STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES

REVISED
ENVIRONMENTAL IMPACT STATEMENT
FOR THE
PROPOSED
VINEYARD STREET PARKING GARAGE
HONOLULU, HAWAII
D.A.G.S. JOB NO. 02-10-2180
OAHU TMK: 2-1-18:11 and 2-1-19:1

This environmental document is submitted pursuant to Chapter 343, HRS

Accepting Authority: Governor
State of Hawaii

Responsible Official:
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Comptroller
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January, 1980
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SUMMARY

Project description. The State Department of Accounting and General Services (DAGS) proposes to construct a 5-story parking structure on a 2.44 acre site located at the mauka edge of the State Capital Complex on Vineyard Street near the intersection of Punchbowl and Vineyard Streets. The parking structure will have, at the maximum, the capacity to serve 533 cars; 83 parking spaces on the ground level will be metered for public parking while the remaining 450 parking stalls on the upper levels will be reserved for State employees. The proposed garage is consistent with the State Capital Complex master plan (which recommends the consolidation of State parking areas), and will replace State employee parking spaces which will eventually be phased out. The 5-story parking structure will have an area of 176,430 square feet for parking; the building will occupy 35,286 square feet of the 106,314 square foot (2.44 acre) property. It should be noted that consideration is being given to constructing a smaller parking garage structure, consequently, the square footage and number of cars accommodated will be less.

Landscaping as proposed, will be extensive, covering approximately 67% of the total ground area of the project site. Additionally, landscaping on the sides and roof-top of the parking structure will be considered. Included in the proposed action is the abandonment of the Vineyard Street portion fronting the garage. This portion of Vineyard Street will be incorporated into the landscaping plans. The proposed design would allow traffic from the garage to enter/exit from both Punchbowl and Queen Emma Streets; through traffic would then have to turn around or go through the garage in order to enter/exit from the opposite street.

The land is owned by the State. The consolidation of the property is being processed. Cost of the parking structure is estimated to be $4,800,000; with funds for the structure and landscaping within its "footprint" to be provided via reimbursible general obligation bond funds which will be repaid by monthly fees paid by State employees for parking privileges. Non-structured site improvements (i.e. landscaping) are estimated to cost $150,000, and will be financed by general obligation bonds. Pending the availability of funds, construction is expected to commence in Fall, 1980. Construction is estimated to take one year.

Existing site conditions. The project site has in the past several decades been in an urban (i.e. residential and commercial) use. The plants and animals on the project site are common species found throughout
Honolulu; there are no rare or endangered species of flora or fauna on
the project site. There are no unique topographic, or other physical
features on the project site. Presently there are several abandoned
residential and commercial structures on the project site. These struc-
tures are substandard and constitute a health hazard. Demolition has
been approved and will take place in the next few months. Being within
an urban area, existing utilities and services are readily available to
the project site.

Probable environmental impacts. Impact to the physical geography
and flora and fauna will be minimal, due to the previous urban use of
the site. Because there are no surface waters in the vicinity, impact
on water quality will be minimal. Air quality will be effected in two
ways: (1) fugitive dust created during the construction period and (2)
the indirect impact of vehicular emissions. The former will be temporary
and subject to various standard mitigation measures, the latter will
create some adverse impact in form of increased carbon monoxide levels,
however, as the Federal emissions regulations are implemented (e.g. new
vehicles will need to meet higher emission standards) the air quality
will improve. It is felt that there will not be a significant difference
between the ambient air quality with or without the garage by the year
1995. Impact from noise will also be created during construction, and
later, the daily operation of the garage. The noise from construction
activities will be short-term and limited to regular work hours. Noise
from adjacent streets will be reduced due to the abandonment of Vineyard
Street. Noise from the parking garage will be primarily from tire
squeal and it is possible that noise sensitive individuals residing in
the nearby housing may find this noise irritating. However, the operation
of the garage coincides with normal working hours, so that a large
majority of the residents will be on their way to work during the AM and
PM periods of arrival and departure. Various mitigative measures have
been incorporated into the design of the garage to reduce noise from the
parking garage. The proposed project will not substantially affect
traffic during normal peak hour periods. It is proposed that left turn
movements from Vineyard Street into Punchbowl and Queen Emma Streets be
banned due to the congestion and queuing of cars coming out of the
parking garage in the afternoon. Impact on aesthetics is felt to be
beneficial. The project will replace the existing vacant structures and will provide ample landscaping which will enhance the view of the project site from the State Capital and the rim of Punchbowl Crater. Governmental services and utilities will not be adversely affected. There are no historical/archaeological sites on the project site. The proposed use is consistent with the various land use plans, policies, and controls for the area; the proposed use is also consistent with the adjacent, primarily governmental use of the area.

Alternatives. Several alternative schemes have been considered and are documented. In addition to alternative schemes, the site of the garage, the need for the garage and other alternative actions (e.g. elimination of parking for State employees, car pools) were considered. It was found that the proposed action is needed and the design scheme selected will meet the objectives of the parking structure without resulting in significant, long-term adverse environmental impacts.
I. PROJECT DESCRIPTION

A. Project Location

The site for the proposed Vineyard Street Garage is located at the mauka edge of the State Capital Complex on Vineyard Street near the intersection of Punchbowl Street and Vineyard Street. The property or site is identified by Tax Map Key 2-1-19:1, and 2-1-18:11, (DAGS presently is in the process of consolidating the parcel). The property is approximately 2.44 acres with frontage on Vineyard Street. Figures 1 and 2, show the location of the proposed project.

B. Statement of Objectives

For the past several years, the State Department of Accounting and General Services has been pursuing the development of the State Capital Complex based on guidelines set forth in the Warnecke master plan (Reference 1).

One of the guidelines relating to parking stated that "adequate parking facilities for cars should be provided near the periphery of the civic center and surface parking discouraged within the perimeter."

The Vineyard Garage was proposed in direct response to this guideline. Other garages are being planned for construction in the central and makai portions of the civic center, also in accordance with this guideline.

In order to determine the need for parking, the State Capital Complex was divided into three zones. The mauka zone stretches from Beretania Street to Vineyard Boulevard. The central zone lies between King and Beretania Streets and the makai zone between Ala Moana Boulevard and King Street.

Parking demand was computed for each zone based on approximately 50 percent of the employees and visitors using automobiles. This is in line with the mass transit downtown destination predictions. In the mauka zone, the only location which could house a parking
FIGURE 1. LOCATION MAP

Proposed Vineyard Street Garage
FIGURE 2. VICINITY MAP

Proposed Vineyard Street Garage

* PROJECT SITE - VINEYARD STREET GARAGE

0 1000 2000
Feet

North
garage and still be compatible with the State Capital Complex master plan (Reference 1) is the area in which the Vineyard Street Garage is proposed.

Besides continuing to implement the State Capital Complex master plan, the proposed Vineyard Street Garage will be used to replace a portion of the parking to be phased out at the following State parking lots:

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<td>Lot F (Iolani Palace)</td>
<td>215</td>
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<tr>
<td>Lot M (Liliuokalani Building)</td>
<td>30</td>
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<tr>
<td>Lot L (Kinau Hale)</td>
<td>271</td>
</tr>
<tr>
<td>Lot O (Vineyard Site)</td>
<td>40</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>556</strong></td>
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The exact number of stalls to be phased out is pending final review and approval. Figures 3 and 4 show, respectively, the location of these parking areas, and the proposed State Capital Complex master plan.

C. General Description of the Action's Technical, Economic, Social, and Environmental Characteristics

In order to approximately replace the number of parking stalls to be phased out the architect has designed a five-story structure which will have about 176,430 square feet for parking. (See Figure 5, Site Plan.) The building will occupy 35,286 square feet of the 106,314 square foot property. The total number of parking spaces to be provided depends on whether air conditioning (A/C) equip-

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1 This describes the preliminary design which is subject to revisions and/or modifications as the design is reviewed and refined. A smaller parking structure, having less square footage and accommodating less cars is under consideration.
FIGURE 3. D.A.G.S. PARKING LOT SITES
STATE CAPITAL DISTRICT
Figure 4

CIVIC CENTER MASTER PLAN
HAWAI'I STATE CAPITOL
ment* will be utilized. With air conditioning equipment, the total parking stalls will be 508, without A/C equipment the total will be 533.

The proposed garage structure will be constructed with reinforced concrete and will have "open" sides, allowing the prevailing trade winds to pass through the structure, utilizing natural ventilation. The fifth floor of the garage will be an open "roof-top" parking deck.

Other features within the garage structure will include: (1) ramps and turning areas, (2) elevator and stairways, (3) space for future air conditioning equipment for the adjacent Liliuokalani Building, (4) ingress and egress to Vineyard Street,** and (5) metered parking stalls (approximately 83) for public use.

Floor plans, elevations, and sections for the proposed garage are provided as Figures 6, 7, 8, 9, and 10.

Other design criteria and features are discussed below.

Street utilization. The parking structure plan calls for the closing of Vineyard Street to through traffic. Presently, Vineyard Street is a two-way, two-lane street, with one additional lane on each side (mauka and makai) used for on-street metered parking. The site plan for the garage (Figure 5) shows that the Vineyard Street will be incorporated into the landscaping plans. Earlier in the design studies, it was proposed that access be limited from Punchbowl Street only; however, the traffic study (Reference 7) indicated that such an action would eliminate the possibility of utilizing two thoroughfares (Punchbowl and Queen Emma Streets) for approaches to the garage. (Only one approach would have created greater queuing, especially on Punchbowl Street.) The present design would allow traffic from the garage to enter/exit from both the Punchbowl and Queen Emma Street; through traffic would then have to turn around or go through the garage in order to enter/exit from the opposite street.

* Air conditioning equipment to service the Liliuokalani Building.

** No ingress/egress from Vineyard Boulevard will be provided due to the proximity of the major Vineyard Boulevard-Punchbowl Street intersection.
FIGURE 7 PLAN FOR UPPER FLOORS

ARCHITECTS: PETER HSI & ASSOCIATES/MEDIA FIVE ARCHITECTS

VINEYARD STREET PARKING GARAGE
FIGURE 8
ELEVATIONS
DIAMOND HEAD - MAKAI

ARCHITECTS: PETER HSI & ASSOCIATES/MEDIA FIVE ARCHITECTS
VINEYARD STREET PARKING GARAGE
FIGURE 10  SECTIONS

FLOOR 5
35'

FLOOR 4
26'-6"

FLOOR 3
21'

FLOOR 2
9'-8"

GROUND FLOOR
6'

SECTION A-A

SECTION B-B

FUTURE A/C MECHANICAL SPACE

ARCHITECTS: PETER HSI & ASSOCIATES/ MEDIA FIVE ARCHITECTS

VINEYARD STREET PARKING GARAGE
Air conditioning equipment. As mentioned earlier, space for air conditioning equipment for Liliuokalani Building will be included in the garage structure.

Parking stall size. Standard, compact, and handicapped parking stalls will be provided. These parking stalls will be provided based on a survey of existing lots and determining the percentage of compact cars.

Parking meters. Parking meters will be provided for the public parking on the ground floor only.

Fire protection. No fire sprinkler system is required for the parking garage. Fire extinguishers will be provided where required. Fire hydrants will be retained and/or relocated depending on discussions with the Fire Department, City and County of Honolulu.

Housing in the adjacent lot. The housing (32 units) in the adjoining lot (See Figure 5) has been built and is separate from this proposed project. This housing has its own open space and parking lot. Fencing along the property line separating the housing and the garage site will be installed.

Security. Will be provided by the State Department of Accounting and General Services (DAGS), through the central security branch.

Parking surfaces. The ground level parking surface will be paved; the upper deck parking floors will have a concrete textured surface, rough enough to minimize automobile wheel slippage.

Control between public and state parking. The exterior/entry gate will effectively close off the entire parking structure during weekends and holidays. Signs will be posted to alert the public from not parking above the ground floor.

Lighting. Lighting will comply with OSHA minimum standards for parking levels. Since it will be an open parking garage, lighting
will be adequate during daylight hours. Additional lighting will be installed where required.

**Water bibbs.** Water bibbs are required for wash down and maintenance of the parking structure.

**Open space and landscaping.** Consistent with the State Capital Complex master plan and the Hawaii State Capital District Ordinance (Reference 2), the subject property will include ample (67 percent) open space and landscaping. Present plans call for the area makai of the garage to be utilized as a landscaped area for the Liliuokani Building. On the Diamond Head side of the garage, various shrubs, trees, and a lawn area will be planted. In both areas, existing specimen trees will be maintained, if healthy and consistent with the landscaping plans. Around the garage, various shrubs and trees will be planted to enhance the appearance of the garage structure. A lawn sprinkling system will be installed; maintenance for the landscaped areas will be provided by the State. Plant material will be consistent with plants presently utilized in the Capital District.

**Utility requirements.** Utility easement in Vineyard Street will be discussed with the appropriate agencies.

**Site work.** Although no specific construction specifications have been prepared, the following general construction work items are anticipated:

1. The site will be cleared of all structures and existing vegetation (except some of the specimen trees which will be integrated into the landscaping plans).

2. Improvements/relocation of existing utilities may be necessary. Each utility line/easement will be evaluated on the basis of its adequacy to serve the needs of the project and wherever necessary
improvements/relocations will be made to meet with the Building Code Standards and other appropriate guidelines.

3. Specific and definitive soils tests will be conducted to determine soil suitability to meet Building Code Standards. After soil corings are evaluated, fill material, if necessary, for the foundation and driveways will be determined.

4. Grading will be minimal based on the existing urban uses and the level terrain. Consequently, no mass grading should be required prior to or after completion of the garage.

5. Construction of the garage, paving, and landscaping.

D. Use of Public Lands and Funds

The land is owned by the State. Cost of constructing the parking structure will be funded with Act 243/78, K-6, Vineyard Street Garage. Landscaping improvements beyond the structure footprint will be funded with Act 226/76, K-22, Implementation of Hawaii State Capital Complex master plan, including Landscaping and General Site Improvements. There are two different types of funding sources: (1) the garage will be financed with reimbursible general obligation bond funds, these funds will be reimbursed by the monthly fees paid by State employees for parking privileges will eventually repay this funding source; (2) the site improvements (landscaping) will be financed by general obligation bonds.

The total cost of the structure is estimated to be $4,800,000. The cost of the landscaping is estimated to be $150,000. Maintenance will be provided by the State.
E. **Phasing and Timing**

The proposed project will be completed in one phase. Pending availability of funds, construction is expected to commence in the Fall of 1980. Construction is estimated to take 12 months. Demolition of the existing wooden structures on the property will occur prior to construction; these old wooden houses constitute a fire hazard and their demolition has been approved.

F. **Project Background**

The proposed project was initiated in late 1970 with the acquisition of the property. Because of opposition by tenants on the site, the relocation program was delayed. However, this problem has been amicably settled by the State with the cooperation of the tenants and only one commercial tenant is still on the site as of November, 1979. This tenant has a new site and is in the process of moving.

II. **DESCRIPTION OF THE EXISTING SITE CONDITION**

A. **General Site Conditions**

The 2.44 acre site consists of three parcels of land, one of which is presently a portion of Vineyard Street (22,614 square feet). This portion is included in the project site, since Vineyard Street will be abandoned. It should also be noted that DAGS is in the process of consolidating the property, as indicated by Figure 11, Land Court Application 1485.

The largest parcel (approximately 80,000+ square feet) is bound by a Shell Service Station at the Ewa end, Punchbowl Street at the Diamond Head end, Vineyard Boulevard on the mauka side, and Vineyard Street on the makai side. It lies approximately 24 feet above mean sea level, and is generally flat except for a 10± foot strip along Vineyard Boulevard which steeply slopes down to the site. Vehicular access to this parcel is via Vineyard Street.
The third parcel, located makai, across the first parcel is approximately 19,000± square feet, and is level at the same elevation. It is bounded by the OVSR housing project on the Ewa side, the State's Liliuokalani Building on the Diamond Head side, Vineyard Street on the mauka end, and Saint Andrews Priory School on the makai end.

There are three substandard, deteriorating wooden residential structures in the smaller of the two parcels. The interior of these buildings contain abandoned and broken home furnishings, garage sheds are found adjacent to two of these structures. Various mature trees and once-cultivated plants can be seen adjacent to the structures. No significant overgrowth of weeds were noted.

The larger parcel contains several commercial and residential buildings (See Figure 12). In general, these structures are vacant and appear to rapidly deteriorating due to non-use and, perhaps vandalism. As in the case of the wooden structures in the smaller parcel, trash and remnant home furnishings are evident under and inside these structures. Common house plants, fruit and flowering trees, and ornamental plants, are found next to the residential structures. Lawn grass and shrubs appear to be maintained in various areas. A portion of this parcel is used by the State for a paved parking area for approximately 40 cars. Fauna and avifauna are species commonly found in the area.

B. Physical Geography

Soils. The soil of the project site and the surrounding area is identified as Mka, Makiki clay loam, 0 to 2 percent slopes, by the publication, Soil Survey of (the) Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii. (Reference 3).

Preliminary observations based on soil test borings from the site (as described in correspondence dated November 26, 1979 from F.G.E., Ltd.) indicate the following conditions.

"The test borings indicate that the site is covered with a mantle of 1 to 3 feet of poorly compacted fill, the thickest portion of which occurs within the buried basements of the previous dwellings."

"The fill is underlain by black sand deposits of the Honolulu Volcanic Series which extend to depths of 13 to 17 feet below the ground surface along the northern site boundary and 8 to 11 feet along the souther perimeter."
The upper 10 to 12 feet of this layer consists of sandy and clayey silts of stiff to very hard consistency."

"The lower 3 to 6 feet consists of loose to dense coarse black sand."

In regards to the soils ability to support the structure, the soils consultant (F.G.E., Ltd.) states that: "Although exact design information and column loadings are not yet available, our investigation indicates the site is underlain by relatively competent soils at the anticipated foundation bearing levels which would permit the use of spread foundations... We do not anticipate that pile foundations or other special support methods will be required."

Climate. The climate of the Honolulu downtown area is typical of the leeward lowlands of Oahu. The area is characterized by abundant sunshine, persistent trade winds (80+ percent of the time), relatively constant temperatures, moderate humidity levels and the infrequency of severe storms.

The prevailing wind throughout the year is the northeasterly trade wind, although its average frequency varies from more than 90 percent during the summer months to only 50 percent in January. The monthly mean velocity of the wind varies between 10 and 15 miles per hour.

Rainfall is relatively low, averaging approximately 30 inches a year. However, monthly rainfall variations are considerable. During the cooler winter season when occasional major storms provide much of the rain, monthly quantities of the rainfall are more variable than in the summer season when the rain occurs primarily from showers that form as the moist trade winds pass over the mountains (orographic rainfall). This trade wind rainfall occurs more frequently at night; daytime showers are usually light. On the average, about 50 percent of the total annual rainfall occurs during the three wettest months—December through February.

Temperatures are uniform, the monthly range in temperature between the warmest months (August and September) and the coolest months (January and February) averages only 7° F. Daily maximum temperatures range from the high 70's in the winter to the mid-80's in the summer; the daily minimum temperatures run from the mid-60's in the winter to the low 70's during the summer.
The persistence of the northeasterly trade winds results in moderate humidity even in the warmest months. However, when the trades diminish or give way to southerly winds, a situation known locally as "kona weather" occurs, during this condition the humidity may become oppressively high.

(Source of climatic information, Reference 4).

Flora. As mentioned previously, there are several common trees and ornamental plants found throughout the site. A list of plants and trees found at the project site is provided below; no scientific names are provided due to the common species found. Additionally, no detailed botanical survey was undertaken because of the non-indigenous nature of the flora.

<table>
<thead>
<tr>
<th>Plant/Tree Common Name</th>
<th>Approximate Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mock orange</td>
<td>Several</td>
</tr>
<tr>
<td>Christmas berry tree</td>
<td>1</td>
</tr>
<tr>
<td>Chinese violet plant</td>
<td>Several</td>
</tr>
<tr>
<td>Ixora</td>
<td>1</td>
</tr>
<tr>
<td>Green and Red Ti plants</td>
<td>Several</td>
</tr>
<tr>
<td>Common wild shower trees</td>
<td>3</td>
</tr>
<tr>
<td>Indian banyan tree</td>
<td>1</td>
</tr>
<tr>
<td>Chinese banyan tree</td>
<td>1</td>
</tr>
<tr>
<td>Coconut trees</td>
<td>Several</td>
</tr>
<tr>
<td>Orange tree</td>
<td>2</td>
</tr>
<tr>
<td>Papaya tree</td>
<td>2</td>
</tr>
<tr>
<td>Croton plants</td>
<td>Several</td>
</tr>
<tr>
<td>Guava tree</td>
<td>1</td>
</tr>
<tr>
<td>Banana trees</td>
<td>1</td>
</tr>
<tr>
<td>Aloe plant</td>
<td>1</td>
</tr>
<tr>
<td>Monkey pod trees</td>
<td>Several</td>
</tr>
</tbody>
</table>

(This is not a complete listing of plants/trees on the project site; it provides various species or observed plants and excludes weeds, shrubbery, lawn grasses.)

Additionally, it is noted that none of these plants are proposed to be or on the Federal list of rare or endangered plant species. These plants and trees are exotic species planted and/or cultivated by
man during his occupation of the site over several decades. No trees on the site are listed in the City and County of Honolulu's Ordinance 78-91, relating to exceptional trees.

Fauna. Observed fauna on the site includes domestic cats, and house mice; other fauna which may exist on the project site are rats and mongooses. Observed avifauna (birdlife) on the project site include barred dove, house sparrow, mynah; other birds not observed, but likely to nest or feed in the area includes the spotted dove, pigeons, white-eye, ricebirds, mockingbirds, cardinals, and spotted dove. These species of birds are common and exotic, and are well adapted to man's urban environment. They are found commonly in the area; none are identified as indigenous, rare, or endangered.

C. Environmental Considerations

Water quality. There are no rivers or oceans in the vicinity of the project site. Drainage is provided by the municipal drainage system. The project site lies in an area of minimal flooding and is not subject to flooding from the 100-year storm which is an event having one percent chance of being equalled or exceeded in any given year.

Existing ambient air quality. The following information is used, without quotations, from Reference 5, Air Quality Impact Analysis for the Proposed Vineyard Street Parking Garage, prepared by Barry D. Root, air pollution consultant. This study is available at the Environmental Quality Commission office for review. The air impact study was based on initial plans provided which indicated a maximum of 552 parking spaces in the proposed garage. Consequently, the maximum number of parking spaces in the new plans call for a maximum total of 533. This reduction is insignificant and would not alter the findings of the air impact study.

The State Department of Health maintains a long-term air pollutant monitoring station at Kinau Hale on the mauka/Ewa corner of Punchbowl and Beretania Streets. A summary of recent pollutant readings at this site is presented in Table 1. Since the project site is located virtually in the same block as the proposed project these values can be considered to be representative of existing air quality in the project area.
# TABLE 1

## SUMMARY OF AIR POLLUTANT MEASUREMENTS AT KINAU HALE

(DEPARTMENT OF HEALTH LAB) - PUNCHBOWL AND BERETANIA STREETS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PARTICULATE MATTER</strong>b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Samples (24-hour)</td>
<td>200</td>
<td>74</td>
<td>57</td>
<td>60</td>
<td>29</td>
</tr>
<tr>
<td>Range</td>
<td>12-96</td>
<td>19-62</td>
<td>14-51</td>
<td>14-53</td>
<td>22-62</td>
</tr>
<tr>
<td>Average</td>
<td>40</td>
<td>34</td>
<td>31</td>
<td>29</td>
<td>36</td>
</tr>
<tr>
<td>No. of times State AQS Exceeded</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>SULFUR OXIDES</strong>b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of samples (24-hour)</td>
<td>91</td>
<td>71</td>
<td>59</td>
<td>61</td>
<td>28</td>
</tr>
<tr>
<td>Range</td>
<td>&lt;5-31</td>
<td>&lt;5-51</td>
<td>&lt;5-53</td>
<td>&lt;5-44</td>
<td>&lt;5-42</td>
</tr>
<tr>
<td>Average</td>
<td>9</td>
<td>23</td>
<td>17</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>No. of times State AQS Exceeded</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>NITROGEN DIOXIDE</strong>b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of samples (24-hour)</td>
<td>91</td>
<td>22*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>16-70</td>
<td>5-29</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>33</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of times State AQS Exceeded</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CARBON MONOXIDE</strong>c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of sampling days</td>
<td>169</td>
<td>355</td>
<td>359</td>
<td>365</td>
<td>168</td>
</tr>
<tr>
<td>Range values (1-hour)</td>
<td>0.9-27.4</td>
<td>5-24.2</td>
<td>0-19.6</td>
<td>0-20.7</td>
<td>0-17.3</td>
</tr>
<tr>
<td>Average value (1-hour)</td>
<td>6.6</td>
<td>5.4</td>
<td>3.5</td>
<td>3.1</td>
<td>3.1</td>
</tr>
<tr>
<td>No. of times State AQS Exceeded</td>
<td>35</td>
<td>41</td>
<td>22</td>
<td>19</td>
<td>10</td>
</tr>
<tr>
<td>**OXIDANT (OZONE)**b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of sampling days</td>
<td>234</td>
<td>322</td>
<td>300</td>
<td>284</td>
<td>173</td>
</tr>
<tr>
<td>Range values (1-hour)</td>
<td>6-65</td>
<td>2-127</td>
<td>4-61</td>
<td>10-84</td>
<td>10-78</td>
</tr>
<tr>
<td>Average value (1-hour)</td>
<td>25</td>
<td>40</td>
<td>25</td>
<td>33</td>
<td>44</td>
</tr>
<tr>
<td>No. of times State AQS Exceeded</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

* Sampling discontinued 4/1/76
a through 6/79
b micrograms per cubic meter
c milligrams per cubic meter

Source: State of Hawaii Department of Health
From the measurements shown in Table 1 only carbon monoxide appears to present a problem in terms of concentrations in excess of the allowable State of Hawaii Air Quality Standards (See Table 2) of 10 milligrams per cubic meter (mg/m$^3$). The comparable one-hour Federal Standard (also found on Table 2) is 40 mg/m$^3$, a value which has been exceeded only once at the Kinau Hale site since the standard was set in the early 1970's. Since 1975 peak hour carbon monoxide readings have been slowly decreasing. This is an indication that the implementation of Federal carbon monoxide emission controls is having a modest, but measureable, effect on prevailing carbon monoxide concentrations in the area. Present one hour maximums are only about half of the allowable Federal limit.

Existing noise environment. A study entitled, "Noise Impact Study for the Proposed Vineyard Street Parking Garage," (Reference 6) was prepared by Darby-Ebisu and Associates, Inc., acoustical consultants, for this Environmental Impact Statement. The study, prepared in October, 1979, is the source of the information provided below. Copies of the study are filed and available for review at the Environmental Quality Commission office.

Exterior noise measurements were obtained along Vineyard Street fronting the new housing units (approximately 22 feet from the centerline of Vineyard Street). Noise measurements were performed on September 21, 1979 from 08:20 to 09:20 AM. Local traffic on Vineyard Street generated hourly equivalent sound levels ($L_{eq}$)* of 56.6 dB and other distant noise sources (aircraft, sirens, traffic on Vineyard Boulevard, and traffic on Punchbowl Street) generated hourly equivalent sound levels of 59.2 dB. Minimum background ambient noise levels of 51 to 53 dB were recorded during quiet periods, with a maximum noise level of 85 dB recorded during a noisy jet aircraft flyby. Overall, the noise environment at the new housing units, which front Vineyard Street and are approximately 60 feet from the proposed parking structure, is relatively quiet for an urban neighborhood location.

* All noise levels (in decibels or dB) represent A-weighted levels.
<table>
<thead>
<tr>
<th>POLLUTANT</th>
<th>SAMPLING PERIOD</th>
<th>FEDERAL STANDARDS</th>
<th>STATE STANDARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>PRIMARY</td>
<td>SECONDARY</td>
</tr>
<tr>
<td>1. Suspended</td>
<td>Annual Geometric Mean</td>
<td>75</td>
<td>60</td>
</tr>
<tr>
<td>particulate matter</td>
<td>Annual Arithmetic Mean</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>(micrograms per cubic meter)</td>
<td>Maximum Average</td>
<td>260</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>in any 24 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sulfur Dioxide</td>
<td>Annual Arithmetic Mean</td>
<td>80</td>
<td>-</td>
</tr>
<tr>
<td>(micrograms per cubic meter)</td>
<td>Maximum Average</td>
<td>365</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>in any 24 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maximum Average</td>
<td>1300</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>in any 3 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Carbon Monoxide</td>
<td>Maximum Average in any 8</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>(milligrams per cubic meter)</td>
<td>hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maximum Average in any 1</td>
<td>40</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>hour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Hydrocarbons</td>
<td>Maximum Average in any 3</td>
<td>160</td>
<td>100</td>
</tr>
<tr>
<td>Non-methane</td>
<td>hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(micrograms per cubic meter)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Ozone</td>
<td>Maximum Average in any 1</td>
<td>240</td>
<td>100</td>
</tr>
<tr>
<td>(micrograms per cubic meter)</td>
<td>hour</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Nitrogen Dioxide</td>
<td>Annual Arithmetic Mean</td>
<td>100</td>
<td>70</td>
</tr>
<tr>
<td>(micrograms per cubic meter)</td>
<td>Maximum Average</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>in any 24 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Airborne Lead</td>
<td>Average Over 3 Months</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>(micrograms per cubic meter)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** 40 Code of Federal Regulations, Part 50 and State of Hawaii Public Health Rule and Regulations, Chapter 42.
Additional noise measurements were also performed at 50 feet distance from the centerline of Punchbowl Street on the site of the proposed Historic Precinct Open Space (See Figure 13). As anticipated, measured hourly equivalent noise levels were between 65 and 66 dB, and existing traffic noise was the dominant noise source along the Punchbowl Street side of the proposed garage.

Aesthetics. Aesthetics are highly subjective and a determination of whether a site or view corridor is aesthetically pleasing or attractive will result in a wide range of individual opinion. Below, the matter of aesthetics is discussed based on an architectural standpoint of view corridors and scenic vistas. Much of the discussion draws from the State Capital Complex master plan (Reference 1) and its statements relating to view corridors.

Aesthetics, in this particular situation, was viewed in three areas of concern. The first was the aesthetics of the site itself. Based on the general site description provided earlier, the site is occupied by many vacant and deteriorating structures; however, the lawn and open areas of the site are maintained. Consequently, it was felt that while the site is not attractive, it is fairly well kept and maintains appearances of a residential-type area. Portions of the site, especially in the immediate vicinity of the vacant houses and the commercial buildings, are quite "rundown" in appearance.

The second viewpoint relating to aesthetics, is the view of the surrounding area from the project site. The site is relatively level and contains several large trees and nearby buildings which obscures views of distant areas. Therefore, no scenic view plan is available from this site (at ground level).

Lastly, the view of the site, especially from the State Capitol, was taken into consideration. The present view of the site is one of a low density housing area with open space and a variety of trees on the site. While the roof tops and open space (lawn and parking area) are not attractive, they do not present a significant "eyesore." The important concern here was that the site is within a prominent view corridor from the Capital and as such, could be significantly improved from its present condition.
ANALYSIS OF EXISTING CONDITIONS

FIGURE 13

1. MAINTAIN THE "GREAT PARKS" CONCEPT BY REINFORCING NATURE AS THE IDENTITY OF THE CIVIL CENTER.
2. RESPOND TO THE CAPITAL BY REINFORCING A VIEW CORRIDOR AND AN APPROPRIATE GATEWAY WITH A PEDESTRIAN LINK TO THE EXISTING MALL.
3. PROVIDE THE PLACEMENT OF THE ENTRANCES AND EXITS IN SUCH AN ARRANGEMENT TO AVOID CAUSING CONGESTION ON THE ADJACENT STREETS.
4. PROVIDE A LANDSCAPED BUFFER FOR THE LILUOKALANI BUILDING SERVICE AREA.
5. CREATE AN OPEN SPACE BUFFER ADJACENT TO THE EXISTING HOUSING.

PRELIMINARY: NOT FOR CONSTRUCTION
D. Services and Facilities Available to the Site

The urbanized character of the site and the surrounding area provides access to existing utilities and governmental facilities and services. The parcel is serviced by a full scope of utilities (having once been in a commercial/residential use). The parking structure will have limited use of these utilities with the exception of water (for watering the plants), and some electrical power. Sewage, telephone lines, solid waste disposal (from the County) will not be utilized by the proposed project.

Utility lines exist along Vineyard Street (See Figure 14). These include water lines, sewage lines, and overhead electrical and telephone lines.

Police and fire protection are emergency oriented services which are available within five minutes from the time of the initial contact. Because of the nature of the proposed action, discussion on other public facilities and services such as schools, parks, and shopping areas are not applicable.

E. Historical/Archaeological Sites

Because of man's previous disturbance and occupation of the project site, no historical and/or archaeological remains are present within the site. Buildings on the site, are not architecturally exceptional, nor do they meet the 50-year age requirement for a historical structure.

F. Socioeconomic Profile of the Surrounding Area

The area (State Capital District) is dominated by governmental buildings which provide administrative-oriented employment for approximately 2,500 governmental (State and County) employees. Other uses in the District includes commercial buildings and offices, public facilities (libraries, Iolani Palace), and some residential. In the immediate vicinity of the project, the OVSR housing project includes a total of 32-units (fourteen 1-bedroom units, thirteen 2-bedroom units, and five 3-bedroom units). This housing project was brought about as a result of the need to find suitable
ANALYSIS OF EXISTING CODE & UTILITY CONDITIONS

FIGURE 14
VINEYARD BOULEVARD

FIRE DISTRICT #3
FIRE DISTRICT #1

PROPERTY LINE

PUNCHBOWL STREET

1. DESIGN THE STRUCTURE TO MEET ALL THE CURRENT CODE REQUIREMENTS:
   A. ZONING IS A-2 WITH A 10' SETBACK, 20' SETBACK AT INTERIOR PROPERTY LIMITS FOR OPEN GARAGE WITH A 40' HEIGHT LIMIT.
   B. OPEN SPACE REQUIREMENTS MUST BE MAINTAINED PER HANAI CAPITAL DISTRICT ORDINANCE.
2. MAINTAIN ALL EXISTING UNDERGROUND UTILITIES BY PROVIDING EASEMENTS.
3. RELOCATE ABOVE GROUND UTILITIES BELOW GROUND, AIDING VINEYARD STREET.

EXISTING UNDERGROUND UTILITY LINES

OLD VINEYARD PRECINCT 50% OPEN SPACE

HISTORIC PRECINCT 80% OPEN SPACE

LILUOKALANI BUILDING (STATE OFFICES)

B-4
B-4
B-4
B-4

VINEYARD STREET

HOUSING

HOUSING

HOUSING

PARKING

PRELIMINARY: NOT FOR CONSTRUCTION
homes for tenants dislocated by the land acquisition stage of this project. Approximately 120 persons are located in this project. The proximity of this housing to the project site will create certain temporary adverse impact on this population; however, these impacts are described later in this Environmental Impact Statement. Because of the assistance of the State of Hawaii Housing Authority and the U.S. Department of Housing and Urban Development, the families residing in the project must qualify as moderate income families. Further demographic detail of the 120 persons is not available nor found to be applicable in the evaluating of environmental impact.

G. Streets and Traffic Considerations

A "Traffic Impact Statement for Vineyard Street Parking Garage," (Reference 7) was prepared by Henry T. Au, consulting engineer, for this Environmental Impact Statement. The information below is based on Au's discussion of existing street and traffic considerations in and affecting the project site. Au's study is filed with the Environmental Quality Commission and is available for review at their office.

Access routes and streets surrounding the site. Access routes over which traffic approaches the parking facility, streets surrounding the site and the proper placement of entrances and exits are important factors in the design and location of a parking facility. As shown on Figure 2, the access routes and streets surrounding the site consist of Vineyard Boulevard, Queen Emma Street, Pali Highway, Vineyard Street, Punchbowl Street, and South Beretania Street. Vineyard Street is a local street primarily for access to abutting properties.

Traffic volumes on adjacent streets. Traffic volume information and data on streets surrounding the site were taken from traffic volume counts collected by the Department of Transportation Services of the City and County of Honolulu and are shown in Appendix A. These counts were taken for each 15 minute period during the entire 24 hours of the day.

The traffic volumes collected in 1970 were compared with the 1973 or 1972 traffic volumes for those streets where traffic counts were made.
in 1973 or 1972. These data are set forth in Appendix A. The comparison indicates that there is generally a continuing increase in the volume of traffic on nearly all the access routes and streets surrounding the site.

On Punchbowl Street, between Vineyard Boulevard and South Beretania Street, the 24 hour traffic volumes, as well as, the peak hour volumes remained relatively stable between 1973 and 1979, a period of 6 years. This may be explained by the fact that when a roadway is operating at or beyond capacity, traffic will seek its own level, much as water and the motoring public will find its own alternate route to avoid using Punchbowl Street.

On South Beretania Street, between Queen Emma Street and Pali Highway, the 24 hour volume increased by 25.75 percent or 4.54 percent per year between 1973 and 1979, whereas the PM peak hour volume increased at a faster rate of 5.83 percent per year. This suggests that South Beretania Street is not yet operating at capacity. However, if traffic volumes continue to increase at the same rate, South Beretania Street will be operating at capacity within the near future.

Of all the access routes, Queen Emma Street carries the lightest volume. The majority of the traffic traveling mauka on Queen Emma Street from the Central Business District and Civic Center enter Pali Highway through Kukui Street. The peak hour volume for both directions on Queen Emma Street at Vineyard Street is 1,171 compared to 1,562 on Punchbowl Street.

III. PROBABLE ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT

A. Impact on the Site's Physical Geography

As indicated earlier, the site has been disturbed and urbanized for many decades. Physical impact on the topography, soils, and climatic conditions are felt to be negligible. The topography will be unaltered; the soils will probably be supplemented with additional topsoil to enhance plant growth. These changes are typical of man's occupation of
an urban site and, as such, are not found to be adverse or significant. Climatically, local wind patterns will alter in the direct vicinity of the area due to the building's mass and landscaping. Again, this is a common impact for all buildings and these local wind changes are not expected to be significant nor adverse. Other climatic aspects such as humidity, wind speed and direction, rainfall, and sunlight are controlled by factors which will not be affected by this project.

B. Impact on Flora and Fauna

Because of the common nature of the flora and fauna on the project site, it is found that the proposed action will not significantly or adversely effect rare or endangered species of flora and fauna. The loss of plantings will be partly compensated by the open and landscaped areas to be developed on the site. Additionally, certain specimen trees will be preserved.

Avifauna will be disturbed and may even relocate during construction; however, these birds can find other nesting areas in the trees which will be preserved or find comparable nesting areas in the surrounding area. In many cases of urban development, once construction is completed the avifauna often returns to the area.

C. Impact on Water Quality

Impact on water quality will be minimal. There will be no additional surface water runoff from paved surfaces of the proposed garage since the site was previously in a commercial/residential use. Additionally, the water quality of the runoff should not differ. Surface runoff will be collected by on-site catch basins and funneled into the drainage facilities along Punchbowl Street. On-site and off-site drainage plans for the proposed garage will be coordinated with the Department of Public Works, City and County of Honolulu. Open space and landscaped areas will absorb surface water runoff and will likely reduce the quantity of surface water runoff from the project site.

D. Impact on Air Quality

(Source of information - Reference 5.)
Short term emissions from project construction. During the construction phase of this project it is inevitable that a certain amount of fugitive dust will be generated by demolition and dirt moving and hauling operations as well as the garage construction. Since the proposed project site is nearly level and only a small portion of the total site will be used for the construction of the garage, fugitive dust emissions should be minimal. Construction of the Queen's Hospital Parking Garage took place in the same general area (upwind from the Department of Health sampling site during prevailing trade winds) with little impact on suspended particulate matter readings. No concentrations in excess of allowable State of Hawaii Air Quality Standards were recorded. Mitigative measures for fugitive dust control are discussed in Section VII.

Vehicular emissions. The proposed parking garage will not, in itself, constitute a direct source of air pollutant emissions, but by serving as an attraction for motor vehicle traffic the garage becomes an indirect source of increased air pollutant emissions in the Vineyard Street project area. Motor vehicles, especially those with gasoline-powered internal combustion engines, are prodigious of hydrocarbons and nitrogen oxides. Vehicles operating by the use of fuel which contains lead as an additive also create measurable amounts of airborne lead.

Vehicular traffic will primarily produce carbon monoxide, hydrocarbons, nitrogen oxides, and airborne lead. Federal emissions regulations should ensure future reductions in these emissions, but carbon monoxide emissions and resulting concentrations could pose some problems. The State of Hawaii one-hour ambient air quality standard for carbon monoxide is being exceeded at the Department of Health's nearby monitoring site at the rate of 20 times per year. Federal ambient standards are presently being met; however, detailed carbon monoxide modeling estimates carried out for the air quality impact study indicate that concentrations resulting from this project will pose no immediate or future threat to the compliance with air quality within Federal Standards.

Detailed modeling does indicate that 1980 carbon monoxide concentrations in excess of the one-hour State of Hawaii Standard could occur at critical receptor sites in the vicinity of the project when afternoon
peak hour traffic operates under adverse meteorological diffusion conditions. By 1995, the effects of the implementation of Federal carbon monoxide emission controls should eliminate this problem at all sites studied except the ground floor of the housing units located directly across the street from the planned garage. This latter problem can be mitigated by the mechanical ventilation of the garage.

Table 3 and 4 provides a summation of the estimated vehicular emissions and the results of peak hour carbon monoxide analysis for the proposed project, respectively.

Mitigative measures for vehicular air emissions are discussed in Section VII.

E. Impact on Noise

(Source of information – Reference 6).

Construction noise. Noise from construction activities related to the parking garages will generate unavoidable short-term noise impacts on residents of the housing units across Vineyard Street. Noise levels from construction equipment (excluding pile drivers)* will range from 75 to 90 dB at 50 feet distances. The closest residential unit is approximately 60 feet from the proposed parking garage structure, and severe noise impacts could result if construction equipment with high utilization factors (or operating times) and high noise levels are located along Vineyard Street or in the proposed park area between the Liliuokalani Building and the residential units.

Future traffic noise environment. The proposed parking garage structure, and the closure of Vineyard Street to through traffic will reduce traffic noise levels for residents of the new housing units across from the garage. Traffic noise from Vineyard Boulevard and Punchbowl Street will decrease by approximately 3 dB as a result of

* Based on current information, driven piles will not be used for the parking garage.
### TABLE 3

VEHICULAR EMISSIONS ANALYSIS
VINEYARD STREET PEAK HOUR (GRAMS)

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CONFIGURATION</th>
<th>PEAK HOUR TRAFFIC VOLUME</th>
<th>CARBON MONOXIDE</th>
<th>HYDROCARBONS</th>
<th>NITROGEN DIOXIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>WITH GARAGE</td>
<td>386</td>
<td>6234</td>
<td>570</td>
<td>229</td>
</tr>
<tr>
<td></td>
<td>EXISTING</td>
<td>240</td>
<td>3875</td>
<td>354</td>
<td>143</td>
</tr>
<tr>
<td>1995</td>
<td>WITH GARAGE</td>
<td>386</td>
<td>2648</td>
<td>236</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>EXISTING</td>
<td>336</td>
<td>2305</td>
<td>206</td>
<td>127</td>
</tr>
</tbody>
</table>

Note: See text for description of analysis technique and assumptions used, Reference 5.
## TABLE 4

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

### Site 1

<table>
<thead>
<tr>
<th>Site 1</th>
<th>WITHOUT GARAGE</th>
<th>WITH GARAGE</th>
<th>WITHOUT GARAGE</th>
<th>WITH GARAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.45</td>
<td>7.71</td>
<td>2.38</td>
<td>2.41</td>
</tr>
<tr>
<td></td>
<td>11.07</td>
<td>11.81</td>
<td>3.62</td>
<td>3.74</td>
</tr>
<tr>
<td></td>
<td>1.29</td>
<td>2.84</td>
<td>0.59</td>
<td>1.22</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td>2.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>21.8</td>
<td>24.4</td>
<td>7.6</td>
<td>8.4</td>
</tr>
</tbody>
</table>

### Site 2

<table>
<thead>
<tr>
<th>Site 2</th>
<th>WITHOUT GARAGE</th>
<th>WITH GARAGE</th>
<th>WITHOUT GARAGE</th>
<th>WITH GARAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.80</td>
<td>2.80</td>
<td>0.98</td>
<td>0.98</td>
</tr>
<tr>
<td></td>
<td>8.44</td>
<td>8.36</td>
<td>2.87</td>
<td>2.85</td>
</tr>
<tr>
<td></td>
<td>1.87</td>
<td>2.50</td>
<td>0.88</td>
<td>1.05</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td>2.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>15.1</td>
<td>15.7</td>
<td>5.7</td>
<td>5.9</td>
</tr>
</tbody>
</table>

State of Hawaii AQS = 10
Federal AQS = 40

Note: Receptor site 1 located on the sidewalk in front of Central Intermediate School at a breathing level of 1.5 meters.

Receptor site 2 is located on the sidewalk near the the Liliuokalani Building at a breathing level of 1.5 meters.
the shielding afforded by the five level garage structure. Closure of Vineyard Street will also reduce traffic noise and result in a positive noise impact for residents of the new housing units.

Table 5 presents estimated daily project traffic on Vineyard Street following completion of the project. Equivalent daily traffic is also computed to account for the 10 dB nighttime noise penalty incorporated in $L_{dn}$ (Day-Night Sound Level) calculations. Project traffic volumes were supplied by Henry T. Au (Reference 7), consulting engineer, assuming blockage of Vineyard Street to through traffic.

Table 5 presents a summary of changes in existing traffic $L_{dn}$ levels as a result of the project. Due to the relatively high volume of traffic on major streets which would service the proposed parking garage, no noticeable change in $L_{dn}$ levels will result from the project. Traffic noise levels on Vineyard Street should decrease by approximately 4 to 5 dB (or 60 percent) due to closure of Vineyard Street to through traffic.

Noise from the parking garage. Tire squeal noise in indoor parking structures has been the cause of complaints from persons residing in adjacent properties in Hawaii where year round open windows are the norm. Tire squeal is produced by high-frequency vibration of tire-tread elements when cornering a vehicle. The factors which influence the inception and intensity of tire squeal noise include: road surface texture, vehicle forward speed, vehicle weight, tire-tread design, and slip angle (difference between tire steering angle and direction of vehicle movement).

Noise measurements performed on September 21, 1979 at the State DOT (Department of Transportation) parking garage on Queen Street suggest that the proposed parking garage could generate complaints from residents of the three-story housing project if tire squeal is not controlled. Tire squeals measured at the makai wall of the DOT parking garage ranged from 75 to 83 dB. Due to the relative proximity (50 feet) of the residential units to the proposed parking garage, the number of parking levels proposed (five), the reduction in existing noise levels resulting from blockage of Vineyard Street and from the noise shielding effects of the proposed garage, and the distinctive nature of the noise source, tire squeal noise will be audible to the residents and may generate complaints from noise sensitive individuals.
### Table 5

**Changes in Traffic Noise \(L_{dn}\) Attributable to Project**

<table>
<thead>
<tr>
<th>Street</th>
<th>Total Nighttime Vehicle Count</th>
<th>Total Daytime Vehicle Count</th>
<th>Equivalent Daily Vehicle Count</th>
<th>Equivalent Daily Vehicle Count (Project)</th>
<th>Est. Increase in (L_{dn}) Due to Project Traffic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queen Emma at Vineyard Blvd.</td>
<td>1,214</td>
<td>9,656</td>
<td>21,796</td>
<td>1,600</td>
<td>0.31 dB</td>
</tr>
<tr>
<td>Punchbowl at S. Beretania St.</td>
<td>3,960</td>
<td>23,806</td>
<td>63,406</td>
<td>1,860</td>
<td>0.13 dB</td>
</tr>
<tr>
<td>Punchbowl at Vineyard Blvd.</td>
<td>2,997</td>
<td>17,965</td>
<td>47,935</td>
<td>1,860</td>
<td>0.17 dB</td>
</tr>
<tr>
<td>Vineyard St. 6</td>
<td>300</td>
<td>1,700</td>
<td>4,700</td>
<td>1,600</td>
<td>-4.68 dB 7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,860 (Toward Q. Emma)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,860 (Toward Punchbowl) 4.03 dB</td>
</tr>
</tbody>
</table>

**Notes:**

1. Nighttime period: 10:00 PM to 7:00 AM
2. Daytime period: 7:00 AM to 10:00 PM
3. Equivalent Daily Vehicle Count = Daytime vehicle count + 10 x Nighttime vehicle count.
4. See Table 1 for derivation.
5. \(10 \log \left( \frac{\text{Non-Project Vehicle Count} + \text{Project Vehicle Count}}{\text{Non-Project Vehicle Count}} \right)\)
7. Decreased in \(L_{dn}\) attributable to blockage of Vineyard Street and net decrease in Daily Traffic.

**Source:** Reference 6.
Mitigative measure for noise are discussed in Section VII.

F. Impact on Aesthetics

The impact on the aesthetics of the project site is felt to be beneficial. The appearance of the site will be dominated by open space and landscaping. The area around the garage structure and plantings along the sides of the garage structure will "soften" the concrete image of the structure. Roof-top landscaping will be incorporated to provide improved view amenities from rim of Punchbowl Crater, and the State Capital. Additionally, the low rise nature of the garage and the open sides will mitigate, to some degree, any adverse impact on the view corridors from the State Capital.

G. Impact on Services and Facilities

Because the project will require less services and facilities than the former commercial/residential uses, the impact is felt to be negligible. Easements for utility lines will be provided as required. Utilities will be placed underground and appropriate maintenance for those easements under Vineyard Street will be provided in accordance with future agreements with the utility companies.

The project itself is a facility for the benefit of the governmental employees and public (parking for public will be provided on the ground level). The parking structure will consolidate parking for the mauka portion of the State Capital Complex and will allow low density (ground) parking in other nearby areas to be phased out. These parking areas can than be utilized for other building/landscaping programs which will implement the State Capital Complex master plan.

H. Impact on Historical/Archaeological Sites

As indicated, there are no historical/archaeological sites within the project site.
I. **Socioeconomic Impact**

The proposed project is not expected to result in changes to the social or economic environment. The garage structure will be a governmental facility and will, as such, not generate revenue to the community nor will it socially effect community relationships. Employees of the state and county are already a dominant part of the surrounding area during the regular work day. Because this area is their place of employment, their social activities and interactions are not focused in this area.

Land use impact is discussed in Section IV.

J. **Traffic Impact**

(Source of information - Reference 7).

**Parking characteristic.** The parking facility will accommodate primarily State employees, with parking for the general public available only on a limited basis. The type of parking, therefore, is private, self-contained parking so that the parking characteristics can be easily determined.

Parking for State employees will be long duration all-day parking whereas parking for the general public will be for short duration parking. Without the need to collect fees at the entrance or exit or through the use of parking meters, the operation of the parking garage will be simplified, allowing for free flow and faster and safer vehicle movement, thus avoiding delays and congestion not only at the entrances and exits but also on the streets surrounding the parking facility.

**Entrances and exits.** Plans call for locating the entrance and exit so that there will be a choice to enter and exit from either Punchbowl Street or Queen Emma Street. The traffic pattern will be made equivalent to an ideal arrangement whereby entry into the parking garage will be from a one-way street carrying inbound traffic and exit will be onto an outbound route. Thus, in the event of changes in traffic flow pattern or the prohibition of left turns, these changes will not affect the approach to and or departure from the parking garage.
One important proposal that could have affected the location and design of the parking garage is the recent plan of the Department of Transportation Services to convert Punchbowl Street from a two-way traffic pattern to a one-way traffic pattern in the makai direction. However, after a public hearing, the plan was abandoned. This would require that the design of the garage and the placement of the entrances and exit be made flexible so that the garage will be able to retain its access and be operated efficiently regardless of traffic changes, street changes or turn prohibitions that may take place.

Parking accumulation and turnover. Parking accumulation and turnover will determine the usage of the parking garage by the number of cars entering and leaving the parking garage at different times of the day and, therefore, its effect on the highway system. With employee parking, there is a surge of arrival and departure from the parking garage. These arrivals and departures will occur during the morning and afternoon peak hours at the time of the highways peak loading condition. During the morning peak hour, it could be expected that approximately 70 percent of the drivers will be arriving at the garage, with maximum accumulation of vehicles occurring at approximately 9:00 a.m. The accumulation then becomes relatively constant until 3:30 p.m. since employees have to park all day and their average parking duration is 6.0 hours or more. The same percentage of parkers will be exiting from the garage during the afternoon peak hour.

For the public parking, the parking duration is very short and the parking turnover or number of parkers per space will average approximately 7. This parking turnover is typical of the normal usage of short-time parking facilities. Thus, for the 83 public parking spaces, approximately 581 parkers could be accommodated. Parking by the public will be either after or before the peak hours so that their effect on the highway system will be minimal.

For maximum impact and until such time that the various parking lots are phased out, it will be assumed that the parking garage will accommodate an additional 500 employees other than the employees who have been assigned spaces in the parking lots to be phased out. During
the morning and afternoon peak hours, an additional 350 vehicles (70 percent of 500) will be added to the traffic stream, divided between Punchbowl Street and Queen Emma Street.

For the morning peak hour, approximately 60 percent of the 350 drivers or 210 drivers will enter the garage by way of Punchbowl Street, with the other 40 percent by way of Queen Emma Street. This is based on the assumption that traffic seeks its own level and since the traffic flow on Punchbowl Street during the morning peak hour is predominantly inbound, the ideal arrangement is to enter the garage from an inbound flow and exit to an outbound flow. The traffic flow on Queen Emma Street is predominantly outbound and, therefore, it can be expected that for the afternoon peak hour, approximately 60 percent of the 350 parkers will exit by way of Queen Emma Street, with the other 40 percent by way of Punchbowl Street.

With nearly equalization of the traffic load to Punchbowl Street and Queen Emma Street, the parking garage at the proposed site will not create an adverse impact on the surrounding street system.

**Impact on Dead-ending Vineyard Street.** Vineyard Street will not be closed. It will be dead-ended at the entrance/exit of the proposed parking structure. This means that through traffic will be prohibited on Vineyard Street. The current average daily traffic is estimated to be less than 1000 cars, 80 percent of these vehicles are generated by State employees parking, or employees being dropped-off and picked-up from work. The remaining traffic is generated by business and residential uses Ewa of Queen Liliuokalani Building. Subsequently, vehicular traffic generated by those activities will be restricted to using Queen Emma Street. Because of the low number of vehicles involved (less than 200 vehicular trips per day) and the lower anticipated use of garage traffic on Queen Emma Street, it is not felt that the dead-ending of Vineyard Street will have a significant or adverse impact on local traffic.
IV. THE RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES, AND CONTROLS FOR THE AFFECTED AREA

A. Land Use Designation and Zoning

The project site is designated Urban by the State Land Use Commission. The surrounding area around the site is also in an Urban designation.

The proposed site is zoned A-2, low density apartment, under the Comprehensive Zoning Code (CZC) of the City and County of Honolulu. Public uses are permitted within this district and must conform to the applicable zoning requirements (height, setbacks).

In addition to the zoning, the site lies within the Hawaii Capital District and is subject to Ordinance 77-60. The purpose of this Ordinance is to:

"...establish the Honolulu Civic Center as a historic, cultural, and scenic district to be called 'Hawaii Capital District' and to provide for its protection, preservation, enhancement, orderly development and growth."

Various architectural, visual landscaping, and building criteria are identified in this Ordinance. The Ordinance divides the District into various precincts and establishes that proportion of open space which must be provided in that precinct. The project site lies in two precincts (as shown in Figure 13), the Old Vineyard Precinct (50 percent open space) and the Historic Precinct (80 percent open space).

The preliminary site plan for the proposed project conforms with the setbacks and height limitation of the A-2 zoning; also, open space with the Capital District Ordinance will be provided.

Vineyard Street abandonment is consistent with the adopted Development Plan for the area under the old Charter (Ordinance 3217, July 5, 1968). Following City procedures for street abandonment, the City deeded the property to the State on May 9, 1979.
B. Adjacent Land Uses

Adjacent land uses include multiple residential (OVSR housing project), commercial, and business uses (mauka of Vineyard Street and at the intersection of Queen Emma and Vineyard Street), and institutional use (Liliuokalani Building, Catholic Social Services, St. Andrews Priory, Central Intermediate School, and Kinau Hale). The dominant use in the adjacent areas is governmental offices.

It is felt that the proposed garage is generally consistent with the surrounding uses.

V. ALTERNATIVES TO THE PROPOSED ACTION

At the time the Revised EIS was being completed, an alternative garage structure was under consideration. That alternative was to construct a smaller parking structure so that aesthetically the structure would be less massive. This will mean that less than 500 cars will be accommodated in the structure. Because this EIS is based on 533 parking spaces, the alternative of constructing a smaller parking garage will have slightly less impact than discussed.

During the extensive planning of this proposed garage, several design schemes were reviewed and evaluated; these schemes have met the criteria for a 500-car parking garage, and have generally conformed to the various zoning and Capitol District Ordinance. Schemes included siting the garage in another portion of the project site and another location
in the service area, having six levels (rather than five), and building a subterranean-type garage.

In addition to site and design alternatives, alternative programs were considered. These included carpooling, use of mass transit, and elimination of parking for governmental employees. All of these alternative programs were rejected primarily because the project would replace on-surface parking which eventually will be phased out and converted to open space. The termination of parking areas for governmental employees was considered to be a drastic move and would create significant problems for those employees not able to utilize mass transit or carpools. Additionally, there is a need to provide some employee parking as it relates to their work (use of automobiles for business). Carpooling is given priority in the issuance of parking permits and, therefore, encouraged. Lastly, while mass transit is available on King and Beretania Street, it would be unrealistic to utilize that mode of transportation as the sole source of getting to and from work for all or most State employees.

Finally, the alternative of not building the garage exists. If the garage is not built and the existing parking areas remain, the likely results would be: (1) the total landscaping of the property (since it is owned by the State), (2) the retention of the existing parking lots (which this project would have eventually replaced), and (3) the revisions of State Capital Complex master plan.

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

The proposed action is expected to enhance the long-term productivity of the State Capital Complex. The property on which the site is located is owned by the State, consequently, the property is not expected to affect land value or revenue.

The present existing usage of the site is open space, ground level parking area, and vacant commercial and residential structures. The use of this site for a parking structure and landscaped open space area has been planned for several years and is consistent with the State Capital Complex master plan.
The parking garage will benefit the State in the following ways:

1. it will consolidate several State ground level parking areas now scattered between King Street and Vineyard Boulevard,

2. once consolidation has occurred, these parking areas can be phased out, releasing these lands for other uses consistent with the State Capital Complex master plan (Figure 4); and

3. the project includes considerable landscaping and open space which will enhance the appearance of the project site.

The proposed action will be a positive step to implement the State Capital Complex master plan and fulfill its goal of providing an attractive, and functional environment from which State and County government can provide central administrative and legislative services.

VII. MITIGATION MEASURES PROPOSED TO MINIMIZE IMPACT

The State Department of Accounting and General Services has incorporated environmental protection measures into the construction plans for each project. These standard mitigation measures are provided in Appendix B.

In addition to these mitigation measures (which are primarily for the short-term construction impacts), the design criteria for the State Capital Complex master plan and the Capital District Ordinance (Ordinance No. 77-60), provide specific guidelines for the construction, height, visual impact, landscaping, and open space percentages for the proposed site. Landscaping and open space requirements will be complied with to enhance the appearance of this structure.

The proposed construction must comply with the applicable State and County standards, statutes, rules and regulations, ordinances, and codes relating to environmental protection, construction, and safety.
During the preparation of the technical studies for the Environmental Impact Statement, various mitigative measures relating to noise and air were provided by the respective consultants. These mitigative measures are identified below. The implementation of these measures will be given serious consideration; those indicated by an asterisk have been incorporated into the project plan.

Air Quality:

* (1) State of Hawaii Department of Health Rules and Regulations (Chapter 43, Section 10) stipulate control measures that are to be employed to reduce this type of emission. Primary control consists of frequent wetting-down of loose soil areas with water, oil, or suitable chemicals. An effective watering program can reduce particulate emissions from construction sites by as much as 50 percent. Other control measures include good housekeeping on the job site and possibly, erection of dust-catching barriers if nearly local residents are being subjected to suspended particulate levels more than 150 micrograms per cubic meter above existing background levels (as measured on a 12-hour basis).

(2) Project planners can do little to decrease emission rates from individual vehicles. These reductions will depend on Federally-mandated controls on new vehicle emissions. These controls become more stringent with each model year. If the State of Hawaii were to initiate a mandatory vehicle emissions inspection program, there would be some pressure on vehicle owners to maintain their vehicles in such a way that the lowered emission rates could be sustained over the years, but at present no such system exists.

(3) Project planners could insure that fewer total vehicles would be operating in the Vineyard Street area by decreasing the available parking in the garage. Garage emissions would be reduced if A/C equipment is installed simply because the number of available parking spaces would decrease. This could reduce emissions. Since this garage is being designed to replace 556
existing parking spaces elsewhere in the State Capital area, there is probably little to be gained by planning for a garage any smaller than this one.

(4) Certain alterations to the roadway configuration are already planned. By closing Vineyard Street to through traffic, garage traffic will be able to enter and leave the garage without stopping. Dual access should also aid in preventing bottlenecks at garage entrance/exit areas. Traffic flow could be further facilitated by prohibiting left turns from Vineyard Street onto either Punchbowl, Miller, or Queen Emma Streets. An unrestricted right turn lane onto Queen Emma Street might also speed vehicle flow out of the area during the afternoon peak hour period.

(5) Air pollutant concentrations resulting from garage traffic emissions could be mitigated by the installation of an effective ventilation system within the garage. It is most important to quickly dilute or remove emissions generated on the first floor of the planned garage. From an ambient air pollution standpoint, natural ventilation should be sufficient to insure that ambient air quality standards are not violated by emissions from higher floors, but on a calm day users of the garage could be subjected to unacceptably high levels of indoor carbon monoxide if no form of mechanical ventilation is provided.

(6) In this same vein, it would be constructive to prohibit smoking within the garage area.

(7) Surround both the garage and nearby potential receptors with dense vegetation can significantly reduce ambient carbon monoxide and particulate concentrations. Landscaping of this nature is already indicated on the preliminary site plan (Figure 5), but it is equally important that plants selected are quick growing and hardy so that their mitigative effects can commence as soon as possible.
Finally, vehicular emissions estimates contained in this study do not take into consideration the distinct possibility that future gasoline shortages may encourage reduced vehicle use and stimulate automotive technology to proceed in new directions. Increased research could result in now-unknown propulsion systems which create few or none of the air pollutants that are presently of concern.

Noise:

The following mitigative measures are recommended during the construction period:

1) Reciprocating engines with deflection or inadequate (less than 20 dB insertion loss) mufflers should be discouraged from use on the job site.

2) The project will adhere to the State Public Health Regulations, Chapter 44B, which restricts noise through design aspects of the parking structure, and during the construction period.

3) Use of construction equipment which meet the General Services Administration noise emission limits should be encouraged when they are locally available.

4) Stationary construction equipment with noise levels in excess of 80 dB (at 50 feet distance) should be located at the northeast corner of the Historic Precinct Open Area if possible.

5) Concrete mixer trucks should avoid conducting unloading operations on Vineyard Street, and should use the Historic Precinct open space if possible.

Mitigative measures in the design of the garage to reduce tire squeal include:
(6) In order to minimize the risks of complaints resulting from tire squeal noise, high speed cornering (in excess of 10 MPH) should be discouraged by controlling the width and turning radius of the cornering rights-of-way in the circulation paths and/or by the introduction of speed bumps.

(7) The use of two-way circulation paths would also contribute towards reducing speeds.

(8) Rough textured surfaces (coarse brush finish) should be used throughout the vehicular circulation paths to prevent tire squeal generation at low speeds.

(9) Circular down ramps should be avoided if possible.

(10) If these design features are not adequate for control of vehicle speeds, or if excessively noisy vehicles use the garage on a regular basis, administrative controls could also be implemented to minimize the risks of noise complaints from the neighboring apartments.

(11) Noise from vehicle start-up should be minimized should noise from this source be excessive.

VIII. ANY IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES 
(THAT WOULD BE INVOLVED IN THE PROPOSED ACTION 
SHOULD IT BE IMPLEMENTED)

It is anticipated that the construction of the proposed parking garage will utilize construction materials and human resources in form of planning, designing, landscaping, construction labor, and maintenance. Some of the construction materials could be reused when the garage is demolished. However, at the present time and state of our economy, reuse of these materials would be restricted. The human resources consumed to implement this project will not be retrievable, but can be compensated.
There are no extractable economic resources on the project site.
Use of the land for the garage will commit the land for this use over a long-term period. The lifetime of the garage structure is expected to be 40+ years.

IX. AN INDICATION OF WHAT OTHER CONSIDERATIONS OF GOVERNMENTAL POLICIES ARE THOUGHT TO OFFSET THE ADVERSE ENVIRONMENTAL EFFECTS OF THE PROPOSED ACTION

The proposed garage structure will be consistent with the State Capital Complex master plan and the Capital District Ordinance. There are no probable significant long-term adverse effects which will be caused by the proposed project.

X. ORGANIZATIONS AND PERSONS CONSULTED AND THE REPRODUCTION OF COMMENTS AND RESPONSES MADE DURING THE CONSULTATION PERIOD

Table 6, identifies the agencies contacted, agencies providing comments, and responses sent to agencies from the Department of Accounting and General Services during the Consultation Period. Copies of the comments and responses are provided (in reduced form) after Table 6.

The "EIS Preparation Notice for Vineyard Street Garage," was filed with the Environmental Quality Commission on August 4, 1977. The Notice was sent to twenty four (24) agencies for comments. Of those agencies receiving a copy of the EIS Preparation Notice fifteen (15) provided written responses. Twelve (12) agencies provided comments which required responses, three (3) agencies had no comments to offer at that time. Written letters responding to the agencies commenting were sent out by the Department of Accounting and General Services in September, 1979.
### Table 6. List of Agencies Responding to the EIS Preparation Notice

<table>
<thead>
<tr>
<th>Agencies Consulted</th>
<th>No Response</th>
<th>No Comments</th>
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<th>DAGS Response</th>
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<tr>
<td>Gasco, Inc.</td>
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</table>

* Page on which the comments/response is reproduced in the EIS.
* Requested consulting party status (see page 68).
State Department of Accounting and General Services
Public Works Division
P. O. Box 119
Honolulu, Hawaii 96810

Gentlemen:

It is our understanding that your office will be preparing an Environmental Impact Statement on a proposed parking structure that will be located on Vineyard Street in downtown Honolulu.

We would appreciate receiving a copy of the draft EIS to see what impacts, if any, the parking structure may have on air quality and noise that may affect a HUD housing project nearby.

Sincerely,

Alvin K. K. Pang
Director

August 24, 1977

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

Dear Mr. Nurekami:

Subject: Consultation for EIS for Vineyard Street Garage - (P)1707.7

We have reviewed the EIS Preparation Notice for the proposed State garage and have the following comments.

1. There is an existing 8-inch sewer on Vineyard Street between Queen Emma Street and Punchbowl Street. If the Punchbowl Street portion of Vineyard Street will be closed as indicated on Figure 1, the sewer line will still have to be maintained.

2. The proposed project is located within the Hawaii Capitol District, Ordinance No. 77-60. If street closure is contemplated, approval of such action shall be preceded by issuance of a certificate of appropriateness in accordance with Section 21-1204 and 21-1205 of the Comprehensive Zoning Code. In addition, City Council's approval is required for street closure.

3. A certificate of appropriateness will be required before grading or stockpiling can begin in compliance with the requirements of Section 21-1204 and 21-1205 of Article 12, CEC.
4. Although no drainage facilities are located on Vineyard Street between Queen Emma Street and Punchbowl Street, there is no known record of severe flooding in the affected area.

Very truly yours,

[Signature]

cc: Div. of Sewers
Div. of Engineering

Mr. Wallace Miyahira
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Miyahira:

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage
Ref. No. ENV 77-442

Thank you for your letter of August 24, 1977, regarding the above-referenced EIS Preparation Notice. We are now in the process of preparing the EIS for the proposed project and will note your Department's comments in the EIS document.

Very truly yours,

[Signature]

HIDEO MURAKAMI
State Comptroller
August 26, 1977

Mr. Hideto Murakami, State Comptroller
Department of Accounting
and General Services
Post Office Box 119
Honolulu, Hawaii 96810

Dear Mr. Murakami:

Subject: Environmental Impact Statement for Vineyard Street Garage

Gasco, Inc., has no comments on the proposed Vineyard Street Garage.

Very truly yours,

Francis T. Tanaka
Manager, Environmental Affairs

August 29, 1977

Mr. Walter Kagawa
Public Works Division
Dept. of Accounting & General Services
P. O. Box 119
Honolulu, Hawaii 96810

Dear Mr. Kagawa:

Subject: Vineyard Street Garage EIS

This is in response to a letter from Mr. Murakami dated August 15, 1977 requesting comments on subject project.

Hawaiian Electric circuits along Vineyard (a 4 kv overhead circuit, and a 12 kv underground circuit) would appear to be involved as a consequence of the proposed project. Accordingly, the EIS should address the requisite work, if any, required to relocate these circuits.

Of course, the costs of relocating the facilities must be borne by the State, and adequate planning will be required to incorporate the needed changes into the plans for the area.

A parking garage is normally a relatively small electrical load and accordingly, we see no significant problem in providing the required service.

Very truly yours,

[Signature]

REB:cal

LAYOUT OF POWER METER

[Documentation]

THIS IS RECYCLED PAPER
Mr. Richard E. Bell  
Hawaiian Electric Company  
P. O. Box 2750  
Honolulu, Hawaii 96840

Dear Mr. Bell:

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage

Thank you for your letter of August 29, 1977, on the above-mentioned EIS Preparation Notice.

Please be assured the disposition of the overhead and underground circuits will be discussed in the EIS and the relocation work, if required, will be coordinated with your office.

Thank you for your concerns.

Very truly yours,

Mideo Kurakami  
State Comptroller

---

Mr. Mideo Kurakami, Comptroller  
Department of Accounting and General Services  
State of Hawaii  
1151 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Mr. Kurakami:

Vineyard Street Garage  
EIS Preparation Notice

Thank you for informing us of your intentions to prepare an environmental impact statement (EIS) for the proposed project. We will be glad to examine the EIS when details of the impacts involved in the proposal are fully described and made available for review.

Sincerely,

Ramon Duran  
Acting Chief Planning Officer

BD: int
The Honorable Hideo Murakami  
State Controller  
Department of Accounting and  
General Services  
State of Hawaii  
Honolulu, Hawaii

Dear Mr. Murakami:

Subject: Environmental Impact Statement Preparation Notice  
for the Vineyard Street Garage

We have reviewed the subject EIS preparation notice and find that it  
seems to have adequately identified the major environmental impacts which  
can be anticipated to result from the proposed project.

We have no further comments to offer at this time but appreciate the  
opportunity to review and comment on this matter.

Sincerely,

HIDEO KUNO

RECEIVED  
August 30, 1977

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF LAND MANAGEMENT  
HONOLULU, HAWAII 96810

August 30, 1977

YOUR: (P) 1707.7

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

Dear Mr. Murakami:

We have reviewed the EIS preparation notice for the  
Vineyard Street Garage.

We suggest the statement cover the impact on old trees  
in the area.

It's recommended that the Old Vineyard Street Residents  
Association be included in the community groups consulted.  
We also suggest consulting with the Special Assistant for  
Housing of the Governor's Office.

It occurs to us that this may not be a good site for a  
garage unless exit design is carefully worked out.

Very truly yours,

W. Y. THOMPSON  
Chairman of the Board

cc: Division of Land Management
Honorable Susumu Ono  
Chairman  
Department of Land and Natural Resources  
P. O. Box 621  
Honolulu, Hawaii 96809  

Dear Mr. Ono:  

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage  

Thank you for your comments of August 30, 1977, on the above-mentioned EIS Preparation Notice. We are now in the process of preparing the EIS and will include Old Vineyard Street Residents Association in the list of agencies and organizations receiving the EIS. We would like to note that the residents formerly living on the proposed site have been relocated to the new housing development.  

The existing trees will be identified and, wherever possible, specimen (mature) trees will remain.

Very truly yours,  

HIDEO MURAKAMI  
State Comptroller
Dr. James S. Kumagai  
Deputy Director  
for Environmental Health  
Department of Health  
P. O. Box 3378  
Honolulu, Hawaii 96801

Dear Dr. Kumagai:

Subject: EIS Preparation Notice for the Proposed  
Vineyard Street Garage  
Ref. No. EPHS-SS

Thank you for your comments of August 30, 1977, on the  
above-referenced EIS Preparation Notice. At this time, we  
are in the process of preparing the EIS document and will  
address your concerns on air quality in said document. An  
air quality study is being prepared to determine the impact  
of the proposed project on the ambient air quality. The  
summary and conclusions of the study will be incorporated  
into the EIS.

Thank you for your concern in this regard.

Very truly yours,

[Signature]

HIDEO MURAKAMI  
State Comptroller
Mr. Kisuk Cheung
Chief, Engineering Division
Department of the Army
Honolulu District
Corps of Engineers
Building 230, Port Shafter
APO San Francisco 96558

Dear Mr. Cheung:

Subject: EIS Preparation Notice for the Vineyard Street Garage

We are now in the process of preparing the EIS for the above-mentioned project. In reviewing the concerns noted in your letter dated August 31, 1977, we would like to provide the following information:

1. The project description will include a discussion on the purpose and objective of the proposed action.

2. An air quality study and traffic impact study are being prepared and it is expected that discussion on your concerns regarding traffic circulation and aesthetics (during and after construction) will be discussed.

Thank you for your concerns.

Sincerely yours,

KISUK CHEUNG
Chief, Engineering Division

Very truly yours,

HIDEO MURAKAMI
State Comptroller
MEMORANDUM

TO: The Honorable Hideo Murakami
Department of Accounting and General Services

FROM: Franklin Y. K. Sunn, Executive Director

SUBJECT: Consultation for Environmental Impact Statement for Vineyard Street Garage

The Hawaii Housing Authority will be assisting the Old Vineyard Street Residents’ Association (OVSKA) in the development of 32 rental units on the makai side of the parking garage site identified by TMK 2-1-15; Pur. 11. It is our understanding that DABS will permit families of the Old Vineyard Street Community to remain on the garage site until completion of the proposed housing development. The Association has agreed to move into the housing project upon completion. Therefore, the implementation of the garage improvement does not appear at this time to have a significant impact on relocation.

Franklin Y. K. Sunn
Executive Director

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P. O. Box 17907
Honolulu, Hawaii 96817

Mr. Franklin Y. K. Sunn
Executive Director
Hawaii Housing Authority
Department of Social Services
and Housing
P. O. Box 17907
Honolulu, Hawaii 96817

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage

We are now in the process of preparing the EIS for the above-mentioned project. In reviewing your agency’s comments of September 7, 1977, we would like to note that the housing project has been completed and the residents of the Old Vineyard Street Community have moved into this housing development.

Thank you for your concern in this matter.

Very truly yours,

Hideo Murakami
State Controller
Mr. Hideo Murakami, Comptroller
Department of Accounting & General Services
State of Hawaii
Honolulu, Hawaii

Dear Mr. Murakami:

EIS Preparation Notice
Vineyard Street Garage

We concur with your determination that the subject action will require an Environmental Impact Statement. We recommend that the EIS include a discussion of the following:

1. Visual impact on the Punchbowl and Hawaii Capital Districts
2. Estimated increases in CO concentrations.
3. Relationship of the proposed facility to immediately surrounding land uses.

We also suggest that you consult with Mr. William Duchok of our Urban Design Branch at 523-4252 regarding preliminary site planning.

Should you have any questions, please contact Mr. John Whalen of our staff at 523-4256.

Very truly yours,

George S. Kogikuji
Director of Land Utilization

CSMey

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

Dear Mr. Kusao:

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage
Ref. No. LUB/77-5773 (JM)

Thank you for your comments of September 7, 1977, relating to the above-referenced EIS Preparation Notice. At this time, we are in the process of preparing the EIS document. We would like to provide the following dispositions to your concerns:

1. Visual impact on the Punchbowl and Hawaii Capital Districts will be discussed in the EIS;
2. An air quality study will be prepared and carbon monoxide (CO) will be discussed; and
3. The surrounding land uses and their relationship to the proposed project will be discussed as part of the EIS.

We appreciate your concerns on these aspects of the proposed project.

Very truly yours,

Hideo Murakami
State Comptroller
Mr. Kazu Hayashida
Manager and Chief Engineer
Board of Water Supply
City and County of Honolulu
630 South Beretania Street
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage

We are responding to your agency's comments (dated September 8, 1977) with respect to the above-mentioned EIS Preparation Notice. Presently, we are in the process of preparing the EIS document and would like to note that when the working drawings are completed, they will be submitted to your agency for review and approval. Additionally, the easements will be reserved as required.

Thank you for your comments and concern.

Very truly yours,

Edward Y. Hirata
Manager and Chief Engineer

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

Dear Mr. Murakami:

SUBJECT: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR VINEYARD STREET GARAGE

Thank you for the opportunity to offer comments on the above draft EIS. I will look forward to receiving a copy of the draft document, with plans, for the proposed undertaking when it is published.

As you are aware, we are interested in how you intend to manage the 1.77 acres of the land area to be reserved for open space. Our concerns would be: are any types of program activities contemplated for the area? Who will maintain this open space and how this would relate to the "great park" concept.

Once again, thank you for this opportunity to comment on this proposed undertaking.

Sincerely,

[Signature]

For Young Su H, Director
Dear Mr. Murakami:

Subject: Consultation for Environmental Impact Statement for Vineyard Street Garage, Honolulu, Hawaii

We have reviewed the above EIS preparation notice and have no comments to offer.

Thank you for the opportunity to review this preparation notice.

Sincerely,

[signature]

Jack P. Kanai
State Conservationist
Mr. Robert Way  
Director  
Department of Transportation Services  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813  
Dear Mr. Way:

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage  
Ref. T88/77-3655

This is in regard to your letter of September 19, 1977, sent by your office on the above-mentioned EIS Preparation Notice. In response to your letter, we note that a traffic impact study is presently being prepared by our traffic consultant. The discussion on the impact on traffic, especially on Punchbowl Street, will be addressed in the traffic impact study as well as in the EIS document.

Thank you for your comments and concern.  

Very truly yours,  

HIDEO HURAMAJI  
State Comptroller

Mr. Robert Way  
Director  
Department of Transportation Services  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813  
Dear Mr. Way:

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage  
Ref. T88/77-3655

This is in regard to your letter of September 19, 1977, sent by your office on the above-mentioned EIS Preparation Notice. In response to your letter, we note that a traffic impact study is presently being prepared by our traffic consultant. The discussion on the impact on traffic, especially on Punchbowl Street, will be addressed in the traffic impact study as well as in the EIS document.

Thank you for your comments and concern.  

Very truly yours,  

HIDEO HURAMAJI  
State Comptroller

Mr. Robert Way  
Director  
Department of Transportation Services  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813  
Dear Mr. Way:

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage  
Ref. T88/77-3655

This is in regard to your letter of September 19, 1977, sent by your office on the above-mentioned EIS Preparation Notice. In response to your letter, we note that a traffic impact study is presently being prepared by our traffic consultant. The discussion on the impact on traffic, especially on Punchbowl Street, will be addressed in the traffic impact study as well as in the EIS document.

Thank you for your comments and concern.  

Very truly yours,  

HIDEO HURAMAJI  
State Comptroller

Mr. Robert Way  
Director  
Department of Transportation Services  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813  
Dear Mr. Way:

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage  
Ref. T88/77-3655

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Thank you for your comments and concern.  

Very truly yours,  

HIDEO HURAMAJI  
State Comptroller

Mr. Robert Way  
Director  
Department of Transportation Services  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813  
Dear Mr. Way:

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage  
Ref. T88/77-3655

This is in regard to your letter of September 19, 1977, sent by your office on the above-mentioned EIS Preparation Notice. In response to your letter, we note that a traffic impact study is presently being prepared by our traffic consultant. The discussion on the impact on traffic, especially on Punchbowl Street, will be addressed in the traffic impact study as well as in the EIS document.

Thank you for your comments and concern.  

Very truly yours,  

HIDEO HURAMAJI  
State Comptroller

Mr. Robert Way  
Director  
Department of Transportation Services  
City and County of Honolulu  
650 South King Street  
Honolulu, Hawaii 96813  
Dear Mr. Way:

Subject: EIS Preparation Notice for the Proposed Vineyard Street Garage  
Ref. T88/77-3655

This is in regard to your letter of September 19, 1977, sent by your office on the above-mentioned EIS Preparation Notice. In response to your letter, we note that a traffic impact study is presently being prepared by our traffic consultant. The discussion on the impact on traffic, especially on Punchbowl Street, will be addressed in the traffic impact study as well as in the EIS document.

Thank you for your comments and concern.  

Very truly yours,  

HIDEO HURAMAJI  
State Comptroller
Honorables Mr. Higashionna
Director
Department of Transportation
669 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Higashionna:

Subject: EIS Preparation Notice for the Proposed
Vineyard Street Garage
Ref. STP 8-4464

Thank you for your comments of September 19, 1977, on
the above-mentioned EIS Preparation Notice. Please be assured
that your concerns relating to existing and changed travel
patterns within the affected State Capitol parking areas will
be discussed in the EIS. Mitigative measures will be proposed
and made available for your staff review to insure compliance
with applicable code requirements. A traffic consultant has
been retained to prepare a traffic impact study for the
proposed project and these items will be discussed in this
report.

Very truly yours,

HIDEO MURAMOTO
State Comptroller
Mr. Walter Kagawa  
State Department of Accounting and General Services  
P.O. Box 110  
Honolulu, Hawaii 96810

Dear Mr. Kagawa:

Subject: Makai Parking Garage, State Capitol Complex

In participating in the consultation phase of EIS preparation, we normally review the EIS Preparation Notice and any supplementary information provided and then offer suggestions as to how the air quality impact of the proposed project might be analyzed.

In this particular case we would recommend that as a minimum the screening procedure presented in the following EPA publication be followed. If the screening indicates possible violations of State or Federal ambient air quality standards, then a more detailed modeling of the impact should be conducted.

Guidelines for Air Quality Maintenance Planning and Analysis, Volume 9: Evaluating Indirect Sources  
EPA-450/4-75-001

Special attention should be paid to quantifying emissions from the garage itself and then estimating downwind concentrations at nearby receptor locations. One-hour and 3-hour concentration estimates can be compared with State and Federal standards. Also, effects on local air quality along the principal access streets (Punchbowl and Hailewai) to the garage due to changes in traffic volume and queuing at entrance/exit gates should also be included in the overall assessment of impact.

If we may be of any further assistance in assessing the air quality impact, please do not hesitate to contact us.

Sincerely yours,

James W. Morrow  
Director  
Environmental Health

cc: Dr. Richard E. Harland
XI. EIS REVIEW PERIOD - REVIEWING AGENCIES’ COMMENTS AND RESPONSES TO COMMENTS RECEIVED

The EIS was distributed to a total of thirty seven (37) agencies, see pages 70-73, by the State Environmental Quality Commission. The review period was between December 8, 1979 and January 7, 1980. As of January 11, 1980, twenty three (23) agencies provided responses to the EIS, copies of these letters are provided in this section. After each comment, the written response sent back to the agency by the Department of Accounting and General Services is provided. Those agencies indicated by an asterisk (*) did not provide any comments, therefore, no response were made to these agencies.

The agencies commenting, with the date of their comments in parentheses and the pages on which the copies appear are provided below.

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<th>AGENCIES</th>
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December 4, 1979

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

Dear Mr. Murakami:

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED VINEYARD STREET GARAGE PROJECT

The EIS will officially be received by the EQC on December 5, 1979. We have sent copies of the Statement to the agencies, libraries, and organizations indicated on the attached distribution list.

Availability of the EIS will be published in the December 8, 1979, EQC Bulletin. To allow for a 30-day public review period, the deadline date for comments is January 7, 1980. We have requested that all written comments be directed to the Office of Environmental Quality Control, with a copy to the Department of Accounting and General Services.

Feel free to contact me should you have any questions regarding this matter.

Sincerely,

Ken Takahashi  
Executive Secretary

Attachment

cc: OEQC (w/attachment)  
/Environmental Communications, Inc. (w/attachment)
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December 12, 1979

Mr. Richard L. O'Connell, Director
Office of Environmental Quality Control
550 Hakekaniwila Street, Suite 301
Honolulu, Hawaii 96813

Dear Mr. O'Connell:


We offer the following comments.

Vineyard Street Abandonment

Vineyard Street abandonment on the makai side of the proposed structure is indicated (pp. vii and 17). A reviewer's first reaction to this might be questions as to ownership of the street and procedures for abandonment.

It should be pointed out that the street abandonment is consistent with the adopted Development Plan for the area under the old Charter (Ordinance 3217, July 5, 1968). Following City procedures for street abandonment, the City deeded the property to the State on May 9, 1979. The State is subsequently working consolidation of the entire project site as indicated in the EIS (p. 17).

Access to Parking Structure

Access to the proposed parking structure will be provided from Vineyard Street from both Ewa and Koko Head directions. It is indicated that "traffic flow could be further facilitated by prohibiting left turns from Vineyard Street onto either Punchbowl, Miller, or Queen Emma Streets. An unrestricted right turn lane onto Queen Emma Street might also speed vehicle flow out of the area during the afternoon peak period" (p. 48).
Mr. George S. Morishita
Director
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Morishita:

Subject: Environmental Impact Statement for Proposed Vineyard Street Parking Garage  
D.A.G.S. Job No. 02-10-2180

Your response of December 12, 1979, to the above-mentioned IS has been reviewed by my staff and project consultants. Information on the street abandonment procedures will be included in the Revised EIS. Regarding the access to the parking structure, we would like to provide the following information:

1. Left turns from Vineyard Street to Punchbowl, Miller and Queen Emma Streets. Left turns into Punchbowl Street from Vineyard Street will be prohibited, providing the appropriate agencies concur with this recommendation. Upon completion and use of the parking structure, left turns into Vineyard Street from Punchbowl Street will be observed to determine the extent of congestion. Should congestion occur, we will work with the appropriate City agency to install restricted turn movements on these streets.

2. A direct entrance into the parking structure from Vineyard Boulevard was considered during the initial planning stages of the project. The Highways Division of the State Department of Transportation felt that this entrance from

Vineyard Boulevard would be too close to the major Punchbowl-Vineyard intersection; consequently, that consideration was ruled out.

We appreciate your concern on these matters.

Very truly yours,

Mr. George S. Morishita
Director
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

cc: EOC
EOQC

Geo. Horiguchi
Director
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Subject: Environmental Impact Statement for Proposed Vineyard Street Parking Garage  
D.A.G.S. Job No. 02-10-2180

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We appreciate your concern on these matters.

Very truly yours,

Mr. George S. Morishita
Director
Department of General Planning
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

cc: EOC
EOQC
DEPARTMENT OF PUBLIC WORKS
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
(HONOLULU, HAWAII 96813)

December 13, 1979

Office of Environmental Quality Control
State of Hawaii
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: EIS for the Proposed Vineyard Street Parking Garage Project, Honolulu, Hawaii

We have reviewed the subject EIS and have the following comments.

1. The City Council's approval is required for the street closure of Vineyard Street.

2. Are there egress and ingress for that lot makai of Vineyard Street which is not proposed to be developed at this time? Will the lot require sewer service in the future?

3. As stated in our letter of August 24, 1977, the sewer line on Vineyard Street will still be required. No trees should be planted over it. Also, all unneeded sewer line(s) and lateral(s) should be properly disposed of and/or plugged.

4. There are no storm drains on Vineyard Street. What is the quantity (design Q) of the stormwater flow and how will it be disposed of?

Very truly yours,

WALLACE MIYAHIRA
Director and Chief Engineer

cc: Div. of Engineering (Drainage Section)
Div. of Wastewater Management (Public Service Section)

Mr. Wallace Miyahira
Director and Chief Engineer
Department of Public Works
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Miyahira:

Subject: Environmental Impact Statement for Proposed Vineyard Street Parking Garage
D.A.G.S. Job No. 02-10-2160

We have received and reviewed your comments of December 13, 1979, on the above-mentioned EIS. A response to these comments is provided below:

1. Explanation on the procedures for the abandonment of Vineyard Street will be included on Page 43 of the Revised EIS.

2. No egress/ingress for the lot makai of Vineyard Street is planned. This area will be landscaped as shown on Figure 5, Page 7, of the EIS.

Sewer service in form of one water closet may be needed for the makai lot. This would be necessary should a small caretaker building be built on that lot.

3. Easements for utility lines will be provided as required. When detailed design drawings are completed, all involved utility agencies will be contacted so that final agreements on these utilities (e.g., location, cost) can be reached. The unneeded sewer lines will be properly disposed of as required.

4. The surface runoff will be collected by on-site catch basins and funneled into the drainage.
facilities along Punchbowl Street. On-site and off-site drainage facilities for the proposed project will be coordinated with your department. Thank you for your response. We appreciate your concern in this matter.

Very truly yours,

HIROKO MURAKAMI
State Comptroller

cc: EQC
OPQC

December 17, 1979

Mr. Donald A. Bremner, Chairman
Environmental Quality Control
550 Malekaawila Street
Honolulu, Hawaii 96813

Dear Mr. Bremner:

SUBJECT: PROPOSED VINEYARD STREET PARKING GARAGE

We have no comments to render relative to the EIS for the proposed Vineyard Street parking structure.

Warm regards.

Sincerely,

RAHN DURAN, Director

RD:1s
December 18, 1979

Mr. Richard L. O'Connell
Director
Office of Environmental Quality Control
550 Halekaunui Street
Honolulu, Hawaii 96813

Dear Mr. O'Connell:

Subject: Proposed Vineyard Street Parking Garage Project

We do not have any comments to add to our letter on page 63 of the environmental impact statement.

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

Very truly yours,

KAZU HAYASHIHA
Manager and Chief Engineer

December 19, 1979

Office of Environmental Quality Control
550 Halekaunui Street
Honolulu, Hawaii 96813

Gentlemen:

Subject: Proposed Vineyard Street Parking Garage Project

We have reviewed the E.I.S. relating to the proposed parking structure and have no comments to offer.

Thank you for the opportunity to review this E.I.S.

Very truly yours,

HOWARD M. SHIHA
Director and Building Superintendent

AF:jo
cc: J. Harada
State Dept. of Accounting
& General Services
Environmental Quality Commission
550 Nalekauwila Street, Room 301
Honolulu, Hawaii 96813

December 28, 1979

Gentlemen:

Subject: Proposed Vineyard Street Parking Garage Project Environmental Impact Statement

We have reviewed the Environmental Impact Statement for the Proposed Vineyard Street Parking Garage Project and have no comment.

Thank you for forwarding the statement for our review.

Very truly yours,

Barry Chung

cc: Office of Environmental Quality Control
Department of Accounting and General Services
Department of Public Works

Office of Environmental Quality Control
550 Nalekauwila Street
Honolulu, Hawaii 96813

January 7, 1980

Gentlemen:

Subject: Proposed Vineyard Street Parking Garage Project Environmental Impact Statement

We have reviewed the Environmental Impact Statement and present the following comments:

1. The word "eventually" as stated on page 4 in reference to phasing out of the 556 parking spaces is too weak. It does not provide any guarantee that these stalls will be phased out.

2. A copy of this Environmental Impact Statement should be sent to the State Energy Office for information to the Transportation Committee, Hawaii Energy Conservation Council.

We thank you for providing us this opportunity to review and comment on the project.

Very truly yours,

Akira Fujita
Acting Director

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

Dear Mr. Fujita:

Subject: Environmental Impact Statement for Proposed Vineyard Street Parking Garage  
D.A.G.S. Job No. 02-10-2180

Thank you for your response of January 7, 1980, on the above-mentioned EIS. We have reviewed your concerns and would like to provide the following dispositions:

1. The intent of the proposed action is to replace parking spaces which will be eventually phased out. The timing and specific number of spaces to be phased out will be determined based on (1) need, (2) availability of comparable parking spaces, and (3) land development of those existing parking areas.

2. A copy of the EIS will be sent to the State Energy Office-Transportation Committee, Energy Conservation Council, for their information.

Very truly yours,

[Signature]

State Comptroller  

December 11, 1980

To: Environmental Quality Control  
Office of the Governor

Subject: Proposed Vineyard Street Parking Garage Project

The Department of Agriculture has no comments regarding the above applicant.

Enclosed herewith, please find the EIS for the subject project.

Thank you for the opportunity to comment.

[Signature]

Secretary, Board of Agriculture

Enclosure

[CC: EDC, OFQC]
Mr. Richard O'Connell
Office of Environmental Quality Control
550 Halekauwila Street
Room 301
Honolulu, Hawaii 96813

Dear Mr. O'Connell:

Draft Environmental Impact Statement
Vineyard Street Parking Garage Project
Honolulu, Hawaii

The Environmental Center has reviewed the above cited DEIS. We have found the DEIS adequate in addressing the possible environmental impacts for the proposed parking structure. We have no further comments to offer at this time.

Thank you for providing us with the opportunity to review this document.

Yours very truly,

Duck C. Cox
Director

December 12, 1979
RE:0294

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

DEPARTMENT OF DEFENSE
OFFICE OF THE ATTORNEY GENERAL
3245 Diamond Head Road
Honolulu, Hawaii 96816

OFFICE OF ENVIRONMENTAL QUALITY CONTROL (FOR COV)
550 Halekauwila Street
Honolulu, Hawaii 96813

Vineyard Street Parking Garage Project

Thank you for sending us a copy of the "Vineyard Street Parking Garage Project" Environmental Impact Statement. We have no comments to offer at this time. The attached document is returned for your use.

Sincerely,

Wayne R. Toyoyasu
Major, CE, HEO
Chief Engr Officer

Enclosure

cc: Department of Accounting
    and General Services

cc: Hilde Marakami, DARGS
    Barbara Vogt

AN EQUAL OPPORTUNITY EMPLOYER
Mr. Richard L. O'Connell
Director
Office of Environmental Quality
Control
550 Halekauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. O’Connell:

Subject: Environmental Impact Statement, Vineyard Street Parking Garage Project, Honolulu, Hawaii

We have reviewed the subject EIS and find that it has adequately assessed the major environmental impacts which can be anticipated from the implementation of this project.

Thank you for the opportunity to review and comment upon this document.

Sincerely,

Hideto Kono

Enclosure

cc: Hiden Hara, State Comptroller
    Department of Accounting and General Services
To: Department of Accounting and General Services  
From: Deputy Director for Environmental Health  
Subject: Environmental Impact Statement (EIS) for the Proposed Vineyard Street Parking Garage Project

Thank you for allowing us to review and comment on the subject EIS. On the basis that the project will comply with all applicable Public Health Regulations, please be informed that we have no objections to this project.

We submit the following comments for your information:

1. We concur with the applicant’s recognition that tire squeal noise will be audible to neighboring residents and may generate complaints and the mitigative measures in the design of the garage to reduce tire squeals, reference to page 50, Items 6 - 10. In addition, consideration should be directed toward the reduction of noise from vehicles, such as vehicle start-up.

2. The provisions of Public Health Regulations, Chapter 44B, Community Noise Control for Oahu, must be considered in the design of the parking garage. Equipment noise, such as air conditioning/ventilation units, must be attenuated to meet the allowable levels of the regulation based on zoning districts.

3. To Appendix B, Section 10B, Environmental Protection, Subsection 3, Noise, supplement with Item C. "The contractor must comply with the conditional use of permit as specified in the regulations and the conditions of the permit."

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

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

cc: Office of Environmental Quality Control
Dr. James S. Kumagai
Deputy Director
Department of Health
P. O. Box 3378
Honolulu, Hawaii 96801

Attention: Mr. Brian Choy

Subject: Environmental Impact Statement for
Proposed Vineyard Street Parking Garage
D.A.G.S. Job No. 02-10-2180

We have received your comments of December 21, 1979, on the above-captioned EIS and would like to provide the following responses:

1. Vehicle start-up will be included in considering mitigative measures for noise.

2. This information will be included in the Revised EIS (Page 49).

3. The project consultants have indicated that this provision will be included in the project specifications.

4. This information is included on Page 49 of the EIS.

Your concern on these matters is appreciated.

Very truly yours,

Dr. James S. Kumagai
Deputy Director

Office of Environmental Quality Control
550 Maileauila St., Room 301
Honolulu, Hawaii 96813

Gentlemen:

Subject: Environmental Impact Statement
Vineyard Street Parking Garage Project

Thank you for giving us the opportunity to review and comment on the above-captioned Statement. We have no substantive comments to offer which could improve the document other than to express a concern that the exit to Queen Emma Street will be troublesome during the p.m. peak.

Very truly yours,

Ryokichi Higasihana
Director of Transportation

cc: EQC
OEOQ
MEMORANDUM

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

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

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT FOR
   VINEYARD STREET PARKING GARAGE PROJECT

January 7, 1980

We have reviewed the subject EIS and offer the following
comments for your consideration:

Traffic Impacts, Page 42-43

How will the closing of Vineyard Street to through traffic affect traffic conditions on surrounding streets? A more complete discussion should be included in the revised EIS. What is the present daily traffic volume on Vineyard Street? Will the adjacent road systems be able to absorb this additional traffic volume when movement on Vineyard Street is restricted?

There are enclosed a list of commenting agencies and organizations and copies of those comments addressed to this Office.

The EIS regulations allow the accepting authority to consider responses received beyond the fourteen day response period. We intend to consider such responses to comments on this EIS.

We thank you for the opportunity to review the subject EIS and look forward to the revised statement.

Enclosures

LIST OF COMMENTING AGENCIES

FEDERAL

*U.S. Army Engineer, District Honolulu
December 27, 1979
*Headquarters, Naval Base Pearl Harbor
December 26, 1979
*Soil Conservation Service
December 13, 1979
*U.S. Fish and Wildlife Service
December 17, 1979
*Headquarters, U.S. Army Support Command, Hawaii
December 14, 1979

STATE

*Dept. of Health
December 21, 1979
*Dept. of Land and Natural Resources
December 18, 1979
*Dept. of Planning and Economic Development
December 17, 1979
*University of Hawaii, Environmental Center
December 11, 1979
*Dept. of Agriculture
December 11, 1979
*Dept. of Defense
December 11, 1979

COUNTY

*Dept. of Parks and Recreation
December 17, 1979
*Board of Water Supply
December 18, 1979
*Building Department
December 19, 1979
*Dept. of Land Utilization
December 17, 1979
*Dept. of Public Works
December 13, 1979
*Dept. of General Planning
December 12, 1979

PRIVATE

*Hawaiian Electric Company, Inc.
December 17, 1979

*Denotes comment forwarded directly to HAGS.
Mr. Richard L. O’Connell
Director, Office of Environmental Quality Control
550 Halauwila Street, Room 301
Honolulu, Hawaii 96813

Dear Mr. O’Connell:

Subject: Environmental Impact Statement for Proposed Vineyard Street Parking Garage
D.A.G.S. Job No. 02-10-2180

We have reviewed your comments on traffic impact and specifically the need to address the dead-ending of Vineyard Street. In order to provide the information in the Revised EIS, we will provide the following new section in the Revised EIS:

Impact on Dead-ending Vineyard Street. Vineyard Street will not be closed. It will be dead-ended at the entrance/exit of the proposed parking structure. This means that through traffic will be prohibited on Vineyard Street. The current average daily traffic is estimated to be approximately 1,000 cars - 80 percent of these vehicles are generated by State employees parking, or being dropped off and picked up from work. The remaining traffic is generated by business and residential users Eva of Queen Liliuokalani Building. Subsequently, vehicular traffic generated by those activities will be restricted to using Queen Emma Street. Because of the low number of vehicles involved (200 ADT), and the lower anticipated use of garage traffic on Queen Emma Street, it is not felt that the dead-ending of Vineyard Street will have a significant or adverse impact.

Thank you for your comments.

Very truly yours,

Donald A. Kamiya
State Conservator

Copy: Department of Accounting and General Services
Division of Public Works
P.O. Box 119
Honolulu, Hawaii 96810
Office of Environmental Quality Control  
State of Hawaii  
350 Halekaunui Street, Room 301  
Honolulu, Hawaii 96813

Gentlemen:

The Environmental Impact Statement (EIS) for the Proposed Vineyard  
Street Parking Garage Project, Honolulu, Hawaii, has been reviewed and  
we have no comments to offer. There are no Army installations or  
activities in the vicinity of the proposed project.

The EIS is returned in accordance with your request.

Sincerely,

PETER D. STEAMNS  
COL, EN  
Director of Engineering and Housing

Office of the Governor  
550 Halekaunui Street, Room 301  
Honolulu, Hawaii 96813

Dear Sir:

We have reviewed the referenced EIS dated November 1979.

The proposed project will have little or no adverse impact on fish and  
wildlife resources in the area, therefore we have no additional comments  
to offer.

We appreciate this opportunity to comment.

Sincerely yours,

Maurice H. Taylor  
Field Supervisor  
Division of Ecological Services

cc: NMFS  
HDFAG  
EPA, San Francisco  
Mr. Richard O'Connell, Director
Office of Environmental Quality Control
550 Holokawilina Street
Honolulu, Hawaii 96813

Dear Mr. O'Connell:

We have reviewed your "Environmental Impact Statement for the Proposed Vineyard Street Parking Garage Project, Honolulu, Hawaii" and provide the following comments:

a. There are no applicable Corps of Engineers requirements.

b. The proposed project site lies in an area of minimal flooding (Zone C) and is therefore not subject to flooding from the 100 year storm, which is an event having a one percent chance of being equaled or exceeded in any given year. Under the National Flood Insurance Program, restrictions are not placed on development in the designated area.

Thank you for allowing us to comment on this Environmental Impact Statement.

Sincerely yours,

[Signature]

Chief, Engineering Division
Mr. Kisuk Cheung  
Chief, Engineering Division  
Department of the Army  
U.S. Army Engineer District, Honolulu  
Building 320  
Fort Shafter, Hawaii 96858

Dear Mr. Cheung:

Subject: Environmental Impact Statement for Proposed Vineyard Street Parking Garage  
D.A.G.S. Job No. 02-10-2180

We have received and reviewed your response of December 27, 1979, on the above-mentioned EIS. The information provided on the designation of the project site lying in the minimal flood zone will be included in the Revised EIS. We appreciate your concern in this matter.

Very truly yours,

HIDEO MURAKAMI  
State Comptroller

cc: EQC  
OREQC

Office of Environmental Quality Control  
550 Kalakaua Street  
Honolulu, Hawaii 96813

Dear Sirs:

Subject: Environmental Impact Statement for the Proposed Vineyard Street Parking Garage Project

Several members of the staff of Hawaiian Electric Company (HECO) have reviewed the EIS for the proposed Vineyard Street Parking Garage Project and have the following comments to offer:

On page 55 of the EIS is a letter from HECO to the Division of Public Works wherein we state that utility undergrounding will probably be required and that the costs for this relocation should be borne by the State. Mention of utilities is made on pages 15 and 40 but not specifically who will bear the cost of utility relocation. We feel that the State should bear this cost and that the EIS should state this.

Yours truly,

John O. McNair

cc: Department of Accounting & General Services  
Division of Public Works
Hawaiian Electric Company, Inc.
Box 2750
Honolulu, Hawaii 96803

Attention: Mr. John McCain

Gentlemen:

Subject: Environmental Impact Statement for Proposed Vineyard Street Parking Garage
D.A.G.S. Job No. 02-10-2180

Your response of December 17, 1979, to the above-mentioned EIS has been reviewed by my staff and project consultants. We find that it is premature to commit the State at this time to fund the utility relocation. Detailed design and electrical engineering plans are not prepared, but when such plans become available, we will meet with HECO representatives in order to reach an agreement as to final electrical work and costs sharing.

Thank you for your concern in this matter.

Very truly yours,

[Signature]

CC: EOC
     OEOC

---

Mr. Richard O'Connell
Director
Office of Environmental Quality Control
550 Hakekawa Street
Honolulu, Hawaii 96813

January 7, 1980

Dear Mr. O'Connell:

Subject: Environmental Impact Statement for the Proposed Vineyard Street Parking Garage

We have reviewed the subject EIS and found that it adequately addresses the proposed project's impact on air quality.

Thank you for providing the opportunity to review this document.

Sincerely yours,

James W. Harrow, Director
Environmental Health

cc: DACS
DECEIT (Mr. Shiroma, 449-1083)

EIS for Proposed Vineyard Street Parking Garage Project

Office of Environmental Quality Control
550 Halekauuna Street
Honolulu, Hawaii 96813

1. This office has reviewed the subject EIS and has no comment to render relative to the proposed project. Attached is the copy of the EIS for your further use.

2. We greatly appreciate your cooperative efforts in keeping the Air Force apprised of your project and thank you for the opportunity to review the document.

Original signed by
NEIL E. PRINCE, Colonel, USAF
Director of Civil Engineering

1 Atch
EIS

Cy to: Dept of Accounting & General Services
Division of Public Works
P. O. Box 119
Honolulu, Hawaii 96810
(without attachment)
XII. SUMMARY OF UNRESOLVED ISSUES

At this time, there are no unresolved issues that have been raised.

XIII. LIST OF NECESSARY APPROVALS

The proposed project must obtain the following approvals/permits/certificates prior to its construction:

1. **State Environmental Impact Statement.** Any significant State project (utilizing State land or noise) is subject to the preparation of an Environmental Impact Statement. This document constitutes part of the Environmental Impact Statement process (HRS, Chapter 343). Upon review of the EIS and revision of the document (Revised EIS), the Governor can accept the document if it provides an objective evaluation of the probable impacts of the proposed project.

2. **Certificate of Appropriateness, Ordinance 77-60,** relating to the Hawaii Capital District. A Certificate of Appropriateness in accordance with Ordinance 77-60 and Article 12 of the Comprehensive Zoning Code, City and County of Honolulu, must be obtained from the Director of the Department of Land Utilization, City and County of Honolulu. As stated in Section 21-1204 (c) (1), relating to the issuance of the Certificate:

   "The Director of Land Utilization shall issue a certificate of appropriateness only if he finds that the proposal is in fact appropriate to the character, appearance, and efficient functioning of the district and meets the requirements and objectives established by City Council in creating the district."

3. Other permits related to construction rather than planning, include the **Grading Permit** and **Building Permit.**
REFERENCES


2. Ordinance No. 77-60, City and County of Honolulu, relating to the Hawaii Capital District (1976). See Appendix B.

3. Soil Survey of (the) Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii, U.S. Department of Agriculture, Soil Conservation Service in cooperation with the University of Hawaii Agricultural Experiment Station, issued August, 1972.


APPENDIX A

24-HOUR TRAFFIC VOLUMES OF STREETS ADJACENT TO VINEYARD STREET

TABLES 1 TO 7

Source: Reference 7
Table 1
24 Hour Traffic Volumes - 1979 & 1973
Punchbowl Street At S. Beretania Street

<table>
<thead>
<tr>
<th>Time</th>
<th>No. of Vehicles</th>
<th>Movement 1979</th>
<th>Movement 1973</th>
<th>Total 1979</th>
<th>Total 1973</th>
<th>Percent of 24 Hour Volume 1973</th>
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<td></td>
<td></td>
<td>1979</td>
<td>1973</td>
<td>1979</td>
<td>1973</td>
<td></td>
</tr>
<tr>
<td>4:00 - 5:00 A.M.</td>
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<td>100</td>
<td>35</td>
<td>42</td>
<td>189</td>
<td>142</td>
</tr>
<tr>
<td>5:00 - 6:00 A.M.</td>
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<td>411</td>
<td>83</td>
<td>68</td>
<td>757</td>
<td>479</td>
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<td>6:00 - 7:00 A.M.</td>
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<td>1,295</td>
<td>226</td>
<td>218</td>
<td>1,770</td>
<td>1,513</td>
</tr>
<tr>
<td>7:00 - 8:00 A.M.</td>
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<td>1,667</td>
<td>442</td>
<td>517</td>
<td>2,174</td>
<td>2,184</td>
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<tr>
<td>8:00 - 9:00 A.M.</td>
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<td>1,377</td>
<td>560</td>
<td>561</td>
<td>2,092</td>
<td>1,938</td>
</tr>
<tr>
<td>9:00 - 10:00 A.M.</td>
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<td>1,027</td>
<td>582</td>
<td>521</td>
<td>1,874</td>
<td>1,548</td>
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<td>994</td>
<td>636</td>
<td>686</td>
<td>1,919</td>
<td>1,680</td>
</tr>
<tr>
<td>11:00 - 12:00 N.</td>
<td>1,262</td>
<td>1,118</td>
<td>638</td>
<td>707</td>
<td>1,900</td>
<td>1,825</td>
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<td>651</td>
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<td>626</td>
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<td>701</td>
<td>676</td>
<td>1,871</td>
<td>1,605</td>
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<td>777</td>
<td>750</td>
<td>1,999</td>
<td>1,719</td>
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<tr>
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<td>1,086</td>
<td>713</td>
<td>805</td>
<td>1,836</td>
<td>1,891</td>
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<tr>
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<td>763</td>
<td>800</td>
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<td>1,414</td>
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<td>1,037</td>
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<td>385</td>
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<td>336</td>
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<td>343</td>
<td>507</td>
<td>526</td>
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<td>104</td>
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<td>58</td>
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<td>34</td>
<td>103</td>
<td>92</td>
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24 Hour Volume 18,083 15,453 9,683 10,004 27,766 25,457 100.00 100.00
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<th>Time</th>
<th>No. of Vehicles</th>
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<td>Movement 1</td>
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<tr>
<td>5:00 - 6:00 A.M.</td>
<td>102</td>
</tr>
<tr>
<td>6:00 - 7:00 A.M.</td>
<td>227</td>
</tr>
<tr>
<td>7:00 - 8:00 A.M.</td>
<td>373</td>
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<tr>
<td>8:00 - 9:00 A.M.</td>
<td>377</td>
</tr>
<tr>
<td>9:00 - 10:00 A.M.</td>
<td>420</td>
</tr>
<tr>
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<td>497</td>
</tr>
<tr>
<td>11:00 - 12:00 N.</td>
<td>495</td>
</tr>
<tr>
<td>12:00 - 1:00 P.M.</td>
<td>478</td>
</tr>
<tr>
<td>1:00 - 2:00 P.M.</td>
<td>508</td>
</tr>
<tr>
<td>2:00 - 3:00 P.M.</td>
<td>581</td>
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<td>3:00 - 4:00 P.M.</td>
<td>654</td>
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<tr>
<td>4:00 - 5:00 P.M.</td>
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<td>5:00 - 6:00 P.M.</td>
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<td>1:00 - 2:00 A.M.</td>
<td>105</td>
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<td>3:00 - 4:00 A.M.</td>
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<tr>
<td>24 Hour Volume</td>
<td>8,469</td>
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</table>
Table 3
24 Hour Traffic Volume - 1979
Punchbowl Street At Vineyard Boulevard

<table>
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<tr>
<th>Time</th>
<th>No. of Vehicles</th>
<th>Movement</th>
<th>Movement</th>
<th>Total</th>
<th>Percent of 24 Hour Volume</th>
</tr>
</thead>
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<td></td>
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<td>Movement 3</td>
<td>Movement 4</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td>491</td>
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</tr>
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<td>5.97</td>
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<tr>
<td>6:00 - 7:00 P.M.</td>
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<tr>
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<td>538</td>
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<tr>
<td>11:00 - 12:00 P.M.</td>
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<td>345</td>
<td>1.64</td>
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<td>3:00 - 4:00 A.M.</td>
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<td>0.30</td>
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</tbody>
</table>

24 Hour Volume 11,412 9,550 20,962 100.00
### Table 4

**24 Hour Traffic Volume - 1979**  
*S. Beretania Street AT Punchbowl Street*

<table>
<thead>
<tr>
<th>Time</th>
<th>Movement</th>
<th>Movement</th>
<th>Total</th>
<th>Percent of 24 Hour Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00 - 5:00 A.M.</td>
<td>207</td>
<td></td>
<td></td>
<td>0.47</td>
</tr>
<tr>
<td>5:00 - 6:00 A.M.</td>
<td>587</td>
<td></td>
<td></td>
<td>1.35</td>
</tr>
<tr>
<td>6:00 - 7:00 A.M.</td>
<td>1,510</td>
<td></td>
<td></td>
<td>3.47</td>
</tr>
<tr>
<td>7:00 - 8:00 A.M.</td>
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<tr>
<td>8:00 - 9:00 A.M.</td>
<td>3,220</td>
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<td>7.39</td>
</tr>
<tr>
<td>9:00 - 10:00 A.M.</td>
<td>3,002</td>
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<td></td>
<td>6.89</td>
</tr>
<tr>
<td>10:00 - 11:00 A.M.</td>
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</tr>
<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>1:00 - 2:00 P.M.</td>
<td>2,494</td>
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<td></td>
<td>5.73</td>
</tr>
<tr>
<td>2:00 - 3:00 P.M.</td>
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<tr>
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<td></td>
<td>3.57</td>
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<tr>
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<tr>
<td>8:00 - 9:00 P.M.</td>
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<tr>
<td>9:00 - 10:00 P.M.</td>
<td>1,100</td>
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<td></td>
<td>2.53</td>
</tr>
<tr>
<td>10:00 - 11:00 P.M.</td>
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<tr>
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<tr>
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<tr>
<td>1:00 - 2:00 A.M.</td>
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<tr>
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<tr>
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**24 Hour Volume**  
43,539  
100.00
Table 5
24 Hour Traffic Volumes - 1977
Kukui Street At Pali Highway

<table>
<thead>
<tr>
<th>Time</th>
<th>No. of Vehicles</th>
<th>Total</th>
<th>Percent of 24 Hour Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Movement 1</td>
<td>Movement 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00 - 5:00 A.M.</td>
<td>17</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>5:00 - 6:00 A.M.</td>
<td>49</td>
<td>13</td>
<td>62</td>
</tr>
<tr>
<td>6:00 - 7:00 A.M.</td>
<td>89</td>
<td>81</td>
<td>170</td>
</tr>
<tr>
<td>7:00 - 8:00 A.M.</td>
<td>229</td>
<td>257</td>
<td>486</td>
</tr>
<tr>
<td>8:00 - 9:00 A.M.</td>
<td>242</td>
<td>359</td>
<td>601</td>
</tr>
<tr>
<td>9:00 - 10:00 A.M.</td>
<td>242</td>
<td>214</td>
<td>456</td>
</tr>
<tr>
<td>10:00 - 11:00 A.M.</td>
<td>333</td>
<td>214</td>
<td>547</td>
</tr>
<tr>
<td>11:00 - 12:00 N.</td>
<td>441</td>
<td>177</td>
<td>618</td>
</tr>
<tr>
<td>12:00 - 1:00 P.M.</td>
<td>347</td>
<td>133</td>
<td>480</td>
</tr>
<tr>
<td>1:00 - 2:00 P.M.</td>
<td>334</td>
<td>183</td>
<td>517</td>
</tr>
<tr>
<td>2:00 - 3:00 P.M.</td>
<td>435</td>
<td>168</td>
<td>603</td>
</tr>
<tr>
<td>3:00 - 4:00 P.M.</td>
<td>667</td>
<td>164</td>
<td>831</td>
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<tr>
<td>4:00 - 5:00 P.M.</td>
<td>1,112</td>
<td>232</td>
<td>1,344</td>
</tr>
<tr>
<td>5:00 - 6:00 P.M.</td>
<td>779</td>
<td>113</td>
<td>892</td>
</tr>
<tr>
<td>6:00 - 7:00 P.M.</td>
<td>399</td>
<td>58</td>
<td>457</td>
</tr>
<tr>
<td>7:00 - 8:00 P.M.</td>
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<tr>
<td>8:00 - 9:00 P.M.</td>
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<td>51</td>
<td>278</td>
</tr>
<tr>
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<td>206</td>
<td>36</td>
<td>242</td>
</tr>
<tr>
<td>10:00 - 11:00 P.M.</td>
<td>133</td>
<td>24</td>
<td>157</td>
</tr>
<tr>
<td>11:00 - 12:00 P.M.</td>
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<td>14</td>
<td>102</td>
</tr>
<tr>
<td>12:00 - 1:00 A.M.</td>
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<td>11</td>
<td>86</td>
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<tr>
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<tr>
<td>2:00 - 3:00 A.M.</td>
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<td>25</td>
</tr>
<tr>
<td>3:00 - 4:00 A.M.</td>
<td>15</td>
<td>6</td>
<td>21</td>
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<td>24 Hour Volume</td>
<td>6,732</td>
<td>2,594</td>
<td>9,326</td>
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Table 6
24 Hour Traffic Volume - 1978
Queen Emma Street At Vineyard Boulevard

<table>
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<th>Time</th>
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<th>Movement 2</th>
<th>Total</th>
<th>Percent of 24 Hour Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00 - 5:00 A.M.</td>
<td>17</td>
<td>26</td>
<td>43</td>
<td>0.39</td>
</tr>
<tr>
<td>5:00 - 6:00 A.M.</td>
<td>42</td>
<td>108</td>
<td>150</td>
<td>1.38</td>
</tr>
<tr>
<td>6:00 - 7:00 A.M.</td>
<td>148</td>
<td>345</td>
<td>493</td>
<td>4.53</td>
</tr>
<tr>
<td>7:00 - 8:00 A.M.</td>
<td>369</td>
<td>698</td>
<td>1,067</td>
<td>9.82</td>
</tr>
<tr>
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<td>465</td>
<td>695</td>
<td>6.39</td>
</tr>
<tr>
<td>9:00 - 10:00 A.M.</td>
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<td>250</td>
<td>454</td>
<td>4.18</td>
</tr>
<tr>
<td>10:00 - 11:00 A.M.</td>
<td>265</td>
<td>247</td>
<td>512</td>
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<tr>
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<td>263</td>
<td>525</td>
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<td>12:00 - 1:00 P.M.</td>
<td>336</td>
<td>253</td>
<td>589</td>
<td>5.42</td>
</tr>
<tr>
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<td>314</td>
<td>316</td>
<td>630</td>
<td>5.79</td>
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<td>249</td>
<td>633</td>
<td>5.82</td>
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<td>3:00 - 4:00 P.M.</td>
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<td>272</td>
<td>870</td>
<td>8.00</td>
</tr>
<tr>
<td>4:00 - 5:00 P.M.</td>
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<td>318</td>
<td>1,171</td>
<td>10.77</td>
</tr>
<tr>
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<td>896</td>
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<td>613</td>
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<td>7:00 - 8:00 P.M.</td>
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<td>194</td>
<td>391</td>
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<tr>
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<td>108</td>
<td>292</td>
<td>2.69</td>
</tr>
<tr>
<td>9:00 - 10:00 P.M.</td>
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<td>97</td>
<td>318</td>
<td>2.92</td>
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<td>10:00 - 11:00 P.M.</td>
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<td>202</td>
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<tr>
<td>11:00 - 12:00 P.M.</td>
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<td>44</td>
<td>129</td>
<td>1.19</td>
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<tr>
<td>12:00 - 1:00 A.M.</td>
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<td>14</td>
<td>73</td>
<td>0.67</td>
</tr>
<tr>
<td>1:00 - 2:00 A.M.</td>
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<td>19</td>
<td>43</td>
<td>0.39</td>
</tr>
<tr>
<td>2:00 - 3:00 A.M.</td>
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<tr>
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<td>0.39</td>
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</table>
Table 7
24 Hour Traffic Volumes - 1979 & 1972
S. Beretania Street At Queen Emma Street

<table>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00 - 5:00 A.M.</td>
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<td>219</td>
<td>200</td>
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</tr>
<tr>
<td>5:00 - 6:00 A.M.</td>
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<td>293</td>
<td>586</td>
<td>586</td>
<td>1.05</td>
<td>1.34</td>
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<td>1889</td>
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<td>4.27</td>
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<td>3,955</td>
<td>3,652</td>
<td>7.65</td>
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<td>5.72</td>
</tr>
<tr>
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<td>1,286</td>
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<td>3,463</td>
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<td>5.88</td>
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<td>1,455</td>
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<td>3,489</td>
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<td>6.66</td>
</tr>
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<td>3,206</td>
<td>3,206</td>
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<td>6.64</td>
</tr>
<tr>
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</tr>
<tr>
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<td>3,121</td>
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</tr>
<tr>
<td>2:00 - 3:00 P.M.</td>
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<td>1,403</td>
<td>3,234</td>
<td>3,234</td>
<td>6.58</td>
<td>6.42</td>
</tr>
<tr>
<td>3:00 - 4:00 P.M.</td>
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<td>1,586</td>
<td>3,736</td>
<td>3,736</td>
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</tr>
<tr>
<td>4:00 - 5:00 P.M.</td>
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<td>2,098</td>
<td>4,930</td>
<td>4,930</td>
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<td>9.60</td>
</tr>
<tr>
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<td>3,238</td>
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<td>777</td>
<td>1,882</td>
<td>1,882</td>
<td>3.97</td>
<td>3.55</td>
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<td>1,597</td>
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<td>3.36</td>
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<tr>
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<td>576</td>
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</tr>
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<td>472</td>
<td>1,010</td>
<td>1,010</td>
<td>1.93</td>
<td>2.16</td>
</tr>
<tr>
<td>11:00 - 12:00 P.M.</td>
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<td>324</td>
<td>788</td>
<td>788</td>
<td>1.67</td>
<td>1.48</td>
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<tr>
<td>12:00 - 1:00 A.M.</td>
<td>305</td>
<td>253</td>
<td>558</td>
<td>558</td>
<td>1.10</td>
<td>1.16</td>
</tr>
<tr>
<td>1:00 - 2:00 A.M.</td>
<td>192</td>
<td>158</td>
<td>350</td>
<td>350</td>
<td>0.69</td>
<td>0.72</td>
</tr>
<tr>
<td>2:00 - 3:00 A.M.</td>
<td>169</td>
<td>135</td>
<td>304</td>
<td>304</td>
<td>0.61</td>
<td>0.62</td>
</tr>
<tr>
<td>3:00 - 4:00 A.M.</td>
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<td>84</td>
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<td>166</td>
<td>0.29</td>
<td>0.38</td>
</tr>
<tr>
<td>24 Hour Volume</td>
<td>27,812</td>
<td>21,856</td>
<td></td>
<td></td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>
APPENDIX B
DIVISION 1 - GENRPAL

SECTION 1B - ENVIRONMENTAL PROTECTION

The Contractor shall comply with the following requirements for pollution control in performing all construction activities:

1. RUBBISH DISPOSAL

   A. No burning of debris and/or waste materials shall be permitted on the project site.

   B. No burying of debris and/or waste materials except for materials which are specifically indicated elsewhere in these specifications as suitable for backfill shall be permitted on the project site.

   C. All unusable debris and waste materials shall be hauled away to an appropriate off-site dump area. During loading operations, debris and waste materials shall be watered down to allay dust.

   D. No dry sweeping shall be permitted in cleaning rubbish and fines which can become airborne from floors or other paved areas. Vacuuming, wet mopping or wet or damp sweeping is permissible.

   E. Enclosed chutes and/or containers shall be used for conveying debris from above to ground floor level.

   F. Cleanup shall include the collection of all waste paper and wrapping materials, cans, bottles, construction waste materials and other objectionable materials, and removal as required. Frequency of cleanup shall coincide with rubbish producing events.

2. DUST

   A. Dust shall be kept within acceptable levels at all times including non-working hours, weekends and holidays in conformance with Chapter 43 - Air Pollution Control, as amended, of the State Department of Health Public Health Regulations.

   B. The method of dust control and all costs incurred therefor shall be the responsibility of the Contractor.

   C. The Contractor shall be responsible for all damage claims in accordance with Section 7.16 - "Responsibility for Damage Claims", of the General Conditions.
3. **NOISE**

A. Noise shall be kept within acceptable levels at all times in conformance with Chapter 44B - Community Noise Control for Oahu, State Department of Health, Public Health Regulations. The Contractor shall obtain and pay for community noise permit from the State Department of Health when the construction equipment or other devices emit noise at levels exceeding the allowable limits.

B. All internal combustion engine-powered equipment shall have mufflers to minimize noise and shall be properly maintained to reduce noise to acceptable levels.

C. Pile driving operations shall be confined to the period between 9:00 a.m. and 5:30 p.m., Monday through Friday. Pile driving will not be permitted on weekends and legal State and Federal holidays.

In the event the Contractor's operations require the State's inspecional and engineering personnel to work overtime, the Contractor shall reimburse the State for the cost of such services in accordance with Section 7.9 of the General Conditions.

D. Starting up of construction equipment meeting allowable noise limits shall not be done prior to 6:45 a.m. without prior approval of the Engineer. Equipment exceeding allowable noise limits shall not be started up prior to 7:00 a.m.

4. **EROSION**

During interim grading operations the grade shall be maintained so as to preclude any damages to adjoining property from water and eroding soil. Temporary berms, cut-off ditches, and other provisions which may be required because of the Contractor's method of operation shall be installed at no cost to the State. Drainage outlets and siltation basins shall be constructed and maintained as shown on the plans to minimize erosion and pollution of waterways during construction.

5. **OTHERS**

A. Wherever trucks and/or vehicles leave the site and enter surrounding paved streets, the Contractor shall prevent any material from being carried onto the pavement. Waste water shall not be discharged into existing streams, waterways, or drainage systems such as catchers and catch basins unless treated to comply with Department of Health water pollution regulations.

B. Trucks hauling debris shall be covered as required by PUC Regulation. Trucks hauling fine materials shall be covered.
C. No dumping of waste concrete will be permitted at the job site unless otherwise permitted in the Special Provisions.

D. Except for rinsing of the hopper and delivery chute, and for wheel washing where required, concrete trucks shall not be cleaned on the job site.

E. Except in an emergency, such as a mechanical breakdown, all vehicle fueling and maintenance shall be done in a designated area. A temporary berm shall be constructed around the area when runoff can cause problems.

F. When spray painting is allowed under Section 9A - Painting, such spray painting shall be done by the 'airless spray' process. Other types of spray painting will not be allowed.

6. SUSPENSION OF WORK

Violation of any of the above requirements or any other pollution control requirements which may be specified in the Technical Specifications herein shall be cause for suspension of the work creating such violation. No additional compensation shall be due the Contractor for remedial measures to correct the offense. Also, no extension of time will be granted for delays caused by such suspensions.

If no corrective action is taken by the Contractor within 72 hours after a suspension is ordered by the Engineer, the State reserves the right to take whatever action is necessary to correct the situation and to deduct all costs incurred by the State in taking such action from monies due the Contractor.

The Engineer may also suspend any operations which he feels are creating pollution problems although they may not be in violation of the above mentioned requirements. In this instance, the work shall be done by force account as described in Subsection 4.2a "ADDITIONAL WORK" of the General Conditions and paid for in accordance with Subsection 3.4b "FORCE ACCOUNT WORK" therein. The count of elapsed working days to be charged against the contract in this situation shall be computed in accordance with Subsection 7.18 "CONTRACT TIME" of the General Conditions.