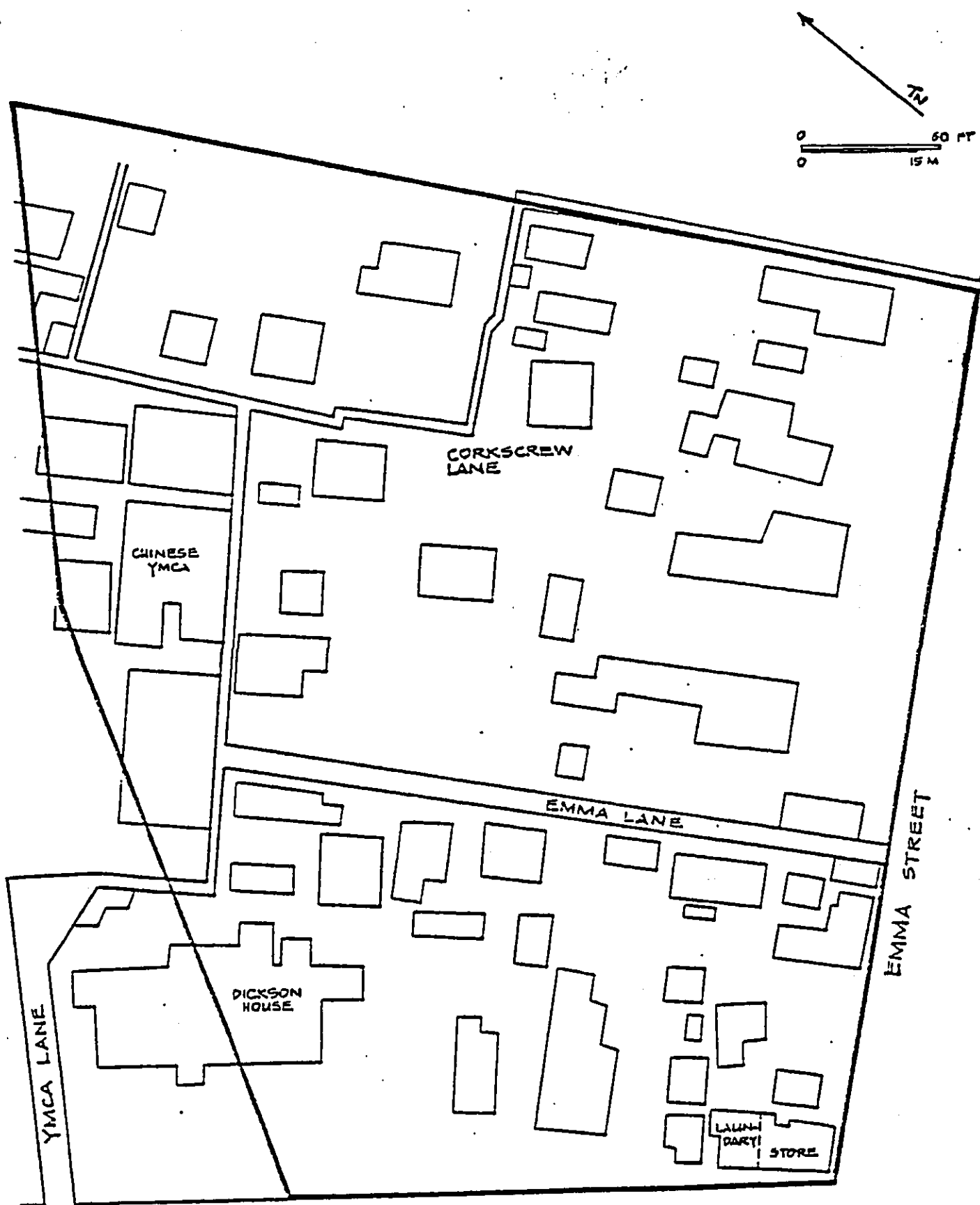


Figure 3 Block J in 1900, from Tomonari-Tuggle, 1983

site of the former Dudoit residence and the Chinese YMCA in the center of the property fronting Fort Street. There were narrow lanes providing access to the center of the block from the main thoroughfares.

By 1927 (Fig. 4), the building density had increased and commercial enterprises were mixed with tenements and rooming houses. There were stores, a restaurant, a movie theater and offices. The neighborhood continued as a mixed-use area and many of the buildings degenerated in condition (Fig. 5). In 1955 the City and County demolished 24 of the surviving structures and graded the area to construct the present parking lot (Fig. 6).

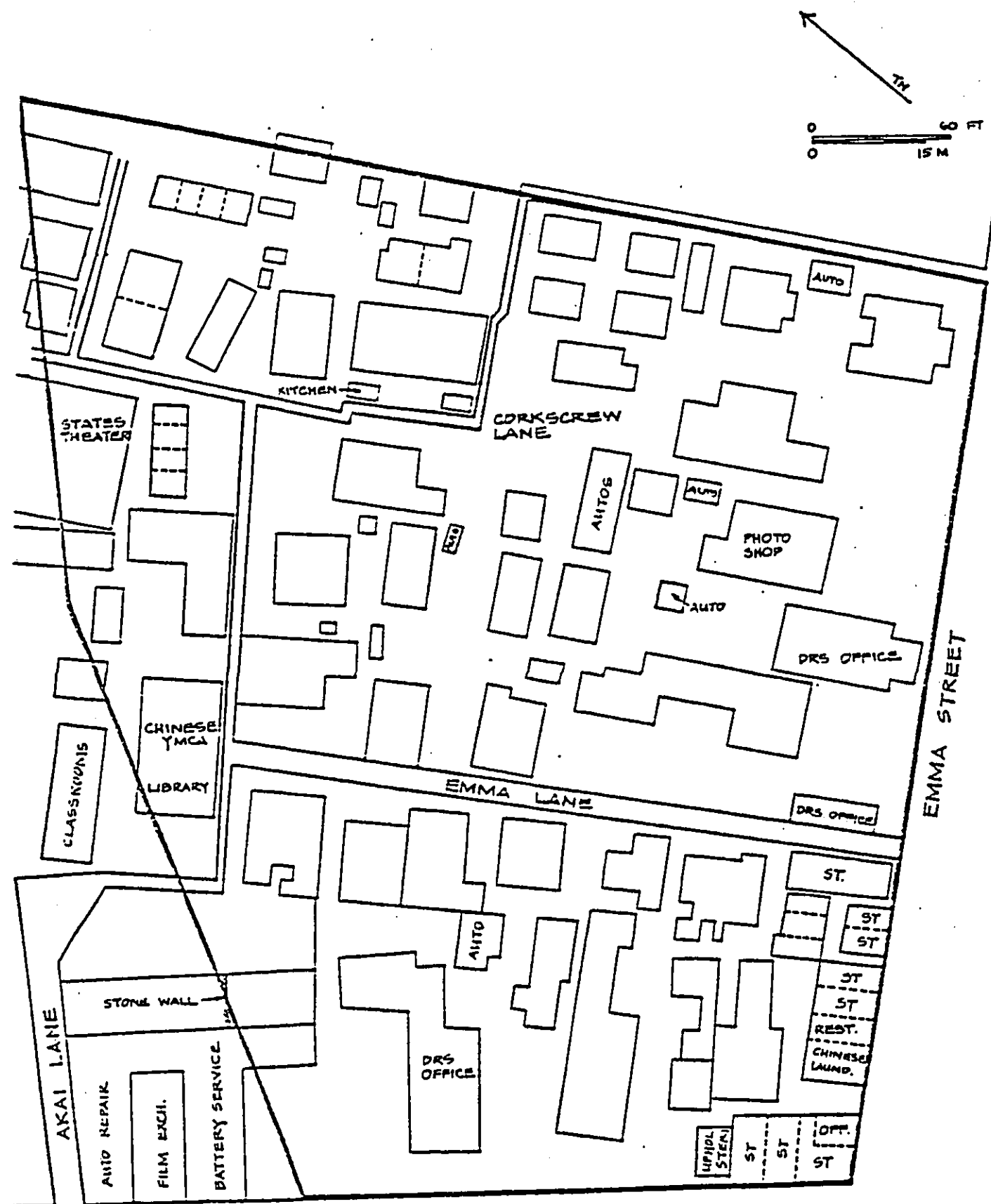


Figure 4 Block J in 1927, from Tomonari-Tuggle, 1983

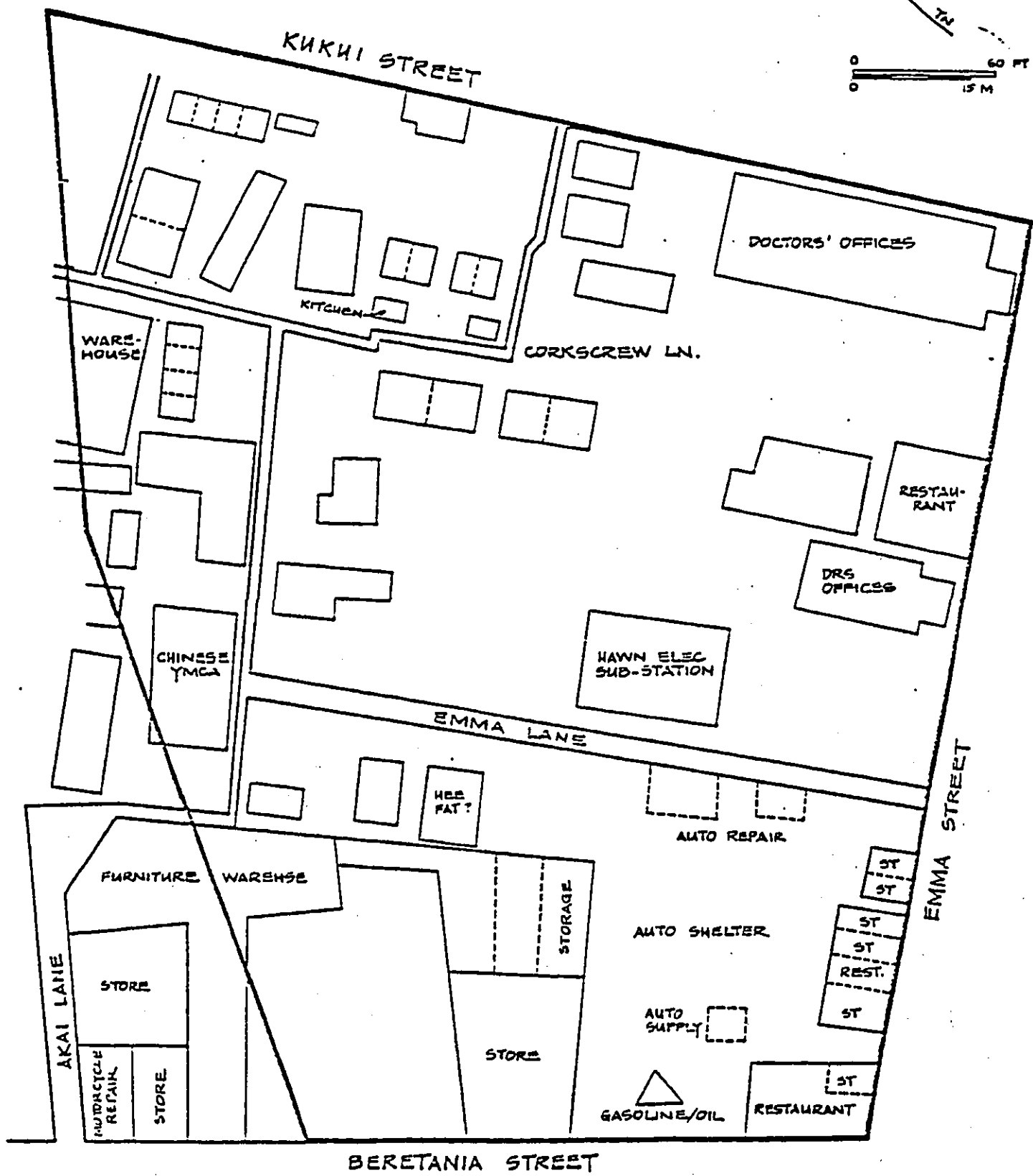


Figure 5 Block J in 1955, from Tomonari-Tuggle, 1983

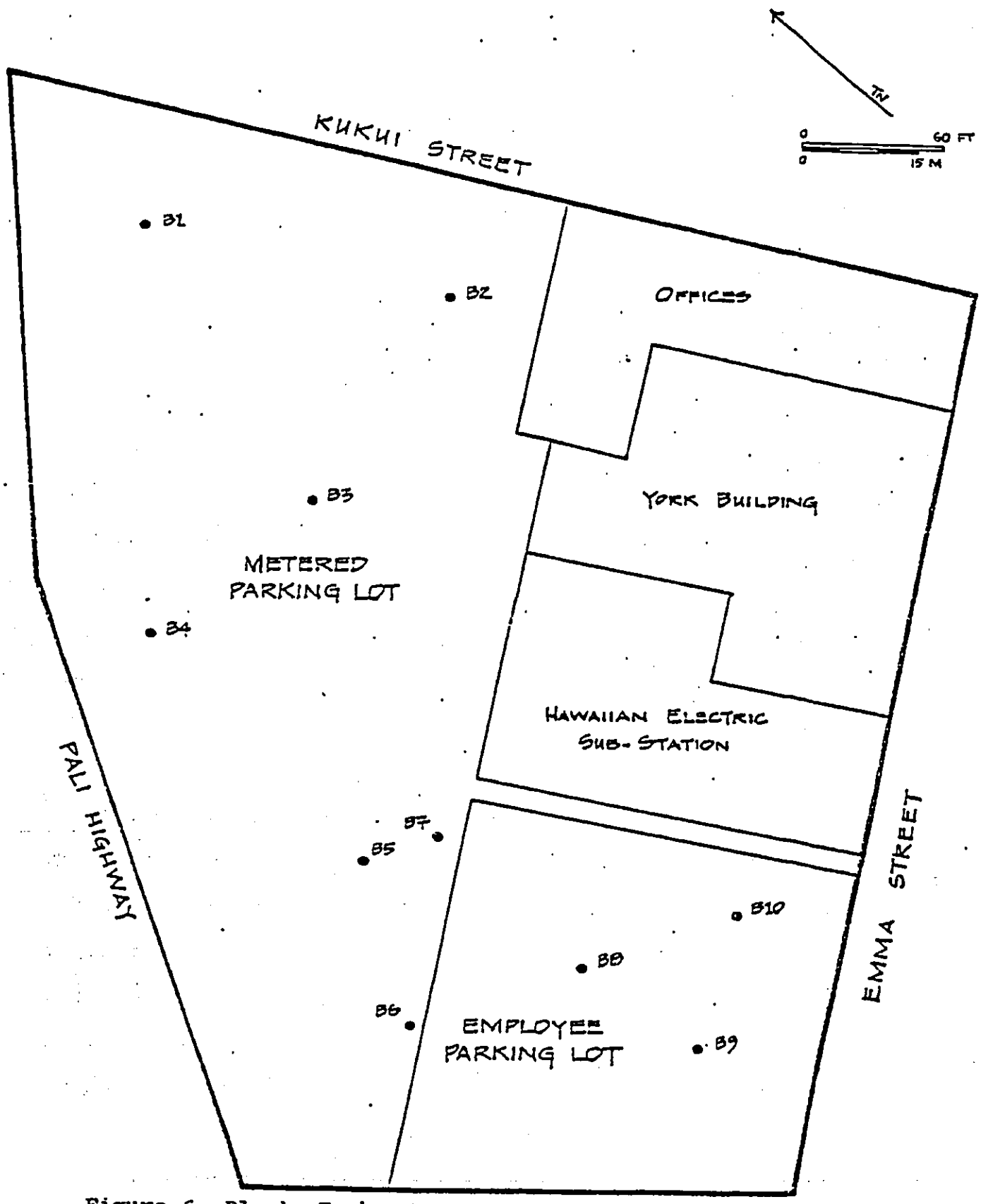


Figure 6 Block J in 1983 (present--showing locations of borings) from Tomonari-Tuggle, 1983

### III. UPDATE OF ARCHAEOLOGICAL RESEARCH IN DOWNTOWN HONOLULU

Most of the archaeological research in downtown Honolulu has taken place since 1983 and has involved at least one urban parcel in the neighborhood of Block J.

In 1984, Archaeological Consultants of Hawaii's Joseph Kennedy conducted subsurface testing of a parking lot at the corner of Hotel and Bethel Streets for a proposed office tower project. The purpose of the testing was to locate the foundation and basement of the old International Hotel. The discovery of present day trash at the base of the excavations 12 feet below the surface lead to the realization that the entire deposit to coral substrate was recently imported fill which was graded into the parcel to create a stable surface for the parking lot. The original deposits representing the historic era had been removed. In this case, although historic research showed significant buildings had been present, no archaeological value remained (Kennedy, 1984).

In 1986 Stephen Athens conducted archaeological monitoring for the foundation trenching of the Judiciary Parking Garage at Pohukaina and South Streets in Kaka'ako. He reports that the subsurface deposits consist of a 19th Century mixed trash layer which was apparently dumped to stabilize swampy deposits. The bottle ages were mixed and the trash layer is interpreted as an imported fill. No structural remains or traditional Hawaiian remains were found (Athens, 1986).

In 1987 the Bishop Museum performed monitoring and excavation during construction of the makai parking garage on the corner of

Punchbowl and Halekauwila Streets. Both prehistoric and historic era use of the site was indicated. Seven human burials were found--some of which were prehistoric. Prehistoric artifacts were recovered and a buried A-horizon was dated to before 1400 AD. The property was used in the mid- to late-19th Century for trash dumping. Of great interest was the recognition of an old shoreline deposit (Clark, 1987).

Starting in 1986, Cultural Surveys Hawaii has been monitoring construction trenching for the Kaka'ako Improvement District. This trenching has been exclusively within Kaka'ako Streets. So far, 2 cemeteries have been discovered; one at South Street and Quinn Lane and the other at Queen and Punchbowl Streets. A major layer of historic fill containing mixed 19th Century artifacts (bottles, metal objects, etc.) has been traced over much of the Kaka'ako area. Underlying this fill are sandy shoreline deposits and gleyed ponded sediments of former fish and salt ponds.

Other projects have been undertaken in downtown Honolulu, but results are not yet available. Griffin et. al. presents a useful summary of archaeological potential for the Kaka'ako area and draws special attention to the likelihood of as yet undiscovered cemeteries, as well as the possibility of intact, prehistoric sites along the old shoreline.



#### IV. ARCHAEOLOGICAL SIGNIFICANCE OF BLOCK J

##### Soil Cores of Block J

As part of the Tomonari-Tuggle investigation of Block J, 10 soil borings were examined for cultural material and profile descriptions were made (Fig. 6) (Tomonari-Tuggle, 1983). A fairly uniform gravelly silty clay containing concrete, bottle glass, and metal fragments extended to a depth of between 2-3 feet. This layer could be a demolition layer containing material from former structures of block J or it could be a transported fill carried to the site from another location which happens to contain historic era materials. Below this layer at a depth of 3-5 feet is a naturally deposited volcanic cinder layer which is almost certainly the Late Pleistocene Black Tantalus and Sugar Loaf Ash deposit identified by Stearns in a core taken from the grounds of Iolani Palace (Stearns, 1939). This deposit predates the arrival of the first Hawaiians and is of geologic interest only. It should be noted that at Queen Street and King Street adjacent to Punchbowl Street historic burials were intrusive into this ash deposit, but no cultural material has ever been found to be contemporaneous with the ash.

##### Summary

In the context of recent archaeological projects in downtown Honolulu, the following observations relevant to the potential of Block J are offered:

1. The historical significance of the 18th and 19th Century use of Block J as presented by Tomonari-Tuggle is not

disputed. Of immediate concern to the proposed development and to the design of mitigation procedures is--to what extent is the historical (and possibly prehistoric) activity represented by what survives under the present buildings and parking lot?

2. With the presently available information on corings in Block J, it is unclear whether deposits associated with former activities are still present and whether they are intact and unmixed. As shown by other downtown archaeological investigations all the in situ fill could have been removed and replaced with more suitable soil material. It is also possible that intact foundations, historic dumps, agricultural features and even burials survive within the deposits. The lesson of recent projects is that the location and extent of intact deposits is almost impossible to predict and their occurrence is largely dependent on post depositional demolition, filling and grading procedures.

### RECOMMENDATIONS

The following recommendations are thought to best address the possibility of the presence of intact historic (or prehistoric) deposits in Block J, with the least investment of time and expense.

1. Archaeological test excavations consisting of 4-8 backhoe trenches within Block J following demolition, but preceding construction. Observation and study of the stratigraphy and content of these trenches should provide sufficient information to determine if intact, significant cultural materials are present.
2. If significant cultural materials are found in the backhoe testing then archaeological monitoring of the excavation of building foundations and utility lines should be required. In other downtown projects archaeological monitoring has proven to be an effective means of dealing with sporadically occurring cultural deposits. Because of the common practice of mechanical demolition, filling and grading for downtown areas it is most likely that only partial preservation of former deposits will be found in Block J. The disadvantage of archaeological monitoring of construction is that partial destruction almost always accompanies the discovery of cultural material. The advantage is that the archaeologist can find more in less time and gain a broader stratigraphic and contextual perspective.

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**APPENDIX E**

**Social Impact Assessment**

SOCIAL IMPACT ASSESSMENT FOR THE PROPOSED  
PACIFIC NATIONS CENTER,  
HONOLULU, HAWAII

Prepared by:

Community Resources, Inc.

John M. Knox, President

John T. Kirkpatrick, Project Manager

Prepared for:

Parsons Hawaii

November 1988

## EXECUTIVE SUMMARY

This social impact assessment was prepared for Parsons Hawaii, for the Draft Environmental Impact Statement of the proposed Pacific Nations Center. No developer and design for the proposed project have been chosen as yet, so this assessment deals with a "worst-case scenario" in which the structures of the project fill the space available.

The proposed project is taken to have 1,650,000 square feet of space devoted to offices, an executive hotel, residential units, retail space, restaurants, and meeting and exhibit areas. Parking space is to be provided for 2,500 cars. The project is to occupy nearly all of "Block J" -- the block bounded by South Beretania, Fort Street, Kukui Street, and Queen Emma Street.

The project site is currently occupied by parking lots, four small office buildings, an electrical sub-station, Pali Highway, and a small park. No one lives on the site.

The project site is now seen by residents and others as at the edge of Downtown Honolulu. Nearby structures include offices, churches, schools and residential buildings.

### SOCIAL IMPACTS

Specific social impacts of the Pacific Nations Center as conceptualized in the Draft Environmental Impact Study include:

Displacement: The on-site office buildings are to be bought at fair market value. They house over 60 commercial tenants, mostly professional offices. Tenants will be able to remain on-site until construction begins. Tenants will be eligible for relocation assistance.

Population Impacts: The Pacific Nations Center will have an estimated 914 residents. That number is well within City and County population guidelines for the Development Plan Area in which the project is located. The maximum de facto population of the project is forecast as over 8,000 in the daytime and over 1,100 at night.

Impacts on Nearby Land Users: During construction, the project may inconvenience persons attending nearby schools and churches. Traffic impacts during construction, the extent of which cannot be fully specified yet, will affect all nearby institutions.

When the project is operational, the added population may increase attendance slightly at adjacent churches and schools. The restaurant, commercial, and parking facilities of the project will be an amenity for nearby residents and occupants of nearby offices.

The Pacific Nations Center is one of several projects which are changing central Honolulu. The cumulative impacts of those projects are likely to include:

- o Expansion of the Downtown area;
- o Increased evening and weekend activity in Downtown and Chinatown; and
- o Changing traffic patterns at non-rush-hour times.

As a large mixed-use facility, the project will define the character of the surrounding area in a way that the current structures on-site do not.

#### ISSUES AND CONCERNS

Interviews with members of the community brought out both issues of general concern with regard to the project and the viewpoints prevalent in specific groups. The most widely shared concerns had to do with traffic and with building design.

Traffic congestion was seen as an existing problem, which many thought will be much worse during the project's construction. When the project is operational, some persons saw it as adding to Downtown traffic, while others saw it as having a positive impact on congestion by capturing traffic which otherwise would go down Bishop Street.

Building design was of concern for several reasons. Many people wanted mountain views to remain. Setbacks and building design were treated as important both for the project and for the project's relation to nearby structures of historical value. Wind patterns and reflected heat (from mirror buildings) were also of concern.

The persons interviewed for the social impact assessment can be treated as members of four groups:

- o Representatives of the Downtown business community -- these were strongly supportive of the project as contributing to Honolulu's prosperity.
- o Persons affiliated with nearby non-residential land users -- these largely viewed the project as an asset to the area, so long as certain potential problems were controlled. Their major concerns were that vibration during construction might affect nearby structures, and that wind patterns changed by the project could pose safety problems at the project site and nearby.



- o Owners and tenants of on-site properties expressed concern about relocation and were mixed in their reactions to the project.
- o Area residents found many of the proposed uses of the project appealing, although they were concerned about construction impacts and view planes. Some area residents felt the project was an inappropriate use of the Block J site.

Many of the project's expected impacts are positive. Potentially negative impacts largely depend on political and design processes which are to continue in the coming months. Questions about traffic, design, and project feasibility can be raised again later with regard to a more detailed design presented by a developer.

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## 1.0 INTRODUCTION

### 1.1 PURPOSE AND ORGANIZATION OF THIS REPORT

This report is an assessment of the social impacts of the proposed Pacific Nations Center. It has been prepared for Parsons Hawaii, for inclusion in the Environmental Impact Statement being written for the Department of Housing and Community Development of the City and County of Honolulu.

Social impact assessments are made in order to identify and disclose information of use to decision-makers and to citizens evaluating the implications of proposed developments.

The impacts of a project must be judged in relation to the surrounding area at the time the project would take effect. Hence a project is considered in relation to probable future conditions, not just the situation existing at the time of the report.

This report has four main sections:

- o This section includes introductory material;
- o The second section describes the existing situation at the project site and in the study area surrounding it;
- o The third section identifies current and probable changes in the surrounding community that form part of the context of the project; and
- o The final section deals with the social impacts of the project, identifying both possible changes and, where appropriate, mitigations for impacts associated with the project.

### 1.2 THE PACIFIC NATIONS CENTER

The Department of Housing and Community Development (DHCD), City and County of Honolulu, proposes the creation of a large, mixed-use complex on a 5.06-acre site at the edge of Downtown Honolulu (see Figure 1). The Pacific Nations Center, to be built by a private developer, could conceivably contain up to 1.65 million sq. ft. of floor area. At least 75,000 square feet of the site would be in open space.

Because the developer has not been chosen, the design of the project has not been finalized. For the purposes of the Draft Environmental Impact Statement, a building definition has been specified, indicating the mix of uses to be included in the project and the areas to be devoted to different uses. The building proposal examined in this report is large -- 1,650,000 square feet, plus parking and open space. -- and should be considered an extreme or worst-case scenario. It is possible

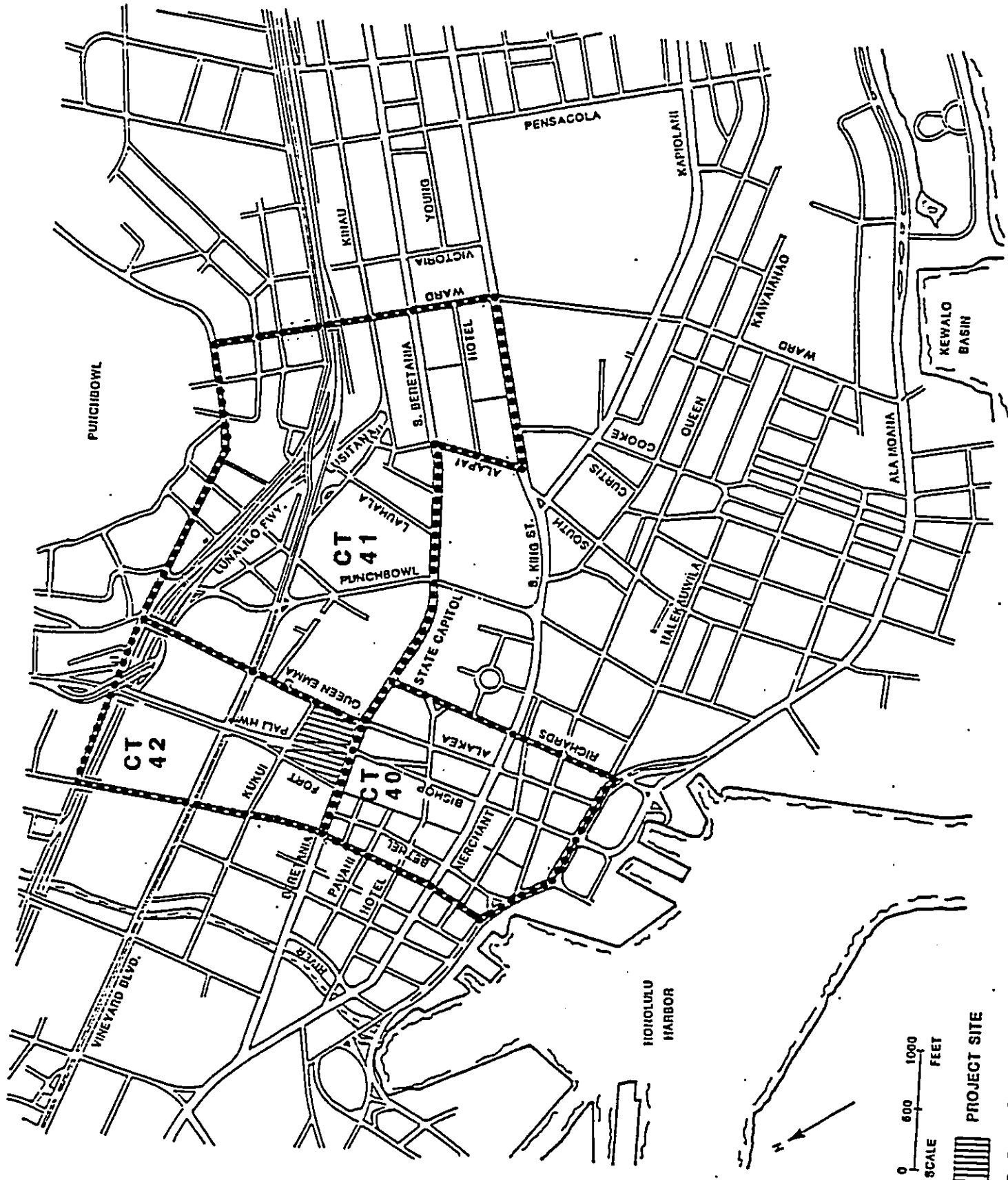


FIGURE 1 - PROJECT LOCATION MAP

HONOLULU HARVESTERS

that the plans for a Pacific Nations Center eventually submitted by a developer and accepted by the City will be for a smaller structure.

The project is intended as a new mauka "anchor" for the Downtown district. It will combine several uses, with an emphasis on commerce. First, the project is proposed as the future home of a Honolulu Stock Exchange and offices associated with such an exchange. If a World Trade Center were created in Honolulu, it might reasonably be located in the project. Other uses include business offices, retail space, a hotel, restaurants, and residences.

The block bounded by Vineyard Street, Queen Emma Street, Beretania Street, Fort Street, and Pali Highway now contains a mix of uses, which would be preserved or replaced by similar components of the project:

- o The Central Fire Station is excluded from the project, and the project's design will take into account its historic qualities;
- o Kamalii Park -- a 30,276-square-foot area beside Pali Highway, with benches and a few trees -- will be included in the project site but may not be preserved in its present form and location, although the project will include open space areas adding up to over twice the area of the park;
- o A Hawaiian Electric Company sub-station now on the site will be replaced by a new station integrated into the project;
- o The four private office buildings in the block will be replaced by a structure including a larger volume of office space;
- o Public parking spaces now on site will be replaced by a far larger parking facility in the project; and
- o Pali Highway leads into Bishop Street -- and thus serves as a major access road into Downtown Honolulu -- through the project site. This road connection will be preserved as part of the project's design -- the road may in effect tunnel through the project building.

All of the block except the ewa-makai corner, where the fire station is located, would be leased to a private entity to develop the Pacific Nations Center.

## 2.0 THE EXISTING COMMUNITY

### 2.1 DEFINITION OF THE STUDY AREA

The project site is on the edge of the developed core of downtown Honolulu. The site is occupied in part by four office buildings -- the 13-story Queen Emma Building, the three-story Gaspar Building, the two-story Mirikitani Building, and the three-story Civic Center Properties Building. Additionally, it serves as a parking area and roadway linkage to major highways.

#### 2.1.1 Historical Background

The growth of Honolulu over the past century has shaped the area surrounding the project site in complex ways:

- o The major business district is makai of the site. It originally was located makai of King Street, but has grown in area and density. The intersection of Bishop and King Streets is now the heart of the business district, which stretches to Beretania Street.
- o Several buildings near the project site have uses depending on a central location, but these are relatively low-rise structures and are not devoted to business purposes. These include the Cathedral of Our Lady of Peace, St. Andrew's Cathedral, and the Pacific Club.
- o Older residential areas mauka of central Honolulu deteriorated during the first half of the century, and were targeted for urban renewal. The new buildings subsequently developed in the Kukui and Queen Emma Redevelopment Areas are mainly multi-story apartment complexes.

The area surrounding the project site is not easily described in terms of a single land use or type of building -- office or residential. It is instead the point at which recent urban growth meets the historical edge of the central area of the city as well as the effects of past redevelopment.

Between Nuuanu and Richards Streets, redevelopment under government auspices has mainly occurred mauka of Beretania Street, while the area makai of Beretania has been owned and developed by private firms. Between Richards and Ward, diamondhead of the project site, the opposite pattern exists: much of the land makai of Beretania is taken up by the State Capitol, State offices, Honolulu Hale, and City and County offices. Mauka of Beretania are Queens Hospital and, towards Ward Avenue, privately developed residential buildings, as well as some State offices.



The project site is in the Kukui Urban Renewal Plan (KURP) area, which was instituted when the Honolulu Redevelopment Agency (predecessor to DHCD) was responsible for urban development in the city. In the KURP, the project site was designated partially for commercial use, partially as a transportation hub (Sasaki, Walker and Associates, Inc., and Lemmon, Freeth, Haines, and Jones, 1962). The (unofficial) Gruen Plan for Downtown Honolulu, which did much to spur Downtown renovation and development, called for a superblock uniting the project site with the block where Kukui Plaza now stands (Gruen, 1968). The project involves a larger building than any envisioned before 1980, but it is related to earlier conceptions of the site and its surroundings.

### 2.1.2 Current Land Uses

The various land uses found in the area surrounding the project site are functionally interrelated:

- o The urban core -- the Central Business District, with half the state's office space (Grubb and Ellis, 1988) -- is densely developed and generally devoted to offices and services for office personnel;
- o Land along the edge of the urban area -- including the project site -- is devoted to a mix of less intensive uses, many of which support the nearby urban core (e.g., transportation, parking), and some of which follow from the historical fact that much of this zone was a site of extensive urban renewal;
- o Honolulu's government offices are centralized in a zone that has relatively large open spaces. This area resembles the business district in its concentration on a single institutional function, and resembles the area at the edge of the business district, as it has a relatively low-density spatial organization; and
- o Along the edge of the urban center and in nearby areas are high-density residential zones, with many residents working in the urban center.

The various uses and characteristics noted above are present in the study area identified for this social impact assessment. The study area consists of Census Tracts 40, 41 and 42 (see Figure 1):

TRACT 40 -- "Downtown": Bounded by Nuuanu Avenue, South Beretania, Richards Street and Nimitz Highway, this is the Central Business District.

TRACT 41 -- "Queen's Hospital Area": Bounded by Queen Emma Street, Iolani Avenue, Ward Avenue, South King Street,

Alapai Street, and then South Beretania, this tract includes the various uses mauka of the project.

TRACT 42 -- "Project Area": Bounded by Nuuanu Avenue, Iolani Avenue, Queen Emma Street and South Beretania Street, this includes the project site and nearby apartment buildings.

The brief labels in quotes above are used to identify these tracts in this report, and are meant only as reminders.

Commercial and residential growth in central Honolulu extends beyond the study area. To place study area conditions and trends in perspective, reference will occasionally be made to Honolulu's "larger urban zone," including Chinatown, the State Capitol area, the King St. and Kapiolani Boulevard corridors (and hence both the Ala Moana area and Kakaako), along with the study area. Waikiki is excluded from this larger zone as it is a distinctive resort and residential district.

## 2.2 NON-RESIDENTIAL LAND USES IN THE STUDY AREA

Far more people visit and work in the study area than live there. The daytime population of workers, customers, clients and visitors in the Downtown area alone is estimated as at least 53,000 (personal communication, William A. Grant, Executive Director, Downtown Improvement Association, October 25, 1988) -- over six times the resident population of the entire study area. The users of the project site and adjoining areas are mainly non-residents:

- o The Project Site. The project site's professional offices attract a range of clients, including medical patients and students. The metered parking stalls on the project site are used at times by customers or clients of the project site offices, but also by customers of nearby Downtown businesses. The parking area is used some evenings and weekends by people attending events such as Hoolaule'a at St. Andrew's Priory, Aloha Week celebrations, and Chinese New Year's festivities. Kamali'i Park has few users other than persons walking across it and a few street people. Pali Highway, which passes through the project site, is a major access road to Downtown.
- o The Rest of Census Tract 42. Kukui Plaza, next to the project site, is a major residential complex with 906 units in two buildings. It also includes 55 commercial tenants. Mauka of the project site is Central Intermediate School. This has about 400 students, from a district stretching from the Punchbowl area to Mayor Wright housing (personal communication, Richard Anbe, Principal, October 11, 1988). On the mauka side of Vineyard Avenue are the Nuuanu YMCA and the Queen Emma Gardens apartment complex with 587 units.

Most Kukui Plaza units now house owner-occupants, many of whom are long-term residents. Queen Emma Gardens is devoted to rental units. Rental increases at Queen Emma Garden for long-term tenants have been held below market rates (Smith, 1988a).

- o Census Tract 40 -- The Central Business District. Office workers are the major users of this area. They are joined by a variety of others -- customers of Downtown businesses, students at Hawaii Pacific College, people changing busses, older people who use parts of Fort Street Mall as a meeting place, and street people, some of whom get food at the Catholic Diocese of Hawaii building, across Beretania Street from the project site.

The district has few after-hours attractions at present. The major source of entertainment in the area, Hawaii Theatre, is only open for special events. However, the recent opening of a police sub-station at the edge of the district may make Downtown seem safer to Honolulu residents than before.

- o Census Tract 41 -- The Queen's Hospital Area. This tract includes Queen's Hospital, St. Andrew's Cathedral, St. Andrew's Priory School, Washington Place (the Governor's residence), several government office buildings, and the Pacific Club. All these sites attract non-residents to the area for business, worship, or tourism. Mauka and towards Ward Avenue, this tract has a residential population greater than that of the other two tracts of the study area.

### 2.3 HOUSING CHARACTERISTICS OF THE STUDY AREA

Nearly all the residents of the study area are housed in apartment buildings. The number of housing units in the area nearly doubled in the 1970's, but has increased little since then (see Table 1).

The large majority of housing units in the study area were rented, rather than owner-occupied, in both 1970 and 1980. Over the decade of the 1970's, the proportion of owner-occupants in all tracts of the study area increased. This trend appears to have continued -- for example, over 70 percent of the units in Kukui Plaza, adjoining the project site, are now owner-occupied (personal communication, Geoffrey E. Darr, General Manager, Kukui Plaza, September 30, 1988).

In the larger urban zone including the study area, two sorts of new housing units have recently been built -- more expensive condominium projects and rental apartment buildings.

Honolulu Tower, built in 1982, added relatively spacious condominium units to the in-town housing stock. More recently, upscale condominium projects in Kakaako -- Royal Capitol Plaza

TABLE 1: HOUSING STOCK AND CHARACTERISTICS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		STUDY AREA (Combined Tracts 42, 40, and 41)		CENSUS TRACT 42 (Project Site)		CENSUS TRACT 40 (Downtown)		CENSUS TRACT 41 (Queen's Hospital)	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
TOTAL YEAR-ROUND HOUSING UNITS	174,107	250,866	2,598	4,570	642	1,590	53	608	1,903	2,372
vacant (total)	5.4%	8.2%	4.7%	6.7%	1.9%	4.2%	1.9%	18.1%	5.7%	6.6%
vacant for sale	0.6%	0.5%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%	0.1%
vacant for rent	2.5%	3.6%	3.1%	3.5%	0.3%	1.8%	0.0%	9.4%	4.1%	3.2%
held for occas. use	N/A	0.9%	N/A	0.6%	N/A	0.1%	N/A	3.8%	N/A	0.1%
other	N/A	3.2%	N/A	2.6%	N/A	2.1%	N/A	4.9%	N/A	2.2%
TOTAL YEAR-ROUND OCCUPIED UNITS	164,763	228,656	2,477	4,262	630	1,524	62	498	1,795	2,240
TENURE										
owner-occupied	45.0%	49.5%	8.9%	26.7%	0.6%	31.1%	0.0%	35.1%	12.1%	21.7%
renter-occupied	55.0%	50.5%	91.1%	73.3%	99.5%	68.9%	100.0%	64.9%	87.9%	78.3%
SELECTED CONDITIONS										
lacking some or all plumbing	3.6%	1.6%	11.2%	6.6%	2.7%	4.6%	82.7%	30.9%	12.1%	2.6%
1.5) or more persons/room	6.9%	7.4%	9.4%	7.8%	1.3%	5.0%	11.6%	3.8%	12.3%	10.6%
PERSONS PER HOUSEHOLD	3.60	3.15	2.15	1.82	1.81	1.73	1.19	1.57	2.27	1.93
MEDIAN CASH RENT (renter-occ'd)	\$130	\$279	N/A	N/A	\$189	\$347	\$68	\$250	\$101	\$271
as % of median family income**	13.0%	14.2%	N/A	N/A	15.6%	17.7%	N/A	9.4%	13.6%	18.1%
MEDIAN VALUE* (owner-occ'd)	\$39,100	\$130,400	N/A	N/A	N/A	N/A	N/A	N/A	\$35,800	\$107,500
MEDIAN MONTHLY MORTGAGE* (owner-occ'd)**	N/A	\$494	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$430
as % of median family income	N/A	26.2%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28.8%

NOTES: \* For 1980, median values are for non-condominium housing units.  
\*\* Figures based on 15 percent sample; numbers hence represent estimates.

"N/A": Not Available.

SOURCES: U.S. Bureau of the Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1973.

and Waterfront Plaza -- have sold well. Construction is just beginning on the latter project, but all the units were presold (Downtown Improvement Association, October 1988).

The City and County of Honolulu has completed a rental project in Chinatown, Hale Pauahi. Some units are earmarked for low-income residents, while others are on the open market. Another project on which construction recently began, Chinatown Gateway, is in the study area. It will have 200 one-bedroom rental units.

Single-family housing is absent from most of the study area. In 1980, it provided less than 10 percent of the residential units in Tract 41.

In Census Tract 42, including the project site, vacancy rates have been much lower than those of both the total study area and the City and County. Estimates for 1985 (Honolulu Department of General Planning, 1987) yield the following vacancy rates:

City and County of Honolulu	7.6%
Study Area	5.9%
Census Tract 42 (Project Area)	4.2%
Census Tract 40 (Downtown)	14.9%
Census Tract 41 (Queen's Hospital)	5.1%

A trend towards high occupancy levels can be seen. The financial district (C.T. 40), however, still has a high proportion of vacant units.

#### 2.4 POPULATION TRENDS AND CHARACTERISTICS

The study area contained nearly 8,000 residents in 1985 (Honolulu Department of General Planning, 1987).

The population of the City and County has grown regularly over the last four decades (see Table 2). The study area's population has changed little in that time. Tract 42, containing the project site, lost most of its population by 1960 as a result of clearing for urban renewal, and it remains much less densely populated than in 1950.

Detailed census data (Table 3) bring out differences between Tract 41 (including Queens Hospital), on the one hand, and Tracts 42 and 40, on the other hand. The people in the Downtown and Project Site tracts are older. A higher proportion of the resident population is college-educated. Many are Caucasian, and many are Mainland-born. In contrast, the people of Tract 41 more closely resemble the entire City and County population in age, education, ethnicity, and origin.



TABLE 3: TOTAL POPULATION AND DEMOGRAPHIC BREAKDOWNS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		STUDY AREA (Combined Tracts 42, 40, and 41)		CENSUS TRACT 42 (Project Site)		CENSUS TRACT 40 (Downtown)		CENSUS TRACT 41 (Queen's Hospital)	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
TOTAL POPULATION	630,528	762,565	5,359	7,777	1,162	2,637	100	820	4,097	4,320
Ethnicity										
Caucasian	41.2%	33.1%	N/A	39.6%	N/A	43.2%	N/A	63.0%	N/A	32.9%
Japanese	26.8%	24.9%	N/A	22.2%	N/A	23.3%	N/A	12.8%	N/A	23.3%
Chinese	7.7%	6.9%	N/A	10.2%	N/A	14.3%	N/A	2.4%	N/A	9.1%
Filipino	10.4%	12.8%	N/A	6.8%	N/A	4.6%	N/A	7.2%	N/A	8.0%
Hawaiian	8.5%	10.5%	N/A	7.4%	N/A	4.3%	N/A	3.7%	N/A	10.0%
Other	5.5%	11.8%	N/A	13.9%	N/A	10.3%	N/A	10.9%	N/A	16.7%
Age										
Less than 5 yr.	9.3%	7.9%	7.1%	5.2%	5.6%	4.3%	0.0%	2.3%	7.6%	6.3%
5 to 17 yr.	26.2%	20.2%	12.3%	8.3%	7.2%	6.9%	1.0%	4.9%	14.0%	9.8%
18 to 64 yr.	59.5%	64.6%	70.0%	74.7%	75.0%	74.3%	76.0%	81.0%	68.4%	73.8%
65 or more yr.	5.0%	7.3%	10.7%	11.8%	12.2%	14.6%	23.0%	11.8%	9.9%	10.1%
Median age (yrs.)	24.6	28.1	N/A	N/A	N/A	39.2	N/A	42.6	N/A	30.6
Place of Birth*										
Hawaii	56.1%	55.1%	N/A	48.6%	N/A	45.1%	N/A	46.0%	N/A	51.3%
Other U.S.**	NC	30.1%	N/A	33.7%	N/A	40.3%	N/A	44.0%	N/A	27.7%
Foreign	NC	14.8%	N/A	17.7%	N/A	14.6%	N/A	12.8%	N/A	20.5%
Residence 5 Yrs. Before* (people aged 5 or more)										
Same house	42.5%	48.2%	32.0%	25.6%	27.6%	23.5%	23.0%	31.9%	33.7%	25.7%
Same county	23.9%	25.5%	N/A	52.5%	N/A	58.8%	N/A	31.2%	N/A	52.7%
Other county	1.2%	1.3%	N/A	1.8%	N/A	2.1%	N/A	3.4%	N/A	1.3%
Other state	20.9%	18.4%	N/A	12.3%	N/A	10.6%	N/A	33.5%	N/A	9.1%
Other country	11.5%	6.6%	7.6%	7.8%	8.8%	5.0%	17.5%	0.0%	6.8%	11.1%
Education†										
(people aged 25 or more)										
Less than H.S.	20.8%	14.4%	25.0%	13.3%	6.7%	13.0%	39.8%	4.3%	31.6%	15.5%
H.S. graduate only	37.5%	35.5%	27.8%	32.1%	34.8%	27.6%	9.3%	39.5%	25.9%	33.8%
Some post H.S.	12.9%	18.3%	16.0%	21.3%	28.4%	20.7%	9.3%	19.8%	11.4%	22.1%
College, 4+ yr.	15.5%	21.7%	18.9%	26.2%	24.2%	32.7%	21.3%	31.5%	16.7%	20.1%

NOTES:

- \* Figures based on 15 percent sample; numbers hence represent estimates.
- \*\* Includes persons born in U.S. territories, or born abroad or at sea to U.S. parents.
- "NC": 1970 categories not comparable to 1980 ones.
- "N/A": Not Available.

SOURCES: U.S. Bureau of the Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1973.

In all the tracts of the study area, most of the population in 1970 and 1980 had not lived in the same house for the previous five years -- the people of the study area are somewhat less rooted in their homes than others on Oahu. This trend is strongest in Tract 40 (Downtown), where a third of the 1980 residents had come from other states in the previous five years.

## 2.5 FAMILY AND INCOME CHARACTERISTICS

Relatively few people in the study area lived in families in 1980, compared to islandwide rates (see Table 4). Also, only a third of the families had dependent children, a proportion well below the islandwide average. These facts are due in part to the aging population -- many families could have had children who are no longer dependents -- and the small size of apartments in multi-story buildings, which mainly attract single people or couples without children.

Families in the study area are small. The percentage of female-headed families was higher than in the City and County overall. The percentage of families with female heads and dependent children was not, however, particularly high in the study area. Nor was the proportion of low-income families elevated in Tracts 42 and 40.

Family incomes varied greatly among the three tracts of the study area in 1980. In Tract 42 (including the project site), incomes approximated the island average. Higher family incomes were recorded in Tract 40 (Downtown) and lower incomes were found in Tract 41 (the Queen's Hospital area).

## 2.6 LABOR FORCE CHARACTERISTICS

Adults in the study area are likely to be in the labor force -- the rate of labor force participation by study area residents was well above the rate for the entire City and County of Honolulu in both 1970 and 1980 (see Table 5). Two thirds of the 1980 residents were in white collar occupations -- a proportion higher than in the islandwide population. Few were in the armed forces.

Residents of different tracts of the study area experienced very different levels of unemployment. Unemployment was extremely rare in both 1970 and 1980 in Tract 42, where the project is situated, but at levels above the City and County average in the other two tracts of the study area.

Census data show that few study area residents have had especially long commutes, but the average 1980 commuting time (17.7 minutes) was not much shorter than the commuting time of the islandwide workforce (22.6 minutes). In part this is due to the many residents who walked to work. Some 25.7 percent of the resident workforce -- as compared to 8.4 percent for Oahu as a whole -- walked to work in 1980 (U.S. Bureau of the Census, 1981b, 1983).



TABLE 4: FAMILY CHARACTERISTICS AND INCOME LEVELS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		STUDY AREA (Combined Tracts 42, 40, and 41)		CENSUS TRACT 42 (Project Site)		CENSUS TRACT 40 (Downtown)		CENSUS TRACT 41 (Queen's Hospital)	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
POPULATION IN FAMILIES	N/A	653,118	N/A	4,836	N/A	1,666	N/A	404	N/A	2,766
as percentage of total population	N/A	85.6%	N/A	62.2%	N/A	63.2%	N/A	49.3%	N/A	64.0%
NUMBER OF FAMILIES	138,277	178,516	1,371	1,854	328	681	2	190	1,041	983
HEAD										
Husband/Wife	86.7%	82.8%	82.1%	74.2%	90.2%	80.2%	50.0%	63.2%	79.5%	72.2%
Male only	3.6%	4.5%	4.8%	8.5%	1.2%	6.6%	50.0%	12.6%	5.9%	9.0%
Female only	9.8%	12.7%	13.1%	17.3%	8.5%	13.2%	0.0%	24.2%	14.6%	18.8%
WITH OWN CHILDREN UNDER 18	63.4%	54.9%	37.3%	34.2%	32.9%	31.9%	0.0%	40.0%	38.8%	34.7%
Female head	6.2%	7.5%	7.0%	8.5%	4.0%	6.5%	0.0%	17.4%	8.0%	8.1%
BELOW POVERTY LEVEL	7.2%	7.5%	0.0%	7.7%	4.7%	4.1%	0.0%	3.2%	13.6%	11.1%
MEDIAN FAMILY INCOME	\$12,035	\$23,654	N/A	N/A	\$14,523	\$23,460	N/A	\$32,004	\$8,888	\$17,933
NON-FAMILY HOUSEHOLDS	N/A	53,298	N/A	2,463	N/A	861	N/A	326	N/A	1,276
percentage below poverty level	N/A	15.7%	N/A	14.1%	N/A	4.8%	N/A	12.6%	N/A	20.8%

NOTES: All figures (except "Population in Families" and "Non-Family Households") based on 15 percent sample; numbers hence represent estimates.

"NC": 1970 categories not comparable to 1980 ones.  
"N/A": Not Available.

SOURCES: U.S. Bureau of the Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1973.

TABLE 6: LABOR FORCE SIZE AND CHARACTERISTICS -- CITY AND COUNTY OF HONOLULU AND STUDY AREA, 1970 AND 1980

	CITY AND COUNTY OF HONOLULU		STUDY AREA (Combined Tracts 42, 40, and 41)		CENSUS TRACT 42 (Project Site)		CENSUS TRACT 40 (Downtown)		CENSUS TRACT 41 (Queen's Hospital)	
	1970	1980	1970	1980	1970	1980	1970	1980	1970	1980
POTENTIAL LABOR FORCE (aged 16+)	427,601	574,903	4,315	6,871	1,021	2,373	113	738	3,181	3,760
not in labor force	33.0%	30.8%	30.7%	24.7%	29.2%	26.0%	13.3%	17.6%	31.8%	25.2%
armed forces	11.5%	10.1%	4.8%	1.1%	6.3%	0.9%	.0%	2.2%	4.6%	1.0%
civil labor force	55.5%	59.1%	64.4%	74.2%	64.5%	73.1%	86.7%	80.2%	63.5%	73.8%
CIVILIAN LABOR FORCE	237,338	339,863	2,780	6,100	659	1,735	98	692	2,023	2,773
unemployed	3.0%	4.6%	4.1%	4.4%	0.5%	0.3%	6.1%	9.0%	5.2%	6.0%
TOTAL EMPLOYED, CIVILIAN LABOR FORCE	230,262	324,113	2,666	4,876	656	1,729	92	539	1,918	2,607
OCCUPATION:										
service	16.0%	17.6%	18.3%	16.4%	10.5%	13.1%	30.4%	14.8%	20.4%	18.8%
manage./profes. technical, sales & adminis.	NC	24.7%	NC	30.5%	NC	41.1%	NC	28.9%	NC	23.9%
farm/fish/forest	NC	33.8%	NC	38.9%	NC	34.3%	NC	42.9%	NC	37.4%
precision/craft/repair	NC	1.8%	NC	1.3%	NC	1.1%	NC	2.6%	NC	1.2%
operators/fabri-cators/laborers	NC	11.3%	NC	8.0%	NC	6.7%	NC	4.3%	NC	9.7%
	NC	10.9%	NC	8.9%	NC	3.7%	NC	6.5%	NC	9.2%
INDUSTRY (selected):										
agric., forest, fish, mining	2.1%	1.7%	N/A	1.5%	N/A	1.7%	N/A	1.3%	N/A	1.5%
construction	9.6%	6.6%	6.3%	4.4%	2.0%	1.8%	0.0%	8.2%	8.0%	5.4%
manufacturing	10.3%	7.7%	8.7%	7.2%	8.5%	5.8%	12.0%	8.9%	8.6%	7.7%
retail trade	18.0%	20.5%	15.4%	16.3%	16.6%	15.9%	21.7%	12.2%	14.7%	17.4%
financial, insur., real estate	5.6%	8.1%	7.4%	12.2%	10.1%	9.8%	0.0%	25.8%	6.8%	10.9%
personal, entertain. & recreat. services	7.6%	8.1%	N/A	5.9%	N/A	6.1%	N/A	4.3%	N/A	6.1%
health, educ., & professional	18.1%	18.5%	24.0%	18.6%	23.3%	22.2%	18.5%	13.9%	24.6%	17.2%
public admin.	12.6%	10.9%	9.9%	12.0%	18.3%	13.7%	12.0%	6.9%	7.0%	11.9%
COMMUTE TO WORK 45 minutes or more mean travel (mins.)	N/A	13.4%	N/A	5.1%	N/A	2.5%	N/A	13.9%	N/A	6.1%
	N/A	22.6	N/A	17.7	N/A	17.3	N/A	18.8	N/A	17.8

NOTES: All figures based on 15 percent sample; numbers hence represent estimates.

"NC": 1970 categories not comparable to 1980 ones.

"N/A": Not Available.

SOURCES: U.S. Bureau of the Census, 1972, 1981a, 1981b; Hawaii State Department of Planning and Economic Development, 1973.

In 1980, many Downtown residents worked Downtown, but most did not. Only 22.9 percent of Tract 42 workers were listed as going to work in the Central Business District (Tract 40), and only 18.4 percent of the workers in the total study area worked in the Central Business District (Unpublished tabulations based on the 1980 U.S. Census in the Urban Transportation Planning Package.)

## 2.7 COMMUNITY ISSUES AND CONCERNS INDEPENDENT OF THE PROJECT

This section identifies major concerns voiced by members of the community. These issues and concerns form part of the social context of development, and hence may be relevant to the project. The focus is on general issues in this section -- the particular concerns and issues that are clearly linked with the project in the judgement of members of the community will be discussed in section 4.5.

### 2.7.1 Islandwide Issues and Concerns

Opinion polls provide some evidence of the concerns of Oahu residents. Respondents to the February, 1988 Hawaii Poll conducted by SMS Research, Inc. mentioned traffic first as a major problem "that government should do something about" (Keir, 1988a). The high cost of housing, public education, and crime were also mentioned by at least a fifth of those polled.

Aloha United Way and the Health and Community Services Council (1987) compiled the results of several polls which asked Oahu residents about their concerns. In the 1980's, five issues have been major concerns of Oahu residents: jobs, crime, traffic, education, and housing. These appear as priorities in several surveys. Traffic has been of increasing importances for survey respondents, and is now the primary concern they name.

In some surveys, respondents have also viewed inflation and the high cost of living as important. Environmental issues, land use, social problems, and specific economic issues (tourism, economic growth, and the preservation of agricultural land) have all scored lower than the other issues mentioned above in measures of residents' priorities.

In addition to the issues noted above, debates have recently arisen concerning the acquisition of property in Hawaii by international investors, above all Japanese nationals. The May 1988 Hawaii Poll included questions about foreign investment in Hawaii (Keir 1988b, 1988c). A majority of the 701 persons polled opposed the purchase of land in Hawaii by foreign investors for the development of housing, golf courses, or hotels.

(The hotel and residential components of the project are unlike the resort hotels and suburban homes discussed in the media in early 1988. Also, the City plans to lease the land for the project to the developer, not sell it. The project is, then, quite different from the developments considered in the poll.)

## 2.7.2 Study Area Issues and Concerns

### 2.7.2.1 Recent Indications of Residents' Concerns

The minutes and newsletter of the Downtown Neighborhood Board (No. 13) indicate some of the concerns of the residents of the study area.

The Downtown Neighborhood Board represents residents of an area with diverse uses. The concerns expressed at Board meetings often reflect the difficulty of assuring peace and security for residents of a district heavily used by others, ranging from poor transients to commuters.

The Neighborhood Board area is larger than the study area. It covers Chinatown, the State Capitol and City Hall areas, and part of Kakaako, along with the study area. In 1980, the Board area had 8,674 residents, while the study area had 7,777.

The minutes of Downtown Neighborhood Board No. 13 for two years -- from September 1986 through September 1988 -- were reviewed to identify major issues of concern to study area residents. During that time, 21 residents served on the Board. The Board members attended closely to several issues, notably:

- o **Street People and the Homeless.** Members of the Board expressed a strong interest in meeting the needs of these people.

A fundraiser for the homeless was supported by Board members, as was the proposal for an emergency shelter for the homeless in the Salvation Army Building on Beretania. A presentation concerning a mental health center, to be operated by the State Department of Health, was greeted with some skepticism. Some considered it possible that a facility at another location, or vans parked in public spaces such as Wilcox Park or Fort Street Mall, might serve the needs of the mentally ill better.

The Hawaii Ecumenical Housing Corporation presented its proposal for a shelter for the homeless and abused families, to be located on Beretania. At the meeting, questions were raised concerning facilities for children, the feasibility and operation of a restaurant on-site, parking and vehicle access, and possible impacts of the shelter's clients on neighboring properties.

- o **Noise.** Residents objected to noise from several sources, notably Hotel Street bars at night and garbage pick-ups early in the morning.
- o **Safety and Security.** Board members were generally favorable to the Police Department's foot patrols, although one resident hoped to see more patrols. One resident reported that he felt unsafe on foot at night.

Others discussed prostitutes in Aala Park and residential areas as a problem. Graffiti, loitering youths, drunk driving, and the conduct of homicide investigations were also topics of discussion.

- o **Parking and Traffic Congestion.** Board members raised questions about parking in Fort Street Mall, Union Mall, and sidewalks -- areas normally reserved for pedestrians. In the discussions, residents showed some tolerance for congestion on roads and sidewalks. The Board supported efforts to alleviate rush-hour traffic by staggering work hours. Board members have identified congestion due to commuter traffic as a concern.
- o **Beautification and Sanitation.** The Board planned to organize a volunteer clean-up of parts of the financial district and Chinatown, but cancelled the project as the property in the area of concern is mainly private. The absence of public rest rooms Downtown has been discussed at length.
- o **Proposed Projects in the Neighborhood Board Area.** The Board discussed plans for several structures, including the River/Nimitz building, a proposed parking structure at Hotel and Richards Sts., the commercial area at Hale Pauahi, and the Pacific Nations Center. (Board members' comments about the project are discussed in Section 4.5.) In these discussions, Board members and other residents expressed concern with:
  - The preservation of open space;
  - Encouraging residential development, especially for families with children, in the city center;
  - Traffic and parking problems; and
  - Design aesthetics.

While the Board has not voted formally on plans for Rapid Transit in Honolulu, members of the Board have voiced the concern that a new transit system could benefit residents of other areas while inconveniencing some Downtown residents by adding to noise and traffic near their homes.

The Neighborhood Board mailed a survey to 5,431 households in the area in 1986. Only 164 copies -- 3.0 percent -- were returned. A mail survey with such a low return rate provides information about some of the opinions in the area, but cannot be treated as a precise indicator of the distribution of opinion in the population.

Survey respondents generally showed satisfaction with public services in their area (see Table 6). Still, a concern with general health and safety was evident in the answers of some

TABLE 6: RESPONSES OF DOWNTOWN NEIGHBORHOOD BOARD (NO. 13) AREA RESIDENTS TO A 1986 MAIL SURVEY

PUBLIC SERVICES:

	<u>THE BUS</u>	<u>POLICE</u>	<u>SANITATION</u>	<u>HEALTH AND SAFETY</u>
Excellent	23.2%	17.7%	15.1%	11.0%
Good	48.8%	47.6%	45.2%	44.5%
Fair	13.4%	20.1%	19.3%	14.5%
Poor	1.8%	7.3%	8.4%	10.4%
No Answer	12.8%	7.3%	12.0%	19.5%
Total	100.0%	100.0%	100.0%	100.0%
(Base:)	(164)	(164)	(166)	(164)

SOURCE: City and County of Honolulu, Neighborhood Commission.  
Downtown Neighborhood Board Newsletter. Honolulu,  
Hawaii, January, 1987.

residents. Written comments from some residents stressed concerns with pedestrian safety and noise.

#### 2.7.2.2 Earlier Indications of Residents' Concerns

Some of the issues noted above have been important for Honolulu residents for years. Thus, when a sample of residents of the core of the Primary Urban Center -- a zone including the study area -- were asked to name the most important problems in their area (SMS Research, 1978), they named:

- o lack of affordable housing; and
- o traffic congestion.

Residents were concerned with quality as well as quantity in regard to both housing and traffic. They preferred single-family housing and duplexes over high-rises, and objected to large public housing projects. Again, they were concerned with the condition of the streets, with parking, and with the protection of scenic areas.

In response to a draft Development Plan (SMS Research, 1980), the Downtown Neighborhood Board (No. 13) expressed concern with:

- o Housing, including high-rise buildings in areas such as the Beretania-Vineyard Corridor, containing the project site;
- o Urban design, with attention to open space and the preservation of older commercial buildings;
- o Transportation, with suggestions for ways to improve travel to and in Downtown for automobiles, bicycles and pedestrians.

#### 2.7.2.3 Concerns of the Downtown Business Community

Some of the concerns of Downtown business interests have been expressed by the Downtown Improvement Association of Honolulu. It was created in 1958 to work for Downtown redevelopment. It originally urged development of business, government and retail activities in the Downtown area (Downtown Improvement Association, February, 1988). With retail trade largely lost to shopping centers elsewhere and the State Capitol established, the association remains concerned that the supply of office space and parking expand in an orderly way, to permit continuing growth of business in Downtown Honolulu.

The association has repeatedly urged that land use regulations for Downtown Honolulu be changed to allow a 20 percent

increase in density and to raise building height limits from 350 to 500 feet (Downtown Improvement Association, August, 1986).

A majority of the delegates at a September 1984 convention of the Chamber of Commerce of Hawaii voted in support of private redevelopment of Downtown Honolulu, and in support of government action to develop the Aloha Tower area for maritime, business, and recreational use (Chamber of Commerce, 1985). In 1986, Chamber of Commerce delegates voted in support of continuing development of downtown areas throughout the state, and increased densities in Downtown Honolulu (Chamber of Commerce, 1987). The Chamber's Land Use Committee is proposing the same language for the next convention (personal communication, Gordon Arakaki, Counsel for Planning and Environmental Law, Chamber of Commerce of Hawaii, November 10, 1988).



### 3.0 FORCES FOR CHANGE INDEPENDENT OF THE PROJECT

The project will have impact in a context shaped by existing and emergent trends. Before 1992, projects and activities now under way will have affected the public perception of Downtown and the level of demand for some of the uses to be found in the Pacific Nations Center.

This section includes brief discussions of plans and projections for the development of Honolulu's city center, of growth expected in the next few years in the Central Business District, the rest of the study area, and adjacent areas; and trends in transportation, traffic and parking in the study area.

### 3.1 VISIONS OF URBAN GROWTH IN HONOLULU

The study area has been greatly shaped by the City's Kukui Urban Renewal Plan and by the development of the H-1 Freeway. In the next few years, no single plan or development will reshape the entire study area. New development will follow in part guidelines and projects of the City and the State. The following trends appear likely:

- o Redevelopment of relatively low-density sites in Downtown and Chinatown for office and residential use;
- o Efforts to attract new businesses to the Downtown area -- both new financial activities in Downtown proper and new entertainment and recreational ventures along its margins; and
- o A blurring of the distinction between Downtown, as a business district, and nearby areas.

#### 3.1.1 Plans for Honolulu's Development

Honolulu is changing in response to many pressures, including the ideas of political leaders and planners concerning its future growth. Several sets of plans and concerns are mentioned here as part of the context for the project.

The City and County of Honolulu has been involved in the redevelopment of City land in the Downtown and Chinatown areas for decades. In recent years, that effort has largely consisted of the creation of housing and commercial space in the Pauahi Urban Renewal Plan area (in Chinatown), where are located completed Hale Pauahi apartment buildings, the commercial space associated with Hale Pauahi, and the Maunakea Marketplace now being developed.

In the Downtown area, the land available to the City is now mainly devoted to parking lots (part of the project site, the Kaahumanu garage, and the Alakea/Richards garage). The project is part of a larger effort to use this land more intensively.

Honolulu's Mayor has pointed with pride to new buildings and rehabilitation in the study area and Chinatown (Fasi, 1988). He has identified several aims for past and future projects:

- o providing housing;
- o encouraging commerce and recreational development in Chinatown;
- o beautification;
- o making people feel safer in the area (and hence more likely to come to central Honolulu at night); and
- o helping to create new types of employment.

While the City is active in Downtown and Chinatown projects, the State has focused attention on Kakaako and, more recently, the Honolulu waterfront.

The State's goals for redevelopment in Kakaako have included keeping a mix of uses and making this a busy area with a modern infrastructure. Residential, office, and commercial projects have recently succeeded in the area. This trend blurs the distinction between the Central Business District and other areas. New buildings makai of Queen Street extend the business district nearly to Punchbowl Street, and hence bring it close to Kakaako. New offices at the edge of Kakaako are similar in price to the newer Downtown spaces.

Plans for waterfront redevelopment are both broad and provisional. One aim of current studies is to allocate space for present and future uses of the waterfront area from now into the middle of the next century. On the waterfront alongside Downtown and Chinatown, a mix of uses is under consideration (Ronck, 1988). Possible developments include:

- o A businessmen's hotel similar to the 400- to 500-room hotel proposed in the Aloha Tower Plaza Development Plan (Group 70, 1983; personal communication D. R. Curry, Waterfront Planner, Helber, Hastert & Kimura, October 14, 1988);
- o New office space; and
- o Recreational and entertainment development, as in an expanded Hawaii Maritime Center, or a re-opened Oceania Restaurant, possibly relocated off Chinatown.

The proposed hotel and offices might tap markets which the Pacific Nations Center project is intended to serve. At this time, it is not certain whether the new waterfront buildings would be constructed before or after the project. Those

buildings could well respond to demands for particular uses that will not be exhausted by the project or which will develop after the project is built.

### 3.1.2 Projects to Augment Honolulu's Role as an International Center

At a more general level, many public figures have stressed that Hawaii must become increasingly involved in international commerce, communications, and negotiation. Governor Waihee is convening a Congress on Hawaii's International Role (Glauberman, 1988). The Steering Committee Chairman for that conference has recently published an outline of the choices Hawaii faces in developing its involvement with Pacific nations and trade (Smyser, 1988). He identifies several potential roles for Hawaii as an active center of East-West trade and communications, notably as:

- o a Pacific headquarters site and operations center for businesses;
- o a center for foreign trade shows; and
- o a headquarters site for international secretariats and charitable institutions (e.g., the Red Cross).

Feasibility studies are currently under way for new institutions that would help to realize Smyser's aims -- a Honolulu Stock Exchange and a World Trade Center.

Honolulu representatives and Pacific Exchange officials have discussed the creation of a third trading floor, in addition to Los Angeles and San Francisco. Exchange officials have found such a floor feasible, and have commissioned Ernst and Whinney to develop a business plan for a Honolulu exchange. It now appears that the Exchange would not begin operations in Honolulu until 1989 or 1990 (Smith, 1988b).

It is likely, in the view of one Hawaii backer of the Exchange, that (a) the new floor would begin on a small scale, increasing in size over time; and (b) it should be large enough to need a new facility -- with communications and offices designed to meet the exchange's needs -- about the time the Pacific Nations Center is to be built (personal communication, Frederick A. Sexton, President, Economic Development Corporation of Honolulu, October 27, 1988).

Studies commissioned by the Hawaii State Department of Business and Economic Development will identify ways to develop a World Trade Center in Honolulu. An ongoing study deals with the resources existing or needed in the state to market such a Center effectively. A future study will deal with the needs of such a center for space and criteria for site selection (presentation by

Anne Miller, Administrative Services Officer, Hawaii Department of Business and Economic Development, to Pacific Nations Center Advisory Committee, November 4, 1988).

The Pacific Nations Center has been identified as a possible site for a stock exchange, for a world trade center, for the offices of international committees, and for trade delegations from Pacific Rim nations. Were the project to provide a home for some or all of these organizations, it would help to meet the City administration's objectives for Honolulu's development as well as the State's goal of increasing international involvement and financial activity.

### 3.2 GROWTH OF THE DOWNTOWN BUSINESS DISTRICT AND NEARBY AREAS

New construction projects indicate continuing growth in Downtown Honolulu and a blurring of the sharp distinctions between Downtown, as a business center, and nearby areas. New projects will increase housing and entertainment for urban residents. They reverse the trend, in recent years, towards locating upscale entertainment facilities away from central Honolulu in shopping and restaurant malls such as Ward Center.

Several buildings are currently under construction or scheduled for construction soon in Downtown Honolulu. New office buildings Downtown include the City Financial Tower (to be finished in 1989) and the Pan Pacific Plaza (to open in 1991). In Kakaako, new buildings include Waterfront Plaza, which is already open, and Pacific Park Plaza (to be completed in 1989).

New residential construction is found in both areas as well. The City's Chinatown Gateway building will contain 200 units. Upscale condominium projects are under way at Honolulu Place, only two blocks from the project site, and Waterfront Plaza.

Entertainment opportunities are now increasing along the boundaries of Downtown Honolulu. Restaurant Row in Kakaako has opened successfully. The Hawaii Maritime Museum, at Pier 7 (beside Downtown), is to open in November 1988. It will emphasize educational programs, providing an integrated view of Hawaii's maritime history and culture to students and visitors (personal communication, Dr. Evarts Fox, Director, Hawaii Maritime Center, October 25, 1988). Towards Chinatown, the Hawaii Theatre plans to expand both seating and the number of events held on-site by the early 1990's (personal communication, Claire W. Engle, Vice President, Hawaii Theatre Center, October 4, 1988).

In response to continuing demand for electricity Downtown, Hawaiian Electric will replace the Queen Emma sub-station with new facilities, whether or not the project is built.

### 3.3 TRANSPORTATION, TRAFFIC, AND PARKING

Traffic congestion and limited parking in the study area are widely recognized as problems (see Section 2.7). In response to these and more general concerns, several initiatives are being taken or are under consideration:

- o The State administration has sponsored a staggered-hours demonstration project, to see whether congestion can be eased through scheduling;
- o The use of contra-flow lanes on Kahekili, Kalaniana'ole, Likelike, and Pali Highways is being proposed; and
- o The City and County of Honolulu has expanded its bus fleet and is developing plans for a new Rapid Transit system.

The price of parking space has increased appreciably in recent years, although it remains below rates found in cities such as San Francisco and New York. Parking is still at a premium in Downtown Honolulu.

New office buildings proposed by private developers and the City (including the project) will increase the number of parking spaces in or near Downtown Honolulu in the next five to ten years by over 20 percent of the existing number of spaces (based on information in Downtown Improvement Association, June 1988).

The Downtown Improvement Association estimates that, on average, 250,000 square feet of new office space have been built annually in Downtown Honolulu. If that trend continues, the volume of office space in the Downtown area would increase by 27 percent in five years, and 55 percent in ten years. The anticipated increase in office space exceeds increases in the volume of parking stalls. It is likely that parking will remain limited and of concern to persons working and living in the Downtown area.

Planners for the City's Rapid Transit project are now working on their model of the possible effects of alternative transportation schemes, and have no estimate of the effects of that project on demand for parking Downtown (personal communication, Nadine Maeda, Planner, Rapid Transit Office, Honolulu City and County Department of Transportation Services, October 21, 1988).

#### 4.0 PROJECT IMPACTS

Major topics discussed in this section include:

- o Displacement of current on-site and nearby activities;
- o Population impacts of the project;
- o The impact of the project on major nearby land uses;
- o General social impacts of the project (based on interviews and analysis by Community Resources, Inc.);
- o Issues identified by members of the community in relation to the project, drawing on interviews with both study area residents and members of the business community concerned with the project site and adjacent areas; and
- o Possible mitigations for problems identified by members of the community.

Employment impacts are being identified, and are discussed in the draft Environmental Impact Statement. The discussion of de facto population (in Section 4.2.3) follows assumptions about operational employment developed for the draft Environmental Impact Statement.

#### 4.1 DISPLACEMENT OF EXISTING ACTIVITIES

No one lives on the project site. Hence "displacement" has to do with uses and activities now existing on-site, rather than residents. Tenants will be displaced. Some of the uses of the project site will be displaced during part or all of the construction phase, and then will be possible again when the project is built.

The duration of displacement will be limited in important ways:

- o On-site tenants will not be displaced until construction begins -- the City and the developer will, in effect, replace the existing landlords in the period between City acquisition of private parcels and actual construction; and
- o Some on-site land uses will be little disturbed at the onset of construction, and some may be minimally disturbed throughout the construction phase.

(The extent to which traffic on Pali Highway would be disrupted by construction cannot be pinpointed until detailed building plans are made. It might be possible to leave the highway open throughout construction -- or it

might be necessary to re-route traffic onto other roads for some part of the construction phase. Again, it is possible that tenants could remain in some of the buildings on-site while work begins in another section of the project site.)

The activities which could be displaced by the project include the conduct of business in offices and a retail operation on-site, parking, the enjoyment of Kamalii Park, and passage by pedestrians and automobiles through the site.

Construction will begin only after a developer has been selected by the City, a Final Environmental Impact Statement has been prepared and reviewed, the City Council has approved the selection and the developer's plans, and building permits have been granted. The Department of Housing and Community Development (DHCD) estimates that construction could begin in late 1990 -- this should be considered the earliest possible time for groundbreaking.

#### 4.1.1 Tenants of the Private Parcels

The four office buildings within the project site -- the 13-story Queen Emma Building, also known as the York Building, and three smaller properties, the Gaspar Building, the Mirikitani Building, and the Civic Center Properties Building -- house over 60 tenants.

Tenants vary in the size of their establishments, ranging from part of an office to an entire floor of a building. Many have leases for two years or less, but a few are reported by building owners as having longer leases. Some tenants have been on-site -- often in the same office -- for many years.

The on-site tenants are nearly all professionals or offices providing professional services. About a third of the tenants are doctors or dentists. Several other tenants are in the health care industry. Attorneys are also well represented among the tenants.

In addition to professional offices, clinics and laboratories, a few State offices, specialized schools, a meditation center, the offices of a political party, a volunteer organization, and a pharmacy are housed on the project site.

According to tenants and investors interviewed by Community Resources, Inc., many tenants on-site have enjoyed relatively low rents (compared to other Downtown spaces) and ease of access to the H-1 Freeway. Although reserved parking on-site is very limited, some consider the public parking lot as an amenity, since clients or customers can hope to find spaces there.

When asked about their concerns with regard to the project, all those now on-site mentioned relocation. This issue had several aspects:

- o The cost of moving to new offices or facilities;
- o The cost of leasing space in other Downtown sites; and
- o Sentimental attachment to existing offices and the site.

The prospect of displacement was a source of some expressed anxiety -- tenants wanted to know when they will have to relocate. In some cases, the question was whether they would be able to stay until the end of their lease. Other tenants are reported to wish to stay on-site until they retire in a few years.

The development timetable suggested by DHCD indicates that construction would begin after many, but not all, current leases expire.

Condemnation procedures require reimbursement of landowners, lessees, and tenants for the fair market value of property acquired by the City. Tenants are eligible for relocation assistance. This may take the form of reimbursement of actual moving expenses or a lump sum payment of up to \$10,000.

For some tenants, the site offers particular advantages that are not found in most office spaces. Proximity to Hawaiian Telephone's main station was judged useful by one, while another cited the presence of many doctors in the general area as helping its business at that location.

No tenant mentioned a special feature or amenity on-site that made business possible. Consequently, it appears that tenants will be able to find office space meeting their needs -- often at a higher price -- in nearby blocks or elsewhere.

#### 4.1.2 Other Uses on the Project Site

During construction, the 327 parking spaces now on-site -- on which 208 are available to the public -- will be lost. These will be replaced by 2,500 spaces in the project, including at least as many public spaces as were lost.

The Kamalii Park site will be incorporated into the project. Open space area in the project -- amounting to at least 75,000 square feet -- will be larger than the existing park area (30,276 square feet). Some Downtown residents have expressed concern with the amount and type of open space available in and around the project site (see Section 4.5).

The park's users largely consist of pedestrians and occasional street persons. Some of the former may be inconvenienced during construction, but not displaced.

The street persons who use the site will be displaced, but other projects are likely to have a far greater effect on their movements.



Work on the Pan Pacific Plaza Building will change Union Mall drastically. Renovation of Fort Street Mall may displace many persons who use that area, at least temporarily. These projects could change the patterns of movement of street people in Downtown Honolulu greatly before construction begins on the Pacific Nations Center project. Also, shelters in Downtown Honolulu, Chinatown and/or Iwilei (Tune 1988a, 1988b) could well offer alternative destinations for the homeless. Accordingly, the impact of the Pacific Nations Center project on these persons cannot be predicted now.

The displacement of traffic on the site is a concern for several key informants (see Section 4.5). The traffic impacts of the project are discussed in a separate consultant's report.

Hawaiian Electric's sub-station on the project site is slated for replacement. A new sub-station with greater capacity is needed to serve Downtown Honolulu, whether or not the project is built. Company officials have testified that the new sub-station can be incorporated into the project, but that they need to know by September 1989 whether the project will be built and what space will be allocated to the sub-station, so they can order new equipment.

## 4.2 POPULATION IMPACTS

### 4.2.1 Residential Population

The project as proposed in the Draft Environmental Impact Statement will add to the residential population of the area as it will contribute 494 condominium apartments to the available housing stock. The condominiums are expected to include a range of units, from one to three bedrooms in size.

An estimate of the population added at the project site can be derived from the density of population of the study area. The most recent estimates (Honolulu Department of General Planning, 1987) show for 1985:

Study area population:	7,983 persons
Total housing units:	4,313 units
Persons per unit:	1.85

Applying the ratio derived above, the project site will have a resident population of approximately 914 persons when the condominium units are built and occupied.

### 4.2.2 Relationship of Resident Population to City and County Population Guidelines

The City and County's General Plan mandates the establishment of guidelines for growth in the different Development Plan areas of Oahu. The potential increase in the

Primary Urban Center's residential population attributable to the project is small compared to the growth projected by City guidelines (see Table 7). The project's population impact is hence in conformity with City policy.

The City and County guidelines for growth to the year 2005 have been established on the basis of the State's "M-F Series" population forecast for the period up to 2005. New guidelines for 2010, using a new population projection -- the "M-K Series" -- and slightly different assumptions about where people should live on Oahu, have been proposed to the City Council. Both allow for growth in the Primary Urban Center, although this area is expected to account for a slightly smaller proportion of the island population than it does now.

The Honolulu Department of General Planning also estimates the "population capacity" of different areas, based on information about land zoned for residential use. The most recent review of the data shows 550 acres of land in the Primary Urban Center area to be available for development, which could support 22,236 new housing units and a population of 166,317 in addition to the existing population (personal communication, Elizabeth Chin, Planner, Honolulu Department of General Planning, November 3, 1988).

The residential population of the project would be a small part of the increase allowed by the various measures noted above:

- o 1.7 percent of the increase permitted by the M-F Series guidelines;
- o 1.6 percent of the increase permitted by the M-K Series guidelines; and
- o 0.5 percent of the recognized population capacity. (The units in the project would amount to 2.2 percent of the additional housing units in the Primary Urban Center projected in the City's "residential capacity" estimate.)

#### 4.2.3 De Facto Population

Since the proposed project will include many different uses, the on-site population will vary greatly from hour to hour and day to day. An estimate of on-site population for times of full occupancy and high business activity can be derived from the assumptions shown in Table 8, which projects a peak de facto population of 8,101 persons. Table 9 shows the peak late night on-site population of 1,152 people.

It should be stressed that Table 8 shows a worst-case scenario, with maximal estimates of on-site population. It represents activity on a weekday that is also a peak shopping day, such as a Friday just before Christmas. On most weekdays, fewer customers would be expected in retail spaces.

TABLE 7: POPULATION GUIDELINES FOR THE PRIMARY URBAN CENTER

	Primary Urban Center	Project Site Number	Project Site Percentage of PUC
December 1987 population (1)	448,340		
1987 population as percentage of total City and County population (1)	53.8%		
2005 population capacity (1)	467,000	914	0.2%
2005 population range (M-F Series projection) (2)	453,400 - 501,100	914	0.2%
2005 population as percentage of total City and County population	47.5% - 52.5%		
2010 population range (M-K Series projection) (3)	457,900 - 506,500	914	0.2%
2010 population as percentage of total City and County population	45.2% - 50.0%		
Difference between 1987 and upper 2005 popula- tion estimates:	52,760	914	1.7%
Difference between 1987 and upper 2010 popula- tion estimates:	58,152	914	1.6%

- (1) Personal communication, Elizabeth Chin, Planner, Honolulu Department of General Planning, Nov. 3, 1988. (information soon to be published).
- (2) Population forecast: Hawaii Department of Business and Economic Development, 1988; Percentages presented to City Council: Honolulu Advertiser, Oct. 19, 1988, p. D-9.

TABLE 8: DE FACTO ON-SITE POPULATION AT DAYTIME PEAK

Segments of the Population -----	Number of People -----
Residential Population 494 units @ 1.85 persons/unit (assuming half the residents are on-site at peak time)	457
Hotel Guests 220 rooms @ 70% occupancy, 1.25 persons per room (assuming half on-site at peak)	96
Hotel workers (1) (assuming three on-site workers in five present at peak time)	106
Office Workers 1 person per 160 sq.ft. 700,000 sq.ft.	4,375
Retail space (2) 1 person per 30 sq.ft. 40,000 sq.ft. (3)	1,333
1 person per 50 sq.ft. 20,000 sq.ft.	400
Restaurant space (2) One-quarter of occupancy load (Occupancy load: 1 person per 15 sq.ft.) 20,000 sq.ft.	333
Exhibit area and Meeting Space (4) 1 person per 50 sq.ft. 50,000 sq.ft.	1,000
TOTAL	8,101 =====

- NOTES:
- (1) The Draft Environmental Impact Statement shows 176
  - (2) Based on Uniform Building Code.
  - (3) Solely for estimation purposes, it was assumed that 40,000 sq. ft. of retail space are on a ground floor, and the rest on a higher floor.
  - (4) Estimates allow for space devoted to exhibits.

SOURCES: Honolulu Department of General Planning, 1987;  
American Institute of Architects and Hoke, 1988.

TABLE 9: DE FACTO ON-SITE POPULATION AT LATE NIGHT PEAK

Segments of the Population -----	Number of People -----
Residential Population 494 units @ 1.85 persons/unit	914
Hotel Guests 220 rooms @ 70% occupancy, 1.25 persons per room	193
Hotel workers (assuming one worker in five on-site at peak time)	35
Rest of Building	10
	-----
TOTAL	1,152 =====

SOURCES: Honolulu Department of General Planning, 1987;  
American Institute of Architects and Hoke, 1988.

### 4.3 IMPACTS ON NEARBY LAND USERS

Among the institutions near the project site are schools, a preschool, and churches. All are in use on weekdays -- the Cathedral of Our Lady of Peace serves about 300 worshippers daily during the week (personal communication, Father Terrence Watanabe, Rector, October 4, 1988). The possible impacts of the project will differ in the construction and operational phases:

Construction Phase: Noise, dust and occasional obstructions may make pedestrian passage along the edge of the project site unpleasant, slowing students and dissuading a few persons from church attendance. The preschool students, who now walk along the edge of the project site daily, will probably still be able to walk along Beretania Street.

It is not clear at this time whether construction would involve minimal or greater impacts on traffic flow on Pali Highway and the streets adjacent to the project. Should congestion increase markedly, and should the bus stop on Beretania Street by the project be moved, attendance at churches next to the project site could be affected.

Operational Phase: The project will increase the local population and hence could contribute worshippers to nearby churches and students to nearby schools. By making additional parking available, it will make attendance at neighboring churches easier for some persons.

The commercial space at the Pacific Nations Center is expected to attract students after school hours. At present, few stores in the area between Beretania and Vineyard offer goods of interest to the young. The project could include retail and food establishments where young people would congregate after school -- a possibility of some concern to school officials.

Hawaiian Telephone Company facilities makai of the project site include transmission equipment that could be affected by the Pacific Nations Center project (personal communication, Matthew K. Miura, Project Engineer, and Russ K. Saito, Network Planning and Support Director, Hawaiian Telephone, October 11, 1988):

- o Radio transmissions between installations on top of the Telephone Company building and the mountains now pass through the air space of the project site; unless the building is set far back along the Alakea/Queen Emma Street side, it may be necessary to relocate that transmission equipment on the project; and
- o New facilities sending -- not just receiving -- satellite communications from the project site could interfere with Hawaiian Telephone's equipment. Hawaiian Telephone would resist locating such facilities on-site.

#### 4.4 GENERAL SOCIAL IMPACTS

The preceding sections dealt with specific impacts of the project on identifiable parts of the community. The project is expected, however, to have wider effects. This section lists the major impacts that can be expected, based on the material provided in earlier sections and on the views expressed by members of the community in interviews. (The issues and concerns identified by persons and groups in the community are described in Section 4.5.)

The proposed Pacific Nations Center will be larger than any existing building in Honolulu. It will be a multi-use project on the edge of the recognized business district. It will span a roadway that links the Downtown area with major highways.

The Pacific Nations Center project is one of a series of developments planned or under way in central Honolulu. It will have impact as part of cumulative changes in Honolulu. The project, in interaction with the Pan Pacific Plaza and the renovation of the Hawaii Theatre and Chinatown, can be expected to affect area character and transportation in three major ways:

- (1) It will help to expand the limits of the Central Business District.

Currently, the most prestigious and most expensive office locations in Downtown Honolulu are all makai of Hotel Street. Office space is less expensive in the area between Hotel and Beretania. No major office buildings exist mauka of Beretania.

The Pan Pacific Plaza and the Pacific Nations Center project will provide new office space totalling about a fifth of the Downtown supply in the mid-1990's. As the newest major projects, these are likely to offer services lacking in existing buildings, and to be prestigious office locations. (The Pacific Nations Center is expected to include meeting and exhibit space; it could also have optical fibre systems linking different spaces in the building and facilities for satellite communications.)

- (2) The Pacific Nations Center will be a center for evening and weekend activity in Downtown Honolulu. It will contribute to efforts to make Downtown an after-hours destination by attracting people Downtown and by housing persons interested in entertainment Downtown.

It will be the first Downtown project to combine restaurants and retail space, on the one hand, with an after-hours clientele -- residents and hotel guests. It will hence be a magnet for after-hours activity unlike any existing project in Downtown Honolulu.

(Honolulu Tower and the planned Honolulu Place offer relatively expensive units, but these are solely residential buildings. The only project in Honolulu fully comparable with the Pacific Nations Center is Waterfront Plaza/Restaurant Row at the edge of Kakaako.)

- (3) Traffic patterns are likely to change. The project will be a Downtown destination that can be reached without travelling on Bishop or Alakea Street -- it may hence intercept Downtown traffic which would otherwise contribute to congestion on those streets. On the other hand, the development of offices and restaurants on the periphery of Downtown -- at Restaurant Row and the project -- may lead to increased traffic at noon and other non-peak hours.

Other potential impacts depend on project timing and the details of project design. These are best viewed as challenges -- opportunities for design sensitive to the concerns and needs of the community:

- (1) Relatively little new office and parking space will be created in Downtown Honolulu until the Pan Pacific Plaza and the Pacific Nations Center project are built. If the office component of the project is completed at a time when demand for offices is high, the current pattern of relatively stable rising prices for office space could continue. (A slower development process, in which the office component is phased in over time, may help to maintain low vacancy rates.)
- (2) The project's impact on traffic along Pali Highway through the project site will depend on the construction schedule and on the design of entries to the project's facilities.

The block of Pali Highway in the project site serves commuters to Downtown from all parts of Oahu. The population that could be inconvenienced if the street is temporarily closed during construction or if traffic is regularly slowed later on is very large.



#### 4.5 ISSUES AND CONCERNS EXPRESSED BY MEMBERS OF THE COMMUNITY WITH REGARD TO THE PROJECT

##### 4.5.1 Sources of Information

To provide community input in the planning process, the City has established a Citizens' Advisory Committee for the Pacific Nations Center project. That committee includes area residents, representatives of the owners of private parcels and adjacent uses, and persons involved in the economic development of Downtown Honolulu. The minutes of the Committee's discussions, from February 1988 to the present, were one source of information about community concerns in relation to the project.

In the course of preparing this social impact assessment, informal interviews were held with some 43 persons, to identify issues and concerns of members of the community regarding the proposed Pacific Nations Center project. (Interviewees are listed in Table 10.)

The interviews were conducted with the aim of learning about the concerns of four broad groups:

- o On-site -- persons with interest in the project site itself (tenants, owners, or owners' representatives);
- o Nearby -- persons working for or involved with organizations in the blocks adjoining the project site (including churches, schools, and nearby office buildings);
- o Residents of the Study Area and buildings near the project site; and
- o The Downtown business community.

In the interviews, persons were asked to comment on the impact the project would have on themselves and others they knew. They were not asked to take a position for or against the project. Nor were they asked to provide the perspective of the organizations they represented.

The persons interviewed were asked to comment as knowledgeable members of the community, not as representatives of their organizations. Organizational affiliations are shown in Table 10 only to indicate the experience and interests of the persons consulted.

The persons interviewed were told that their views would be summarized in this social impact assessment and that individual conversations would remain confidential. For some, the project needed no introduction. Others discussed the project after information in the EIS Preparation Notice for the project was summarized.

TABLE 10: LIST OF PEOPLE INTERVIEWED

The persons listed below were interviewed concerning the issues and concerns they could identify in relation to the project. They were asked to comment as knowledgeable persons, not as official representatives of organizations and institutions. Hence the affiliations listed below serve only as indicators of the interests and involvements of those interviewed.

<u>Name</u>	<u>Organization/Affiliation</u>
Richard Anbe	Principal, Central Intermediate School
Pam Bearce	Monroe & Friedlander Management Inc. President, Building Owners and Managers Association
Lowell Chung	Vice President, Hawaiian Asset Management and Investments Corp. (firm is project site building owner; office is on project site) Member, Pacific Nations Center Advisory Committee
Alan J. Conboy	Senior Vice President, Hastings, Conboy, Braig & Associates, Ltd.
Bill Cook	Division Head, Business Development and Marketing Division, Hawaii State Department of Business and Economic Development Member, Pacific Nations Center Advisory Committee Study Area resident
Geoffrey E. Darr	General Manager, Kukui Plaza Member, Pacific Nations Center Advisory Committee
Beverly Denbleyker	Branch Supervisor, PMCL Inc. (tenant on project site)
Nancy Ellis	Dean of Student Services, Hawaii Pacific College
Claire W. Engle	Vice President, Hawaii Theatre Center

TABLE 10; continued

Murray Feltman	Resident Manager, Honolulu Tower Study Area Resident
Dennis Frahm	Commercial Real Estate, Chaney, Brooks & Co. (Property Manager, Century Square)
William A. Grant, AIA	Executive Director, Downtown Improvement Association Member, Pacific Nations Center Advisory Committee
Ralf D. Graumann	President, Board of Directors, Century Square
Masachika Hoshino	Office Manager, Kikutane-Robbins Dental Clinic (on-site tenant)
Bill Joor	Vice President, Commercial Real Estate, Chaney, Brooks Realty
Milton Kakaio	Executive Vice President, Alert Alarm (On-site tenant)
Joel Kennedy	Director, Business Development, Hawaiian Telephone Co. Member, Pacific Nations Center Advisory Committee
Gerald L. Larsen	President, Paradise Management Corp. (manages commercial space at Kukui Plaza)
Mervin Lee, Esq.	Investor, Civic Center Properties (firm owns building at project site; office is on-site)
Jack C. Litman, AIA	Chair, Physical Plant Committee, Pacific Club
Jessica L. Lloyd-Rogers	Member, Pacific Nations Center Advisory Committee Study Area Resident Member, Neighborhood Commission
Mary Matsuda	Real Property Administrator, Hawaiian Telephone Co.
Lynne Matusow	Member, Downtown Neighborhood Board No. 13 Member, Pacific Nations Center Advisory Committee Study Area Resident

TABLE 10, continued

Donald McKenne	Business Manager, St. Andrew's Cathedral Member, Pacific Nations Center Advisory Committee
Winston Mirikitani, Esq.	Investor, Mirikitani Corp. (firm is project site building owner; office is on-site)
Matthew K. Miura	Project Engineer, Transmission & Customer Systems, Hawaiian Telephone Co.
William Muench	Senior Distribution Engineer, Hawaiian Electric Company, Inc. Member, Pacific Nations Center Advisory Committee
Dr. Herbert Nam, M.D.	Tenant on project site
Eichi Oki, Esq.	Tenant on project site
Lark Palmatier	Study area resident
Tim Palmatier	Study area resident
Robert B. Robinson	President, Hawaii Chamber of Commerce Chair, Pacific Nations Center Advisory Committee
Andrew Rothstein	Chairman, Downtown Neighborhood Board No. 13 Member, Honolulu Tower Board of Directors Study Area Resident
Russ K. Saito	Network Planning & Support Director, Hawaiian Telephone Co.
James Severson	Executive Director, Hawaii Ecumenical Housing Corporation
Frederick A. Sexton	President, Economic Development Corporation of Honolulu Member, Pacific Nations Center Advisory Committee
Paul E. Smith	President, Honolulu Tower Board of Directors Study Area Resident

TABLE 10, continued

Frank Steffen	Assistant Headmaster, St. Andrew's Priory School
George Takane, Esq.	Tenant on project site
Nancy Tomczak	Executive Director, Building Owners and Managers Association Member, Pacific Nations Center Advisory Committee
James Von Oelhoffen	Captain, Central Fire Station
Terrence Watanabe	Rector, Cathedral of Our Lady of Peace Member, Pacific Nations Center Advisory Committee
Mazie Young	Investor in one of the project site buildings

#### 4.5.2 Overview of Community Issues and Concerns

Interviews of the type conducted for this project are always preliminary, showing how a sample of the community viewed a project at a given time. (The interviews for this assessment took place in October and early November 1988.)

In the present case, the interviews dealt with a "black box" -- a building of unknown shape, to include a mix of uses in unknown proportions. People seemed to have no difficulty identifying their concerns in this situation. However, their concerns, and the importance of different concerns, could change greatly over time, as the project is defined more clearly.

The interviews were conducted to identify issues, not to establish the extent of support or opposition in the community. (Quantitative information about support for the project or issues of concern to the community at large would be best gathered through a formal polling process.) Many persons chose, however, to explain why they supported or opposed the project.

Different groups of persons interviewed had different views of the project. Two concerns were, however, widely shared:

- o **Traffic:** Congestion during the construction phase of the project was often mentioned as a serious problem. Some persons expressed concern that the project might add to traffic congestion later. Others saw the project as having a positive impact on the problem, due to the many parking stalls in the project and its mauka location.
- o **Building Design:** Many persons hoped that the City and the developer would devote much attention to the project's architecture. Many were concerned about retaining mountain views. Several felt that the project could benefit Downtown Honolulu and be an appropriate center for international activities only if it had an innovative design.

Table 11 summarizes much of the interview data by identifying, for each set of interviewees, how often different issues were mentioned or found to be important. (All the issues listed were of concern to more than one person in each group. The distinction between primary, additional and occasional concerns is based on analysis by Community Resources, Inc. of the strength of different concerns at the time of interviewing.)

Members of each group did not all share a single point of view, but there were important common tendencies in each group:

Tenants and Owners of On-Site Properties: These persons were concerned with the impact of the project on their own activities and investment on the site. Some viewed the

**TABLE 11: ISSUES MENTIONED IN INTERVIEWS**

The issues listed in this table are explained in the accompanying text. This table shows topics mentioned relatively often in the interviews. It is not a list of all the issues discussed, but of issues that emerged as important for members of the groups identified below.

Different groups sometimes approached the same issue with different concerns, so the listing of an issue in two rows does not mean that two groups agree on that issue.

Groups of Persons Interviewed	Primary Concerns	Additional Concerns	Occasional Concerns
On-Site (investors and tenants)	Timing of Project Relocation Property Acquisition	City's Role Parking Feasibility	Traffic
Nearby (adjacent non-resident land users)	Construction Impacts Building Design Area Character Traffic	Increased Business Activity Restaurants Rapid Transit Property Values	Parking Open Space View Planes Meeting Space
Area Residents	Open Space Area Character City's Role Lack of Neighborhood Stores	Condominiums Restaurants Hotel Increased Evening Activity Rapid Transit Feasibility	Traffic Construction Building Design View Planes
Downtown Business Community	Office Space Parking Space Building Design View Planes	Area Character Increased Business Activity Increased Evening Activity International Concept Meeting and Exhibit Space City-State Co-operation	Traffic Mixed Use Concept Feasibility

development of the project as valuable or inevitable, while others opposed it.

Tenants wanted to know whether the project would affect current leases. Relocation was a concern for all (see Section 4.1).

Owners and owners' representatives expressed concern about the way the private properties would be acquired. One point at issue was price -- they questioned whether the City would pay them as much as they might earn for the property in other circumstances.

A more general concern was with the owners' relation to the City. Some suggested arrangements whereby the existing property owners might co-operate with the City in developing the property. Strong views were expressed concerning the history of failed proposals for Block J -- these were seen as affecting the owners' ability to lease their buildings.

Questions about the feasibility of the project and about the loss of parking spaces during construction were voiced by on-site interests in the course of expressing opposition to the project. Others viewed the project as potentially profitable -- they hoped to participate in the development.

Nearby Land Users: These generally saw the project as offering new resources to the area and hence changing the character of the site and its surroundings. Many favored the project. Nearly all expressed reservations, however, and stressed that the project must deal with technical and aesthetic challenges:

- Several persons expressed concern that vibration from pile-driving not affect the older buildings nearby;
- Most noted that wind has been a problem for buildings at the mauka end of Downtown Honolulu, and thought that extensive studies of wind patterns at the project and nearby would be needed to avoid unsafe conditions and design problems;
- Generally, people hoped that the building's design would be of high quality, and would complement, not overwhelm, nearby low-rise structures; and
- Several expected severe traffic congestion to occur. While some were resigned to short-term problems, others saw this issue as demanding careful attention.

Most persons knowledgeable about nearby institutions regretted that a building as large as the project would reduce existing views. They mentioned particular views which would, they hoped, remain. The view of the mountains from Bishop Street was, for some, extremely valuable.



Otherwise, they did not seem concerned with views of distant landmarks so much as with the visual impact of the project in relation to existing structures.

Many nearby users saw the project as a source of increased business activity for the area as a whole. Commercial and professional interests welcomed such activity; others had no objection. Many looked forward to a wider choice of restaurants in the area.

All saw the project as raising nearby property values. Some reported that others were concerned that it could lower the value of certain adjacent offices by blocking views.

Traffic congestion during construction and afterwards was of general concern. Some persons favored the project as providing parking between H-1 and Beretania. They concluded that it would hence not add to congestion in the Downtown area after construction.

Although the project does not include a mass transit or rapid transit component, many persons brought the subject up, saying that they expected the site to include either a bus depot or a fixed-rail station. Nearby non-resident land users generally favored such a transportation hub as bringing more people to the project and the surrounding blocks.

Area Residents: Area residents had mixed responses to the project. Most welcomed the project's commercial space, restaurants, and residential component. All had questions about design, and some saw the project as not appropriate for the site.

Almost all area residents stressed that open space was very limited in the area. Many sought more space for outdoor recreation. Others thought that Kamalii Park served nearby residents by providing a buffer between them and Pali Highway, a buffer which could be lost when the project is built. Without nearby open space, those residents were concerned that they would feel that they were living at the heart of Downtown, rather than on its edge.

Some residents viewed the mauka side of Beretania Street as residential in character, so the project would affect the area's character. With redevelopment on both sides of Beretania, they feared that this would become a "canyon" lined with tall buildings.

Several residents expressed concern that the project might advance the aims of the business community and the City administration, but not meet the needs of area residents. Some viewed the project as not an appropriate venture on the part of the City.

The residential component of the project was generally viewed positively, but several persons wondered whether local markets and drug stores would be overcrowded, with new customers coming from the planned Honolulu Place building and the project. They hoped to see another supermarket in the area.

Many persons thought that the restaurants in the project would be valuable and would help to increase evening and weekend activity Downtown. Several thought a hotel would be useful to them and their neighbors, although some thought their guests would be unlikely to pay the prices charged by a first-class executive hotel.

Area residents were concerned that Beretania Street might be chosen as the route for a mass transit system. Most viewed that route as serving the needs of commuters and not of great benefit to residents, and so they opposed it.

The project's feasibility was questioned by some area residents. They expressed concern that the project might not be fully developed, or space might not sell, with the result that the project would be vacant or unsightly or poorly maintained.

Some area residents argued that Kukui Plaza residents would be gravely affected by the project. The General Manager for that complex, however, has reported the Kukui Plaza Association of Owners as broadly supportive of the project (G.E. Darr, letter to Councilman Gary Gill, April 25, 1988). Some tenants of Kukui Plaza expressed concerns with views and construction impacts, but none were firmly opposed to the project.

Downtown Business Community: Members of the Downtown business community generally saw the project as offering needed office space and parking for Downtown Honolulu. The concept of the project as a mauka "anchor" -- a highly visible endpoint to the business district -- was mentioned by several, who further cautioned that the building must be well designed in order to be a visual asset to the community. The mauka view up Bishop Street was valued by some persons as a distinguishing trait of Honolulu's business district.

Commercial interests in the blocks near the project site saw the project as adding to business activity and property values in those blocks. Others in the business community saw the project as a possible site for new business activities that would benefit all of Honolulu. Several expressed the hope that the project would house a Stock Exchange and World Trade Center. Some thought it important that the project would be partly devoted to international organizations and activities.

The plans for an executive hotel received a mixed response -- some thought a hotel would be well-used and would help to increase activity Downtown outside business hours, while others thought that their visitors would stay in Waikiki or near Ala Moana Center, to enjoy entertainment and shopping. Many welcomed the meeting and exhibit space included in the project as needed in Downtown Honolulu.

Questions of the project's feasibility arose occasionally in interviews, mainly with regard to the hotel.

For some in the business community, the project was an opportunity for the City and the State to work together for the benefit of Hawaii. In this view, the City's effort to develop an international center was being aligned successfully with State initiatives to attract new business to Hawaii.

#### 4.5.3 Specific Issues and Concerns

The various issues and concerns identified in the interviews can be grouped in terms of their relation to the project's development. Specifically, these involve:

- o Area character and the growth of Downtown Honolulu;
- o Planning the project and policy issues arising before the project's construction;
- o The construction phase; and
- o The project's operational phase.

Since many of the issues have been discussed above, this section provides brief accounts of the issues, followed by analysis and comment.

##### 4.5.3.1 Area Character and the Growth of Downtown Honolulu

The Pacific Nations Center project is seen by many as capable of transforming the surrounding area. Two broad scenarios are mentioned, sometimes by the same persons. A successful project is seen as:

- o increasing property values in nearby buildings;
- o encouraging others nearby to improve their buildings;
- o attracting customers to the project and nearby buildings, to the benefit of the entire area; and

- o serving the entire Honolulu community by providing new facilities. (see Section 4.5.3.4 for views concerning the various on-site uses.)

Some persons thought that the project could fail to attract much business and be a "white elephant." They did not foresee a strong effect on the surrounding area, so much as problems of continuing low property values, and high vacancy rates and vandalism on-site.

Those who see Beretania Street as residential argue that the project will change the character of the area mauka of Downtown Honolulu.

Downtown residents are concerned that facilities for residents -- above all, open space and neighborhood stores -- are in short supply now. The project is seen as likely to withdraw space which could be devoted to these uses, and as adding to demand for these.

Some persons noted that Downtown Honolulu enjoys views and small open spaces lacking in central city areas elsewhere in the United States. They expressed appreciation for the investment being made in Downtown Honolulu by the City.

**Comment and Analysis:** The proposed project will change a relatively low-density site into a much more intensively used one. It will hence help to define its surroundings in a way that the current structures on-site do not.

As a mixed-use project, the Pacific Nations Center promises to contribute amenities to nearby residential and office populations, while being distinct from both.

The project's possible success or failure will depend on market forces that are outside the scope of this analysis. Market indicators are weighed in the draft Environmental Impact Statement.

#### 4.5.3.2 Planning and Policy Issues

In the interviews, questions arose concerning the roles of the City and the potential developer of the project, and concerning project design.

Issues involving the City included:

- o The price the City would pay for private properties -- some thought the City would be able to pay prices below market rates under its condemnation powers;
- o Whether tenants could stay until their leases end;

- o Whether the City would demand from the developer facilities and design of such high quality that the project would be an outstanding addition to Honolulu;
- o Whether the City should be involved in the project at all, on the grounds that the project will not help to meet public goals such as affordable housing, it is not desired by some residents of the vicinity, and the project is a commercial venture;
- o Changes in Special Design Districts, zoning requests, and other changes -- these are being requested in a way that some persons characterize as piecemeal and detrimental to careful planning, when the various new initiatives affecting the Downtown area should be part of an integrated plan to meet both short- and long-term needs;
- o The City's plans for the site -- these were seen as overly intensive by some, and an example of a policy of maximal development; and
- o Whether the City's plans provided for area residents' needs -- this concern was less a criticism of the Pacific Nations Center than a statement of additional needs, notably a need for active park space;
- o Suspicions of hidden purposes -- some thought that the final project would differ significantly from its description in the draft Environmental Impact Statement, by including a Rapid Transit Station or by exceeding 350 feet in height.

Issues involving the future developer were less specific. Above all, some wondered whether the developer would have the experience, imagination and financial resources necessary to create, maintain, and operate a high-quality building.

Design issues ranged from general issues of architecture to specific concerns about the project's impacts on nearby persons and structures. Many hoped that that views would be minimally affected, that the project would be architecturally appropriate, tasteful, or innovative, and that the project would complement nearby landmarks such as St. Andrew's Cathedral. Some people suggested that an advisory committee of professionals and other interested persons review the developer's architectural plans. Specific concerns with regard to the project included:

- o wind effects, both on-site and nearby;
- o setbacks, greenery, and open space, which could reduce the impression that the project dominates nearby structures;
- o heat buildup at nearby buildings due to mirror walls;

- o noise and possible air quality problems in the parking facility;
- o height -- many argued that no towers should exceed 350 feet, and some mentioned that the towers should be staggered in height, while several persons suggested that the Downtown height limit should be raised; and
- o connections such as walkways to the makai side of Beretania.

**Comment and Analysis:** Condemnation procedures require reimbursement of landowners, lessees, and tenants. Relocation assistance will be available to tenants displaced by the Pacific Nations Center project (see Section 4.1.1).

The City's role in the project has ample precedent, in Hawaii and elsewhere. The Queen Emma Building on the project site was built under the supervision of the Honolulu Redevelopment Authority. The State's Hawaii Community Development Authority has done planning, the acquisition of permits, and infrastructure development, while it works with private developers who are building major structures in Kakaako. New complexes such as Restaurant Row help to meet the State's redevelopment objectives in that area, although they do not meet other objectives such as providing affordable housing.

The Department of Housing and Community Development projects that the costs to the City from this project will be small. The Draft Environmental Impact Statement shows that the revenues accruing to the City will be far more than those now obtained from the site. Hence this project should not divert City funds from other priorities.

The Pacific Nations Center project will be developed only with the approval of the Honolulu City Council. The terms of the Request for Proposals to potential developers and the selection of developers will be subject to input from the Council. Hence elected representatives will specify the financial return expected from the project and the extent to which design considerations will limit that return.

A separate Environmental Impact Statement for the City's proposed Rapid Transit system is being prepared. The Pacific Nations Center project has no mass transit component. The Mayor's Advisory Committee for the Pacific Nations Center has held that the project should not include such a component, partly on the grounds that the project could be built before that system is approved and developed.

Many details of building design remain to be specified, so the design concerns noted above largely cannot be addressed at this time.

#### 4.5.3.3 Construction Phase

In interviews, people identified four different sorts of expected construction impacts:

- o Possible impacts on older buildings nearby due to noise and vibration were seen as potentially grave problems calling for definite solutions.
- o Noise, dust and general inconvenience for persons living or walking near the project site were mentioned by several persons. Some saw these as unavoidable irritants that could be minimized by scheduling or other controls. Few of the persons interviewed treated these impacts as particularly troublesome.
- o Impacts on traffic on Pali Highway and other roadways serving commuters and the neighborhood were mentioned by nearly all persons interviewed.
- o The loss of parking on-site will have little impact on most offices and residents nearby. Students and occasional customers use the lot, and will have difficulty finding short-term parking at low rates.

**Comment and Analysis:** The severity of construction impacts can vary greatly, depending on methods and schedules used in construction. A consultant is writing a separate report on noise and vibration impacts, while traffic impacts are analyzed in another report.

If construction activities cause difficulties for pedestrian traffic or lead to changes in bus routes, they could affect activities at nearby sites (see Section 4.3).

#### 4.5.3.4 Operational Phase

Discussions of the project's operational phase largely consisted of comments about the various components included in the project description. Most interviewees added comments about the impact of the project's design or operations on the surrounding area and about rapid transit (see Section 4.5.2.)

The issues that emerged with regard to the project's components were:

- o **Offices:** Business interests saw this component as central. Most saw the office space as needed for Honolulu's growth. Some questions arose about the feasibility of filling the office space. Some area residents thought the placement of an office building mauka of Beretania inappropriate. No one opposed such potential tenants as the proposed Honolulu floor of the Pacific Exchange.

- o Hotel: Many residents and business representatives welcomed a Downtown hotel, although some questioned whether their guests would stay there.
- o Meeting and Exhibit Space: Several persons found this an important part of the project, since little meeting space is available in the area. Sales meetings, classes, and theatrical rehearsals were mentioned as possible activities on-site.
- o Restaurant Space: New restaurants, especially ones open in the evening, were viewed by many as an important amenity for the immediate area and for Downtown Honolulu.
- o Retail/Commercial Space: Additional retail space was viewed positively by residents and commercial interests nearby. Some persons mentioned stores they would hope to see in the area, ranging from a supermarket to a high-quality outlet comparable to Nordstrom's in San Francisco. Some mentioned movie theaters as possible tenants of the project. A few commented that stores and other commercial ventures might attract students from nearby schools, leading to concerns about security and school attendance.
- o Residential: Generally, people welcomed this component of the project. Several noted that the residential units should be upscale, so that the various components of the project would complement each other. Residents of the Pacific Nations Center were seen as an important market for entertainment and other activities after-hours in Downtown Honolulu. A few persons hoped that the project units would not be upscale, either because they wished they could buy condominiums in the project or because they felt affordable housing was an important priority.
- o Parking: Many persons stressed that more parking is needed Downtown, and the 2,500 spaces in the proposed Pacific Nations Center would be helpful. Some were concerned that the project would bring additional traffic to nearby streets and that cars waiting to enter the parking garage would block traffic on the streets. Further concerns were that noise from the parking garage might be audible to neighbors and that automobile exhaust pollution might be a problem within the parking area and nearby.

Comment and Analysis: The general reaction to the project was that the various components will contribute to the growth and prosperity of Downtown Honolulu. In both design and management of the project, some attention will be necessary to co-ordinate the various components, separating persons on-site for different reasons when appropriate.



#### 4.6 MITIGATIONS

Many of the project's impacts are positive. Potentially negative impacts identified in preceding sections of this report largely depend on political and design processes. Issues involving the potential developer, the City, and project architecture will be clarified in the next few months, as the terms of the City's Request for Proposals are determined, and a developer is chosen.

The impacts identified in Section 4.3 have positive aspects. The aspects viewed by some members of the community as negative can be addressed:

**Area Character:** As a major development, the Pacific Nations Center project will help to define the surrounding area in a way the current on-site structures do not. For some, this raises a concern that the project will dominate adjacent structures, such as St. Andrew's Cathedral, and uses, such as the residential uses along Beretania ewa of the project.

The project's relation to the Cathedral will be clarified through the design process -- setbacks and the choice of architectural elements will do much to define the relation between the project and the Cathedral.

The project will have a large residential component and will offer commercial and restaurant space with some appeal to area residents. Accordingly, the project will complement adjacent residential structures to a greater extent than the current structures on-site do. Hence the project mitigates the concern in question.

**Increased Evening and Weekend Activity:** This is seen by the community as a positive impact, and needs no mitigation.

**Changing Traffic Patterns:** The traffic impact of the project is examined in a separate report. The eventual changes in lunch-time traffic brought by the development of a new Downtown center mauka of Hotel Street, including the project and the Pan Pacific Plaza, may be accommodated in part through shuttle services such as the trolleys that now bring Downtown customers to Restaurant Row.

Questions of the project's feasibility (discussed in Section 4.5.3.1) can be addressed in market studies for the specific components in the final project. At this stage, such studies are preliminary.

Questions raised by some persons about the potential developer and about the City's role in the project (see Section 4.5.3.2) are basically political issues. They are appropriately addressed to government authorities. In addition to the City

administration, the City Council must provide input and approvals for the project to proceed. As a body of elected officials, the Council represents citizen interests.

Additional public input comes through the Mayor's Advisory Committee for the Pacific Nations Center. That committee has formulated recommendations for the Draft Environmental Impact Statement phase of the project, and will continue to offer input on the next phases of development.

The design concerns noted in Section 4.5.3.2 will depend on the detailed building plans of the developer chosen by the City. It will be possible to develop studies of wind patterns and evaluations of the project's impact on adjacent structures when specific plans are available.

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**APPENDIX F**

**Traffic Impact Analysis**

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***TRAFFIC STUDY FOR  
PACIFIC NATIONS CENTER  
(BLOCK J)  
HONOLULU, HAWAII***

---

***PREPARED FOR  
PARSONS HAWAII***

***PREPARED BY  
BARTON-ASCHMAN ASSOCIATES, INC.***



TRAFFIC STUDY  
FOR PACIFIC NATIONS CENTER  
(BLOCK J)  
HONOLULU, HAWAII

Prepared for  
PARSONS HAWAII

Prepared by  
BARTON-ASCHMAN ASSOCIATES, INC.  
PHOENIX, ARIZONA

October, 1988



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1.

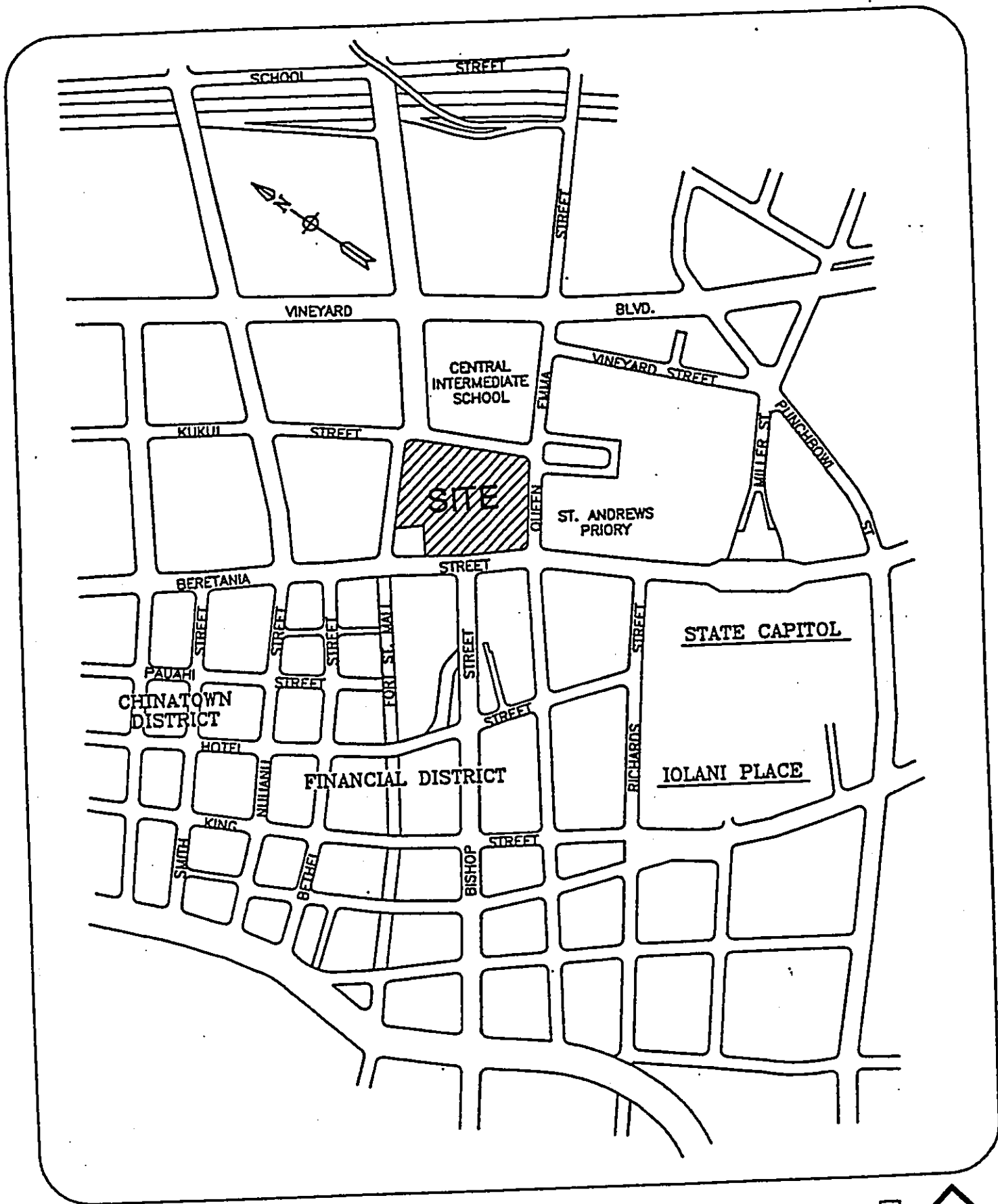
INTRODUCTION

Barton-Aschman Associates, Inc., has been retained by Parsons Hawaii to conduct a traffic study for the proposed Pacific Nations Center (Block J), a proposed multi-use development in downtown Honolulu, Hawaii.

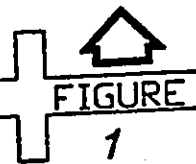
The following report has been prepared to describe the traffic generating characteristics of the project and likely impacts to the adjacent roadway system at the time of buildout. This introductory chapter discusses the location of the project, the proposed development, and the study methodology.

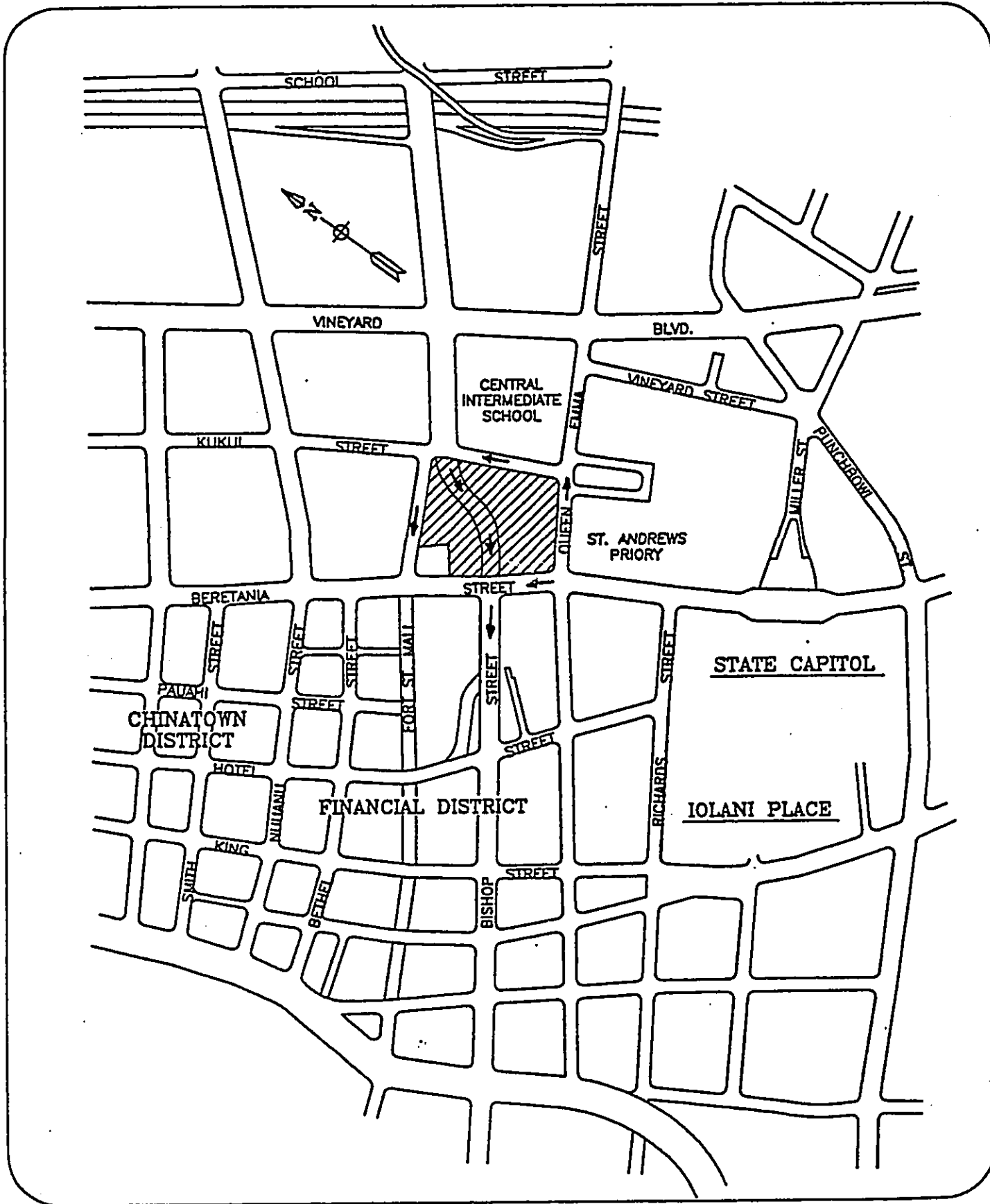
PROJECT LOCATION AND PROPOSED PROJECT DESCRIPTION

The location of the proposed project in Honolulu is shown in Figure 1. The project site is bounded by Beretania Street on the south, Queen Emma Street on the east, Fort Street on the west, Kukui Street on the north, and Pali Highway running through the site. The current traffic circulation pattern around and through the site is shown in Figure 2.



**SITE LOCATION**  
**BARTON-ASCHMAN ASSOCIATES, INC.**  
**PACIFIC NATIONS CENTER**





**CURRENT TRAFFIC CIRCULATION PLAN**  
**BARTON-ASCHMAN ASSOCIATES, INC.**  
**PACIFIC NATIONS CENTER**

The proposed development plan is summarized in Table 1. It has been assumed that the project will be completed and occupied by 1995 for purposes of conducting this traffic study.

#### STUDY METHODOLOGY

In order to conduct this traffic study, a number of tasks were performed, which are discussed individually in the following paragraphs.

##### 1. Data Collection

Prior to collection of any data, the Department of Transportation Services for the City of Honolulu was contacted to determine the intersections to be studied, along with any particular concerns.

A substantial amount of traffic-related information was collected in order to analyze the existing traffic conditions and to estimate the future traffic volumes on the roadways adjacent to the study site. The data collected included the following:

- o development plan data;
- o roadway network;
- o existing morning and afternoon peak-hour traffic volumes;
- o other planned development projects;
- o traffic information for other planned projects in the vicinity; and
- o previous traffic studies conducted for the adjacent area.

TABLE 1  
PROPOSED DEVELOPMENT PLAN<sup>(1)</sup>  
PACIFIC NATIONS CENTER TRAFFIC STUDY  
October 1988

---

<u>Use</u>	<u>Description</u>
General Office	650,000 SF <sup>(2)</sup>
General Retail	60,000 SF <sup>(2)</sup>
Restaurant	20,000 SF <sup>(2)</sup>
City and State Office	50,000 SF <sup>(2)</sup>
Exhibit/Trade Center	30,000 SF <sup>(2)</sup>
Hotel	220 Units
Residential Apartments	494 Units

---

Notes:

(1) Source: Memorandum from DMDM dated October 12, 1988 re: development program.

(2) SF = Square feet of floor area.

## **2. Analysis of Existing Traffic Conditions**

Using the data collected, the existing traffic conditions in the vicinity of the project were determined. The operational method described in the 1985 Highway Capacity Manual (HCM) was used to determine the level-of-service at the intersections that would be impacted by the proposed project. The level-of-service concept and the results of the analyses are presented in Chapter 2 of this report.

## **3. Determination of 1995 Future Background Traffic Projections**

As previously noted, 1995 was assumed as the design year. This does not necessarily represent the project completion date. It represents occupancy for purposes of conducting the impact analysis.

Future background traffic has two components. The first is traffic generated by already approved projects. These projects were identified and described by the City Department of Housing and Community Development. The second component is background traffic growth. The final future background traffic is the sum of existing plus background growth plus related project trips and is referred to as "cumulative trips."

The assumptions used to estimate the 1995 cumulative trips and the resulting traffic projections are presented in Chapter 3 of this report.

## **4. Analysis of Project-Related Traffic Impacts**

The next step in the traffic impact analysis of the project was to estimate the daily and peak-hour (AM and PM) traffic that would be generated by the



proposed development. This was done using trip generation rates from Trip Generation (Fourth Edition, 1987), an informational report prepared by the Institute of Transportation Engineers (ITE).

These trips were distributed and assigned to the various traffic movements at the adjacent intersections. The project-related traffic was then superimposed on 1995 background traffic volumes at the subject intersections. The HCM method was then used again to conduct a level-of-service analysis for this condition which was compared to 1995 cumulative conditions in order to determine the impact of this project. The resulting traffic projections are presented in Chapter 4.

The analysis of the project-related impacts and the conclusions of the analyses are presented in Chapter 5.

2.

ANALYSIS OF EXISTING TRAFFIC CONDITIONS

This chapter presents and discusses the existing traffic volumes on the roadways in the vicinity of the proposed project, the level-of-service concept, and the results of the level-of-service analysis. The purpose of this analysis is to establish the base conditions for the determination of the project's traffic impacts which will be presented in the next chapter.

The intersections which were analyzed to establish the base conditions were determined based upon the access routes to and departure routes from the project location. The intersections at which a level-of-service analysis was conducted are:

1. Vineyard Boulevard and Nuuanu Street
2. Vineyard Boulevard and Pali Highway
3. Vineyard Boulevard and Queen Emma Street
4. Pali Highway and Kukui Street
5. Kukui Street and Queen Emma Street
6. Beretania Street and Nuuanu Street
7. Beretania Street and Pali Highway (Bishop Street)

8. Beretania Street and Queen Emma Street (Alakea Street)
9. Hotel Street and Nuuanu Street
10. Hotel Street and Bishop Street
11. Vineyard Boulevard at Punchbowl Street
12. Beretania Street at Punchbowl Street
13. King Street at Punchbowl Street

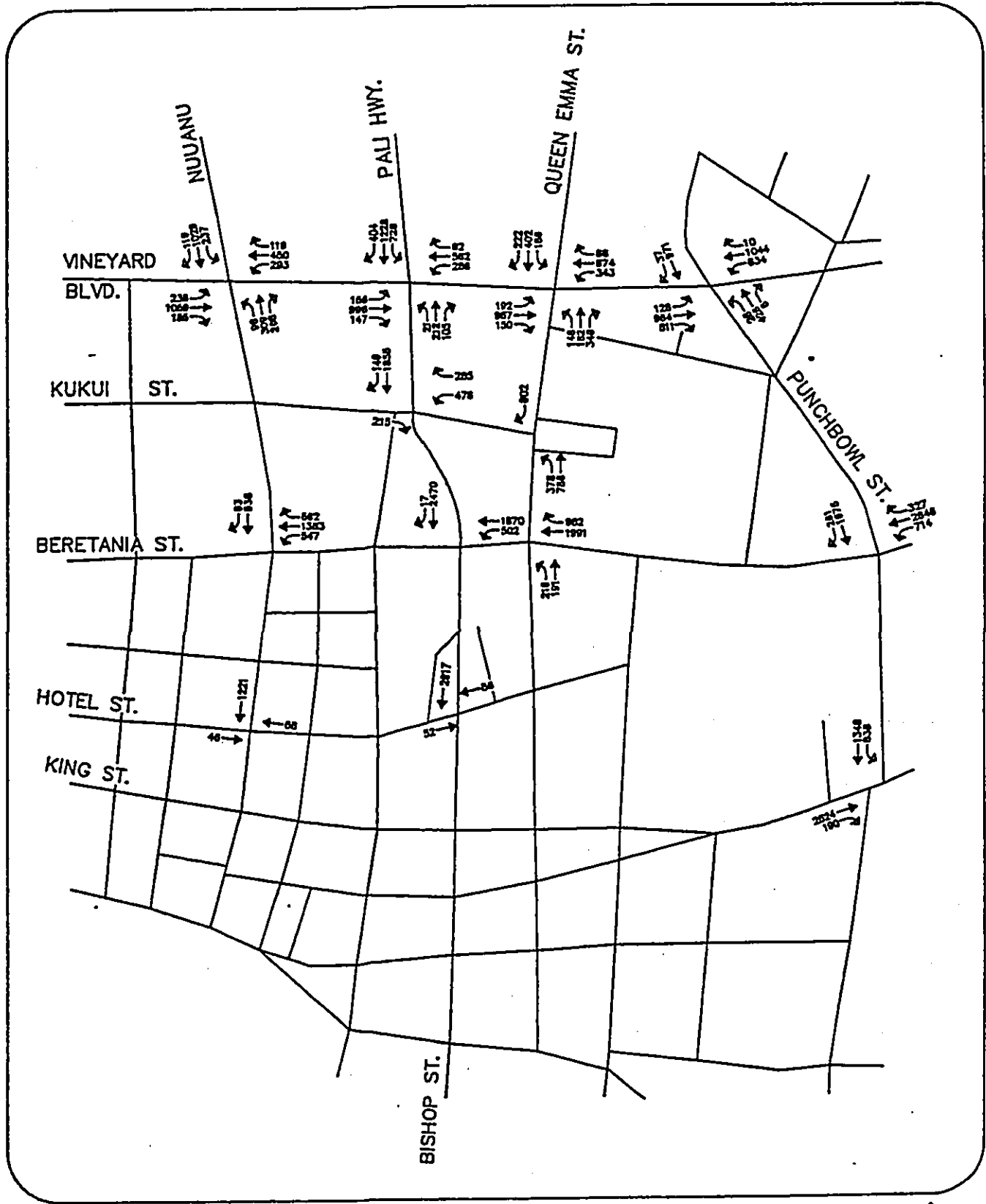
#### EXISTING TRAFFIC VOLUMES

The existing morning and afternoon peak-hour traffic volumes at the first ten intersections were obtained from field traffic counts conducted specifically for this study during September, 1988. The last three intersections along Punchbowl Street were obtained in October, 1987. The results of these traffic counts are summarized for the morning and afternoon peak hours in Figures 3 and 4, respectively.

#### LEVEL-OF-SERVICE CONCEPT

The operational method described in the 1985 Highway Capacity Manual (HCM) was used to analyze the operational efficiency of the intersections adjacent to the subject project. This method involves the calculation of a volume/capacity (V/C) ratio which is related to a level-of-service.

"Level-of-service" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. Level-of-service is a qualitative measure of the effect of a number of factors which include speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort, convenience, and operating cost. There are six levels-of-service, A through F, which relate to the driving conditions from best to worst, respectively. The characteristics of traffic operations for



**EXISTING AM PEAK HOUR TRAFFIC VOLUMES**  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER



these levels-of-service are summarized in Table 2. In general, Level-of-Service A represents free-flow conditions with no congestion. Level-of-Service F, on the other hand, represents severe congestion with stop-and-go conditions. Many communities have adopted Level-of-Service D as a criterion for acceptable levels-of-service when future conditions are being analyzed. Corresponding to each level-of-service shown in the table is a volume/capacity ratio. This is the ratio of either existing or projected traffic volumes to the capacity of the intersection. Capacity is defined as the maximum number of vehicles that can be handled by the roadway during a specified period of time. The capacity of a particular roadway is dependent upon its physical characteristics such as the number of lanes, the operational characteristics of the roadway (one-way, two-way, turn prohibitions, bus stops, etc.), and the type of traffic using the roadway, (trucks, buses, etc.) and turning movements.

Saturation flows used to conduct the capacity analysis varied based on unique conditions of the intersections.

#### EXISTING LEVEL-OF-SERVICE ANALYSIS

The results of the level-of-service analysis for the existing traffic conditions at the intersections studied are summarized in Table 3. The conclusions are as follows:

1. Except for four intersections, all the intersections operate at LOS E or F during one or both of the weekday peak hours, which indicates significant delays to peak hour traffic.
2. All of the intersections north of the project site (along Vineyard Street, Kukui Street, Pali Highway and Queen Emma Street) operate

TABLE 2

INTERSECTION LEVEL-OF-SERVICE DEFINITIONS<sup>(1)</sup>  
 PACIFIC NATIONS CENTER TRAFFIC STUDY  
 October 1988

Level of Service	Interpretation	Volume/ Capacity <sup>(2)</sup> Ratio	Stopped Delay Per Vehicle (Seconds)
A,B	Uncongested operations; all vehicles clear in a single signal cycle.	0.000-0.700	< 15.0
C	Light congestion; occasional backups on critical approaches.	0.701-0.800	15.1-25.0
D	Congestion on critical approaches, but intersection functional. Vehicles required to wait through more than one cycle during short peaks. No long-standing lines formed.	0.801-0.900	25.1-40.0
E	Severe congestion with some long-standing lines on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements.	0.901-1.000	40.1-60.0
F	Total breakdown with stop-and-go operation.	1.001+	> 60.0

## NOTES:

- (1) Source: Highway Capacity Manual, 1985.  
 (2) Volume/Level-of-Service E Capacity.

TABLE 3

LEVEL-OF-SERVICE ANALYSIS FOR EXISTING CONDITIONS  
TRAFFIC STUDY FOR PACIFIC NATIONS CENTER  
OCTOBER, 1988

<u>Intersection</u>	<u>Existing AM Peak Hour</u>		<u>Existing PM Peak Hour</u>	
	<u>V/C(1)</u>	<u>LOS(2)</u>	<u>V/C(1)</u>	<u>LOS(2)</u>
Vineyard Bl. @ Nuuanu Ave.	0.824	D	1.062	F
Vineyard Bl. @ Pali Highway	1.249	F	1.360	F
Vineyard Bl. @ Queen Emma St.	1.187	F	1.765	F
Kukui St. @ Pali Highway	0.785	C	.329	A
Kukui St. @ Queen Emma St.	0.406	A	1.135	F
Beretania St. @ Nuuanu	0.765	C	0.966	E
Beretania St. @ Pali Hwy/Bishop St.	0.916	E	0.723	C
Beretania St. @ Queen Emma St/ Alakea St.	.937	A	2.576	F
Hotel St. @ Nuuanu	0.516	A	0.359	A
Hotel St. @ Bishop St.	0.496	A	0.303	A
Vineyard Bl. @ Punchbowl St.	1.165	F	1.039	F
Punchbowl St. @ Beretania St.	1.096	F	1.078	F
Punchbowl St. @ King St.	0.748	C	0.872	D

## NOTES:

- (1) V/C = Volume to capacity ratio  
(2) LOS = Level-of-Service



at a Level-of-Service F during the afternoon peak hours. This indicates that traffic approaching and departing the site from the north will have long delays due to congestion.

3.

1991 BACKGROUND CUMULATIVE TRAFFIC CONDITIONS

Background cumulative traffic conditions are defined as the traffic conditions resulting from background growth and related projects. The purpose of this chapter is to discuss the assumptions and data used to estimate 1995 background cumulative traffic conditions.

BACKGROUND TRAFFIC GROWTH RATE

In order to evaluate the traffic impacts of the proposed project, it is necessary to estimate the future background traffic conditions. This future traffic is typically estimated by applying an annual growth rate to the existing volumes.

Based on input from the City and County of Honolulu, it was determined that the background traffic growth rate may be expected to range between 1 and 1.5 percent per year. Therefore, a growth rate of 1.5 percent per year was used for this study.

#### RELATED PROJECTS

The second component in estimating future background traffic conditions is the traffic generated by related projects in the vicinity. Related projects are defined as those projects that are under construction or have been approved for construction by the City and which would significantly impact traffic in the study area.

Based upon the information obtained from the City Department of Housing and Community Development and information obtained from other traffic studies conducted for sites in the vicinity, seven projects were identified that were either under construction or in the final planning stages and would have a potential impact on the intersections under study. These projects are listed in Table 4 and their locations are shown on Figure 5.

#### 1995 BACKGROUND CUMULATIVE TRAFFIC VOLUMES

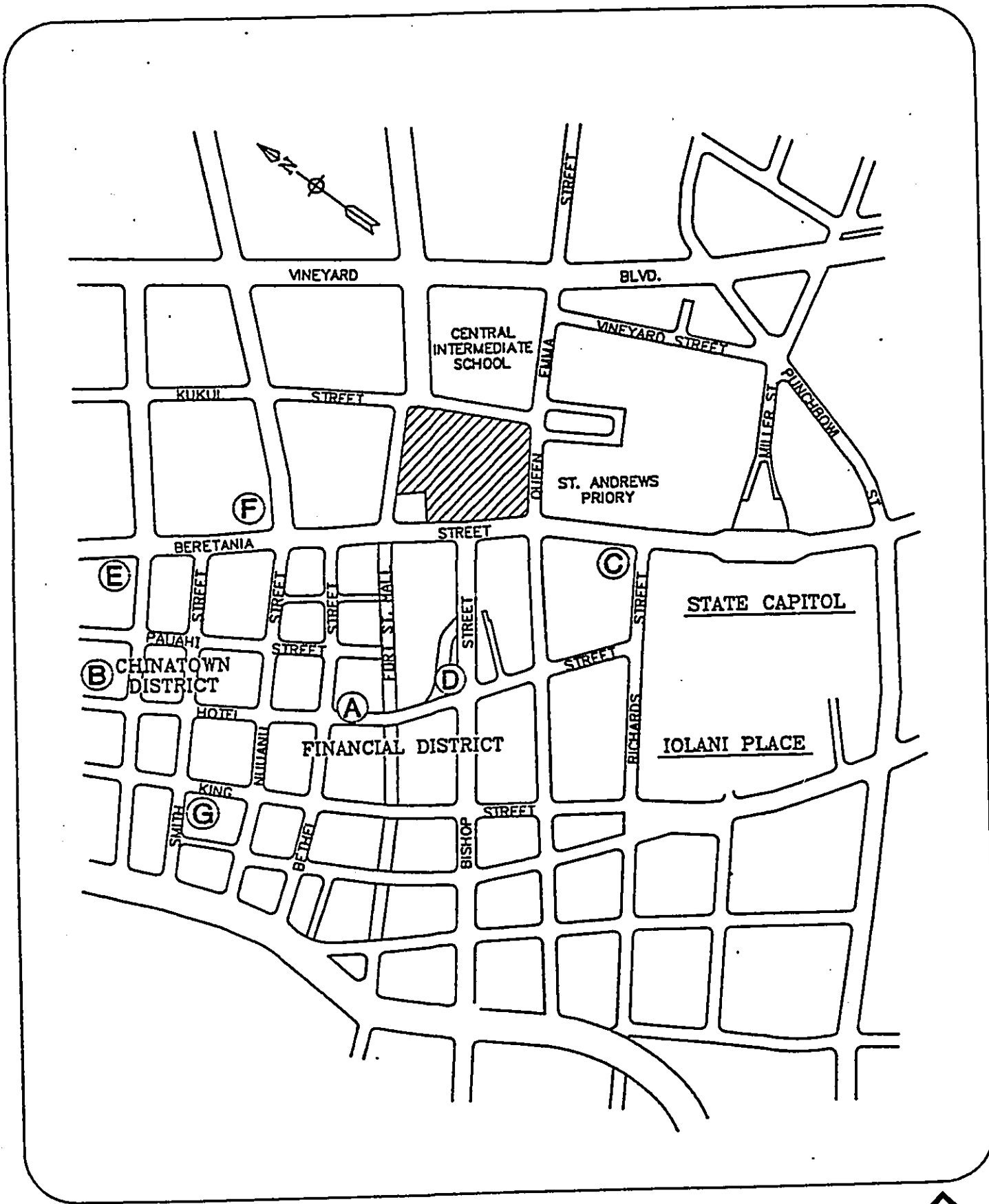
Future traffic volumes are obtained by superimposing background growth and related project traffic onto existing traffic volumes. The resulting AM and PM cumulative traffic volumes are presented in Figures 6 and 7 for AM and PM peak hours, respectively.

TABLE 4  
 LISTING OF RELATED PROJECTS  
 PACIFIC NATIONS CENTER TRAFFIC STUDY  
 October 1988

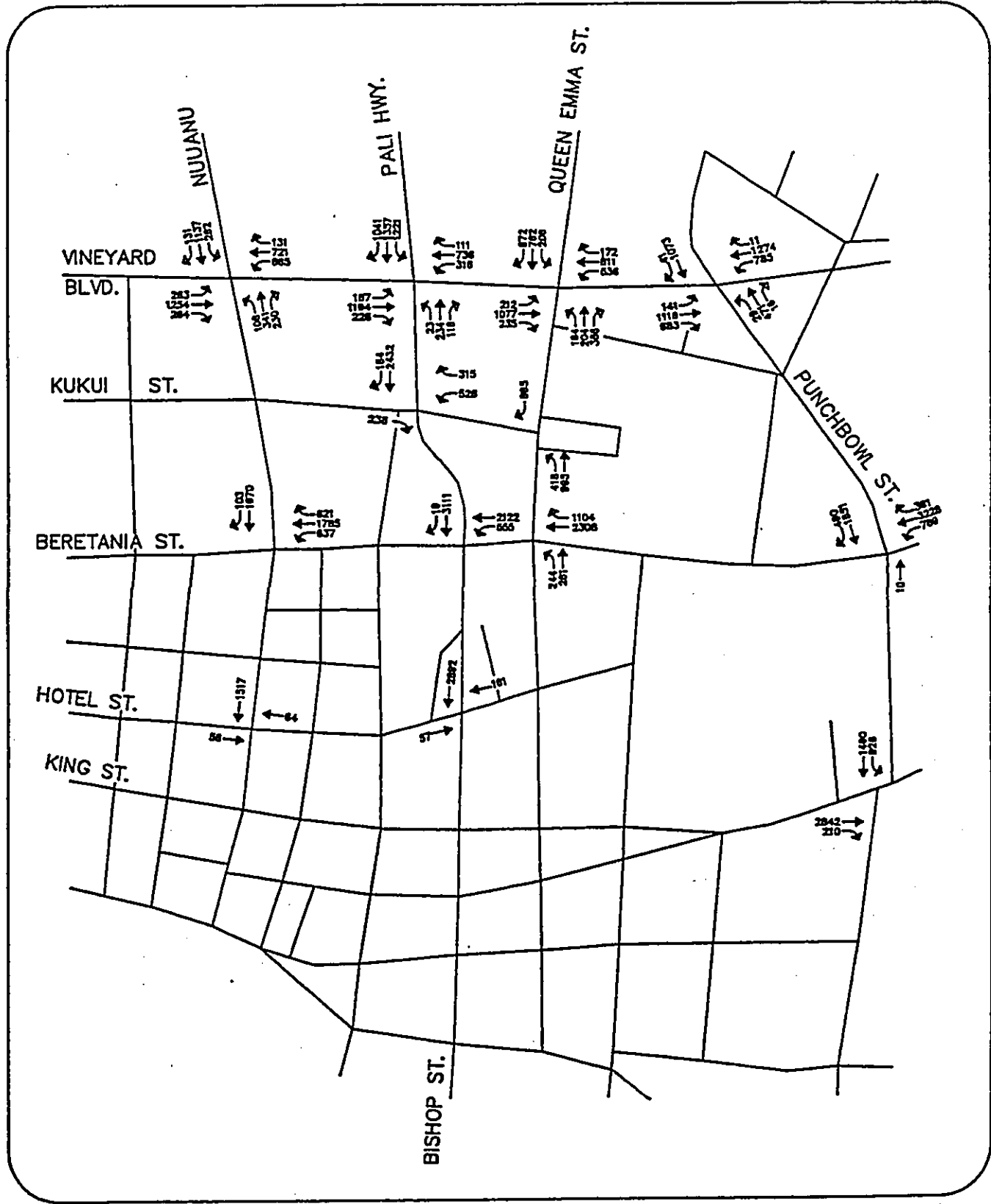
<u>Map Location</u>	<u>Name</u>	<u>Description</u>
A	Chinatown Gateway Plaza	200 apartments 30,000 SF Retail
B	Maunakea Marketplace	29,100 SF Retail 27,400 SF Office 9,000 SF Restaurant
C	Hemmeter Headquarters	115,000 SF Office
D	Pan Pacific Plaza	450,000 SF Office
E	Asia Mall	20,000 SF Retail
F	Honolulu Place	509,734 SF Residential
G	Hawaii National Bank	81,000 SF Office

NOTES:

SF = Square feet.



LOCATIONS OF RELATED PROJECTS  
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 PACIFIC NATIONS CENTER



1995 CUMULATIVE AM PEAK HOUR TRAFFIC VOLUMES

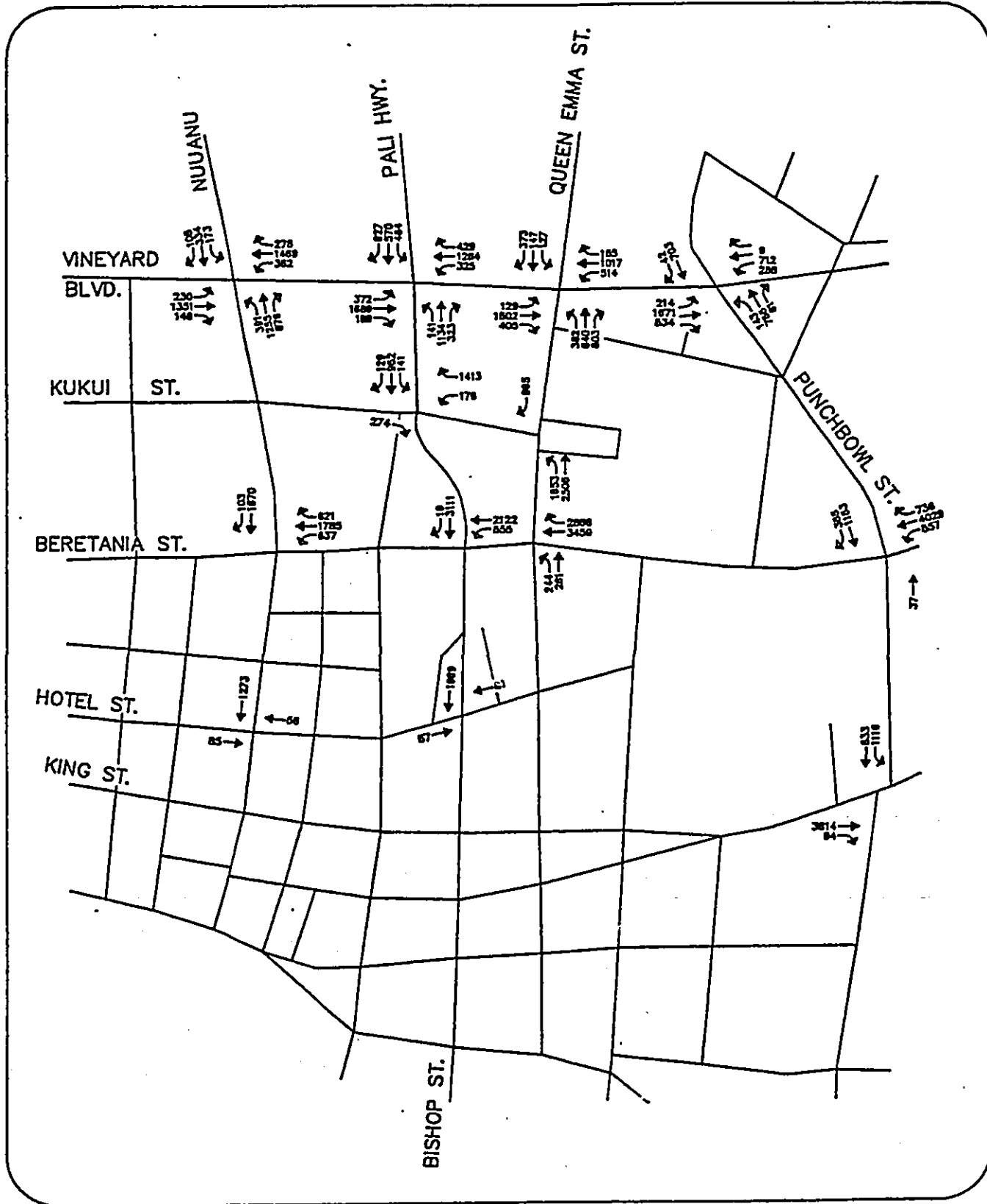
BARTON-ASCHMAN ASSOCIATES, INC.

PACIFIC NATIONS CENTER



FIGURE

6



1995 CUMULATIVE PM PEAK HOUR TRAFFIC VOLUMES  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER

FIGURE  
 7

4.

PROJECT-RELATED TRAFFIC IMPACTS

This chapter discusses the methodology used to identify the traffic-related impacts of the proposed project. Generally, the process involves the determination of weekday and peak-hour trips that would be generated by the proposed development, distribution and assignment of these trips on the approach routes, and finally, determination of the levels-of-service resulting from implementation of the project.

TRAFFIC GENERATION

Future traffic volumes for the proposed project were determined using traffic generation rates contained in the ITE Informational Report, Trip Generation (Fourth Edition, 1987).

The trip generation rates used were obtained directly from the ITE Trip Generation Manual except for the Exhibit/Trade Center. Trip rates for the Trade Center were obtained from a trip generation study for the Anaheim Convention Center conducted by Barton-Aschman. The generation rates used and the resulting volume of traffic generated are summarized in Table 5 for the AM and PM peak hours and the average weekday.



TABLE 5  
PROJECT TRIP GENERATION ANALYSIS  
PACIFIC NATIONS CENTER TRAFFIC STUDY

October 1988

LAND USE CODE	DESCRIPTION	TRIPS GENERATED						GENERATION RATES								
		AM PEAK HOUR			PM PEAK HOUR			AM PEAK HOUR			PM PEAK HOUR					
		DAILY TOTAL	IN	OUT	TOTAL	IN	OUT	DAILY TOTAL	IN	OUT	TOTAL	IN	OUT			
710	Office	5,590	1,004	873	131	40	930	149	781	8,600	1,545	87	13	1,430	16	84
820	Retail/Shopping	5,438	132	92	40	53	492	231	261	90,630	2,198	70	30	8,198	47	53
310	Hotel	1,915	155	102	53	79	146	67	67	8,704	0,704	66	34	0,664	54	46
730	City/State Office	600	294	247	47	43	271	228	228	12,000	5,880	84	16	5,429	16	84
222	Apartments	2,074	177	106	71	159	40	119	119	4,198	0,358	60	40	0,322	25	75
832	Restaurant	4,018	382	214	168	211	188	188	188	200,895	19,111	56	44	19,929	53	47
NA	Exhibit Hall	1,686	0	0	0	5	169	5	164	56,200	Closed					
	Existing Medical Offices	21,321	2,144	1,634	510	758	2,566	1,808	1,808							
Less	21.1 TSF	721	34	19	15	21	77	21	56							
	Net	20,600	2,110	1,615	495	737	2,089	1,752	1,752							
Less	15% Interaction	3,090	317	242	74	111	373	111	263							
	Offsite Trips Distributed	17,510	1,793	1,373	421	626	2,116	626	1,489							

As shown, it is anticipated that the proposed development would generate 1,856 trips during the morning peak hour — 1,426 inbound and 430 outbound. During the afternoon peak hour, it is anticipated that 623 inbound trips will be generated and 1,606 outbound trips will be generated for a total of 2,230 trips. The total weekday traffic volume is estimated to be 18,376 trips per day.

#### TRIP DISTRIBUTION

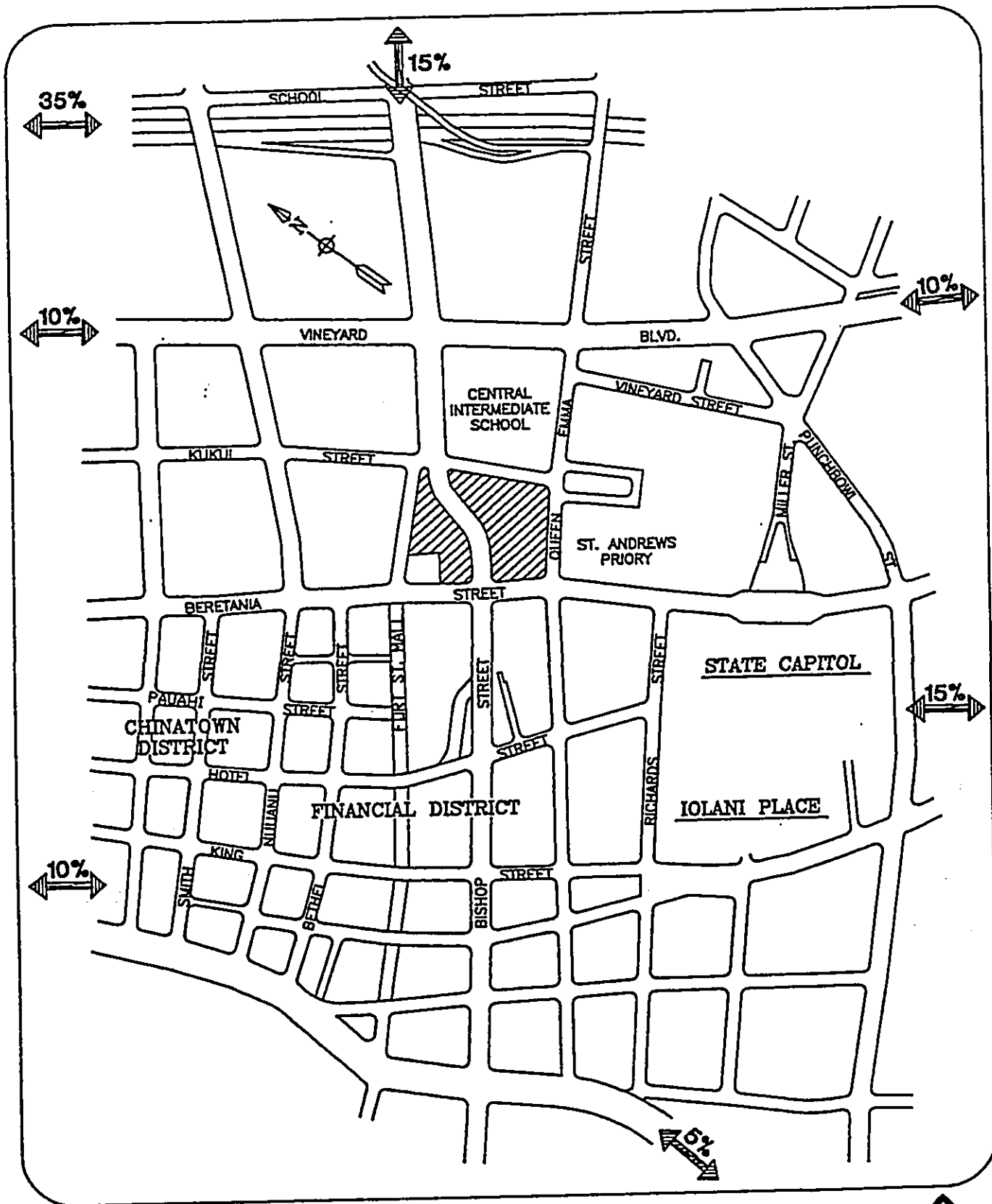
The project-related trips were distributed based on the future distribution of population and the anticipated approach routes. This information was obtained from reports provided by the City. The approach distribution used is shown in Figure 8.

#### TRIP ASSIGNMENT


Using the trip generation and trip distribution previously discussed, project-related traffic was assigned to the various traffic movements at the adjacent intersections. The trip assignments for the AM and PM peak hours are shown in Figures 9 and 10.

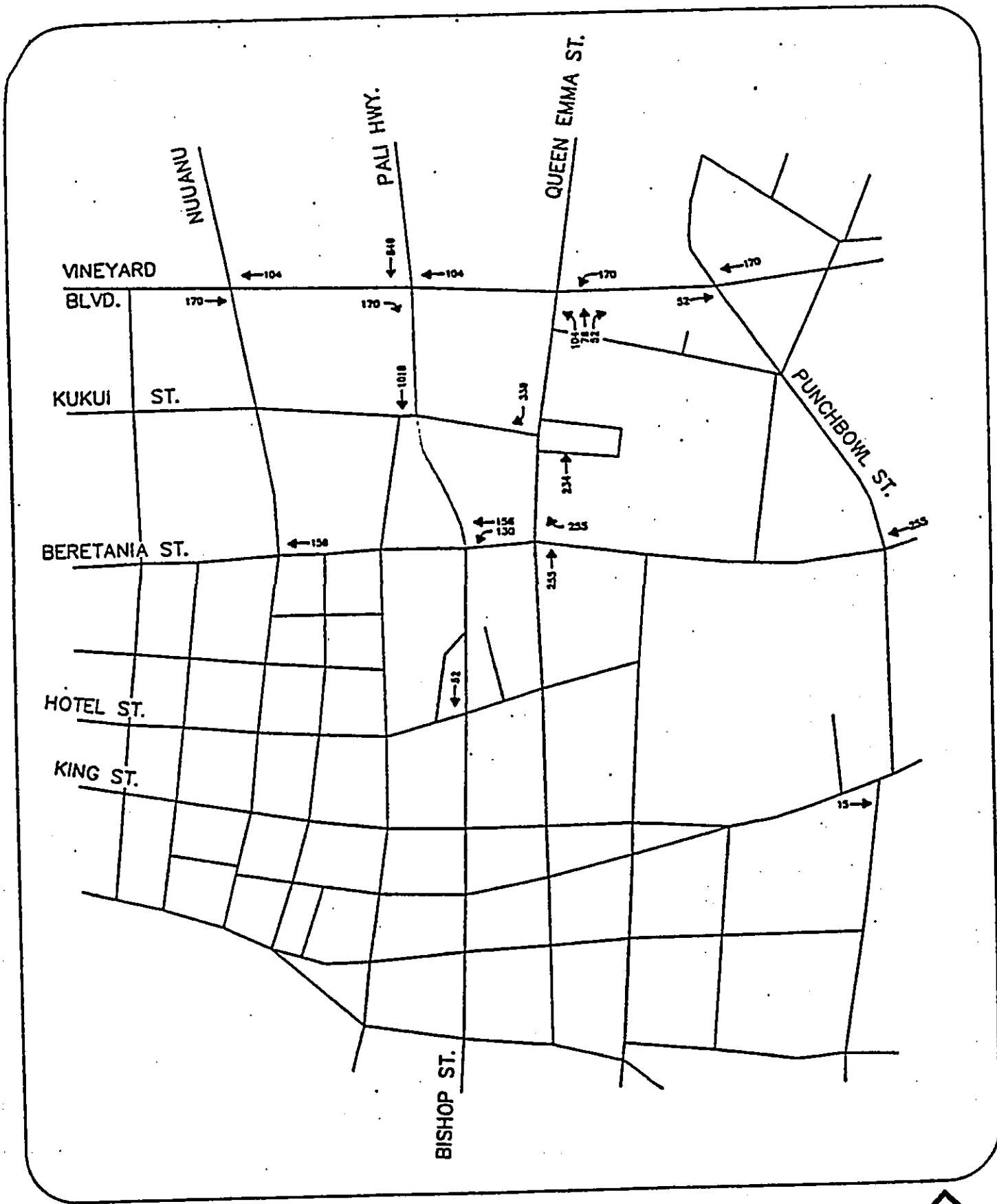
#### 1995 CUMULATIVE PLUS PROJECT PEAK-HOUR TRAFFIC VOLUMES

Future traffic volumes were determined by superimposing the project-generated traffic on the 1995 cumulative traffic volumes. The resulting traffic volumes are shown for the AM and PM peak-hour conditions in Figures 11 and 12, respectively.



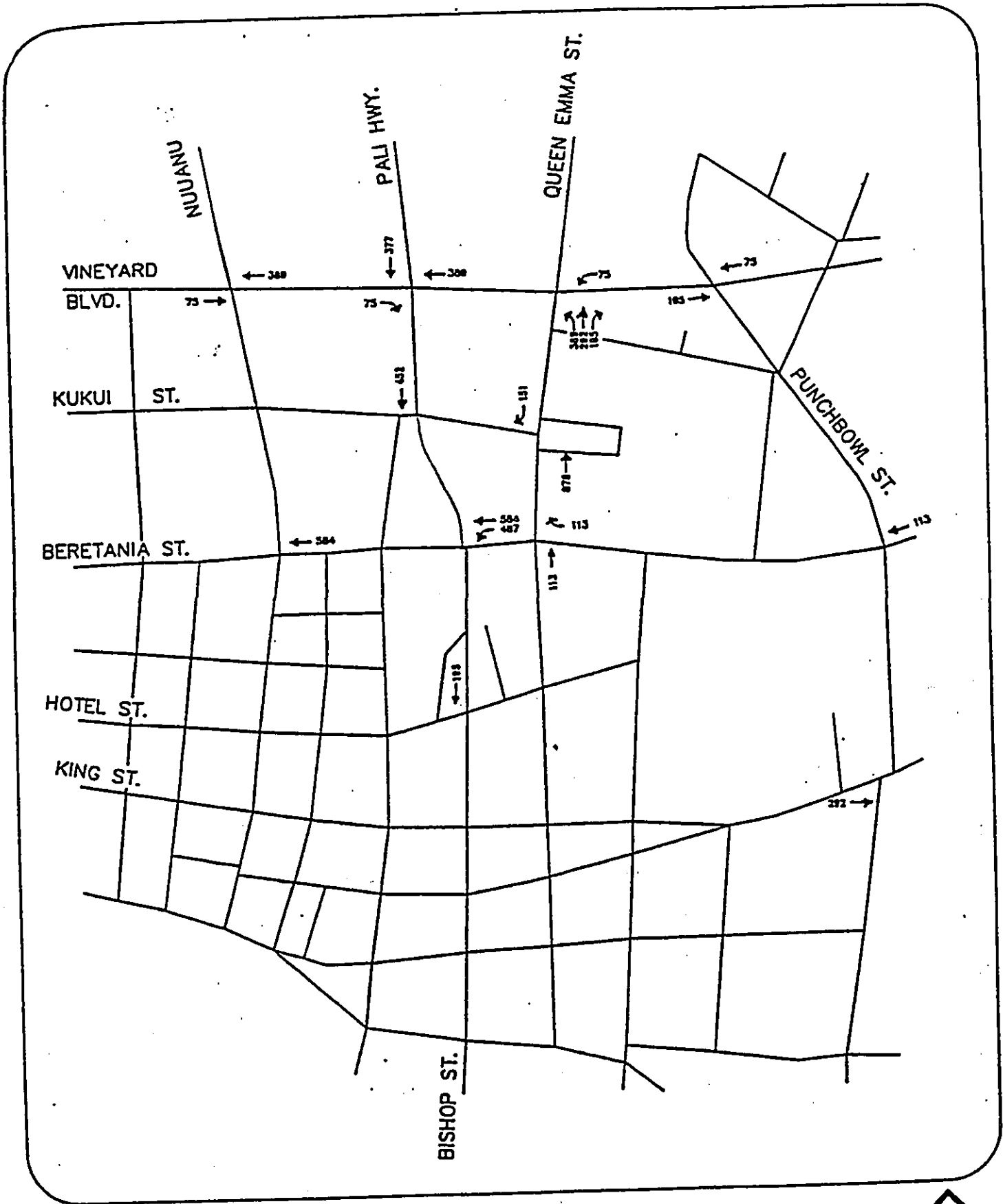
**TRIP DISTRIBUTION**  
**BARTON-ASCHMAN ASSOCIATES, INC.**  
**PACIFIC NATIONS CENTER**

  
**FIGURE**  
**8**



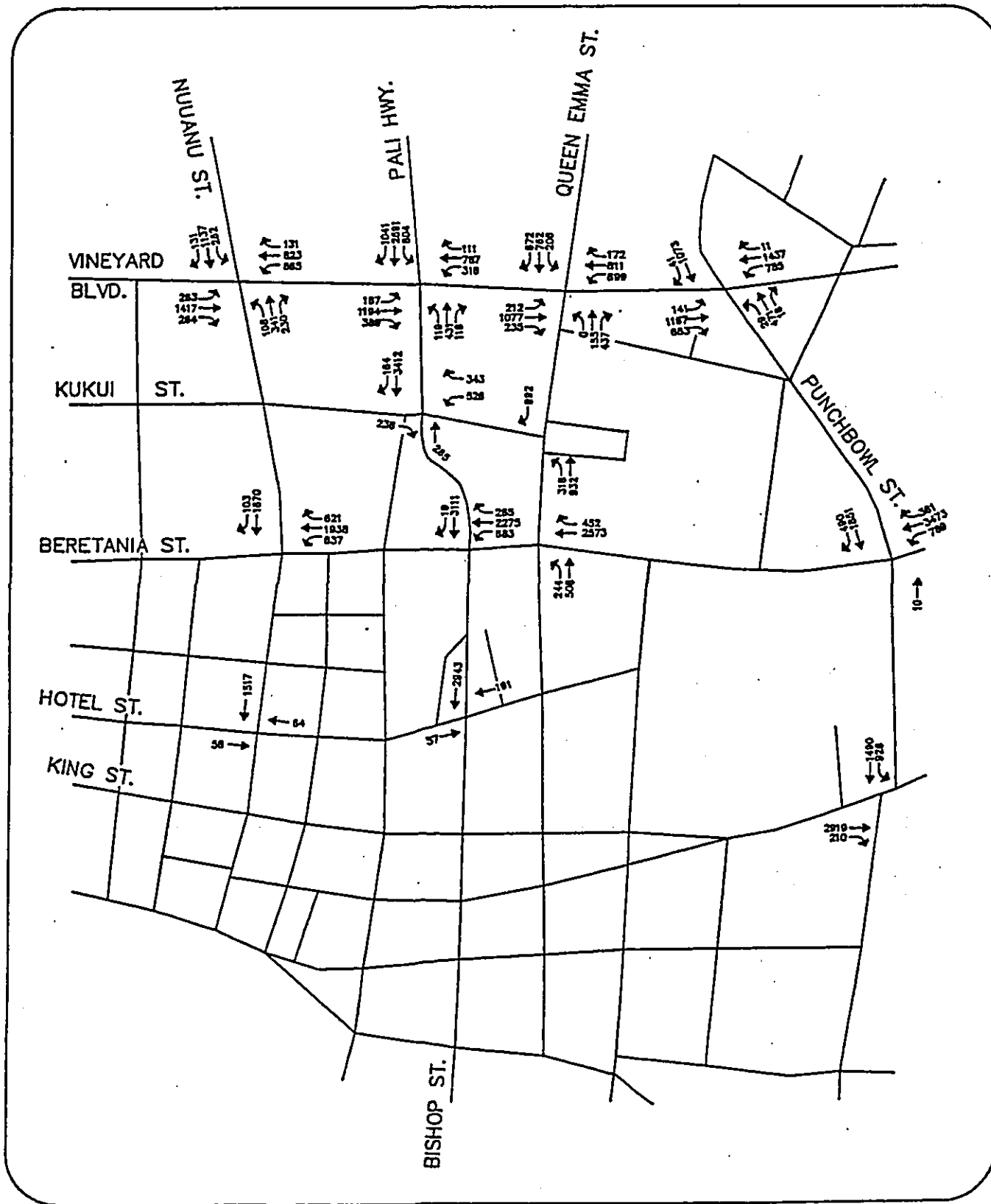
1995 AM PEAK HOUR PROJECT TRIPS  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER

FIGURE  
 9



1995 PM PEAK HOUR PROJECT TRIPS  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER

FIGURE  
 10



1995 CUMULATIVE + PROJECT AM PEAK HOUR TRAFFIC VOLUMES

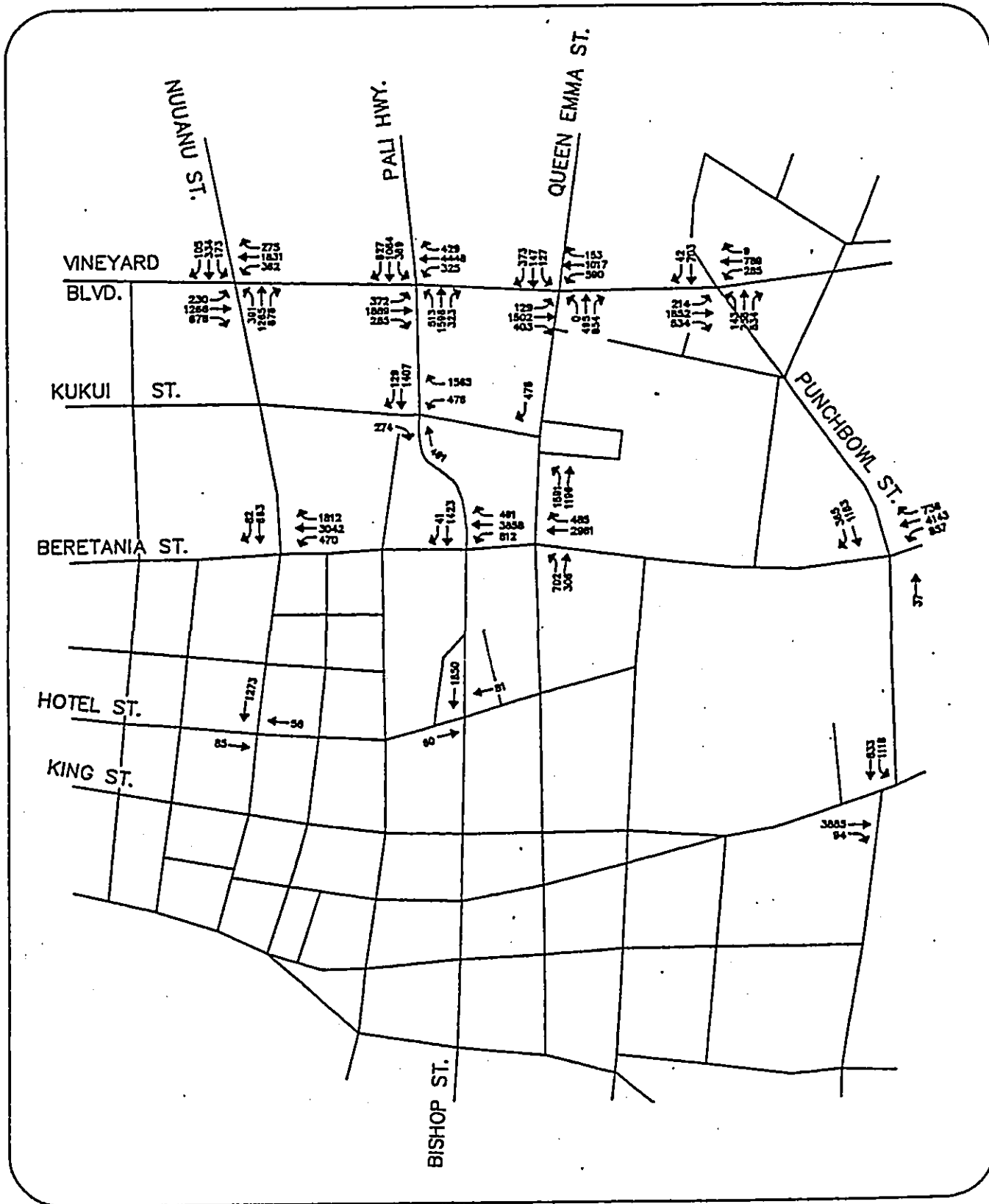
BARTON-ASCHMAN ASSOCIATES, INC.

PACIFIC NATIONS CENTER



FIGURE

11



1995 CUMULATIVE + PROJECT PM PEAK HOUR TRAFFIC VOLUMES  
 BARTON-ASCHMAN ASSOCIATES, INC.  
 PACIFIC NATIONS CENTER



FIGURE

12

5.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

The purpose of this chapter is to present the results of the level-of-service analysis, which identifies the project-related impacts. In addition, any mitigation measures necessary and implementable are identified.

DEFINITION OF SIGNIFICANT TRAFFIC IMPACTS

Criteria for determining if a project has a significant impact which must be mitigated have been established, based on traffic impact study guidelines used in various cities. Generally these criteria are that if the level of service without the project is E or F and the volume/capacity (V/C) ratio changes are 0.030 or less, then the project's traffic impact is considered insignificant. However, if the V/C ratio change is greater than 0.030, then mitigation measures which will reduce the V/C ratio change to less than 0.030 must be identified. For this project, the 0.030 criteria have been used because of the large traffic volumes on the adjacent streets.

If the level-of-service with the project is D or better, then no mitigation measures need to be identified.



#### PROJECT-RELATED TRAFFIC IMPACTS

The projected traffic impacts are summarized in Table 6. The results are as follows:

1. At the intersection of Vineyard Boulevard and Nuuanu Street, mitigation will be required. Mitigation measures required consist of an additional northbound right turn only lane<sup>and</sup> modification of the westbound approach to provide an optional left turn or through movement and modification of the signal phasing to allow overlapping left turns. These measures will reduce the V/C ratio to less than the 1995 cumulative without project condition for both morning and afternoon peak hours.
2. At the intersection of Vineyard Boulevard and Pali Highway, northbound and southbound right turn only lanes are required to mitigate the project-related traffic impacts.
3. The intersection of Vineyard Boulevard and Queen Emma Street should be modified to provide an optional through or left turn on the westbound approach.
4. No mitigation is required at the intersection of Kukui Street and Pali Highway.
5. At the intersection of Kukui Street and Queen Emma Street, the level-of-service improved with implementation of the project because traffic was added to the approaches with the least delay and the diversion of traffic to Pali Highway northbound. Therefore decreasing the average vehicle delay and improving the V/C ratio. Therefore, no mitigation is recommended.

TABLE 6  
LEVEL-OF-SERVICE ANALYSIS FOR 1995 CONDITIONS  
TRAFFIC STUDY FOR PACIFIC NATIONS CENTER  
OCTOBER, 1988

INTERSECTION	AM PEAK HOUR			PM PEAK HOUR		
	W/O PROJECT V/C(1)	LOS(2)	V/C(1)	W/PROJECT V/C(1)	LOS(2)	V/C(1)
1. Vineyard Bl. @ Maunaloa Ave.	1.700	F	1.742	1.520	F	1.611
			(1.384)	0.042(*)	F	(1.190)
			2.169	(-0.316)	F	0.091(*)
2. Vineyard Bl. @ Pali Highway	1.919	F	2.169	1.824	F	1.955
			(1.908)	0.250(*)	F	(-0.330)
			2.414	(-0.011)	F	0.131(*)
3. Vineyard Bl. @ Queen Emma St.	1.969	F	2.414	2.675	F	2.597
			(1.705)	0.445(*)	F	(-0.246)
			0.678	(-0.264)	F	0.078
4. Kukui St. @ Pali Highway	0.483	A	0.678	0.189	A	0.355
			0.266	---	A	---
5. Kukui St. @ Queen Emma St.	0.294	A	0.266	1.078	F	0.907
			1.036	0.039(*)	F	1.178
6. Beretania St. @ Maunaloa	1.036	F	1.075	1.178	F	1.178
			(1.024)	(-0.012)	F	(1.178)
			1.056	(-0.031)	F	0.198(*)
7. Beretania St. @ Pali Hwy/Bishop St.	1.087	F	1.056	0.828	D	1.026
			(1.056)	(-0.035)	F	(0.940)
			0.607	---	B	1.086
8. Beretania St. @ Queen Emma St./ Alakea St.	0.607	A	0.654	0.817	D	1.086
			(0.654)	N.C.	D	(0.814)
			0.636	N.C.	A	0.555
9. Hotel St. @ Maunaloa	0.636	A	0.636	0.555	A	0.555
			0.569	---	A	0.366
10. Hotel St. @ Bishop St.	0.569	A	0.578	0.369	A	0.366
			1.347	0.014	F	1.228
11. Vineyard Bl. @ Punchbowl St.	1.347	F	1.361	1.179	F	1.228
			1.291	0.027	F	1.223
12. Punchbowl St. @ Beretania St.	1.291	F	1.318	1.200	F	1.223
			0.844	0.011	D	1.028
13. Punchbowl St. @ King St.	0.844	D	0.855	1.004	E	1.028
				0.011	D	0.024

(1) V/C = Volume to Capacity Ratio

(2) LOS = Level of Service

(3) V/C Change calculated only if LOS is E or F

(4) NC = No Change

6. At the intersection of Beretania Street and Nuuanu Street, one of the westbound right turn only lanes should be converted to an optional through or right turn lane.
7. At the intersection of Beretania Street and Pali Highway, an additional separate right turn lane should be provided as part of the conversion of Pali Highway from one-way to two-way.
8. At the intersection of Beretania Street and Queen Emma Street, the northbound approach should be modified to convert one through lane to an optional through or left turn lane.
9. No mitigation is required at the intersection of Hotel Street and Nuuanu Street.
10. No mitigation is required at the Hotel Street - Bishop Street intersection.
11. The impacts at the intersection of Vineyard Boulevard and Punchbowl Street are significant but are unmitigatable unless widening of the northbound and southbound approaches is possible. At this time, widening is not possible and, therefore, the impacts cannot be mitigated.
12. The project's impacts at the intersection of Punchbowl Street and Beretania Street are not significant. Therefore, no mitigation measures are required at this location.
13. No mitigation is required at the Punchbowl Street - King Street intersection.

### **Pali Highway**

Part of the plan is to convert Pali Highway from one-way to two-way between Beretania Street and Kukui Street. This measure will have a positive impact along Queen Emma Street by diverting northbound traffic to Pali Highway. A preliminary analysis indicates that the traffic can be accommodated with the mitigation measures recommended in the previous section.

### **Construction-Related Impacts**

Construction traffic impacts will be short-term. Construction would be completed prior to the 1995 design year used in this study meaning that background conditions will not be as severe as used to analyze the traffic impacts. However, construction traffic is typically scheduled for off-peak hours.

### **Driveway and Loading Zone Locations**

The proposed development plan was reviewed during the preparation of the traffic impact analysis relative to the location of driveways. It was determined that the following criteria should be used in the design and location of the driveways:

1. No driveways (or loading zones) will be located along the Pali Highway.
2. Driveways allowing left turns only (in and out) should be located along Queen Emma Street, Kukui Street and Fort Street; and right turns only along Beretania Street.
3. Commercial loading zones should be located on-site and have separate driveways. Deliveries should be scheduled for off-peak hours.

4. Passenger loading zones should be located along Queen Emma Street, Kukui Street, and Fort Street and should have pull-outs to minimize traffic flows.

**APPENDIX G**

**Air Quality impact Analysis**

**AIR QUALITY IMPACT ANALYSIS**

**Pacific Nations Center EIS**

**November, 1988**

**ENGINEERING-SCIENCE  
DESIGN o RESEARCH o PLANNING  
75 North Fair Oaks Avenue, P.O. Box 7107  
Pasadena, California 91109**

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## INTRODUCTION

The City and County of Honolulu is proposing to redevelop expanded Block J of the Honolulu Central Business District (CBD) into a mixed-use commercial complex. The project site is in a prime location within the CBD and is currently underutilized. The demand for downtown office space could be alleviated with the proposed project. The Department of Housing and Community Development proposes to acquire six privately owned parcels in Block J and to consolidate these parcels with the City-owned lots. The consolidated site will then be leased to a private entity for development into a large mixed use international complex.

This report assesses the impacts of the proposed development on local air quality during construction and operation. Impacts from construction activities are emissions of fugitive dust from grading and demolition of existing facilities and exhaust emissions from heavy-duty construction machinery. Impacts from operation of the development are basically considered indirect and include emissions from associated traffic, power generation, and natural gas combustion.

## AIR QUALITY STANDARDS

A summary of the federal National Ambient Air Quality Standards (NAAQS) and the State of Hawaii ambient standards are presented in Table 1. The federal standards are divided into primary and secondary standards while those for the State of Hawaii are at a single level. Primary standards are intended to protect public health with an adequate margin of safety while secondary standards are designed to protect public welfare such as visibility, comfort levels, wildlife, vegetation, animal life, property, soils, water, climate and economic values.

Table 1

Summary of Federal and State of Hawaii  
Ambient Air Quality Standards

Pollutant	Averaging Time	Federal Primary Standard	Federal Secondary Standard	State Standard
Total Suspended Particulate Matter (TSP)	Annual Geometric Mean	-	-	60
(micrograms per cubic meter)	Maximum 24-hr Average	-	-	150
PM-10	Annual Geometric Mean	50	-	-
(micrograms per cubic meter)	Maximum 24-hr Average	150	-	-
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	80	-	80
(micrograms per cubic meter)	Maximum 24-hr Average	365	-	365
	Maximum 3-hr Average	-	1,300	1,300
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	100	100	70
(micrograms per cubic meter)				
Carbon Monoxide (CO)	Maximum 8-hr Average	10	10	5
(milligrams per cubic meter)	Maximum 1-hr Average	40	40	10
Photochemical Oxidants (as O <sub>3</sub> )	Maximum 1-hr Average	235	235	100
(micrograms per cubic meter)				
Lead (Pb)	Maximum Quarterly Average	1.5	1.5	1.5
(micrograms per cubic meter)				

In general, the ambient standards of the State of Hawaii are the same as the federal primary or secondary standards. However, in the case of carbon monoxide and ozone, the state standards are more stringent. In April, 1986, the Governor of Hawaii signed amendments to Chapter 59 (Ambient Air Quality Standards) of the Hawaii Administrative Rules, making the state's standards for particulate matter and sulfur dioxide the same as national standards. On July 1, 1987 the U.S. Environmental Protection Agency (EPA) revised the standard for particulate matter to apply only to particles with an aerodynamic diameter of 10 microns or less (inhalable portion only). The State of Hawaii has not adopted the federal PM-10 standard, nor has it developed its own PM-10 standard, such that the state particulate matter standard is different from the federal standard.

The NAAQS are set in Title 40, Part 50 of the Code of Federal Regulations (40CFR50) while the ambient air quality standards for the State of Hawaii are defined in Chapters 11-59 of the Hawaii Administrative Rules.

#### **EXISTING AIR QUALITY**

Air quality in the State of Hawaii is monitored by the State Department of Health (DOH). The DOH maintains a network of air monitoring stations throughout the state. The monitoring station located at the DOH building at the corner of Punchbowl and Beretania Streets is closest to the project site and the air quality data collected at this site would closely represent the air quality in the project area. A five-year summary of the data collected at this DOH monitoring site is presented in Table 2.

Table 2

Summary of Air Quality Data, 1982-1986  
Department of Health Building Monitoring Station

Pollutant	1982	1983	1984	1985	1986
<b>Total Suspended Particulates (TSP)</b>					
Maximum 24-hr average concentration, $\mu\text{g}/\text{m}^3$ <sup>a</sup>	42	58	48	48	61
Days exceeding state standard	0	0	0	0	0
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>					
Maximum 24-hr average concentration, $\mu\text{g}/\text{m}^3$	38	16	<5	<5	6
Days exceeding state standard	0	0	0	0	0
<b>Photochemical Oxidants (O<sub>3</sub>)</b>					
Maximum 24-hr average concentration, $\mu\text{g}/\text{m}^3$	151	123	104	198	88
Days exceeding state standard	2	2	1	3	0
<b>Carbon Monoxide (CO)</b>					
Maximum 1-hr average concentration, $\text{mg}/\text{m}^3$ <sup>b</sup>	-	8.6	10.9	10.4	13.5
Days exceeding state standard	-	0	1	1	3
<b>Lead (Pb)</b>					
Maximum quarterly average, $\mu\text{g}/\text{m}^3$	.21	-	0.3	0.1	0.1

<sup>a</sup> $\mu\text{g}/\text{m}^3$  - micrograms per cubic meter  
<sup>b</sup> $\text{mg}/\text{m}^3$  - milligrams per cubic meter

The monitoring data indicate general compliance with federal and state ambient air quality standards. There are occasional exceedances for carbon monoxide and photochemical oxidants. Lead and sulfur dioxide levels show a general decline in ambient levels. There are no data for nitrogen dioxide as monitoring for nitrogen dioxide was discontinued by the DOH after 1976.

## **CLIMATE AND METEOROLOGY**

The climate in Hawaii is mild with very minimal seasonal variation due to the tempering effect of the surrounding ocean. Maximum temperature ranges from the high 70's in the winter and mid-80's in the summer while minimum temperatures are from the mid-60's to the low 70's. Annual rainfall averages about 23 inches. Winds are generally from the northeast with velocities frequently less than 10 miles per hour. Stable climatological conditions (Pasquill-Gifford stability categories E and F) occur about 28 percent of the time. It is during such stable conditions that the greatest potential for air pollutant buildup from ground level sources exists.

## **AIR QUALITY IMPACTS**

Impacts on air quality are attributable to emissions generated from the construction and operation of the proposed project. Construction impacts are considered short-term while operational impacts are more long-term in nature.

### **Construction Emissions**

Emissions from construction activities are generated from ground preparation and exhaust emissions from heavy-duty construction machinery. In order to quantify these impacts, well-defined construction and machinery mobilization schedules are necessary. However, since these items are not forthcoming at this time, impacts will be evaluated on a unit time basis of one month and an assumed construction machinery composite.

The emission factor developed by the EPA provides a monthly estimate of fugitive particulate emissions of 1.2 tons per acre under conditions of medium activity, moderate soil silt content (30 percent) and semiarid climates. For a total project site of 5.06 acres, the emissions of fugitive particulate matter would total 6.1 tons per month.

For exhaust emissions from construction machinery, an average construction machinery composite was assumed to be on site and that construction work would average 8 hours per day, 25 days per month. The monthly emissions are estimated using EPA emission factors and are presented in Table 3.

Table 3

Monthly Construction Machinery Exhaust Emissions

Equipment	Number of Units	Emissions, lbs/month				
		CO	HC	NO <sub>x</sub>	SO <sub>x</sub>	TSP
Grader	1	30	8	11	17	12
Bulldozer	1	360	38	832	108	51
Loader	2	52	100	756	73	68
Backhoe	1	135	31	338	29	28
Dump truck	1	46	16	95	18	18
Forklift	2	270	61	676	57	56
Crane	1	135	31	338	114	28
<b>TOTAL</b>		<b>1,028</b>	<b>285</b>	<b>3,046</b>	<b>416</b>	<b>261</b>

Operation Emissions

During the operation of the proposed project, the sources of emissions impacting local air quality would be traditional sources such as additional vehicular traffic, natural gas combustion and off-site power generating facilities that would provide the additional requirements of the project. Table 4 presents project-related emissions, estimated using factors published by the EPA and the South Coast Air Quality Management District in California.

Table 4

Project-Related Mobile and Stationary Source Emissions

Source	Emissions, tons/month				
	CO	HC	NO <sub>x</sub>	SO <sub>x</sub>	TSP
Electricity generation	0.5	0.1	6.1	7.3 <sup>b</sup>	0.7
Natural gas combustion	0.1	neg	0.3	neg	neg
Vehicular traffic	24.8	4.1	5.0	neg	1.2
<b>TOTAL</b>	<b>25.4</b>	<b>4.2</b>	<b>11.4</b>	<b>7.3</b>	<b>1.9</b>

<sup>a</sup>neg - negligible

<sup>b</sup>based on a maximum sulfur content of 0.5 percent

Traffic in the downtown area is expected to increase from local growth. Traffic studies conducted for the project indicate that the project will contribute to this traffic increase. The primary air pollutant of concern from vehicular traffic is carbon monoxide (CO). In order to determine the impact of increased traffic from local growth and from the proposed project on local air quality, dispersion modeling studies were conducted using the model CALINE-4.

Major intersections which bound the project site as well as nearby intersections that could be impacted were analyzed using the results of the traffic study, local meteorological conditions, and the dispersion model CALINE-4. To indicate the impact of traffic on localized carbon monoxide concentrations, background concentrations were assumed to be zero. A uniform wind speed of one meter per second at a predominant northeasterly wind direction (70°) was assumed. Stability category D was assumed to represent the most stable atmospheric condition that would likely occur in an urban setting. A receptor height of 1.3 meters to estimate the normal human breathing zone was used.



The results of the dispersion modeling studies are shown in Table 5. Dispersion modeling studies were conducted for existing conditions as well as in the project year, with and without the project. The numbers represent the predicted maximum curbside concentrations. Curbside concentrations were predicted for all intersection corners. Concentrations at the southwest corner were predicted to be the highest, which reflects the predominant northeasterly wind direction.

Table 5

Maximum Curbside Carbon Monoxide Concentrations

Intersection	CO Concentration, mg/m <sup>3</sup>		
	Existing 1988	No Project 1995	With Project 1995
<b>Vineyard Boulevard</b>			
1. At Nuuanu Street	5.5	6.0	5.8
2. At Pali Highway	5.2	6.7	6.2
3. At Queen Emma Street	3.6	3.3	3.6
<b>Kukui Street</b>			
1. At Pali Highway	0.6	0.6	0.8
2. At Queen Emma Street	0.1	0.1	0.1
<b>Beretania Street</b>			
1. At Nuuanu Street	4.1	4.5	4.5
2. At Pali Highway	5.0	4.6	4.5
3. At Queen Emma Street	2.1	2.2	2.5

In general, there is a decline in curbside carbon monoxide concentrations from 1988 to the project year, 1995. Although the traffic study indicates an overall increase in local traffic, the decline is due to federal emission standards for newly manufactured vehicles and the mandated availability of cleaner burning fuels. Of the eight receptor sites evaluated, three sites were found to be in exceedance of the

8-hour CO state standard at existing conditions. In the project year, two sites were found to be in exceedance of the 8-hour standard with and without the project. Of the eight receptor sites studied, none would exceed the state 1-hour CO standard for all conditions. Project-related increases ranged from 4 percent at Beretania and Nuuanu Streets up to 33 percent at Kukui Street and Pali Highway. It should be noted that the occurrence of worst case meteorological conditions assumed here is very minimal.

Three sensitive receptors were identified near the project site. These are three schools, namely, Central Intermediate School on the north, St. Andrews Priory on the east, and Bamboo Shoots Pre-School on the west. Predicted CO concentrations at the nearest receptor sites to these schools either remained at existing levels or declined.

#### MITIGATION MEASURES

Short-term impacts that would be due to construction were previously identified to be fugitive particulate matter emissions from ground disturbing activities and exhaust emissions from construction machinery. The impacts from fugitive particulate emissions could be mitigated by the application of dust suppressants such as water and chemical crusting agents on work areas and unpaved haul roads. It is estimated that spraying of these areas would result into a 50 percent reduction in emissions. Other control measures that are recommended include the coordination of all concrete pouring and paving with grading and excavation activities and good housekeeping practices. It should be noted that the State of Hawaii prohibits the generation of any visible emissions. The recommended mitigative measures for fugitive dust should control visible emissions to acceptable levels. Exhaust emissions from construction machinery could be minimized by keeping all such machinery in proper tune at all times.

Long-term impacts were identified to be attributable to the consumption of electricity and natural gas and to the generation of additional local traffic. Emissions from power generation and natural gas combustion could be minimized by the application of energy-saving devices wherever possible. These may include set-back thermostats, solar heating devices, and maximum use of natural illumination. Vehicular emissions could be mitigated by designing comprehensive

traffic reduction plans for the future tenants of the proposed project. Such plans may include incentive programs to encourage carpooling and use of public transportation. Staggered working hours may also contribute to the alleviation of traffic, especially during the peak hours, and consequently reduce traffic-related emissions.

## REFERENCES

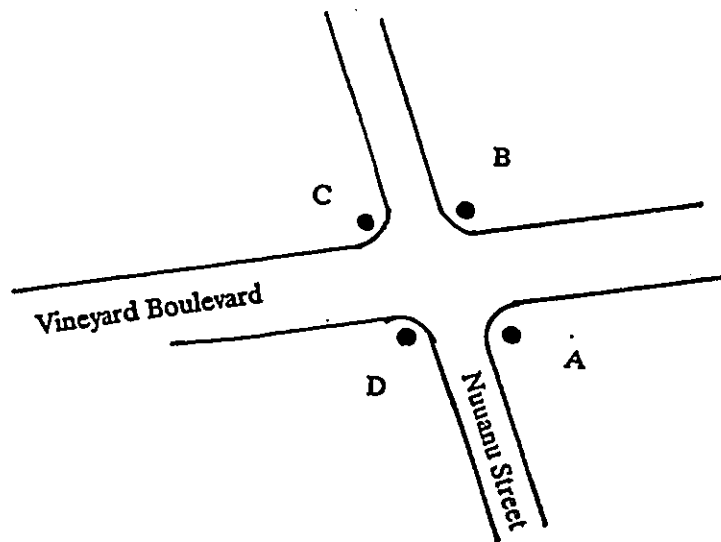
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- USEPA (U.S. Environmental Protection Agency), 1985. Compilation of Air Pollutant Emission Factors, 4th Edition, AP-42. Research Triangle Park, North Carolina, September 1985.

**APPENDIX**

**Dispersion Modeling Results**

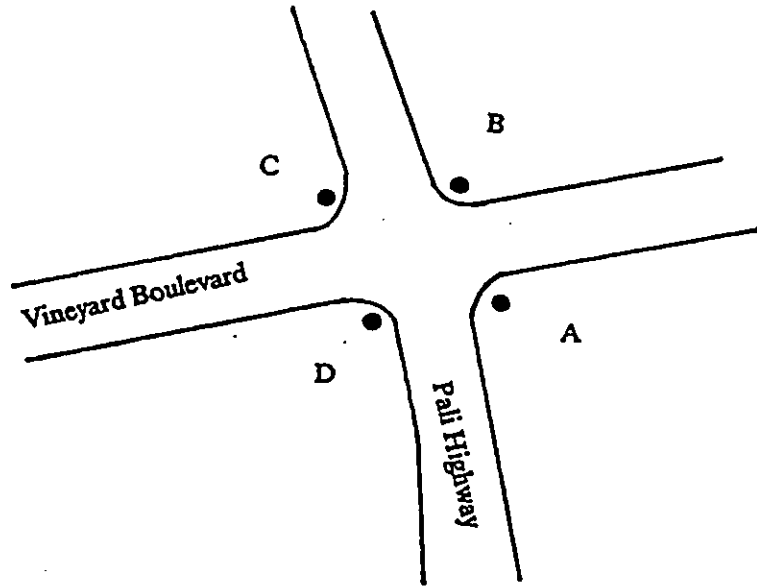


### VINEYARD BOULEVARD AND NUUANU STREET



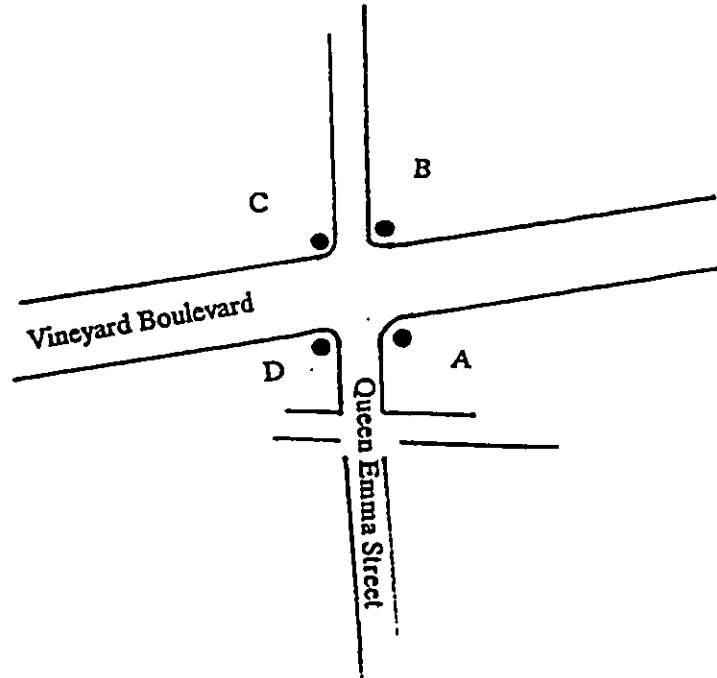
Receptor	Predicted CO Concentration, ppm		
	1988	1995	1995+P
A	0.6	0.8	1.1
B	0.0	0.0	0.1
C	2.8	2.2	2.4
D	4.8	5.2	5.1

### VINEYARD BOULEVARD AND PALI HIGHWAY



Receptor	Predicted CO Concentration, ppm		
	1988	1995	1995+P
A	0.3	0.3	0.3
B	0.0	0.0	0.0
C	4.5	5.9	5.4
D	1.7	1.6	1.6

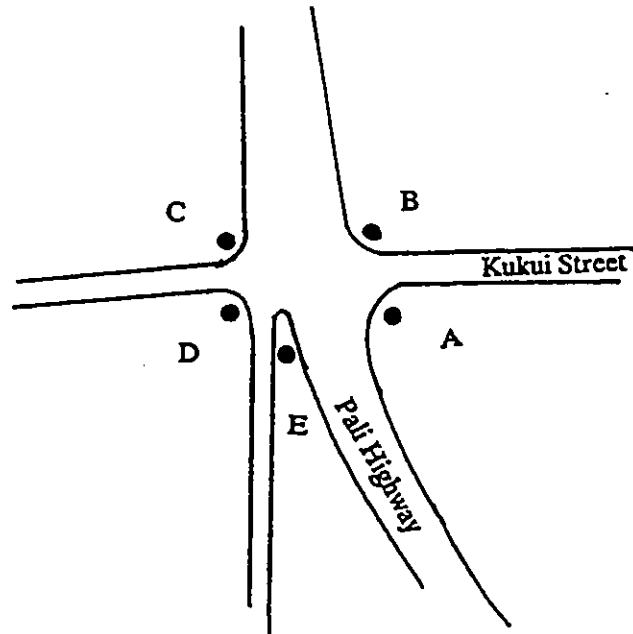
VINEYARD BOULEVARD AND QUEEN EMMA STREET



Receptor	Predicted CO Concentration, ppm		
	1988	1995	1995+P
A	0.3	0.3	0.3
B	0.8	1.0	1.0
C	2.3	3.0	2.8
D	3.1	2.9	3.1

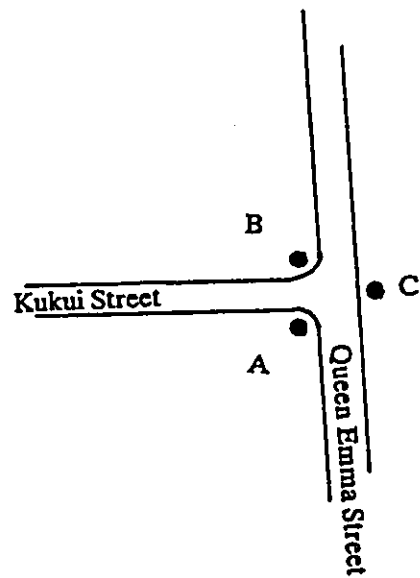


### KUKUI STREET AND PALI HIGHWAY



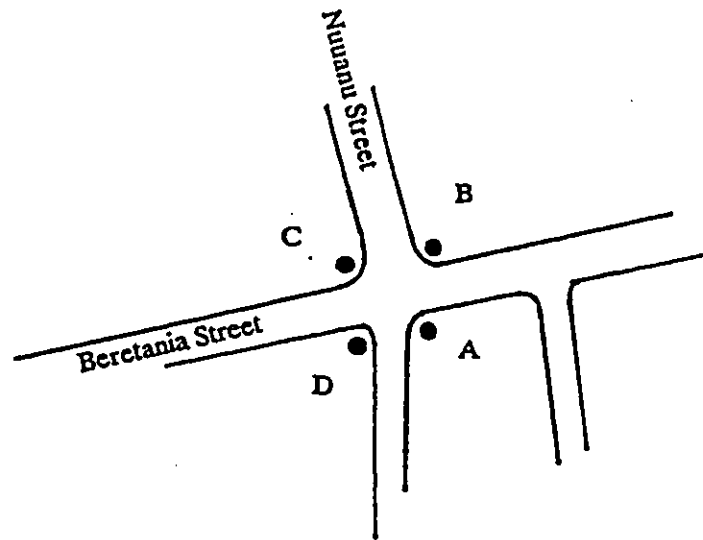
Receptor	Predicted CO Concentration, ppm		
	1988	1995	1995+P
A	0.2	0.2	0.2
B	0.0	0.0	0.0
C	0.2	0.3	0.4
D	0.1	0.1	0.1
E	0.5	0.5	0.7

## KUKUI STREET AND QUEEN EMMA STREET



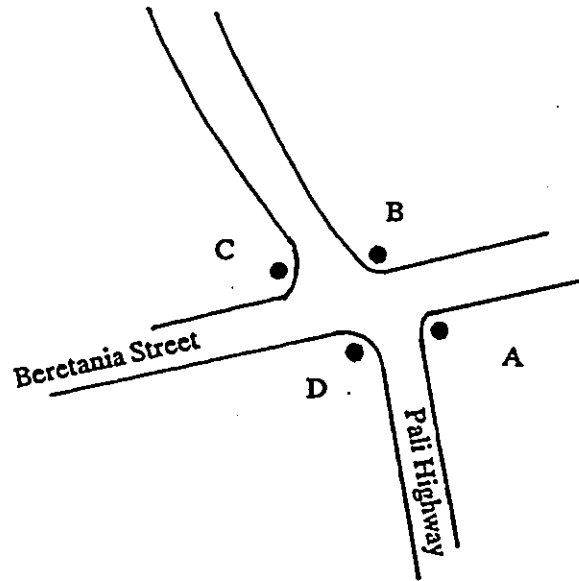
Receptor	Predicted CO Concentration, ppm		
	1988	1995	1995+P
A	0.1	0.1	0.1
B	0.1	0.1	0.1
C	0.0	0.0	0.0

BERETANIA STREET AND NUUANU STREET



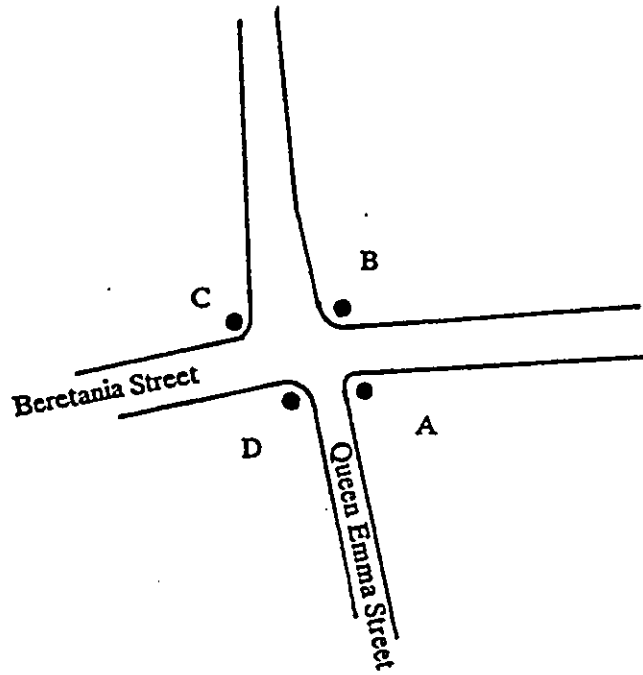
Receptor	Predicted CO Concentration, ppm		
	1988	1995	1995+P
A	3.2	3.8	3.7
B	2.2	2.5	2.3
C	2.5	3.4	3.3
D	3.6	3.9	3.9

### BERETANIA STREET AND PALI HIGHWAY



Receptor	Predicted CO Concentration, ppm		
	1988	1995	1995+P
A	0.6	0.7	0.9
B	1.1	1.1	1.3
C	4.4	4.0	3.9
D	3.0	2.8	3.0

BERETANIA STREET AND QUEEN EMMA STREET



Receptor	Predicted CO Concentration, ppm		
	1988	1995	1995+P
A	0.3	0.2	0.3
B	0.0	0.0	0.0
C	0.4	0.4	0.4
D	1.8	1.9	2.2

**APPENDIX H**

**Reproductions of All Substantive  
Comments and Responses**



DEPARTMENT OF THE ARMY  
U.S. ARMY ENGINEER DISTRICT, HONOLULU  
FT. SHAFTER, HAWAII 96858-5440

BEV TO  
ATTENTION OF

Planning Branch

FRANK P. FARR  
MAIL ROOM



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

645 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 833-8161

MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
DEPUTY DIRECTOR

June 27, 1988

Mr. Mike Moon, Director  
Department of Housing and Community Development  
650 South King Street, 5th Floor  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Thank you for the opportunity to review the Environmental Impact Statement Preparation Notice (EISPN) for the Pacific Nations Center, Honolulu. The following comments are offered:

- a. A Department of the Army permit is not required for the proposed project.
- b. The EISPN accurately states (page 5) that the site is not located in a designated flood or tsunami inundation zone. According to the Flood Insurance Study for the City and County of Honolulu, the project parcel is located in Zone D (areas in which flood hazards are undetermined).

Sincerely,

*C. Cheung*  
Kisuk Cheung  
Chief, Engineering Division

December 5, 1988

Mr. Kisuk Cheung, Chief  
Engineering Division  
Department of the Army  
U.S. Army Engineer District, Honolulu  
Fort Shafter, Hawaii 96858-5440

Dear Mr. Cheung:

Subject: Environmental Impact Statement Preparation Notice (EISPN)  
Pacific Nations Center Project

Thank you for your comments on the EISPN for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*M. Moon*  
for MIKE MOON  
Director

88 JUN 30 P2:18  
DEPT OF HOUSING  
& COMM DEVELOPMENT

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

430 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 832-4181



MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
DEPUTY DIRECTOR

December 6, 1988

United States Department of the Interior

FISH AND WILDLIFE SERVICE  
300 ALA MOANA BOULEVARD  
P.O. BOX 50187  
HONOLULU, HAWAII 96810

55  
Room 6307  
JUN 21 1988

FRANK F. ZAL  
MAILER



Mr. Michael M. Moon, Director  
Department of Housing and Community  
Development  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Re: Environmental Impact Statement Preparation Notice, Pacific  
Nations Center, Downtown Honolulu, Hawaii

Dear Mr. Moon:

We have reviewed the material you provided in your letter of May 31, 1988. To the best of our knowledge, there are no significant fish and wildlife resources within our jurisdiction present at the project site. From this standpoint, we see no need for preparation of an environmental impact statement for this project.

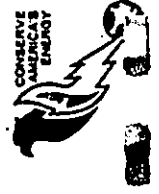
We appreciate this opportunity to comment.

Sincerely yours,

*Ernest Kosaka*

Ernest Kosaka, Field Supervisor  
Environmental Services  
Pacific Islands Office

cc: NMFS - WPPO  
DLNR



DEPT. OF HOUSING  
& COMM. DEVELOPMENT

88 JUN 22 11:31

STERRY JON S...meric

Mr. Ernest Kosaka, Field Supervisor  
Environmental Services  
U.S. Department of the Interior  
Fish and Wildlife Service  
P. O. Box 50167  
Honolulu, Hawaii 96850

Dear Mr. Kosaka:

Subject: Pacific Nations Center Project  
Environmental Impact Statement Preparation Notice

Thank you for your comments of June 21, 1988. Due to the magnitude of the proposed project and the other potentially significant impacts normally associated with such a development, we will be preparing an EIS for the subject project.

Sincerely,

*Mike Moon*  
MIKE MOON  
Director



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

150 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 532-4181



PLANE / FAX  
MAIL ROOM

June 7, 1988  
HEC-HI  
(574.5)

Hawaii Division  
Box 50206  
Honolulu, Hawaii 96850

MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
Interim Director

*U.S. Dept. of Transportation  
Federal Highway Administration*

Mr. Mike Moon, Director  
Department of Housing and  
Community Development  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Subject: Pacific Nations Center, EIS Preparation Notice

Thank you for the opportunity of reviewing the preparation notice for the environmental impact study on the proposed Pacific Nations Center in downtown Honolulu.

The vehicular access and traffic study which evaluates the overall impact on the adjacent, existing street system is considered an important component of environmental impact documentation for this project. We look forward to reviewing the results of this study in the draft EIS.

We have no other comments to offer at this time.

Sincerely yours,

*W. William R. Lake*

William R. Lake  
Division Administrator

December 5, 1988

Mr. William Lake  
Division Administrator  
U.S. Department of Transportation  
Federal Highway Administration  
Hawaii Division  
P. O. Box 50206  
Honolulu, Hawaii 96850

Dear Mr. Lake:

Subject: Environmental Impact Statement Preparation Notice  
(EISPH)  
Pacific Nations Center Project

Thank you for your comments on the EISPH for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*M. Scarfone*  
for MIKE MOON  
Director

JOHN WILSON  
DIRECTOR OF HEALTH



STATE OF HAWAII  
DEPARTMENT OF HEALTH  
P. O. BOX 3372  
HONOLULU, HAWAII 96811

JOHN C. LEWIS, M.D.  
DIRECTOR OF HEALTH

IN REPLY, PLEASE REFER TO  
E15130

June 27, 1988

MEMORANDUM

To: Mr. Mike Moon, Director, Department of Housing & Community Development  
City & County of Honolulu

From: Deputy Director for Environmental Health

Subject: Environmental Impact Statement Preparation Notice (EISP/N) for Pacific Nations Center (Block J), Tax Map Key 2-1-9, 7, 8, 9, 11, 18, 27, 37, 39, 46, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

Mr. Mike Moon  
June 27, 1988  
Page 2

Thank you for allowing us to review and comment on the subject EISP/N. In preparation of an EIS on the above project, the following noise concerns must be addressed:

1. Since the zoning of the project, Business-Mixed Use, would allow commercial and residential uses, noise from business activities may have an adverse impact on residents of the proposed project. Noise from various activities of the project may also adversely impact nearby residents of Kukui Plaza, Central Intermediate School and St. Andrew's Priory.
2. Noise from stationary equipment, such as air conditioning units, exhaust fans and emergency generators must be attenuated to meet the allowable noise levels as specified in Title 11, Administrative Rules Chapter 43, Community Noise Control for Oahu.
3. Activities associated with the construction phase of the project must also comply with the provisions of Chapter 43, Community Noise Control for Oahu:
  - a. The contractor must obtain a noise permit since the noise level from the construction activities are expected to exceed the allowable levels of the rules.
  - b. Construction equipment and onsite vehicles requiring an exhaust of gas or air must be equipped with mufflers.
  - c. The contractor must comply with the conditional use of the permit as specified in the rules and conditions issued with the permit.
4. Since noise from construction work can have a disruptive effect on classroom activity, plans to minimize the noise impact on Central Intermediate and St. Andrew's Priory should be developed. This could include the use of noise barriers or the scheduling of noisy activities during nonschool hours.

5. Heavy vehicles travelling to and from the project site must comply with the provisions of Title 11, Administrative Rules Chapter 42, Vehicular Noise Control for Oahu.

*Bruce S. Anderson*  
BRUCE S. ANDERSON, Ph.D.



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

630 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 535-4161



MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
DEPUTY DIRECTOR

December 5, 1988

Dr. John C. Lewin, Director  
1250 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Dr. Lewin:

Subject: Environmental Impact Statement Preparation Notice  
(EISP)  
Pacific Nations Center Project

Thank you for your comments on the EISP for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*Mike Moon*  
MIKE MOON  
Director

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

610 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 519-9101



MIKE MOON  
DIRECTOR

Michael N. Scarfone  
ADMINISTRATIVE

December 5, 1988

WILLIAM W. PATY, CHAIRPERSON  
BOARD OF LAND AND NATURAL RESOURCES



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

P. O. BOX 611  
HONOLULU, HAWAII 96809

URBERT S. LUDWIG  
SECRETARY

AGRICULTURE DEVELOPMENT  
ARCHITECTURE  
COMMUNITY DEVELOPMENT  
CONSERVATION AND  
ENVIRONMENTAL AFFAIRS  
COMMUNITY DEVELOPMENT  
CONSERVATION  
CONSERVATION AND WILDLIFE  
LAND MANAGEMENT  
PLANNING AND DESIGN  
WATER AND LAND DEVELOPMENT

DOC.: 3819E  
FILE: 88-555

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The Honorable Michael H. H. Moon  
Director  
DEPARTMENT OF HOUSING AND  
COMMUNITY DEVELOPMENT  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

SUBJECT: EIS Preparation Notice: Pacific Nations Center  
Honolulu, Hawaii; TMK: 2-1-9; Various

Dear Mr. Moon:

Thank you for giving our Department the opportunity to  
comment on this matter.

We have reviewed the materials you submitted and have the  
following comments.

Page 8 of the Preparation Notice refers to a report of Block  
J's archaeological potential, by M. J. Tomonari-Tuggle. This  
report, based on the structural history of the site, recommended  
subsurface archaeological investigation prior to construction to  
determine if significant historic sites are present. We concur  
with this evaluation. Visual impacts to historic buildings should  
also be considered.

Thank you again for your cooperation in this matter. Please  
feel free to call me or Jay Lembeck of our Office of Conservation  
and Environmental Affairs, at 548-7837, if you have any questions.

Very truly yours,

*William W. Paty*  
WILLIAM W. PATY, Chairperson  
Board of Land and Natural Resources

Mr. William W. Paty, Jr.  
Kalanimoku Building  
1151 Punchbowl Street  
Honolulu, Hawaii

Dear Mr. Paty:

Subject: Environmental Impact Statement Preparation Notice  
(EISPH)  
Pacific Nations Center Project

Thank you for your comments on the EISPH for the proposed  
Pacific Nations Center project in downtown Honolulu. Your  
concerns will be addressed in the Draft EIS, which will be  
completed by this year.

Sincerely,

*Mike Moon*  
MIKE MOON  
Director



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

830 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE 933-6181



MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
DEPUTY DIRECTOR

December 5, 1988

Mr. Joseph K. Conant, Executive Director  
Housing Finance & Development Corporation  
P. O. Box 29360  
Honolulu, Hawaii 96820-1760

Dear Mr. Conant:

Subject: Environmental Impact Statement Preparation Notice  
(EISPN)  
Pacific Nations Center Project

Thank you for your comments on the EISPN for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*Mike Moon*  
MIKE MOON  
Director

Joseph K. Conant  
Executive Director

FRANK F. FAR  
MAYOR

BY ARLY REZER

88:PING/2666JT

88 JUN 14 P1:58

DEPT. OF HOUSING  
& COMM. DEVELOPMENT



STATE OF HAWAII  
Department of Business and Economic Development  
Housing Finance and Development Corporation

P. O. BOX 1787  
HONOLULU, HAWAII 96817

June 9, 1988

Mr. Mike Moon  
Department of Housing and  
Community Development  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Re: Environmental Impact Statement Preparation  
Notice (EISPN) for the Proposed Pacific  
Nations Center

Thank you for the opportunity to review the EISPN for the proposed Pacific Nations Center.

The proposed development concept is an interesting one, and we would appreciate being kept apprised on the status of the project. Additionally, as emphasis will be placed on commercial uses, the draft EIS should address the impacts of these uses on the proposed residential uses (e.g., quality of life, security, etc.), as well as the proposed siting of the various activities in the project.

Sincerely,

*Joseph K. Conant*  
JOSEPH K. CONANT  
Executive Director

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

130 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 833 8181



MIKE MOON  
DIRECTOR

Michael N. Scarfone  
DEPUTY DIRECTOR

EDWARD Y. HIRATA  
DIRECTOR

DEPUTY DIRECTOR  
JOHN K. LUCASIA  
RONALD N. HEDRICK  
DARYL J. JONES  
JEANNE K. SCHULTZ

IN REPLY REFER TO:

STEP 8.2992



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
144 PAPA'OHOMU STREET  
HONOLULU, HAWAII 96813

July 19, 1988

Mr. Michael M.H. Moon, Director  
Department of Housing and Community Development  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Environmental Impact Statement Preparation Notice  
Pacific Nations Center

We have the following comments on the proposed Pacific Nations Center development:

1. A Traffic Impact Analysis Report (TIAR) must be prepared and submitted to our Highways Division for review. The report should address the impacts of the traffic generated by the development on the immediate and outlying major roadways.
2. To expedite our review, the TIAR should be made part of the EIS and include the calculations used to derive the values of the report.
3. Access points to the 2500-stall parking area should be designed to minimize disruption to the existing traffic.
4. By a State Agreement to transfer roadways between the State and City, Pali Highway from Vineyard Boulevard to Beretania Street will be under the City's jurisdiction.

Thank you for this opportunity to provide comments.

Very truly yours,

*Edward Y. Hirata*

Edward Y. Hirata  
Director of Transportation

December 5, 1988

Mr. Edward Y. Hirata, Director  
859 Punchbowl Street  
Highways Division  
Honolulu, Hawaii 96813

Dear Mr. Hirata:

Subject: Environmental Impact Statement Preparation Notice  
(EISPN)  
Pacific Nations Center Project

Thank you for your comments on the EISPN for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*Mike Moon*  
for MIKE MOON  
Director

88 JUL 22 NO 25

U.S. DEPARTMENT OF TRANSPORTATION  
HONOLULU OFFICE





# University of Hawaii at Manoa

Environmental Center  
Crawford 317 • 2550 Campus Road  
Honolulu, Hawaii 96822  
Telephone (808) 945-7361

July 7, 1988  
PH:0062

Mr. Mike Moon, Director  
Department of Housing and Community Development  
650 South King Street, 5th Floor  
City and County of Honolulu  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Preparation Notice  
Environmental Impact Statement  
Pacific Nations Center  
Honolulu, Oahu

The Department of Housing and Community Development, City and County of Honolulu, is proposing to acquire six privately owned lots and to consolidate these lots with city-owned property to create a superblock in downtown Honolulu. The consolidated site will then be leased to a private entity for the development of a large mixed-use complex with an international focus.

We have reviewed the Preparation Notice (PN) for the Environmental Impact Statement (EIS) for the above cited project with the assistance of Belinda Tilley, Environmental Center, and offer the following comments for your consideration.

The PN indicates that the project will take place within .27 miles from Royal Elementary School, 400 feet from Central Intermediate School and 1 mile from McKinley High School. We note that St. Andrews Priory School is located immediately diamond head of the project site. We suggest that the distances to each of these schools should be given in smaller units. There will be significant noise and safety problems associated with all phases of this construction with particular impacts on the nearby schools. Major noise producing activities, such as (but not limited to) demolition and pile driving should be restricted to the summer months to minimize disruption to school operations.

Cumulative impact studies will be needed to reflect air emissions generated by this project in concert with other sources of pollutants in the downtown area. Parking structures to be associated with the project are of particular concern as are traffic volumes and resultant traffic flow reductions that will increase exhaust emissions to the downtown area.

U.S. Dept. of Water Resources Research Center

AN EQUAL OPPORTUNITY EMPLOYER

Mr. Mike Moon

-2-

July 7, 1988

We note that the property lies in the Hawaii Capital Historic Cultural and Scenic District (HCHCSD). It is apparent that the size of the project as proposed will be incompatible with the present building restrictions for the HCHCSD. The PN also indicates that the Department of Land Utilization is proposing to delete this block (J) from the HCHCSD except for the frontage along Queen Emma Street. We suggest that the EIS provide a full discussion of the rationale and justification for any such change in the special design district. Furthermore, given the present building restrictions, we suggest that a full examination of alternative designs/uses consistent with the existing HCHCSD restrictions be presented in the EIS.

The EIS should address the displacement and resettlement needs of the 67 commercial tenants in the present buildings.

We appreciate the opportunity to provide comments at this preparation stage and hope you will find our comments helpful in the preparation of the EIS.

Yours truly,

Jacquelin H. Miller  
Associate Environmental Coordinator

cc: OEQC  
L. Stephen Lau  
John Harrison  
Belinda H. Tilley

88 JUL -8 PM:29

DEPT. OF HOUSING  
AND COMMUNITY DEVELOPMENT  
PACIFIC NATIONS CENTER  
HONOLULU, OAHU







BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HAWAII 96813



FRANK F. FASI, Mayor  
DOMINA B. GOYEN, Chairman  
ERNEST A. WATAWA, Vice Chairman  
LINTON J. AGADER  
SISTER LI DAVIYN AH CHOK, O.S.F.  
EDWARD Y. HERATA  
ALFRED J. THEDE  
JOHN K. ISLA  
KAZU HAYASHIDA  
Manager and Chief Engineer

July 7, 1988

TO: MICHAEL M. H. MOON, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
FROM: KAZU HAYASHIDA, MANAGER AND CHIEF ENGINEER  
BOARD OF WATER SUPPLY

SUBJECT: YOUR MEMORANDUM OF MAY 31, 1988 ON THE ENVIRONMENTAL  
IMPACT STATEMENT PREPARATION NOTICE FOR THE PACIFIC  
NATIONS CENTER

Thank you for the opportunity to review the environmental document.

The existing water system has adequate capacity to serve the proposed project. The availability of water for the proposed development will be determined when the building permit applications are submitted for our review and approval. If water is made available, the developer will be required to pay our Water System Facilities Charges for source-transmission and daily storage.

If a 3-inch or larger meter is required, the construction drawings for the installation of the meter should be submitted for our review and approval.

If you have any questions, please contact Lawrence Whang at 527-6138.

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HAWAII 96813



FRANK F. FASI, Mayor  
DOMINA B. GOYEN, Chairman  
ERNEST A. WATAWA, Vice Chairman  
LINTON J. AGADER  
SISTER LI DAVIYN AH CHOK, O.S.F.  
EDWARD Y. HERATA  
ALFRED J. THEDE  
JOHN K. ISLA  
KAZU HAYASHIDA  
Manager and Chief Engineer

February 3, 1988

TO: MICHAEL M. H. MOON, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
FROM: KAZU HAYASHIDA, MANAGER AND CHIEF ENGINEER  
BOARD OF WATER SUPPLY

SUBJECT: YOUR MEMORANDUM OF JANUARY 21, 1988 CONCERNING  
THE AVAILABILITY OF WATER TO VARIOUS DEVELOPMENT  
SCENARIOS OF BLOCK "J"

We have the following comments regarding the development of Block "J":

1. The existing water system in the area is presently adequate to service any of the three development scenarios.
2. The availability of water will be determined when building permit applications are submitted for our review and approval. If water is made available, the applicant will be required to pay our Water System Facilities Charges for source-transmission and daily storage.
3. If a 3-inch or larger meter is required, the construction drawings showing the installation of the meter should be submitted for our review and approval.

Attached is a map showing the location and size of the water mains in the area.

If you have any questions, please contact Albert Koga at 527-6123.

Attachment

Vertical stamp or text on the right edge of the page, partially illegible.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
**CITY AND COUNTY OF HONOLULU**

150 SOUTH KING STREET  
 HONOLULU, HAWAII 96813  
 PHONE 533-4181



FRANK P. JAM  
 DIRECTOR

MIKE MOON  
 DIRECTOR  
**Michael N. Scarfone**  
 DEPUTY DIRECTOR

December 5, 1988

Mr. Kazu Hayashida, Manager and Chief Engineer  
 Board of Water Supply  
 630 South Beretania Street  
 Honolulu, Hawaii 96843

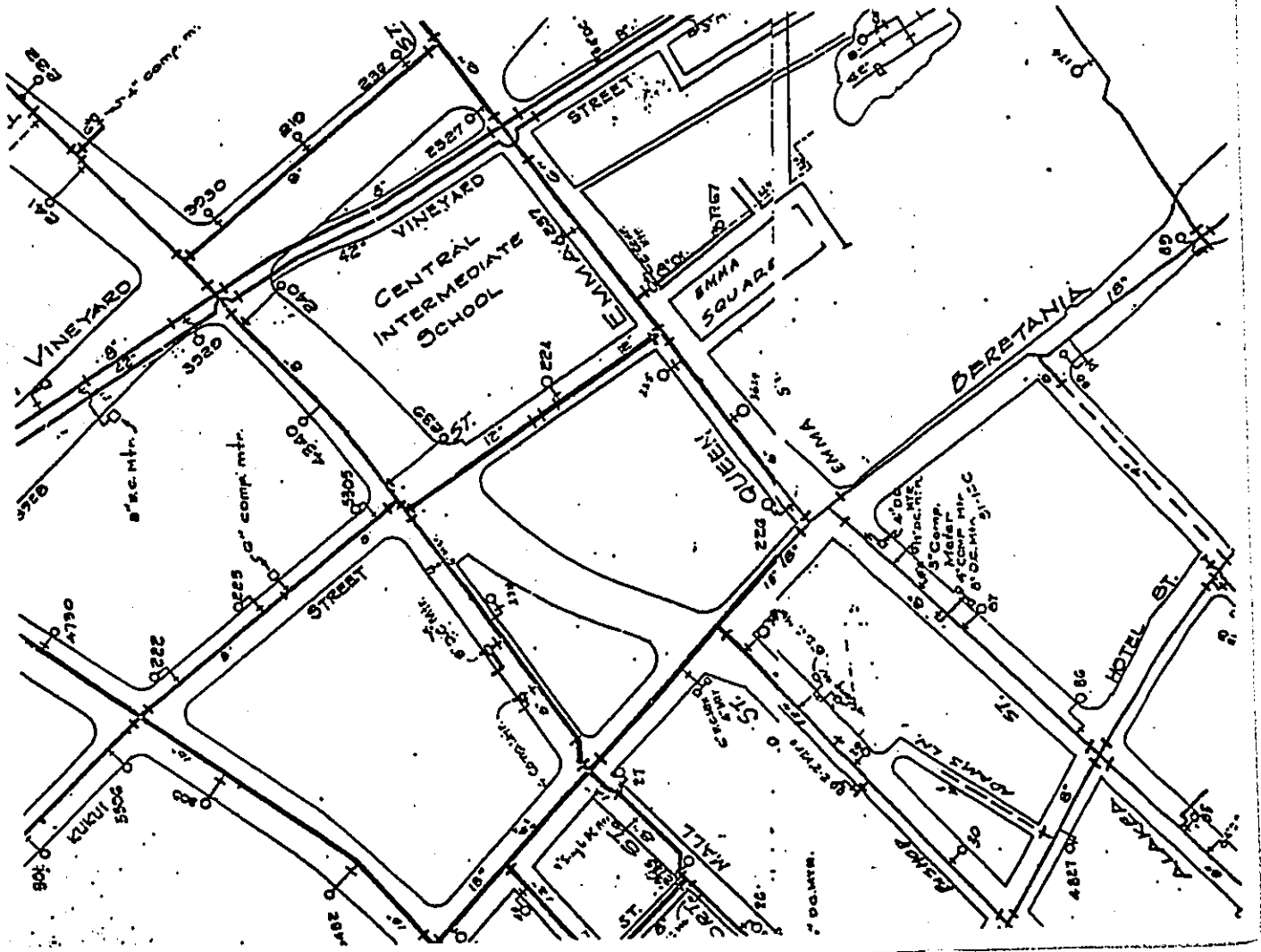
Dear Mr. Hayashida:

Subject: Environmental Impact Statement Preparation Notice  
 (EISP)  
 Pacific Nations Center Project

Thank you for your comments on the EISP for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*Mike Moon*  
 MIKE MOON  
 Director





DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

DEPARTMENT OF LAND UTILIZATION

CITY AND COUNTY OF HONOLULU  
650 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 933-8181

CITY AND COUNTY OF HONOLULU  
650 SOUTH KING STREET  
HONOLULU, HAWAII 96813 933-8422



MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
DEPUTY DIRECTOR

FRANK P. FASI  
DIRECTOR

JOHN P. WHALEN  
DIRECTOR

BB/EIS-3(RF)  
BB/EC-2

December 5, 1988

July 14, 1988

88 JUL 14 11:40  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

MEMORANDUM

TO: MIKE MOON  
FROM: JOHN P. WHALEN, DIRECTOR  
SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPH)  
FOR PACIFIC NATIONS CENTER

Mr. John Whalen, Director  
Department of Land Utilization  
650 South King Street, 7th Floor  
Honolulu, Hawaii 96813

Dear Mr. Whalen:

Subject: Environmental Impact Statement Preparation Notice (EISPH)  
Pacific Nations Center Project

We have reviewed the EISPH and have the following comments:

1. Study of traffic impacts should be based not only on the number of parking stalls but on the uses proposed for the complex.
2. At full development of the superblock, structures could have a significant impact on view corridors from downtown to the mountains and to Punchbowl. The scale and volume of the structures could also have a significant visual impact on adjacent historic buildings. The EIS should include studies of these impacts, including graphic representation of view corridors and historic buildings in relation to potential building envelopes.
3. The EIS should thoroughly study the benefits and impacts of the two other viable alternatives -- development of the Block J parking lot alone and development of the entire Block J.

Thank you for your comments on the EISPH for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*Michael N. Scarfone*  
MIKE MOON  
Director

Thank you for the opportunity to comment.

*John P. Whalen*  
JOHN P. WHALEN  
Director of Land Utilization

JPM:sj  
0263H

DEPARTMENT OF PUBLIC WORKS  
CITY AND COUNTY OF HONOLULU

830 SOUTH KING STREET  
HONOLULU, HAWAII 96813



FRANK F. ZAM  
MAYOR

ALFRED J. THIEDE  
DIRECTOR AND CHIEF ENGINEER  
In reply refer to:  
ENV 88-152(448)

FRANK F. ZAM  
MAYOR

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

830 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE 533-6181



MIKE MOON  
DIRECTOR  
Michael H. Scarfone  
DEPUTY DIRECTOR

June 21, 1988

December 5, 1988

MEMORANDUM

TO: MIKE MOON, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: ALFRED J. THIEDE, DIRECTOR AND CHIEF ENGINEER

SUBJECT: EISPH FOR PACIFIC NATIONS CENTER, HONOLULU, OAHU, HAWAII  
(TRK: 2-1-9; 7, 8, 9, 11, 18, 21, 37, 39 and 56)

Mr. Alfred Thiede, Director and Chief Engineer  
Department of Public Works  
650 South King Street, 11th Floor  
Honolulu, Hawaii 96813

Dear Mr. Thiede:

We have reviewed the subject EISPH and have the following comments:

1. A drainage report should be submitted to the Drainage Section, Division of Engineering, during the preparation of construction plans.
2. There are no comments on street improvements associated with the proposed project.
3. A relief sewer is required to serve the project. The developer should contact the Division of Wastewater Management when the density of the project is determined, so that the size and length of the relief sewer can be determined.

Subject: Environmental Impact Statement Preparation Notice  
(EISPH)  
Pacific Nations Center Project

Thank you for your comments on the EISPH for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*Mike Moon*  
for MIKE MOON  
Director

*Sam Callegaro*  
SAM CALLEGARO  
Acting Director and Chief Engineer

DEPT. OF HOUSING  
& COMM. DEVELOPMENT

88 JUN 22 P1:29

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DEPARTMENT OF TRANSPORTATION SERVICES  
**CITY AND COUNTY OF HONOLULU**  
HONOLULU MUNICIPAL BUILDING  
850 SOUTH KING STREET  
HONOLULU, HAWAII 96813



Michael M. H. Moon  
Page Two  
June 28, 1988

JOHN E. HIRTEEN  
DIRECTOR  
JOSEPH M. MACALUSO, JR.  
DEPUTY DIRECTOR  
TE-3709  
PL1.1161

June 28, 1988

88 JUN 29 AM 06  
DEPT. OF HOUSING  
& COMM. DEVELOPMENT

**MEMORANDUM**

**TO:** MICHAEL M. H. MOON, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

**FROM:** JOHN E. HIRTEEN, DIRECTOR

**SUBJECT:** PACIFIC NATIONS CENTER  
ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE  
TMK: 2-1-9: 7, 8, 9, 11, 18, 27, 37, 39, 56

This is in response to your memorandum of May 31, 1988 requesting our comments on the above subject project.

Under the Item-Vehicular Access and Traffic, the Environmental Impact Statement (EIS) should address the following concerns:

1. The amount of traffic to be generated by the project and its impacts on the surrounding streets, including a capacity analysis of the critical intersections near the project for the a.m. and p.m. peak hours and for the anticipated peak hour of the generator.
2. The traffic impact of the project on the arterial system that will be affected.
3. The adequacy of the off-street parking spaces that will be provided to support the proposed usage.
4. The need for street improvements on the surrounding street system to support the proposed usage.

With regard to Mass Transit, the following items should be addressed:

1. On page 2 of this document in paragraph 4, reference is made to the requirement for an easement if a rapid transit alignment along Beretania Street is selected. The easement should include both station and guideway locations on the property.

2. The section on page 3 discussing Mass Transit should be revised. The last sentence in this paragraph should be replaced with the following: "This EIS will assess the impacts of the project on the immediate area around Block J, both with a rapid transit station at this site and without a station serving the development. Differences in traffic volume and flow, bus routing, air quality, parking required, noise and other impacts will be estimated between a development with and one without a rapid transit station."

Should you have further questions, please contact Wayne Nakamoto of my staff at 523-4190.

JOHN E. HIRTEEN

DEPARTMENT OF TRANSPORTATION SERVICES  
**CITY AND COUNTY OF HONOLULU**  
HONOLULU MUNICIPAL BUILDING  
643 SOUTH KING STREET  
HONOLULU, HAWAII 96813



FRANK P. FAR  
01000

88 JUN 13 47:35  
DEPT. OF HOUSING  
& COMM. DEVELOPMENT

JOHN E. MARTIN  
DIRECTOR  
JOSEPH M. MAGALDI, JR.  
ACTING DIRECTOR

TE-3442  
PEL.1142

June 7, 1988

Mike Moon, Director  
June 7, 1988  
Page Two

the Director of the State Department of Transportation, to confirm this since Pali Highway is on the Federal-Aid roadway system.

Any other questions may be referred to Kenneth Hirata of my staff at 527-5009.

JOSEPH M. MAGALDI, JR.

MEMORANDUM

TO: MIKE MOON, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: JOSEPH M. MAGALDI, JR., ACTING DIRECTOR

SUBJECT: PACIFIC NATIONS CENTER  
BLOCK J  
EIS PREPARATION NOTICE

TRK: 2-1-09: 7, 8, 9, 11, 18, 26, 27, 37, 39 AND 56

This is in response to your memorandum of May 18, 1988 concerning the subject project. We have the following general concerns that need to be addressed:

1. The amount of traffic to be generated by the project and its impact on the surrounding street system.
2. A capacity analysis at all critical intersections.
3. The amount and adequacy of the off-street parking spaces that will be provided to support the proposed center.
4. The need for street improvements and increased bus service and/or mass transit to support the proposed center.

The matter of air rights and alterations to Pali Highway was discussed with the State Department of Transportation's staff. The State's staff informed us that Pali Highway, in the vicinity of Block J, was recently transferred to the City and development rights on this facility was now under City's jurisdiction. In this regard, we recommend that you write to Mr. Edward Hirata,

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DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
**CITY AND COUNTY OF HONOLULU**

650 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 521-4181



FRANK ZAM  
10166

MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
Secretary

December 5, 1988

Mr. John Hirtten, Director  
Department of Transportation Services  
650 South King Street, 3rd Floor  
Honolulu, Hawaii 96813

Dear Mr. Hirtten:

Subject: Environmental Impact Statement Preparation Notice  
(EISP)  
Pacific Nations Center Project

Thank you for your comments on the EISP for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*for Mike Moon*  
MIKE MOON  
Director

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



June 21, 1988

FRANK F. FARR  
 MAYOR

HIRAM K. KAHAKA  
 DIRECTOR  
 WALTER M. OLIVERA  
 DEPUTY DIRECTOR

88 JUN 23 A8:24  
 DEPT. OF HOUSING  
 & COMM. DEVELOPMENT

**TO:** MIKE MOON, DIRECTOR  
 DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

**FROM:** HIRAM K. KAHAKA, DIRECTOR

**SUBJECT:** PACIFIC NATIONS CENTER  
 ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE (EISPH)  
 TAX MAP KEY 2-1-9: 7 ET AL

We have reviewed the EISPH for the Pacific Nations Center project (Block J) and offer the following comments and recommendations.

The Pacific Nations Center project will have a significant impact on our inadequate public parks and facilities in the downtown area. Other than Kamamalu Park, there are no major "active" recreation parks in downtown to serve the project. The nearby mini-parks and malls provide only limited and passive recreational use.

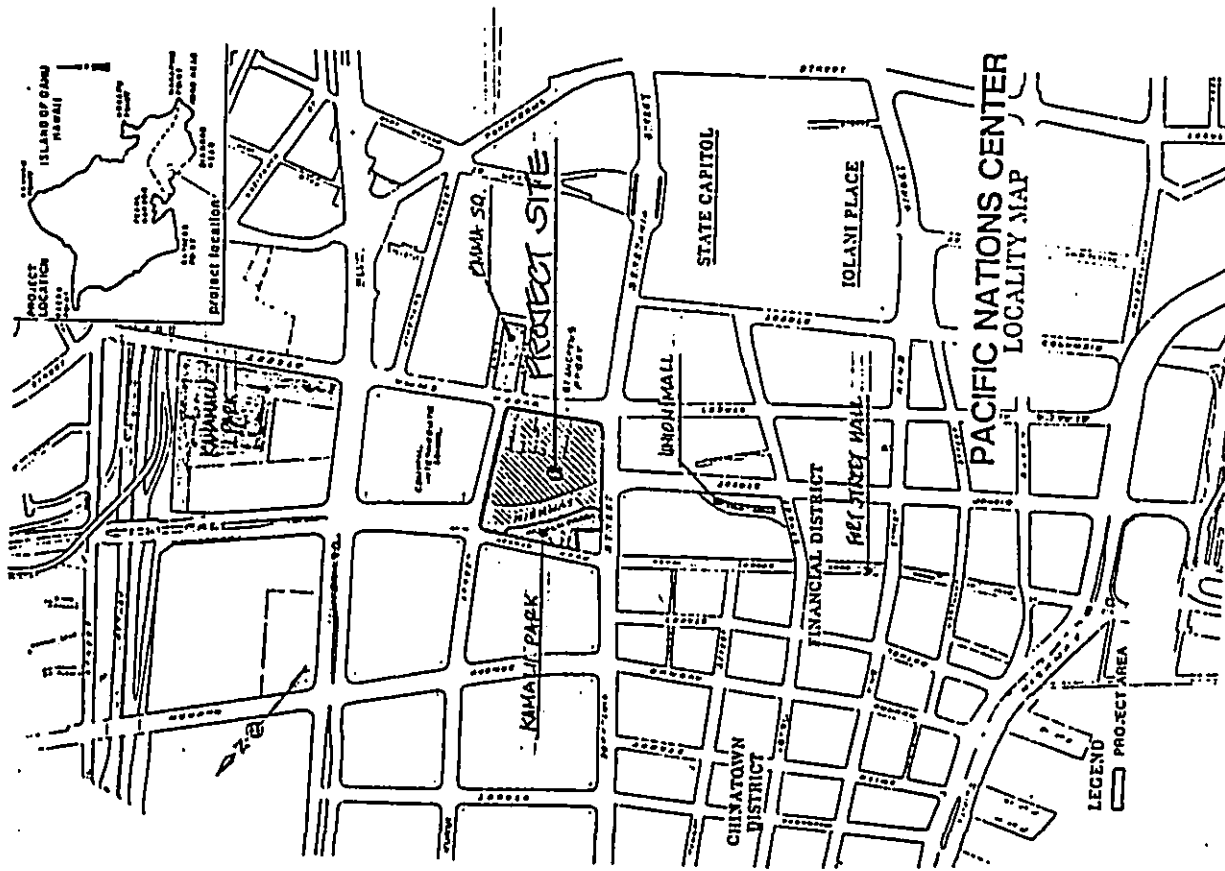
The development of the Pacific Nations project as well as other high-density apartment projects being proposed in the downtown area have caused a serious concern to our department. We have been unable to establish a large park in the downtown area to meet the recreational demands. For this reason, we have been recommending that all new, high-density apartment projects include adequate recreation areas and facilities in the project design.

Kamalii Park was conveyed to the City by the Honolulu Redevelopment Agency in 1967 for park purposes under the Kukui Redevelopment Plan. The report does not address this matter. The use of Kamalii Park as part of the Pacific Nations Center project should be identified and assessed in the draft EIS.

Since residential development is being proposed as part of the Pacific Nations Center project, the project will be subject to compliance with the City's Park Dedication Ordinance No. 4621. Procedures and requirements to comply with the Ordinance are specified in the City's Park Dedication Rules and Regulations.

*Hiram K. Kahaka*  
 HIRAM K. KAHAKA, Director

HKK:el  
 Attach.



RECEIVED JUN 23 1988

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE 533-8181



FRANK F. IMAI  
DIRECTOR

MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
ADMINISTRATIVE SECTION

February 3, 1967

Honorable Chairman and Members  
of the City Council  
City and County of Honolulu  
Honolulu, Hawaii

Attention: Finance Committee

Gentlemen:

Transmitted herewith, for your approval and execution by the Mayor, are five duplicate original deeds under which the Honolulu Redevelopment Agency conveys to the City and County of Honolulu, the proposed Central Visa Station Park area, comprising 30,276 square feet. The consideration for the conveyance is the sum of \$280,000.00 which amount has already been appropriated by your Honorable Body. The acquisition and development of the proposed park qualifies for a 50% open-space reimbursement.

Execution by the Mayor is required for the reason that the deed contains covenants to be observed by the City that this specific real property shall be used for the purposes as designated in the Kukui Project Redevelopment Plan, i.e. park purposes.

This Office recommends that the deed be accepted and that the Mayor be authorized to execute the same in behalf of the City. Upon execution, it is requested that the documents be returned to this office for further processing.

Very truly yours,

(S) SAMUEL B. K. CHANG

SAMUEL B. K. CHANG  
Deputy Corporation Counsel

APPROVED:

(S) STANLEY LING

STANLEY LING  
Corporation Counsel

SLK:jlc  
Enclosures

December 5, 1988

Mr. Hiram Kamaka, Director  
Department of Parks and Recreation  
650 South King Street, 10th Floor  
Honolulu, Hawaii 96813

Dear Mr. Kamaka:

Subject: Environmental Impact Statement Preparation Notice  
(EISPN)  
Pacific Nations Center Project

Thank you for your comments on the EISPN for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*M. Scarfone*  
for MIKE MOON  
Director



POLICE DEPARTMENT  
CITY AND COUNTY OF HONOLULU

1433 SOUTH BERETANIA STREET  
HONOLULU, HAWAII 96814 - AREA CODE (808) 943-3111



FRANK P. PAI  
MAYOR

OUR REFERENCE SS-1C

DOUGLAS G. GIBB  
CHIEF  
WARREN PERREIRA  
DEPUTY CHIEF

July 5, 1988

88 JUL -8 P3:32  
DEPT. OF HOUSING  
AND COMMUNITY DEVELOPMENT

TO: MIKE MOON, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: DOUGLAS G. GIBB, CHIEF OF POLICE  
HONOLULU POLICE DEPARTMENT

SUBJECT: PACIFIC NATIONS CENTER  
ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE  
(EISP) - CHAPTER 343 - HAWAII REVISED STATUTES

We have reviewed the EISP for the proposed Pacific Nations Center and offer the following comments.

The development of the Pacific Nations Center proposes major changes to the Block J area that will have both short-term and long-term impacts. Our concerns center on the traffic, construction and public safety aspects of the development.

The development proposes the extension of Pali Highway through the project site and the possible location of a major mass transit station. This will have a major impact on traffic flow and circulation in the area, which is already at or near capacity during peak hours. We would be interested in the results of the traffic study.

Also, during the construction phases of the project, the super block will require demolition and grade separation of Pali Highway, which is the main thoroughfare into the Central Business District (CBD) from the Pali. We can expect major interference and congestion with traffic, noise and other environmental hazards. These conditions should be monitored and contained to maximize safety of pedestrians, motorists, students and surrounding businesses and residents. The use of safety barricades, adequate warning signs and hiring of special duty officers are highly recommended.

Mike Moon, Director  
Page 2  
July 5, 1988

We would like to see adequate park space maintained in the development with open, lighted areas allowing for pedestrian movement and safety. Open park space would also provide a natural extension to integrate the existing Central Fire Station into the overall design of the project.

We understand that more specific details will be planned upon the selection of a developer. We request that we be kept abreast of the proposal's progress as the development plans become available.

Thank you for the opportunity to provide comments.

DOUGLAS G. GIBB  
Chief of Police

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

530 SOUTH KING STREET  
HONOLULU HAWAII 96813  
PHONE 933-6161



FRANK P. ZAM  
DIRECTOR

MIKE MOON  
DIRECTOR

Michael H. Scarfone  
ADMINISTRATOR

December 5, 1988

Mr. Douglas Gibb, Chief  
Honolulu Police Department  
1455 South Beretania Street  
Honolulu, Hawaii 96814

Dear Mr. Gibb:

Subject: Environmental Impact Statement Preparation Notice  
(EISPH)  
Pacific Nations Center Project

Thank you for your comments on the EISPH for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*Mike Moon*  
for MIKE MOON  
Director



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

410 SOUTH KING STREET  
HONOLULU HAWAII 96813  
PHONE 533-4181



MIKE MOON  
DIRECTOR  
Michael M. Scarfone  
DEPUTY DIRECTOR

December 5, 1988

OFFICE OF HUMAN RESOURCES  
CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING, 6TH FLOOR  
410 SOUTH KING STREET  
HONOLULU HAWAII 96813 • PHONE 533-4344



FRANK F. FAH  
DIRECTOR

MARIA VICTORIA R. BUNYE  
DIRECTOR

VICTOR D. GUILLEMINO, JR.  
DEPUTY DIRECTOR

June 21, 1988

88 JUN 21 P4:09

DEPT. OF HOUSING  
& COMM. DEVELOPMENT

MEMORANDUM

TO : MIKE MOON, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY  
DEVELOPMENT

FROM : MARIA VICTORIA R. BUNYE, DIRECTOR  
OFFICE OF HUMAN RESOURCES

SUBJECT : PACIFIC NATIONS CENTER  
ENVIRONMENTAL IMPACT STATEMENT PREPARATION  
NOTICE

The Office of Human Resources has reviewed the above cited notice. We support this project in its entirety, particularly the proposed mixed-use concept.

We recommend that this office be notified when the developer is selected so that we may work with the architects early in the project to guarantee accessibility to, and usability by, persons with disabilities.

Thank you for the opportunity to comment in this matter.

Ms. Maria Victoria Bunye, Director  
Office of Human Resources  
650 South King Street, 6th Floor  
Honolulu, Hawaii 96813

Dear Ms. Bunye:

Subject: Environmental Impact Statement Preparation Notice  
(EISPN)  
Pacific Nations Center Project

Thank you for your comments on the EISPN for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*M. Scarfone*  
MIKE MOON  
Director

HAWAIIAN ELECTRIC COMPANY, INC. - PO BOX 2750 - HONOLULU HI 96840-0001

'88 JUN 27 AM 11

DEPT. OF HOUSING & COMM. DEVELOPMENT

June 23, 1988



Ted M. Damron  
Director  
Land and Rights of Way

Mr. Mike Moon, Director  
Department of Housing & Community  
Development  
City & County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Moon:

"Block J" - Proposed Pacific Nations  
Center - EIS Preparation Notice

Thank you for your recent notice concerning the draft EIS for the project. All information therein appears to have been covered in the various meetings to date and our testimony before the City Council.

Again, as a point of clarification, we do not expect that the City will actually "purchase" the existing substation property. Depending on the "Block J" timing, vis-a-vis our September, 1989 deadline for equipment ordering, the substation will be upgraded on its present site or installed on an exchange property under mutually agreeable conditions and as approved by the State Public Utilities Commission. Early selection of the "Block J" developer by the City and our opportunity to coordinate with the developer at the earliest possible date are therefore essential.

Your cooperation is sincerely appreciated.

Very truly yours

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

430 SOUTH KING STREET  
HONOLULU HAWAII 96813  
PHONE: 522-8181



FRANK F. FAH  
DIRECTOR

MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
DEPUTY DIRECTOR

December 5, 1988

Mr. Ted Damron, Director  
Hawaiian Electric Company, Inc.  
Land and Rights of Way  
P. O. Box 2750  
Honolulu, Hawaii 96840-0001

Dear Mr. Damron:

Subject: Environmental Impact Statement Preparation Notice  
(EISPM)  
Pacific Nations Center Project

Thank you for your comments on the EISPM for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

MIKE MOON  
Director





245 North Kukui Street, Honolulu, Hawaii 96817, Telephone (808) 537-8666

**AMERICAN LUNG ASSOCIATION of Hawaii**  
The Christmas Seal People

DEPT. OF HOUSING  
COMM. DEVELOPMENT

88 JUN 21 P1:41

June 17, 1988

Mr. Mike Moon, Director  
Department of Housing and Community Development  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Subject: EIS Preparation Notice  
Pacific Nations Center

Pursuant to State EIS Rules §11-200-15, we hereby request consulted party status for the subject project and offer the following suggestions for your consideration during preparation of the environmental impact statement.

The proposed action is likely to have a variety of air quality-related impacts which should be addressed in the EIS. These include, but are not limited to, the following:

1. traffic generated by the project which should be cumulatively analyzed;
2. indirect offsite impacts such as electrical generation and solid waste disposal necessary to serve the project;
3. construction related activities, e.g., fugitive dust, vehicle activity, concrete batching, asphalt concrete batching, etc.

All the aforementioned sources of air pollution emissions should be evaluated cumulatively along with other existing and proposed sources in order to assess as accurately as possible the impact of the project on local air quality as well as the impact of local air quality on the project.

Mr. Mike Moon  
June 17, 1988  
Page 2

We also note that there is some uncertainty about the exact nature of the project. If this EIS is prepared as a generic document, then it may be necessary at a later date to prepare a supplemental EIS when the exact details of the project are known.

Should you have any questions concerning these suggestions and comments, do not hesitate to contact us.

Sincerely yours,

*James W. Morrow*  
James W. Morrow  
Director  
Environmental Health

JWM:ct  
18831

AMERICAN LUNG ASSOCIATION of Hawaii  
The Christmas Seal People  
DEPT. OF HOUSING  
COMM. DEVELOPMENT  
88 JUN 21 P1:41  
June 17, 1988  
Mr. Mike Moon, Director  
Department of Housing and Community Development  
650 South King Street  
Honolulu, Hawaii 96813  
Dear Mr. Moon:  
Subject: EIS Preparation Notice  
Pacific Nations Center  
Pursuant to State EIS Rules §11-200-15, we hereby request consulted party status for the subject project and offer the following suggestions for your consideration during preparation of the environmental impact statement.  
The proposed action is likely to have a variety of air quality-related impacts which should be addressed in the EIS. These include, but are not limited to, the following:  
1. traffic generated by the project which should be cumulatively analyzed;  
2. indirect offsite impacts such as electrical generation and solid waste disposal necessary to serve the project;  
3. construction related activities, e.g., fugitive dust, vehicle activity, concrete batching, asphalt concrete batching, etc.  
All the aforementioned sources of air pollution emissions should be evaluated cumulatively along with other existing and proposed sources in order to assess as accurately as possible the impact of the project on local air quality as well as the impact of local air quality on the project.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

410 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 533-4101



MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
DEPUTY DIRECTOR

December 5, 1988

Mr. James Morrow, Director  
American Lung Association  
of Hawaii  
Environmental Health  
245 North Kukui Street  
Honolulu, Hawaii 96817

Dear Mr. Morrow:

Subject: Environmental Impact Statement Preparation Notice  
(EISPH)  
Pacific Nations Center Project

Thank you for your comments on the EISPH for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*Michael N. Scarfone*  
MICHAEL N. SCARFONE  
Director



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

340 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 522-4181



FRANK P. EARL  
DIRECTOR

HIKE HOON  
DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
Michael H. Scarfone  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

December 5, 1988

Mr. William Grant, Executive Director  
Downtown Improvement Association  
700 Bishop Street, Suite 1005  
Honolulu, Hawaii 96813

Dear Mr. Grant:

Subject: Environmental Impact Statement Preparation Notice  
(EISPH)  
Pacific Nations Center Project

Thank you for your comments on the EISPH for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*HIKE HOON*  
HIKE HOON  
Director



Hawaii Society  
THE AMERICAN  
INSTITUTE  
OF ARCHITECTS

July 12, 1988

88 JUL 14 P1:27  
MAIL ROOM  
RECEIVED

Mr. Mike Moon, Director  
Department of Housing and Community Development  
City and County of Honolulu  
650 South King Street  
Honolulu, HI 96813

Subject: Pacific Nations Center EIS Preparation Notice

Dear Mr. Moon:

The Hawaii Society/The American Institute of Architects appreciates the opportunity to offer our comments and concerns related to the upcoming EIS.

The proposed site, comprising "Block J", Kamalii Park and the intervening portion of the Pali Highway, is a prominent site in the heart of our community. It is the crossroads of downtown, the Kukuui renewal areas, the Pali Highway gateway and the Queen Emma Square and Hawaii Capitol historic districts. Developed sensitively it can be a major asset and focus for our community.

From an urban design impact point of view, we have concern over the following:

- Retention and preservation of the Bishop Street view corridor and also of mauka views up Alakea Street.
- The relationship to Queen Emma Square and the Cathedral.
- Preservation of the Pali Highway gateway to the city and the transition from the Pali Highway to the city. This is important at the macro-scale when insuring that the Bishop Street view corridor is not simply a trough between building masses and on the micro-scale when considering the form of the Pali Highway between Kukuui and Beretania Streets.
- The relationship to other neighbors, particularly in the Ewa and mauka directions.
- The relation to the historic fire station.
- The replacement of or other accountability for the lost Kamalii Park.
- Sensitive restriction of building heights in relation to the views and view corridors and the neighbors of the site.

These urban design concerns are in addition to more technical concerns; e.g., impacts on traffic conditions, air quality and noise, which will be covered in the EIS.

Mike Moon, Director  
Dept. of H&CD  
July 12, 1988  
Page 2

In our view, for the good of the community, sensitivity to these concerns and to the special location of the site need to take precedence over economic concerns for "highest and best use," "optimize use of the site to its highest potential" and "maximum development potential."

Thank you for this opportunity to comment at an early stage of this potentially great project. We are looking forward to remaining a part of the EIS process.

Sincerely,

  
Norman G. J. Hoyle, AIA  
President, Hawaii Society

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

450 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE 519-4161



MIKE MOON  
DIRECTOR  
Michael H. Scarfone  
Deputy Director

December 5, 1988

Mr. Norman Hong, AIA  
President, Hawaii Society  
American Institute of Architects  
1128 Kuuanu Avenue  
Honolulu, Hawaii 96817

Dear Mr. Hong:

Subject: Environmental Impact Statement Preparation Notice  
(EISPH)  
Pacific Nations Center Project

Thank you for your comments on the EISPH for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*Mike Moon*  
for MIKE MOON  
Director







# HONOLULU TOWER

60 North Beretania Street • Honolulu, Hawaii 96817 • (808) 531-9090

7 July 1988

Mr. Mike Moon, Director  
Department of Housing and Community Development  
630 South King Street, 5th Floor  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Thank you for coming to our recent Board of Directors meeting to present a briefing on the proposed development of Block J. As you learned at that meeting we, as a neighbor to Block J, have serious concerns for your approach and objectives with reference to this project. This letter sets out some of those concerns and is a response to your request dated May 31, 1988.

Our concerns with the Block J Pacific Nations Center, which we believe should be addressed by the environmental impact statement, are as follows:

1. Open space is urgently needed in the downtown business area to complement the mixed business and residential character of downtown Honolulu. Intensive construction of 1.65 million square feet of floor space on Block J as proposed by the city cannot but seriously affect the Bishop Street view plane to the mountains. This view plane is a recognized special feature of our business community and must be protected. The Block J proposal together with the Saith-Beretania and River-Hailets proposals will close in the area at the expense of parks. For example, the city has proposed to build a housing project at Saith-Beretania -- a site specifically identified for a park by a City Council Resolution funded with a developers payment of 5.5 million dollars and a site that historically always was a park until the city put up a parking lot in its place. Open space throughout the downtown area is needed to protect view planes and provide the business and residential users with the benefits of Hawaiian vistas.

2. The City has evolved a residential neighborhood south of Beretania in the area west of the Capital. The encroachment of major commercial development into this area is a change of character that will adversely affect the existing populations. Should development of Block J be necessary then housing should have the priority to ensure continuation of the neighborhood concept west of Beretania. It is important to note that under existing permits a housing project could be constructed there immediately.

3. The Capital District is being eroded away into a meaningless concept. Height limits for the area around the Capital were installed to protect the openness of the basic designs. An exception was granted for the Palisades building that was never built and now an exception is requested for the Galen Building replacement (a 16 story office tower). Either we protect the Capital District as established and work within those limits or we destroy the beautiful design established many years ago.

DEPT. OF HOUSING  
AND COMMUNITY DEVELOPMENT

'88 JUL -8 P1:29

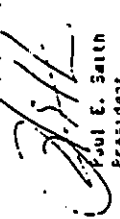
4. A Pacific Nations Center is proposed for this site because the site is desired as the key downtown station for the planned rapid transit system. The rapid transit pathway has yet to be selected -- but the residents of Beretania Street have clearly voiced their objection to the Beretania Street route. Thus, the environmental impact of the Pacific Nations Center needs to consider that the facility may not be served by any rapid transit service closer than Hotel Street.

### SUMMARY

We, the Board of Directors of Honolulu Tower, recognize that city officials are attempting to maximize the benefits from public property, and resources. We, however, are the public and wish to point out the open space, parks, housing, and community services are more suitable uses of the public resources. Commercial developments that offer rewards to private individuals should be left to the private sector. Fortunately, an environmental study of Block J development impact must focus on not the "optimal" use or exploitation of a property but the impact of that use on the environs -- the population in particular. For the purpose of that study we offer the above comments.

Please insure that Honolulu Tower is consulted by the environmental impact study team. We will indeed want to testify on this project.

Sincerely yours,

  
Paul E. Saith  
President





SAINT ANDREW'S CATHEDRAL  
QUEEN KAMA TOWER, HONOLULU, HAWAII 96813 524-2822

June 15, 1988

DEPT. OF HOUSING  
& COMM. DEVELOPMENT

88 JUN 17 P1:53

Mr. Mike Moon, Director  
Department of Housing and Community Development  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Re: Pacific Nations Center  
Environmental Impact Statement Preparation Notice  
Chapter 343, Hawaii Revised Statutes

Thank you for your letter of May 31, 1988 which provides a copy of the EIS preparation notice for the Pacific Nations Center. As you know, we generally support the project and believe that a well-developed, multi-use complex will greatly benefit the people of Honolulu and especially the downtown area.

We do have concerns, some of which are mentioned in general terms in the EIS preparation notice and others which are not. Our concerns are listed below for inclusion in the draft EIS.

**Noise:** We are concerned that a large parking facility, as envisioned for the development, will create an unacceptably high noise level. Currently, normal traffic creates noise problems for meetings being held in our building adjacent to Queen Emma Street. The noise generated by additional street traffic caused by the development and some 2,500 cars moving in and around a parking facility is of great concern.

**Vibration:** As you know, the original construction on the Cathedral building is over 125 years old. All other buildings are at least fifty years old. We are concerned that vibrations and earth movement caused by heavy construction equipment, blasting, and especially pile-driving, may damage these old historic buildings. We request that thorough studies of this problem be completed before any activity that would cause earth movement is undertaken.

**View:** The Cathedral complex, in addition to being very old and unique in its origins, is also the only example of French Gothic architecture in Honolulu. Also, our buildings are situated on a large, open, landscaped area. We are concerned that high-rise buildings positioned along the Queen Emma or Beretania Street boundaries of the development site would negatively impact the view of the Cathedral and diminish its architectural prominence.

We will be happy to provide further information regarding our concerns, and we look forward to working with you and the developer as the project continues.

Sincerely,

*Hollinshead T. Knight*

The Very Rev. Hollinshead T. Knight  
Dean of the Cathedral

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

430 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE 533-4181



FRANKIE PAO  
11/1/88

MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
DEPUTY DIRECTOR

December 5, 1988

The Very Reverend Hollinshead Knight  
Dean of the Cathedral  
Saint Andrews Cathedral  
Queen Emma Square  
Honolulu, Hawaii 96813

Dear Reverend Knight:

Subject: Environmental Impact Statement Preparation Notice  
(EISPN)  
Pacific Nations Center Project

Thank you for your comments on the EISPN for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*M. Scarfone*  
MIKE MOON  
Director

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
CITY AND COUNTY OF HONOLULU

150 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 933-4181



MIKE MOON  
DIRECTOR

Michael N. Scarfone  
DEPUTY DIRECTOR

December 5, 1988

Mr. Frederick Sexton  
Economic Development Corporation  
of Honolulu  
1001 Bishop Street  
Suite 735, Pacific Tower  
Honolulu, Hawaii 96813

Dear Mr. Sexton:

Subject: Environmental Impact Statement Preparation Notice  
(EISPN)  
Pacific Nations Center Project

Thank you for your comments on the EISPN for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

*Mike Moon*  
MIKE MOON  
Director

**EDCH**  
ECONOMIC DEVELOPMENT CORPORATION  
OF HONOLULU

1001 BISHOP STREET  
SUITE 735, PACIFIC TOWER  
HONOLULU, HAWAII 96813  
TELEPHONE: 933-4181  
FAX: 933-3722  
TELE: 508479

FREDERICK A. SEXTON  
PRESIDENT

July 01, 1988

Mr. Mike Moon  
Director  
Housing & Community Development  
650 S. King St., 5th Floor  
Honolulu, Hawaii 96813

Dear Mike:

I am sorry I cannot comment in any detail on the particulars the EIS scheduled for Block J. Several major projects and out-of-state trips have distracted me from this issue.

However, as a member of the Pacific Nations Center Task Force I strongly support the accomplishment of a complete EIS and the development of the property into a center for commerce.

Honolulu's prospects for a stock exchange look very good at this time. It is hoped such an exchange can be an anchor tenant in the Block J development. Even if the stock exchange is situated in another location around downtown Honolulu, it will be a draw for a variety of business activities which could be housed in the Pacific Nations Center.

Additionally, it seems very conceivable that many international business and agency offices could be attracted to Honolulu if a center were made available to house them.

In essence, the Pacific Nations Center will be a catalyst for economic development and diversification.

With best regards,

*Frederick A. Sexton*

Frederick A. Sexton

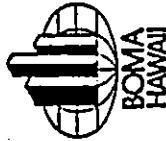
FAS/jk

88 JUL -5 P2:23

DEPT. OF HOUSING  
AND COMMUNITY DEVELOPMENT

"Honolulu: Venue of the Pacific"

Diane J. Poole - Chairman, Stewart W. McCombs - Vice Chairman, E. Lynn Madden - Secretary, Lei M. Akauaka - Treasurer, K. Tom Yee - Immediate Past Chairman  
Directors - Erroy J. Chen, Herbert D. Cornwallis, Charles A. Crain, James M. Crabbey, Gerald J. C. Cuchi, Charles Dunlop, Frank F. Fasi, John E. Funnay  
Glenn P. G. Andrew D. Friedlander, James F. Gery, Jeremy Hunt, Kenneth R. Johnson, Clifton Keenan, Dr. Richard R. Kelley  
Frank J. Mariani, C. Dudley Pratt, Jr., Dr. A. S. S. Lee, James L. K. Tom  
Laurena Voght, Robert W. Webb, Jr., Charles T. Woodland



**BUILDING OWNERS AND MANAGERS ASSOCIATION HAWAII**  
 Suite 803, 877 Ala Moana • Honolulu, Hawaii 96813 • Telephone (808) 531-7667

June 28, 1988

Mr. Mike Moon, Director  
 Department of Housing and  
 Community Development  
 650 S. King Street, 5th Floor  
 Honolulu, HI 96813

Re: Pacific Nations Center  
 Environmental Impact Statement  
 Preparation Notice  
 Chapter 343, Hawaii Revised Statutes

Dear Mr. Moon:

While BOMA Hawaii supports the idea of the Block J development, we would like to comment as follows:

Vehicular Access and Traffic - The EIS Preparation Notice states that a maximum of 2,500 parking stalls can be accommodated below grade for both project occupants and public motorists; the development could provide up to 1,650,000 square feet of floor area. Twenty-five hundred (2,500) parking stalls would provide a ratio of one stall to 660 square feet and while this is good relative to the ratio of some downtown office buildings, it may not provide sufficient parking for occupants of the proposed structure, especially if it is planned to allow substantial public parking.

Because of the location of Block J, substantial traffic circulation problems could arise during and after construction, especially during peak hours.

Water Sewage and Drainage - With Alakea Street being one of the major departure streets from downtown Honolulu, we feel that installation of a new relief line along this route could cause substantial disruption unless it were completed outside of normal business hours.

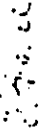
The Building Owners and Managers Association of Hawaii is being represented with regard to this proposed development by Nancy Tomczak as a member of the panel investigating the development and

Mr. Mike Moon  
 June 28, 1988  
 Page Two

Comments or concerns from BOMA Hawaii will be communicated through her involvement.

Very truly yours,

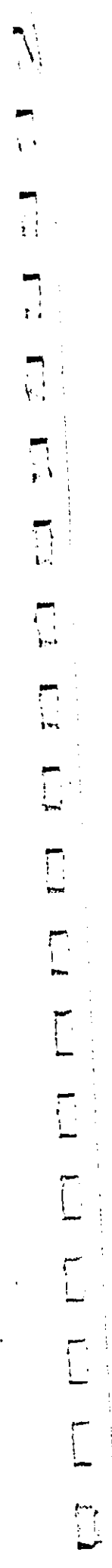
BOMA HAWAII

  
 Pamela D. Bearce  
 President

PDB/aan

cc: Nancy Tomczak

88 JUN 30 P2:18  
 DEPT. OF HOUSING  
 & COMM. DEVELOPMENT



DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
**CITY AND COUNTY OF HONOLULU**

430 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE: 832-3181



FRANK P. ZUM  
DIRECTOR

MIKE MOON  
DIRECTOR  
Michael N. Scarfone  
DEPUTY DIRECTOR

December 5, 1988


Ms. Pamela Bearce, President  
Building Owners and Managers  
Association Hawaii  
677 Ala Moana Boulevard, Suite 803  
Honolulu, Hawaii 96813

Dear Ms. Bearce:

Subject: Environmental Impact Statement Preparation Notice  
(EISPH)  
Pacific Nations-Center Project

Thank you for your comments on the EISPH for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

  
MIKE MOON  
Director

# CENTURY SQUARE

1188 Bishop Street, Suite 612  
Honolulu, Hawaii 96813



July 27, 1988

AUG 1 1988 AB:22

DEPARTMENT OF HOUSING  
AND COMMUNITY DEVELOPMENT

FRANK S. COVEY  
DIRECTOR

Mr. Mike Moon, Director  
Department of Housing and Community Development  
650 South King Street, 5th Floor  
Honolulu, Hawaii 96813

Dear Mr. Moon:


Your letter of June 23, 1988 concerning the Pacific Nations Center did not come to the attention of the Board of Directors of Century Square until after the deadline for response. Nevertheless, we wish to assure you of our interest in this matter and ask that we be apprised of the progress of the Draft Environmental Impact Study and afforded the opportunity to review the plans and to offer constructive comments and testimony. We will obviously concur in the stated objective of stimulating the economic growth of Honolulu and, subject to concerns outlined below, will be happy to cooperate in optimizing the site to its fullest potential.

In addition to the technical, environmental and socio-economic characteristics you have enumerated, we would suggest a careful analysis of the effect that the project's design will have on the prevailing wind patterns both integral and between it and all of the adjacent building sites. It became necessary to redesign and alter the entrance to Century Square because of unanticipated "eddy" effects attributed to its position in relation to surrounding buildings. We are quite naturally concerned whether the addition of another high-rise in the immediate vicinity will lead to further complications.

Although most of our vehicular access problems stem from the present location of our parking ramp, they will either be accentuated or relieved by the solutions you develop in the study for the Pacific Nations Center. The owners and occupants of offices on the mauka side of Century Square are already concerned about the orientation of the project's towers and its impact on their present views toward the mountain, however, we are sensitive of the fact that economic progress cannot be stifled just to preserve an individual's view plane.

In sum, the Board of Century Square is quite interested in its prospective neighbor and will be pleased to offer comments and suggestions to promote harmonious development.

Sincerely,

  
Frank S. Covey  
Association Vice-President

cc: Roman Catholic Diocese  
Chaney, Brooks & Co.

# DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET  
HONOLULU, HAWAII 96813  
PHONE 833-8181



MIKE MOON  
DIRECTOR

Michael N. Scarfone  
DEPUTY DIRECTOR

December 5, 1988


Mr. Frank Covey  
Century Square  
1188 Bishop Street, Suite 612  
Honolulu, Hawaii 96813

Dear Mr. Covey:

Subject: Environmental Impact Statement Preparation Notice  
(EISP)  
Pacific Nations Center Project

Thank you for your comments on the EISP for the proposed Pacific Nations Center project in downtown Honolulu. Your concerns will be addressed in the Draft EIS, which will be completed by this year.

Sincerely,

  
MIKE MOON  
Director



U.S. Department of Housing and Urban Development  
Honolulu Office, Region IX  
300 Ala Moana Blvd., Room 3218, Box 80007  
Honolulu, Hawaii 96830-4891

88-281



UNITED STATES DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
P.O. BOX 50000  
HONOLULU, HAWAII 96850

June 28, 1988

Mr. Mike Moon, Director  
Dept. of Housing and Community  
Development  
650 South King Street  
Honolulu, HI 96813

Dear Mr. Moon:

SUBJECT: Pacific Nations Center  
Environmental Impact Statement Preparation Notice

We have reviewed the Environmental Impact Statement Preparation Notice (EISP) for the proposed project in Block "J" of the Kukui Urban Renewal Project that proposes the development of a large mixed-use complex on the 5.06 acre site.

The issues that will be addressed in the draft EIS appear to cover HUD concerns. We do not have any other issues that should be addressed and we look forward to receiving the draft EIS.

Very sincerely yours,

Calvin Lew  
Director  
Community Planning and  
Development Division

88 JUN 30 P2:20  
DEPT OF HOUSING  
& COMM. DEVELOPMEN

June 17, 1988

Mr. Mike Moon, Director  
Department of Housing and Community Development  
650 South King St., 5th Floor  
Honolulu, HI 96813

Dear Mr. Moon:

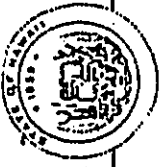
Subject: Pacific Nations Center  
Environmental Impact Statement Preparation Notice

We have no comments to offer at this time, however, we would appreciate the opportunity to review the draft EIS.

Sincerely,

Lawrence T. Yamamoto  
District Conservationist

88 JUL 21 P1:46  
DEPT OF HOUSING  
& COMM. DEVELOPMEN



**DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT**

KAHAKAULU BUILDING, 20 SOUTH KING ST., HONOLULU, HAWAII  
MAILING ADDRESS: P.O. BOX 259, HONOLULU, HAWAII 96813 TELE: 533-1100

JOHN WAIHIE  
GOVERNOR  
ROGER A. ULVELING  
DEPUTY DIRECTOR  
BARBARA KIM STANTON  
DEPUTY DIRECTOR  
LESLIE S. MATSUURA  
DEPUTY DIRECTOR

Ref. No. P-8473

June 20, 1988

The Honorable Mike Moon, Director  
Department of Housing and  
Community Development  
City and County of Honolulu  
650 South King Street, 5th Floor  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Subject: Pacific Nations Center Environmental Impact Statement  
Preparation Notice

We have reviewed the subject document relative to Hawaii's Coastal  
Zone Management (CZM) objectives and policies and have no comments to offer at  
this time.

Thank you for the opportunity to comment on the proposed amendments.

Sincerely,

*Roger A. Ulveling*  
Roger A. Ulveling

88 JUN 24 10:38  
DEPT. OF HOUSING  
& COMM. DEVELOPMENT



JOHN WAIHIE  
GOVERNOR

SUZANNE D. PETERSON  
CHAIRPERSON, BOARD OF AGRICULTURE  
ROBERT Y. TSUYAMURA  
ACTING DEPUTY  
TO THE CHAIRPERSON

State of Hawaii  
DEPARTMENT OF AGRICULTURE  
1428 So. King Street  
Honolulu, Hawaii 96814-2512

Mailing Address:  
P. O. Box 22159  
Honolulu, Hawaii 96822-0159

June 24, 1988

Mr. Mike Moon, Director  
Department of Housing and Community Development  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Subject: Environmental Impact Statement Preparation Notice  
(EISPH) for Pacific Nations Center  
TMK: 2-9-09: 7, 8, 9, 11, 18, 27, 37, 39, 56  
Honolulu, Oahu  
Area: 5.06

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

Thank you for the opportunity to comment.

Sincerely,

*Suzanne D. Peterson*  
SUZANNE D. PETERSON  
Chairperson, Board of Agriculture

cc: OEQC

DEPT. OF HOUSING  
& COMM. DEVELOPMENT

88 JUL -1 10:43

JOHN WALKER  
Governor



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P. O. BOX 2389  
HONOLULU, HAWAII 96813

OFFICE OF THE SUPERINTENDENT

CHARLES T. TOGUCHI  
SUPERINTENDENT



STATE OF HAWAII  
DEPARTMENT OF BUSINESS  
AND ECONOMIC DEVELOPMENT  
LAND USE COMMISSION

Room 109, 616 Federal Building, 315 Merchant Street  
Honolulu, Hawaii 96813 Telephone: 548-6111

JOHN WALKER  
Governor  
RONALD L. K. NIP  
Chairman  
LAWRENCE F. OLIN  
Vice Chairman

COMMISSION MEMBERS:  
Dorothy P. Brown  
Traffic Hill Institute  
Allan Griffin  
Robert Young  
Frederick P. Whitmore  
Tara Satali  
Richard S.J. Day  
ESTHER UEDA  
Executive Officer

June 16, 1988

June 6, 1988

Mr. Mike Moon, Director  
Department of Housing and Community Development  
City and County of Honolulu  
650 S. King Street  
Honolulu, Hawaii 96813

Dear Mr. Moon:

SUBJECT: Pacific Nations Center  
EIS Preparation Notice  
Chapter 343, Hawaii Revised Statutes

Since the developer has not been selected and the specific details of the proposed development are not known, we are withholding our comments until more information becomes available at a later date.

Thank you for the opportunity to comment.

Sincerely,  
*Charles T. Toguchi*  
Charles T. Toguchi  
Superintendent

GTT:j1

cc E. Isai, OBS  
M. Oda, Honolulu Dist.

88 JUN 21 P1:46  
DEPT. OF HOUSING  
& COMM. DEVELOPMENT

Mr. Mike Moon, Director  
Department of Housing and  
Community Development  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813

Dear Mr. Moon:

Subject: Pacific Nations Center EISPN

We have no comments to offer except that the proposed Center is located within the State Land Use Urban District.

Sincerely,

*Esther Ueda*

ESTHER UEDA  
Executive Officer

EU:to

RECEIVED JUN 20 1988  
DEPT. OF HOUSING  
& COMM. DEVELOPMENT

SI:ld 8-MT 88.

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

BUILDING DEPARTMENT  
CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING  
530 SOUTH KING STREET  
HONOLULU, HAWAII 96813



FRANK FAR  
MAIL

HERBERT K. MURAOKA  
DIRECTOR AND BUILDING SUPERINTENDENT

PB 88-558

June 15, 1988

MEMO TO: MR. MIKE MOON, DIRECTOR  
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

FROM: HERBERT K. MURAOKA  
DIRECTOR AND BUILDING SUPERINTENDENT

SUBJECT: PACIFIC NATIONS CENTER  
ENVIRONMENTAL IMPACT STATEMENT (EIS)  
PREPARATION NOTICE

We have reviewed the EIS Preparation Notice for the proposed Pacific Nations Center project and have no comments.

Thank you for the opportunity to review the preparation notice.

A handwritten signature in dark ink, appearing to read "Herbert K. Muraoka".

HERBERT K. MURAOKA  
Director and Building Superintendent

cc: J. Harada

DEPT. OF HOUSING  
& COMM. DEVELOPMENT

88 JUN 17 11:33