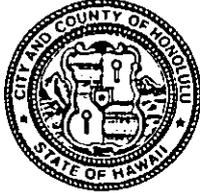


Birch St. Apart.

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 5TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4427 • FAX: (808) 527-5498

JEREMY HARRIS
MAYOR



October 7, 1997

RECEIVED ROBERT AGRES JR.
DIRECTOR

'97 OCT -9 A11:34 DARWIN J. HAMAMOTO
DEPUTY DIRECTOR

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Mr. Gary Gill, Director
Office of Environmental Quality Control
235 South Beretania Street
State Office Tower, Suite 702
Honolulu, Hawaii 96813

Dear Mr. Gill:

Subject: Final Environmental Assessment for the Birch Street Apartments
Tax Map Key: 2-3-12: 04

The Department of Housing and Community Development has reviewed the comments to the draft Environmental Assessment (EA) for the subject project and has determined that a Finding of No Significant Impact (FONSI) is appropriate for this project. Please publish a Final EA/FONSI for this project in the October 23, 1997 OEQC Bulletin.

Your comments in your letter dated September 3, 1997 has been addressed in the Final EA. No other comments have been received by our Department or by the nonprofit developer.

We have enclosed a completed OEQC Bulletin Publication Form and four copies of the Final EA.

Please contact Lorna Uesato at 523-4162 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Agres, Jr.", written over a horizontal line.

ROBERT AGRES, JR.
Director

Enclosures

103

1997-10-23-04-PEA- Birch Street
Apartments

OCT 23 1997

FILE COPY

**FINAL
ENVIRONMENTAL ASSESSMENT**

FOR

**THE BIRCH STREET APARTMENTS
AT
916 & 920 BIRCH STREET AND 919 ALDER STREET
HONOLULU, HAWAII 96814**

PROPOSING AGENCY

**HAWAII HOUSING DEVELOPMENT CORPORATION (HHDC)
C/O GARY S. FURUTA, PROJECT MANAGER
IMPERIAL PLAZA, SUITE C-103
725 KAPIOLANI BLVD.
HONOLULU, HAWAII 96813**

CONTACT PERSON

GARY S. FURUTA, PROJECT MANAGER

PREPARED BY

**THOMAS B. DE COSTA AIA Inc.
866 KULANI STREET
HONOLULU, HAWAII 96825**

SEPTEMBER 1997

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	GENERAL INFORMATION	2
	A. Applicant	2
	B. Site Address	2
	C. Tax Map Key	2
	D. Land Area	2
	E. Land Owner	2
	F. Land Lessee	2
	G. State Land Use Designation	2
	H. Development Plan Designation	2
	I. Zoning (LUO)	2
	J. Height Limit	2
	K. Street Setbacks	2
	L. Historic Properties	2
	M. Shoreline Management Area	3
	N. Flood Zone	3
	O. Tsunami Inundation Zone	3
	P. Existing Use	3
	Q. Surrounding Uses	3
	R. Major Environmental Concerns	3
	S. Agencies Consulted In making the Environmental Assessment	4
III.	DESCRIPTION OF THE PROPOSED ACTION	6
IV.	IMPACTS	7
	A. PROJECT IMPACT - TECHNICAL	7
	1. Sewer	7
	2. Water	7
	3. Access	7
	4. Drainage	7
	5. Police	7
	6. Fire	8
	7. Utilities	8
	B. PROJECT IMPACT - ECONOMIC	8
	C. PROJECT IMPACT - SOCIAL	9

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	GENERAL INFORMATION	2
	A. Applicant	2
	B. Site Address	2
	C. Tax Map Key	2
	D. Land Area	2
	E. Land Owner	2
	F. Land Lessee	2
	G. State Land Use Designation	2
	H. Development Plan Designation	2
	I. Zoning (LUO)	2
	J. Height Limit	2
	K. Street Setbacks	2
	L. Historic Properties	2
	M. Shoreline Management Area	3
	N. Flood Zone	3
	O. Tsunami Inundation Zone	3
	P. Existing Use	3
	Q. Surrounding Uses	3
	R. Major Environmental Concerns	3
	S. Agencies Consulted In making the Environmental Assessment	4
III.	DESCRIPTION OF THE PROPOSED ACTION	6
IV.	IMPACTS	7
	A. PROJECT IMPACT - TECHNICAL	7
	1. Sewer	7
	2. Water	7
	3. Access	7
	4. Drainage	7
	5. Police	7
	6. Fire	8
	7. Utilities	8
	B. PROJECT IMPACT - ECONOMIC	8
	C. PROJECT IMPACT - SOCIAL	9

D.	PROJECT IMPACT - ENVIRONMENTAL	9
1.	Historic and Archaeological Resources	9
2.	Natural Resources	10
3.	Noise	10
4.	Air Quality	
V.	MAJOR IMPACTS AND ALTERNATIVE CONSIDERED	11
VI.	MITIGATING MEASURES	11
VII.	CHAPTER 201E EXEMPTIONS	12
A.	General Density per Acre	13
B.	Zoning - Maximum Allowable Floor Area	14
C.	Setback Encroachment - Structures in Yards	15
D.	Setback Encroachment - Parking in Yards	16
E.	Compact/Standard Parking Stall Ratio	17
F.	Optional Yard Siting - Setback Encroachment	18
G.	Height Setback Encroachment	19
H.	Park Dedication	20
I.	Building Review/Permit Fees	21
VIII.	AFFORDABLE RENTAL RATES PROPOSED	22
IX.	AGENCY COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT AND THE APPLICANTS RESPONSES	22
X.	BASIS FOR A FINDING OF NO SIGNIFICANT IMPACT (FONSI)	24
XI.	RECOMMENDATION	30

- ATTACHMENT "A" PROJECT TEAM
- ATTACHMENT "B" PROJECT SITE
- ATTACHMENT "C" PROJECT DESIGN
- ATTACHMENT "D" PRO FORMA PROJECT FINANCING
- ATTACHMENT "E" ENVIRONMENTAL SITE ASSESSMENT - PHASE 1
- ATTACHMENT "F" FOUNDATION INVESTIGATION REPORT
- ATTACHMENT "G" TRAFFIC IMPACT ASSESSMENT
- ATTACHMENT "H" AGENCY COMMENTS
- ATTACHMENT "I" RESOLUTION 97-229 CD1, AUTHORIZING EXEMPTIONS WITH REGARD TO CHAPTER 210 E (HRS)

I. INTRODUCTION

Hawaii Housing Development Corporation (HHDC) proposes to develop an affordable rental housing project for low income families, on a 20,801 sq. ft. vacant parcel in urban Honolulu. It intends to utilize whatever rental housing assistance programs available, e.g. tax credits, waivers, grants, below market financing, technical assistance, etc. to complete the project.

HHDC has a 62 year master ground lease with the fee owner Hawaiian Trust Company, Ltd., and recently finalized a purchase agreement for the leased-fee interest in the land. The Project will be a fee simple development.

HHDC is a non-profit organization created by the Hawaii Community Foundation and other grantmakers to develop low income, affordable rental housing on an ongoing basis. Its Directors are made up of influential and successful business people in the community, coming from both the public and private sectors. Their experience is varied, e.g. bankers, union officers, legislators, government administrators, developers, affordable housing coalition members, etc.

II. GENERAL INFORMATION

- A. DEVELOPER/APPLICANT: *Hawaii Housing Development Corporation
(HHDC)
c/o Gary S. Furuta
Imperial Plaza, Suite C-103
725 Kapiolani Boulevard
Honolulu, Hawaii 96813*
- Principal Contact Person: *Gary S. Furuta
Phone: 596-2120 (Fax: 596-0505)*
- B. ADDRESS: *916 & 920 Birch Street,
919 Alder Street*
- C. TAX MAP KEY: *2 - 3 - 12 : 04*
- D. LAND AREA: *0.48 Acres (20,801 s.f.)*
- E. LAND OWNER / LESSOR: *Hawaiian Trust Company Ltd.,
as Trustee for
Hawaii Community Foundation (HCF),
Okumura Family Trust
130 Merchant Street
Honolulu, Hawaii 96813*
- F. LAND LESSEE: *Hawaii Housing Development Corporation
(Lessee has contracted to buy leased-fee)*
- G. STATE LAND USE DESIGNATION *Urban*
- H. DEVELOPMENT PLAN DESIGNATION: *Medium Density Apartment*
- I. ZONING (LUO): *A-2 Medium Density Apartment District*
- J. HEIGHT LIMIT: *150 feet maximum*
- K. STREET SETBACKS: *10 feet*
- L. HISTORIC PROPERTIES: *None*

- M. SHORELINE MANAGEMENT AREA: Not Applicable
- N. FLOOD ZONE: ZONE "X"; outside 500 year flood zone; There have been no registered complaints regarding flood damage.
- O. TSUNAMI INUNDATION ZONE: The site is located outside of the Tsunami Inundation Zone.
- P. EXISTING USE(S): 916 & 920 Birch Street: Vacant
919 Alder Street: Parking
- Q. SURROUNDING USE(S): Mauka: Commercial
Makai: Apartment/Residential
- R. MAJOR ENVIRONMENTAL CONCERNS:

Based on the Environmental Site Assessment - Phase 1 report, prepared by Professional Services Inc. (PSI), the property was previously used for residential purposes, and there are no indications of asbestos, toxic liquids, underground storage tanks, etc., previously or presently on the property; there is no evidence that the property has generated or contains contaminants.

The report states that any potential contamination on the site would be from the Texaco service station site, immediately mauka of the property. Texaco has committed to performing a Phase I ESA with respect to its operation at a future date. Under the lease, Texaco is required to clean up any contamination it may have caused.

Based on our research and project design, HHDC does not anticipate any problems. Texaco currently is on a month to month extension of its original long term lease with the current owner, Hawaiian Trust Company, Ltd., the same owner of the Birch Street property. Although Texaco is the lessee of the adjacent property, the service station itself is not adjacent to the project site; it is actually on the opposite mauka side of the property, approximately 100 feet away from the Birch Street Apartments property line. The area adjacent to the project site is actually used as a rental parking lot. The portion of the project site adjacent to this Texaco rental parking lot also is an existing parking lot.

In its lease with Hawaiian Trust Company, Ltd. (HTCO), Texaco as Lessee is required to "...keep the demised premises and all improvements thereon in a strictly clean and sanitary condition, and will observe and perform and comply with all laws, ordinances, rules, and regulations of the health or other governmental authorities applicable to said premises... and will make good at its own cost and expense all defects of which notice shall be given...". The lease further states that "...if Lessor, prior to the termination thereof, shall so request, Lessee shall remove at its own expense all improvements erected by it on the demised premises and restore the premises to a clean and level condition..."

Texaco has acknowledged its above responsibility, and that it will obtain a "no-further action" letter from the State of Hawaii Department of Health regarding environmental concerns, in writing to HTCO.

Additionally, the project has been designed to minimize any impact to the existing subsurface soils conditions on the project site. The design allows for maximum access to the projects site adjacent to the Texaco parking lot, during construction and even after completion of the proposed project, in the event any contamination is detected. The existing parking lot will remain as parking for the proposed project. All construction, except for normal foundation work, will be at grade or above grade. The environmental site assessment concluded that the proposed project will not disturb the existing subsurface soil conditions.

S. AGENCIES CONSULTED IN MAKING THIS ENVIRONMENTAL ASSESSMENT:

The following agencies and organizations were invited to, and have made, comment on the proposed action:

**DEPARTMENT OF LAND UTILIZATION
City And County of Honolulu**

**DEPARTMENT OF PUBLIC WORKS
City And County of Honolulu**

**DEPARTMENT OF WASTEWATER MANAGEMENT
City And County of Honolulu**

FIRE DEPARTMENT

City and County of Honolulu

DEPARTMENT OF TRANSPORTATION SERVICES
City And County of Honolulu

BOARD OF WATER SUPPLY
City And County of Honolulu

BUILDING DEPARTMENT
City And County of Honolulu

DEPARTMENT OF PARKS AND RECREATION
City And County of Honolulu

PLANNING DEPARTMENT
City And County of Honolulu

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
City And County of Honolulu

POLICE DEPARTMENT
City and County of Honolulu

NEIGHBORHOOD BOARD #11 (ALA MOANA/KAKAAKO)
c/o Neighborhood Board Commission

STATE HISTORIC PRESERVATION DIVISION
DEPARTMENT OF LAND & NATURAL RESOURCES
State of Hawaii

*All comments for the above listed reviewing agencies have been
addressed and are attached in this report.*

III. DESCRIPTION OF THE PROPOSED ACTION

The site is located in the central urban core of Honolulu, in the Makiki/McCully district, approximately one block Diamond Head of the Piikoi and King Street intersection. It is a half block makai of King Street and fronts both Birch and Alder Streets.

The site is "L" shaped with the longest property dimension of 231.60 feet paralleling King Street, with street fronts of 120.00 feet at Birch Street, and 60.00 feet at Alder Street.

The site is essentially a flat lot, with a slight down slope from mauka to makai.

The site is vacant, except for an existing paved parking area along Alder Street.

The project will be a concrete and masonry structure of 8 stories, extending to a building height of 72'-7" to the roof level. There will be 7 dwelling floors above the main lobby at the ground floor. Each dwelling floor is planned to have up to eight (8) typical rental units for a total of 52 low income rental units.

The typical rental units are planned to have two bedrooms, with one bath and are approximately 599 s.f. in floor area.

The project will have 59 on site parking stalls.

IV. IMPACTS

Based on the current stage of the design of the project, preliminary research and review has determined that the proposed project will have the following impact:

A. PROJECT IMPACT - TECHNICAL:

1. Sewer: *There are 6" and 8" lines on Birch Street, a 12" line on King street, and a 6" line on Elm Street. The Project has received preliminary approval from the City Department of Wastewater Management that no off-site improvements will be required.*
2. Water: *There are 8" lines on Birch and Alder Streets and 12" lines on King and Elm Streets. The Project has received preliminary approval from the Board of Water Supply that no off-site water improvements will be required.*

In addition, the design of the project incorporates water efficient toilet fixtures, as wells as, low flow shower heads and sink faucets, for water conservation.

3. Access: *The property has frontage on two city streets. Birch Street is one way mauka with parking on one side. Alder Street in one-way Makai with parking on one side. Both streets connect to King Street (five lanes) and Elm Street (two lanes). Preliminary review with the city Department of Transportation Services indicate that no off-site roadwork will be required.*

Also, a Traffic Impact Assessment Report, prepared by Pacific Planning & Engineering, Inc., has concluded that the proposed project will not affect the Level-of Service at nearby intersections.

4. Drainage: *The existing site topography is essentially a pad lot. The improvements will include site drainage systems designed to eliminate runoff to adjacent properties. The anticipated runoff load is not anticipated to be an overload impact to the existing municipal storm drainage system.*

5. Police: *The project site will be serviced as needed by patrol officers from the main police station on Beretania Street.*

6. Fire: *There is an existing fire hydrant at the project street frontage on Alder Street, and another across the project street frontage on Birch Street.*

Engine Company No. (2) Pawaa Station, located at Makaloa and Kaheka Street, is within .5 miles and 5 minutes from the site and will be the first station responding to an alarm, with Engine Company (3) Makiki Station, at Wilder and Piikoi Streets, as well as Engine Company (9) Kakaako Station, at Mission and Queen Streets providing back up services as needed.

7. Utilities:

a. Electric: *The Hawaiian Electric Company (HECO) has existing power lines in the area and the applicant will coordinate development of the project with HECO to assure that the power will be adequate to support the proposed rental apartment project.*

In addition, the design of the project incorporates energy efficient light fixtures in the common areas for energy conservation.

b. Telephone: *The GTE Hawaiian Telephone Company has existing service lines in the area. It is expected that these existing lines will be used to service the proposed apartment project. Development of the project will be coordinated with GTE Hawaiian Telephone Company to determine if new lines will be required.*

c. Cable: *Cable television service is provided to buildings and dwellings in the surrounding area and arrangements will be made with the appropriate vendor to provide cable service to this project.*

B. PROJECT IMPACT - ECONOMIC:

As a rental apartment development, the project will have a secondary effect on economic growth by providing development related work for architects, engineers, etc., as well as short-term construction jobs. The project will provide long term employment for a resident manager, maintenance personnel, and possibly security guards, as well as service industry jobs to support the rental tenants and their facilities such as the common laundry and landscaping.

The project will bring 52 new families to the community, who will make use of the numerous retail, restaurant, and service establishments in the area.

C. PROJECT IMPACT - SOCIAL:

The project is intended to provide affordable rental units for low income families, in the urban core. The 52 dwellings are critically needed housing, and the two bedroom layout is specifically intended to supply housing to the "gap" family household, serving a family of approximately five members.

D. PROJECT IMPACT - ENVIRONMENTAL:

1. Historic and Archaeological Resources:

The State Office on Historic Preservation of the Department of Land and Natural Resources has indicated by letter, dated September 20, 1996, that they believed this project "...will have "no effect" on historic sites."

2. Natural Resources:

- a. Water Sources:** *The project does not anticipate impacting the water table in the area.*

Subsurface conditions presented through test borings for the Foundation Investigation report prepared by Ernest K Hirata & Associates, Inc., indicates subsurface water at approximately 8.5 to 9.5 feet below grade. The proposed foundation system, anticipated to be spread footings with 15 foot piles, will not adversely impact the area

water sources.

- b. Flood Plain: *The project is in ZONE X, outside the 500 year flood zone.*
- c. Wetlands: *The project site is in the urban core and does not involve wetland areas.*
- d. Coastal Zone: *The project site is not in within the coastal zone management area or the City's Special Management Area.*
- e. Flora and Fauna: *The project site is in the urban core and does not contain any wildlife habitants or rare or endangered flora and fauna.*
- f. Agricultural Lands: *The project site is in the urban core and designated for urban and apartment use. The proposed project will not impact agricultural lands or lands with potential agricultural use.*

3. Noise:

Short term noise impacts at construction sites are a normal and expected result of construction activity. The State Department of Health administers rules and regulations relating to the hours during which construction is permitted and the noise levels permitted during those hours. The Construction Contractor will be required to apply for a permit from the State Department of Health regarding regulatory limits for noise from construction activities.

The Construction Contractor will also coordinate the anticipated pile driving operations with the Noise and Radiation Branch of the Department of Health.

Long term noise impact from the proposed project is expected to be minimal.

4. Air Quality:

Short term impacts to air quality are primarily relating to expected

dust generated by construction activity. The Construction Contractor will be directed to take dust control measures during the construction period to minimize or eliminate any negative impact to air quality.

Long term impact to air quality is anticipated to be minimal.

V. MAJOR IMPACTS AND ALTERNATIVES CONSIDERED

The proposed rental apartment project does not have a significant impact on the surrounding area in terms of public services and the environment.

Positive socio-economic impacts are also projected with the provision of affordable housing and increases in employment.

Alternative plans for one bedroom units, as well as elderly housing, were considered but during preliminary discussions, the State Administration and the HFDC indicated there was a need for affordable family rental units in the urban core area.

VI. MITIGATION MEASURES

Since long term negative impact to the environment from the proposed project are not anticipated to be significant, no on-going mitigating measures are planned.

Short term mitigation measures will be implemented by the applicant's Construction Contractor during the construction of the project to minimize or eliminate dust and noise impacts. The Construction Contractor will be required to apply for permits from the Department of Health and comply with dust and noise control regulations.

VII. CHAPTER 201E EXEMPTIONS

At the urging of government agencies, such as the Department of Housing and Community Development (DHCD), and the Housing Finance and Development Corporation (HFDC), the project has been processed under the Chapter 201E, HRS, to pursue exemptions allowed for qualified affordable housing projects containing a minimum of 50 rental units.

Under this statute, the number of low-income apartment units has been increased from an initial 40 units, complying with the density provisions of the Land Use Ordinance (LUO), to 52 units. The DHCD administers this exemption process, and had shown support in its potential for approval.

Preliminary project drawings with increased density, open space and parking modifications among other things, as well as the application for exemptions according to provisions of Chapter 201E, HRS was prepared and submitted by the Developer to the DHCD for their review.

The submittal was favorably reviewed by the DHCD, and they submitted the application, with their recommendation for approval, to the City Council for their review and action on July 8, 1997.

According to the guidelines for the processing of an application requesting exemption under the provisions of Chapter 201E HRS, the City Council has 45 days to act on the application. If no action occurs, the exemptions are automatically approved.

The application for exemptions according to provisions of Chapter 201E HRS was approved by City Council Resolution 97-229, CD1 on Wednesday, August 6, 1997.

The following are a summary of the exemptions requested and approved.

A. GENERAL DENSITY PER ACRE:

Exemption to DEVELOPMENT PLAN SPECIAL PROVISIONS, PRIMARY URBAN CENTER, ARTICLE 2, SECTION 24-2.2(a)(4)(c), Medium Density Apartments shall have a general density of 90 units per acre.

Lot area: 20,801 s.f. .47 Acre

PROPOSED: 53 Units
Density (@ 90 units/Acre): 99 Units

EXCEPTION APPROVED:
To allow the Project to exceed the allowable 90 units per acre by 9 units.

JUSTIFICATION:

The Planning Department has determined that the project is consistent with the General Plan's objectives and policies relating to housing, and supports the exemption request to allow in increase in density.

Section 24-2.3(b) of the Development Plan Special Provisions for the Primary Urban Center supports the provision of affordable housing within the Primary Urban Center.

B. ZONING - MAXIMUM ALLOWABLE FLOOR AREA:

Exemption to LAND USE ORDINANCE (LUO), Table 5.3-B, A-2
District Development Standards, maximum floor area is 31,618 square
feet.

Maximum Allowable Floor Area: 31,618 s.f.

PROPOSED: 46,193 s.f.

EXCEPTION APPROVED:

*To exceed the allowable A-2 FAR of x1.52 (31,618 square
feet) and to fall under an A-3 FAR of x2.42 (50,338 square
feet).*

JUSTIFICATION:

*The 52 low income rental units are planned as two bedroom
dwellings of 599 s.f.,
for a total of: 31,148 s.f.*

Additional Floor Areas include:

Ground Floor - Lobby: 886 s.f.

Resident Manager Unit: 599 s.f.

Laundry: 202 s.f.

Circulation: 13,358 s.f.

Proposed Floor Area: 46,193 s.f.

C. SETBACK ENCROACHMENT - STRUCTURES IN YARDS

Exemption to LAND USE ORDINANCE (LUO) SECTION 3.30(a), Structures located in a required yard shall not exceed 30 inches in height.

PROPOSED:

The project includes an on-site recreation area, partially located in the front and side yard setbacks along Birch Street and makai property lines. The area includes several pieces of recreational equipment, such as play equipment, picnic tables, and a barbecue grill that exceed the 30" height.

EXCEPTION APPROVED:

To allow recreational structures (picnic tables and barbecue grills) exceeding 30 inches in height within the required front and side yards along Birch Street.

JUSTIFICATION:

The Recreation Area is intended as an on-site "tot lot" allowing a secure and controlled play facility for the use of the tenants.

D. SETBACK ENCROACHMENTS - PARKING IN YARDS:

Exemption to LAND USE ORDINANCE (LUO) SECTION 3.30(d), Parking stalls cannot encroach into a front yard in an apartment district.

PROPOSED:

Portions of four (4) parking stalls are located in the front yard setback areas along Alder Street.

EXEMPTION APPROVED:

To allow portions of four parking stalls to encroach a maximum of 9 feet within the front yard setback along Alder Street.

JUSTIFICATION:

The proposal intends to provide the maximum practical number of on-site parking stalls, as requested by the Neighborhood Board No. 11 (Ala Moana/Kakaako), and to comply with provisions of the Land Use Ordinance (LUO), as well as, comments expressed by the Department of Transportation Services (DTS).

E. COMPACT / STANDARD PARKING STALL RATIO:

Exemption to LAND USE ORDINANCE (LUO) SECTION 3.70-2(d), Compact stalls for multi-family dwellings cannot exceed 50 percent of the total stalls required.

PROPOSED:

Total number of Parking stalls provided:	59 stalls
Total number of Compact Stalls allowed (50%)	29 stalls
Compact Stalls provided:	31 stalls

EXEMPTION APPROVED:

To allow the Project to exceed the maximum allowed 29 compact stalls by 2 additional compact stalls.

JUSTIFICATION:

The proposal intends to provide the maximum practical number of on-site parking stalls, as requested by the Neighborhood Board No. 11 (Ala Moana/Kakaako), and to comply with provisions of the Land Use Ordinance (LUO), as well as, comments expressed by the Department of Transportation Services (DTS).

F. OPTIONAL YARD SITING, SETBACK ENCROACHMENT

Exemption to LAND USE ORDINANCE (LUO) SECTION 5.50-1(d)(2)(A):

"Yards - Optional Yard Siting:

Parking lots and garages may extend to side and rear property lines, provided the following requirements are met:

1. An area or areas of open space equivalent to the area to be used for parking... is provided elsewhere on the zoning lot.... A minimum of 50 percent of the open space shall be contiguous to the street frontage abutting the zoning lot."

PROPOSED:

Parking encroachment into the side yard is approximately 3,410 s.f.. Open space of approximately 1,310 s.f. is provided as an on-site Recreational Area, fronting Birch Street.

EXEMPTION APPROVED:

To allow less than the required open space under the optional yard siting provisions which allow parking area encroachment into required side yards.

JUSTIFICATION:

The proposal intends to provide the maximum practical number of on-site parking stalls, as requested by the Neighborhood Board No. 11 (Ala Moana/Kakaako), to comply with provisions of the Land Use Ordinance (LUO), as well as, comments expressed by the Department of Transportation Services (DTS).

Screen hedges at the side yards and street fronts will be provided with the site landscaping.

G. HEIGHT SETBACK ENCROACHMENT:

Exemption to LAND USE ORDINANCE (LUO), TABLE 5.50-1(d)(3),
Transitional height setbacks of one foot for every 10 feet of height
above 40 feet.

PROPOSED:

<i>Building Height:</i>	<i>72'-7"</i>
<i>(Along makai property line at Alder Street)</i>	
<i>Building Height over 40':</i>	<i>32'-7"</i>
<i>Additional Height Setback: (1'/10')</i>	<i>3.2'</i>
	<i>(3'-3")</i>

EXEMPTION APPROVAL:

***To allow a portion of the building facing Alder Street to encroach
3 feet 3 inches into the required additional side yard setback at
the 40 foot level along the Makai property line.***

H. PARK DEDICATION:

Exemption to the REVISED ORDINANCE OF HONOLULU (ROH), CHAPTER 22, ARTICLE 7, The minimum land area required shall be either 10 percent of the maximum permitted floor area or 110 square feet per dwelling unit, which ever is less.

10% of the Maximum Floor Area:	5,034 s.f.
OR,	
110 s.f. per unit (for 53 units):	5,830 s.f.
WHICH EVER IS LESS =	<u>5,034 s.f.</u>

or:
Equivalent Fair Market Value (FMV) of the land (Estimated at \$70/s.f.): \$221,340

or any combination of both.

PROPOSED:

An approximately 1,310 s.f. Recreational Area is provided on site. The site improvements costs for the proposed Recreation Area, including landscaping and site amenities (i.e. picnic tables, outdoor cooking facilities, etc.) is anticipated to be approximately \$35 / s.f. = \$45,850. (Equivalent to approximately 655 s.f. open space)

EXEMPTION APPROVED:

To exempt the project from the required 5,034 square feet of park dedication space or monetary fee requirements.

JUSTIFICATION:

The project site is within one-half block from Sheridan Park, located at Pensacola/ Elm/Alder/ Rycroft streets. The park has ample open space and amenities such a ball courts, picnic and play equipment.

I. BUILDING REVIEW/PERMIT FEE:

Exemption to REVISED ORDINANCES OF HONOLULU (ROH) SECTION 18-6.1 and 18-6.2, A fee for each building permit shall be paid to the building official.

"TABLE NO. 18-A: Fees for Permits

The fees for the issuance of building permits shall be computed in accordance with the following schedule:

<u>TOTAL ESTIMATED VALUATION OF THE WORK</u>	<u>FEE TO CHARGED</u>
From \$2,000,000.01 and above	\$3,395.00 + \$2.80 per \$1,000 of fraction thereof of the total estimated valuation of work"

(The proposed project construction budget is approximately \$5,600,000 for a calculated corresponding anticipated building permit fee of: \$19,075.00)

PROPOSED:

Eliminating the corresponding expense of the building permit fees will assist with the affordability of the project.

EXEMPTION APPROVAL:

To allow exemption from building plan review/permit fees estimated at \$19,075.

JUSTIFICATION:

The anticipated, corresponding building permit fee of \$19,075 will add approximately \$366.00 to the cost of each rental unit. The participation of rental housing assistance programs, such as tax credits and grants is enhanced when every effort to reduce units costs are enlisted.

VIII. AFFORDABLE RATES PROPOSED

The target rental market for the project is the Honolulu family earning 52% of the median annual income. According to current HUD criteria, the maximum income of a household in the target market ranges from \$31,020 for a family of two, to \$41,880 for a family of five.

For the above income range, a maximum tenant contribution (rent), which includes utilities, has been established by HUD. For a two bedroom apartment project such as the Birch Street Apartments, the rent for households making 52% of the median, a monthly gross rent would be is \$817, with a utility allowance of \$67 per month; any utility costs above \$67 is the responsibility of the tenant. This equates to a net rental income per apartment unit of \$750 per month. Even in this soft market, the rents are below market in urban Honolulu area for comparable new units.

Independent rental market assessments for the project area were recently conducted by Rehkemper & Associates, Inc. and SMS Research.

Their studies confirm the project's low rent compared to market, established at \$925/ month for similar units. The studies also validated the current and ever increasing demand for affordable rental housing in urban Honolulu.

The project is in the central urban area of Honolulu, the most densely populated area in the State and is within the island's major employment core. Because of its location, the project will be attractive to the renting public. This area is the top choice of both owners and renters in which to live.

According to Prudential Locations Management (PLM), who will be managing the project, in light of the good location and the demand for multi-family dwelling units as reflected by the waiting list for other similar projects it is managing, PLM believes a rent-up within less than six months.

IX. AGENCY COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT AND THE APPLICANTS RESPONSES

The applicant has submitted, and received comments, of a draft of this Environmental Assessment to the following reviewing agencies:

**DEPARTMENT OF LAND UTILIZATION
City And County of Honolulu**

DEPARTMENT OF PUBLIC WORKS
City And County of Honolulu

DEPARTMENT OF WASTEWATER MANAGEMENT
City And County of Honolulu

FIRE DEPARTMENT
City and County of Honolulu

DEPARTMENT OF TRANSPORTATION SERVICES
City And County of Honolulu

BOARD OF WATER SUPPLY
City And County of Honolulu

BUILDING DEPARTMENT
City And County of Honolulu

DEPARTMENT OF PARKS AND RECREATION
City And County of Honolulu

PLANNING DEPARTMENT
City And County of Honolulu

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
City And County of Honolulu

POLICE DEPARTMENT
City and County of Honolulu

NEIGHBORHOOD BOARD #11 (ALA MOANA/KAKAAKO)
c/o Neighborhood Board Commission

STATE HISTORIC PRESERVATION DIVISION
DEPARTMENT OF LAND & NATURAL RESOURCES
State of Hawaii

X. BASIS FOR A FINDING OF NO SIGNIFICANT IMPACT (FONSI)

With regard to the above, and with the favorable comments and responses from the reviewing agencies, this Environmental Assessment Report, presents the following basis for a Finding of No Significant Impact to the environment:

1. DESCRIPTION OF THE PROPOSED ACTION:

Hawaii Housing Development Corporation (HHDC) proposes to develop an affordable rental housing project for low income families, on a 20,801 sq. ft. vacant parcel in urban Honolulu, and intends to utilize whatever rental housing assistance programs available, e.g. tax credits, waivers, grants, below market financing, technical assistance, etc. to do the project. HHDC has entered into a 62 year master ground lease with the fee owner, Hawaiian Trust Company, Ltd. and intends to purchase the leased-fee interest.

The site is located in the central urban core of Honolulu, in the Makiki/McCully district, approximately one block Diamond Head of the Piikoi and King Street intersection. It is a half block makai of King Street and fronts both Birch and Alder Streets.

The site is "L" shaped with the longest property dimension of 231.60 feet paralleling King Street, with street fronts of approximately 120.00 feet at Birch Street, and 60.00 feet at Alder Street.

The site is essentially a pad lot, with a slight down slope from mauka to makai.

The site is vacant, except for an existing paved parking area off Alder Street.

The project will be a concrete and masonry structure of 8 stories, extending to a building height of 72'-7" to the roof level. There will be 7 dwelling floors above the ground floor main lobby. Each dwelling floor is planned to have up to eight (8) typical rental units for a total of 52 units.

The typical rental unit is planned to have a two bedroom, one bath layout of approximately 599 s.f. in floor area.

The project will have 59 on site parking stalls.

2. DETERMINATION, FINDINGS AND REASONS SUPPORTING DETERMINATION:

SIGNIFICANCE CRITERIA: According to the Department of Health Administrative Rules (Title 11- Chapter 200-12) regarding Significance Criteria:

- a. In considering the significance of potential environmental effects, agencies shall consider the sum effects on the quality of the environment, and shall evaluate the overall and cumulative effects of an action.
- b. In determining whether an action may have a significant effect on the environment, the agency shall consider every phase of a proposed action, the expected consequences, both primary and secondary, and the cumulative, as well as, the short-term and long-term effects of the action. In most instances, an action shall be determined to have a significant effect on the environment if it:

- (1) **Involves an irrevocable commitment to loss or destruction of any natural or cultural resources;**

The proposed project is planned on an existing vacant lot, that previously was in residential use, in the urban are of Honolulu. It is zoned by the City and County of Honolulu as A-2 Medium Density Apartment District. The State Land Use Designation is: Urban, and has a Development Plan Designation for: Medium Density Apartment.

The site has no significant natural and cultural resources to be impacted by the proposed project.

The proposed project does not involve a loss or destruction of any natural or cultural resource.

- (2) **Curtails the range of beneficial uses of the environment;**

The use of the property has been, and continues to be, designated to be residential in general and specifically: multi-family.

The proposed project is consistent with the continued beneficial use of the property as multi-family residential.

The proposed project does not curtail the range of beneficial uses to the environment.

- (3) Conflicts with the state's long term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions or executive orders;**

The proposed project is consistent with the Environmental Policies established in Chapter 343, HRS.

- (4) Substantially affects the economic or social welfare of the community or State;**

The proposed project will affect the economic welfare of the community for the short term employment of construction workers as well and materials providers.

The proposed project is intended to be an affordable rental project for low income families. The project will provide much needed housing to a segment of the community specifically lacking the resources to afford market rentals.

The proposed project does not negatively affect the economic or social welfare of the community or state.

- (5) Substantially affects Public Health;**

The proposed project will have short term significant impacts to the public health of the immediate areas surrounding the site due to construction activities.

Equipment and construction activities generating noise, as well as specifically pile driving, will be scheduled to be least disruptive to surrounding properties and will be monitored to comply with Department of Health regulations.

Dust and other air borne debris will be minimized during the construction period with the use of tarps and water spray. No exposed trash containers will be allowed, and the construction site will be cleaned of debris on a regular schedule to avoid accumulation.

The proposed project anticipates no long term effects to the public health.

The proposed project does not negatively affect public health.

- (6) Involves substantial secondary impacts, such as population changes or effects on public facilities;**

The proposed project is within the planned land uses of the City and County of Honolulu, and the State of Hawaii.

The proposed project has been reviewed by governing agencies regarding utilities service such as wastewater and water service, as well as other public facilities such as traffic, police and fire.

All reviewing agencies have provided their concurrence with the intent of the proposed project.

The proposed project does not involve substantial secondary impacts, such as population changes or infrastructure demands.

- (7) Involves a substantial degradation of environmental quality;**

The proposed project will utilize existing vacant land for a development of a multi-family apartment building. The proposed use is consistent with the current multi-family residential buildings surrounding the site.

The proposed project is not anticipated to provide a substantial degradation of the environments quality of the area.

- (8) Is individually limited but cumulatively has considerable effect on the environment or involves a commitment of large actions;**

The proposed project is intended to participate in the reduction of the critical housing needs of the State of Hawaii and City and County of Honolulu.

The current environment of the project is multifamily residential, and the proposed project is consistent and compatible with that environment.

The proposed project will not have a considerable effect of the environment, and will not require a commitment for larger actions.

- (9) Substantially affect a rare, threatened, or endangered species, or its habitat.**

The are no rare, threatened or endangered species, or their habitat on the site of the proposed project.

The propose project will not affect rare, threatened, or endangered species or their habitat.

- (10) Detrimentially affects air or water quality or ambient noise levels;**

The proposed project will have a short term impact to the air quality of the immediate areas surrounding the site due to exhaust emissions from equipment, dust and other air borne debris generated from construction activities.

The impact of exhaust emissions will be minimized with the use of filters and other improvements to limit exhaust emissions. Dust and other air borne debris will be minimized during the construction period with the use of tarps and water spray.

The proposed project site has no accessible water sources, and the proposed project is not anticipated to affect the subterranean water quality.

The proposed project will have a short term impact to ambient noise levels of the immediate areas surrounding the site due to construction activities.

Equipment and construction activities generating noise will be scheduled to be least disruptive to surrounding properties and will be monitored to comply with Department of Health regulations.

The proposed project anticipates no long term detrimental effects to the air or water quality or ambient noise levels of the site.

- (11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land,**

estuary, fresh water, or coastal waters;

The site of the proposed project is located in the central Makiki district, approximately 3/4 miles from the ocean at Ala Moana Beach Park. The site is not located in a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water or coastal waters, and the proposed project will not provide any adverse affect.

The proposed project will not affect an environmentally sensitive area, such as a flood plain, tsunami zone, erosion prone area, geologically hazardous land, estuary, fresh water area, or coastal waters.

(12) Substantially affects scenic vistas and viewplanes identified in county or state plans or studies;

The proposed project is not located in any special design district that may have provisions for scenic vistas and viewplanes.

The designed 72'-7" height of the proposed project is within the 150' maximum height limitation of the A-2 Medium Density Apartment Zoning District. The design height is comparable to several surrounding existing multi-family structures, and is not intended to be detrimental to their orientation to a view.

(13) Requires substantial energy consumption.

The proposed project has been reviewed by the electric utility company, and has been determined to be within power availability.

The multi-family apartment building will be designed to incorporate energy efficient common area light fixtures, and apartment appliances, generally for energy conservation, but more specifically to allow cost control and reduction of maintenance fees for the benefit of the residents.

XI. RECOMMENDATION

Based on this FINAL ENVIRONMENTAL ASSESSMENT, we respectfully request a: FINDING OF NO SIGNIFICANT IMPACT (FONSI) for the proposed affordable rental apartment development, planned as the BIRCH STREET APARTMENTS.

ATTACHMENT "A"

PROJECT TEAM

DEVELOPMENT TEAM

Selection of the project team is being made to facilitate the processing and approvals required. Team members are a permanent part of the community and are representative of both large and small business and community groups. They have expertise and years of experience in the development, design, construction, management and rental businesses. The development team will have the capability to expeditiously design, process approvals for financing and building, construction and rent the project in a timely manner.

The following summaries, along with detailed descriptions in following Attachments, highlight some of the key team members.

Developer: Hawaii Housing Development Corporation.

HHDC's status as a non-profit entity, established by the Hawaii Community Foundation, is significant in the development of government funded housing projects. Compared to private organizations, a non-profit entity receives priority consideration for tax credits, grants and low income loans. It also get preferential rates and terms on loans from institutional lenders, e.g., 100% financing, low debt coverage, low financing fees, etc. Of significance also are the individuals that are affiliated with HHDC. They are made up of very influential and successful business people in the community, which can be helpful in facilitating the processing and approval of the project.

Development Consultant: Gary S. Furuta.

GSF has over 22 years of experience in real estate development and engineering, with knowledge in acquisition, planning, financing, sales and asset management. A considerable amount of GSF's experience has been in the corporate environment where he was responsible for the overall profitable and efficient management of real estate development and/or assets.

Architect: Thomas B. De Costa AIA, Inc.

Architect of Record, Thomas B. DeCosta has 26 years of experience in all aspects of architecture and planning. He has worked on private commercial and residential projects, public works and revitalization projects, including some that have won awards.

Property Management and Leasing: Chaney, Brooks & Company.

CBC has over 20 years of experience in Hawaii and is a diversified real estate company. It is among the top 25 in the nation. The Government-Assisted Housing/Rental Management section handles over 2,000 HUD, State and City assisted units.

ATTACHMENT "B"

PROJECT SITE

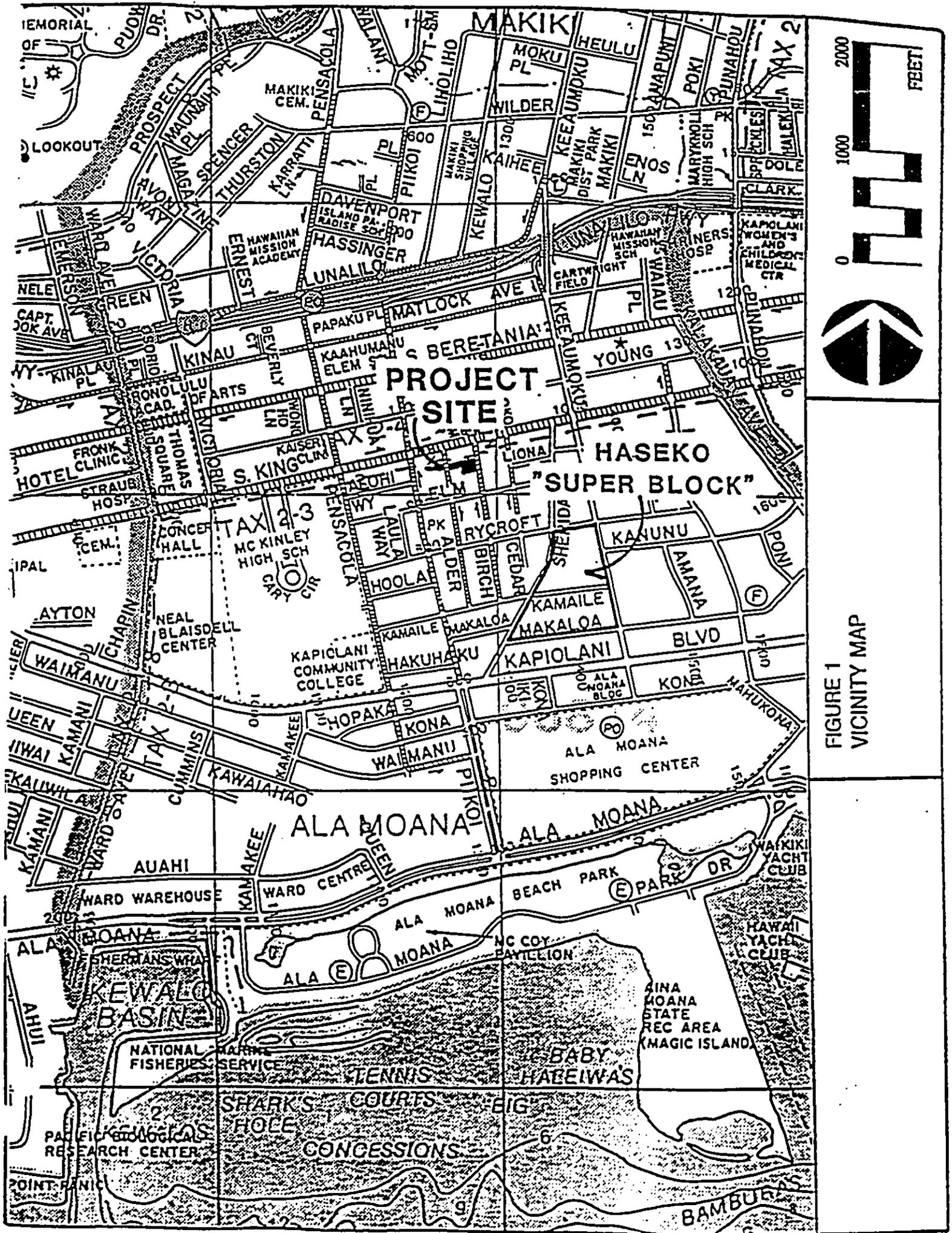


FIGURE 1
VICINITY MAP

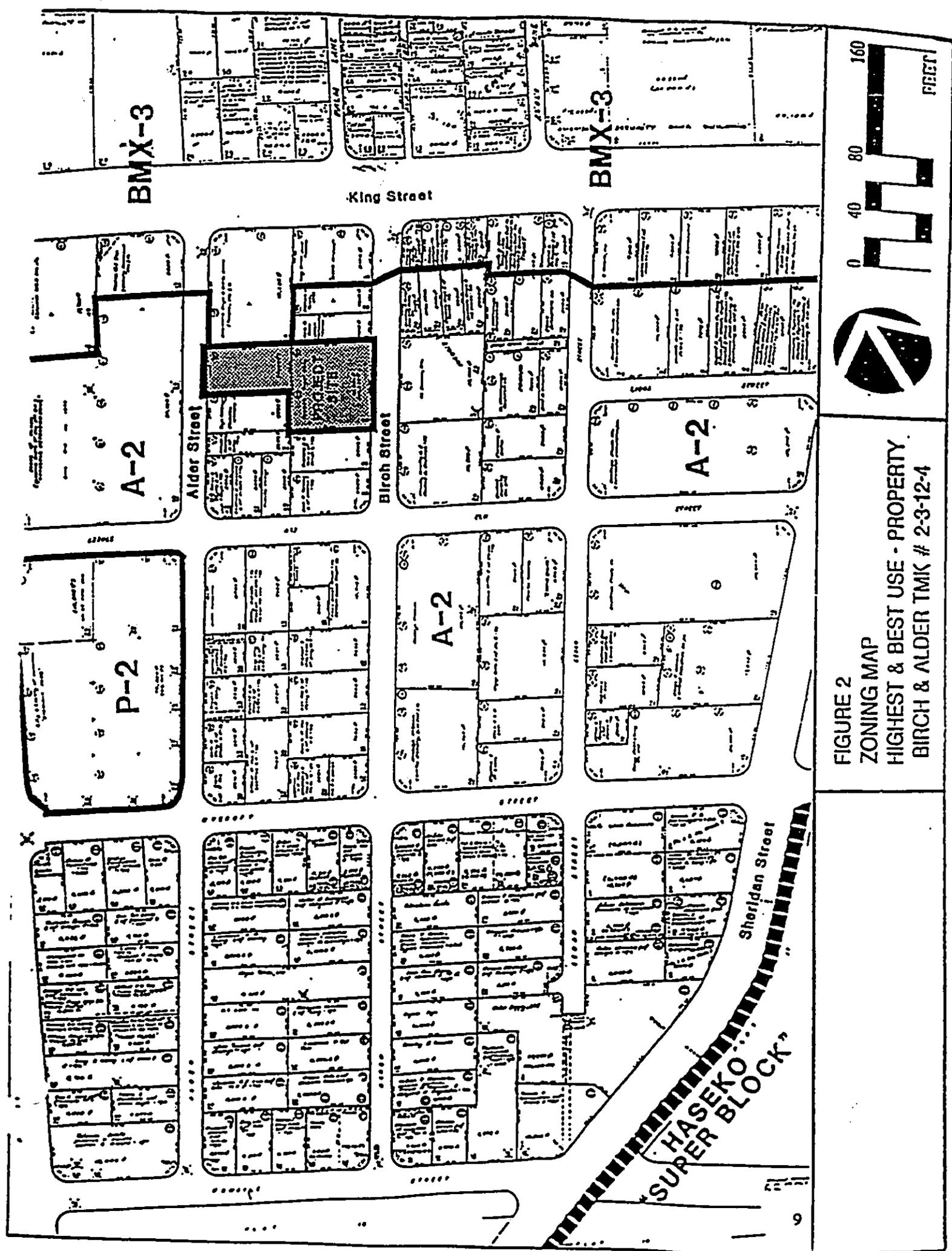
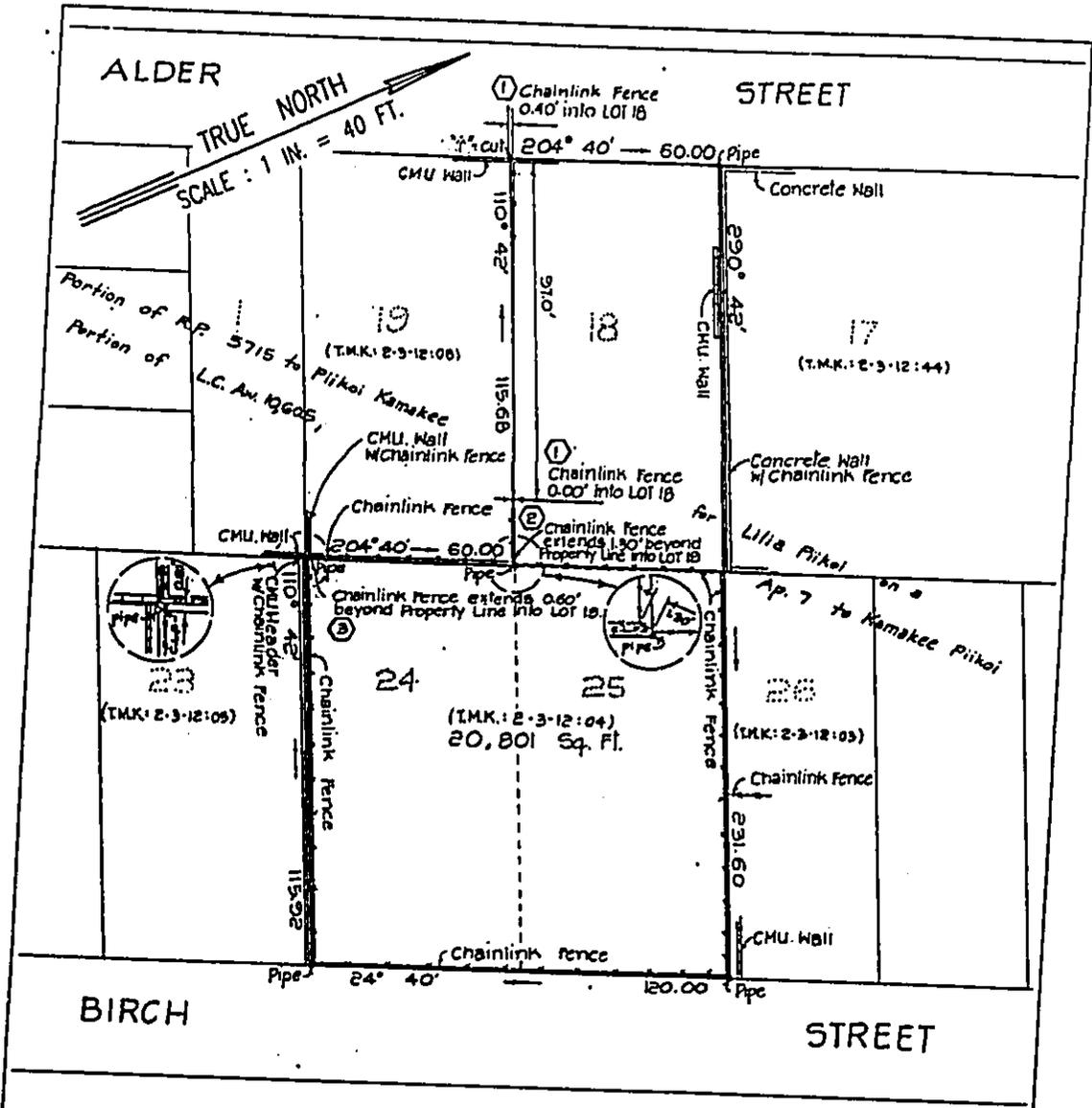


FIGURE 2
ZONING MAP
HIGHEST & BEST USE - PROPERTY
BIRCH & ALDER TMK # 2-3-12-4



LOCATION SURVEY
PORTIONS OF LOTS 18, 24 AND 25
OF THE KING STREET TRACT
BEING ALSO PORTION OF R. P. 5715
TO PIIKOI KAMAKEE FOR LILIA PIIKOI
ON A PORTION OF L. C. AW. 10,605
APANA 7 TO KAMAKEE PIIKOI
KEWALO, HONOLULU, OAHU, HAWAII



TAX MAP KEY : 2 - 3 - 12 : 4

THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

William Dean Alcon
Signature

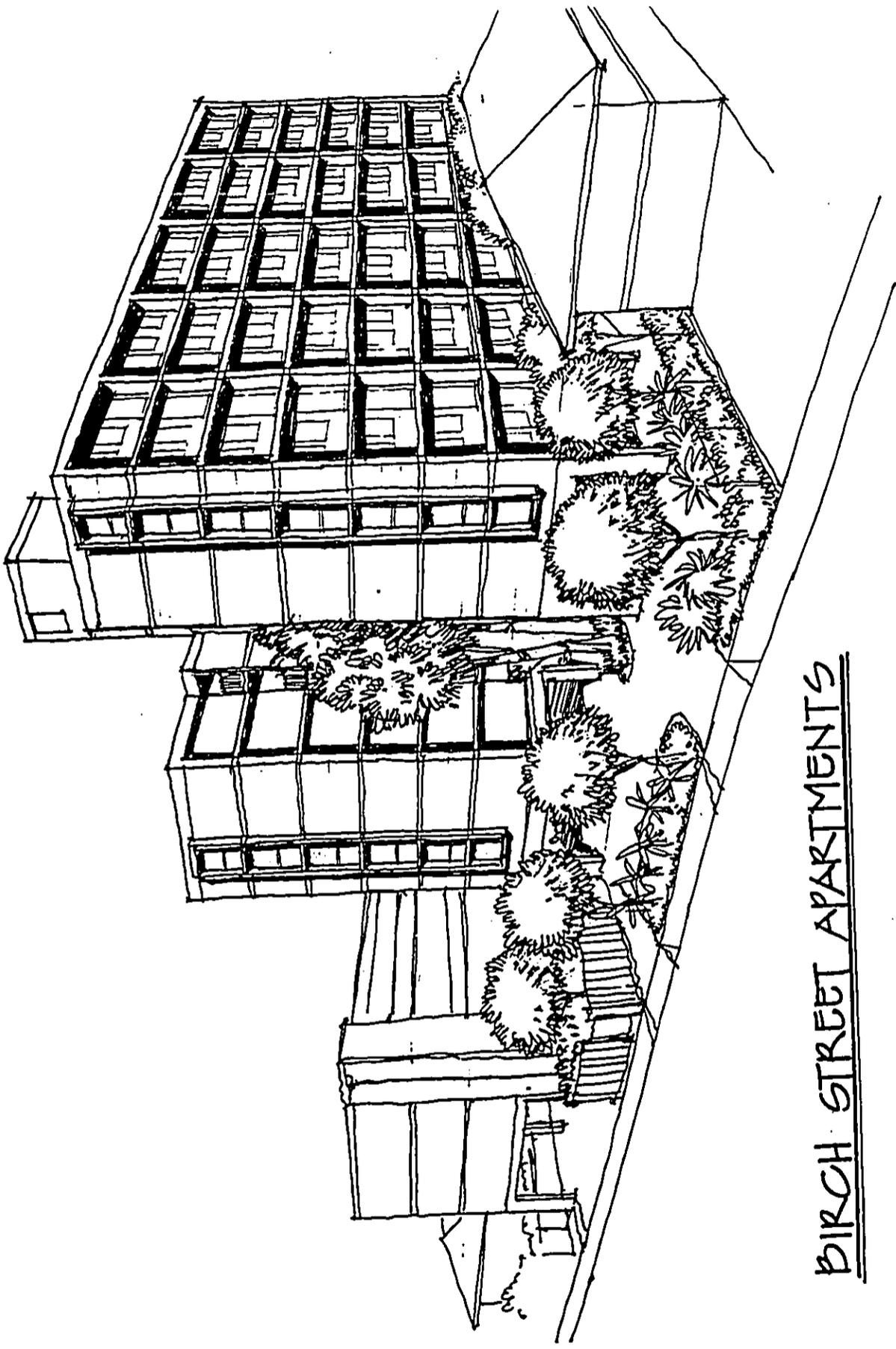
NOTE :
No encroachment either way across
property lines except as noted.

960690
B. : 133 : 62

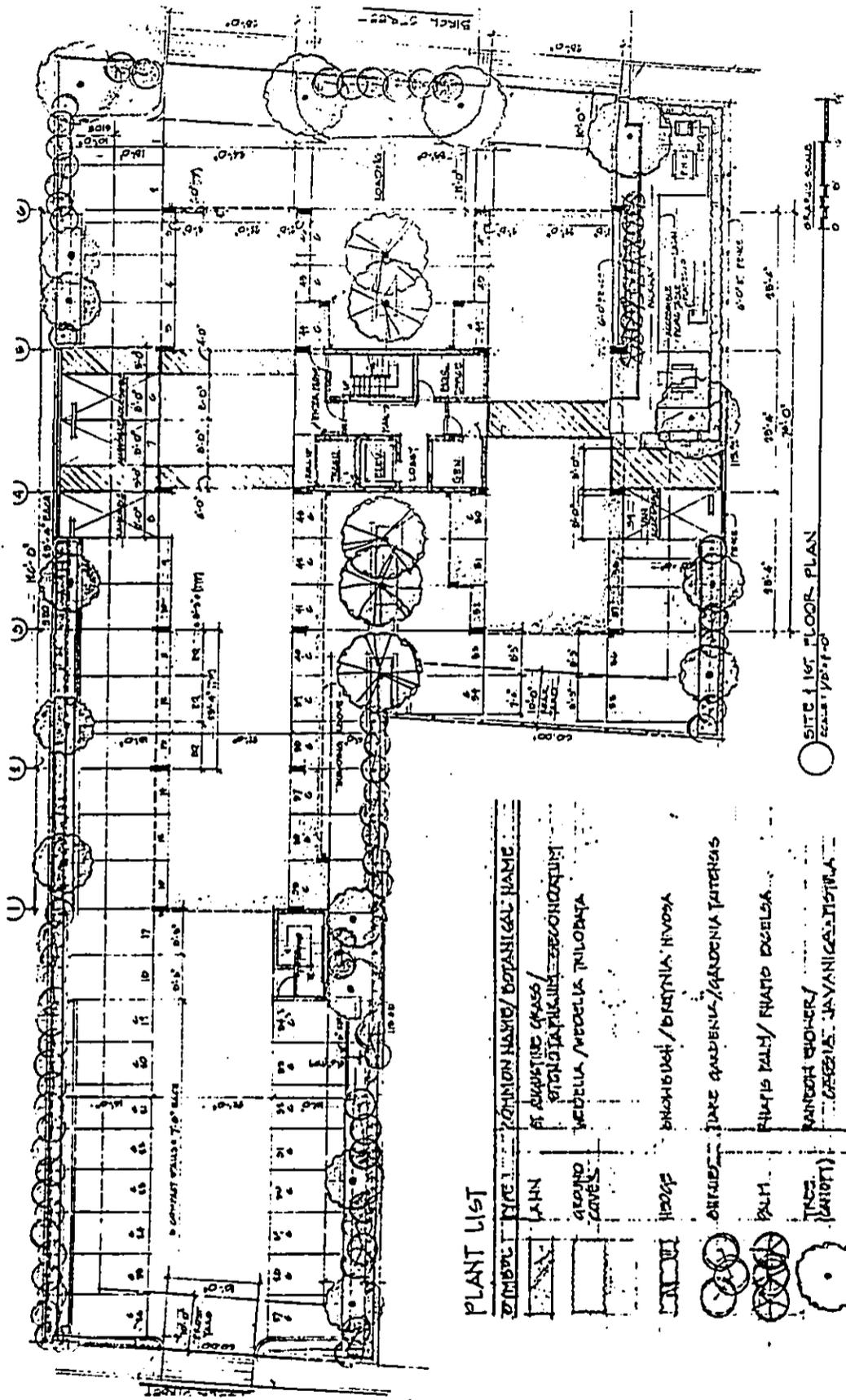
WM. DEAN ALCON & ASSOCIATES, INC.
 905 UAH STREET, SUITE 101
 HONOLULU, HAWAII 96819-2377

DECEMBER 20, 1996

ATTACHMENT "C"
PROJECT DESIGN



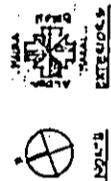
BIRCH STREET APARTMENTS



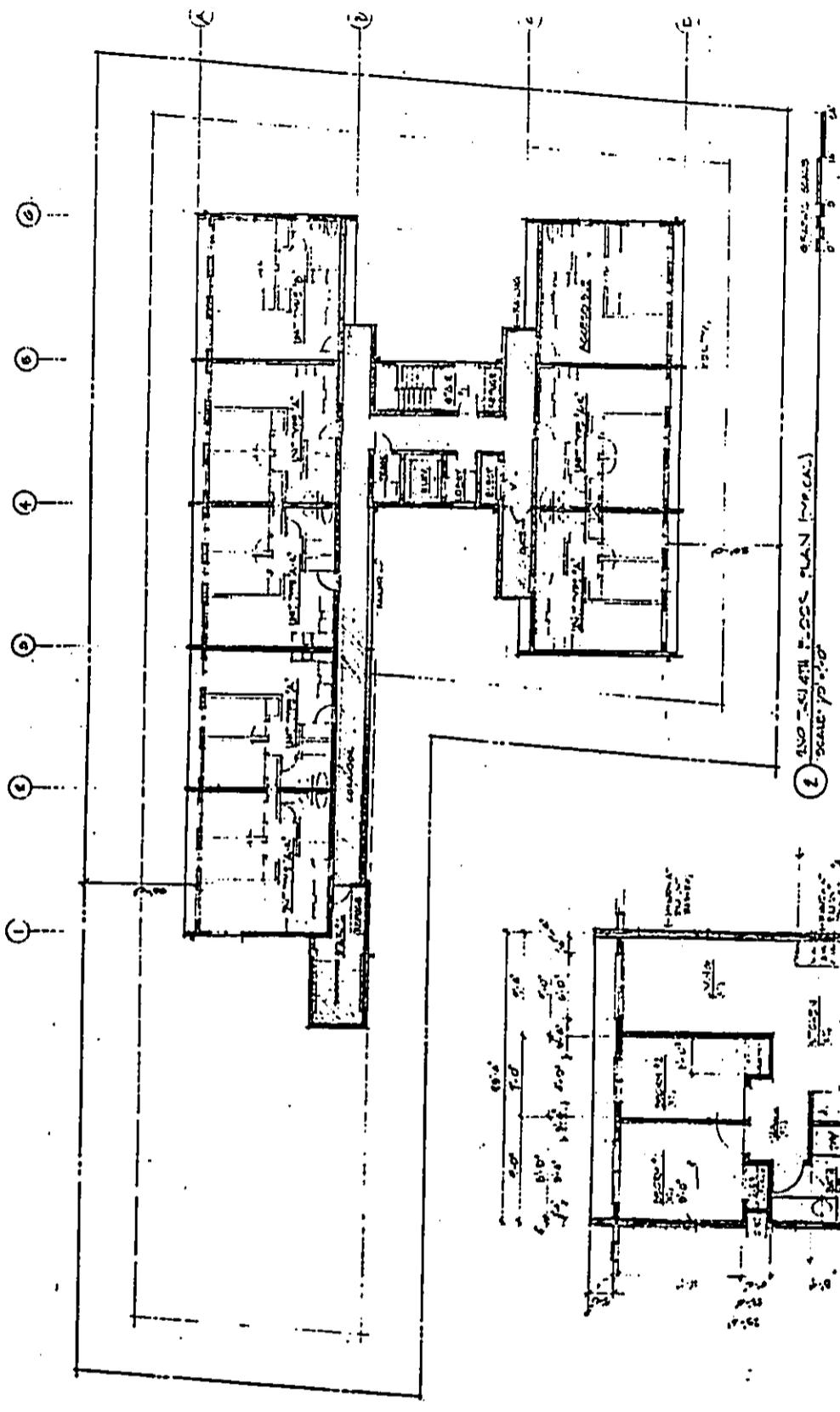
PLANT LIST

SYMBOL	TYPE	COMMON NAME / BOTANICAL NAME
	LAWN	ST. AUGUSTINE GRASS / STENOCHORDIA PALMIS / STENOCHORDIA
	GROUND COVER	HEDELLA / METELLA TRILORATA
	HEDGE	BONCHIBUKI / BIGNONIA HYDRA
	SHRUB	JAKE GARDENIA / GARDENIA JATENSIS
	PALM	PHUAP KALH / RHAPIS EXCELSA
	TREE (CIRCULAR)	BANBOO BROOMER / CEBUS JAVANICA / JAVANICA
	TREE (TRIANGULAR)	PAPERBARK / MELALEUCA LEUCADENDRA

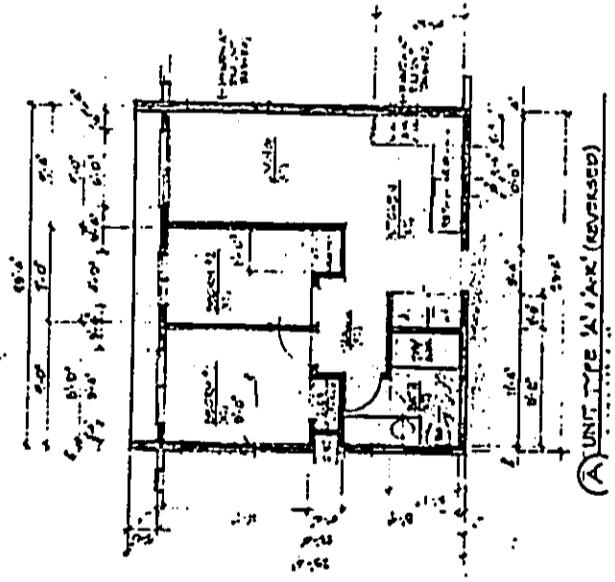
SITE 1st FLOOR PLAN



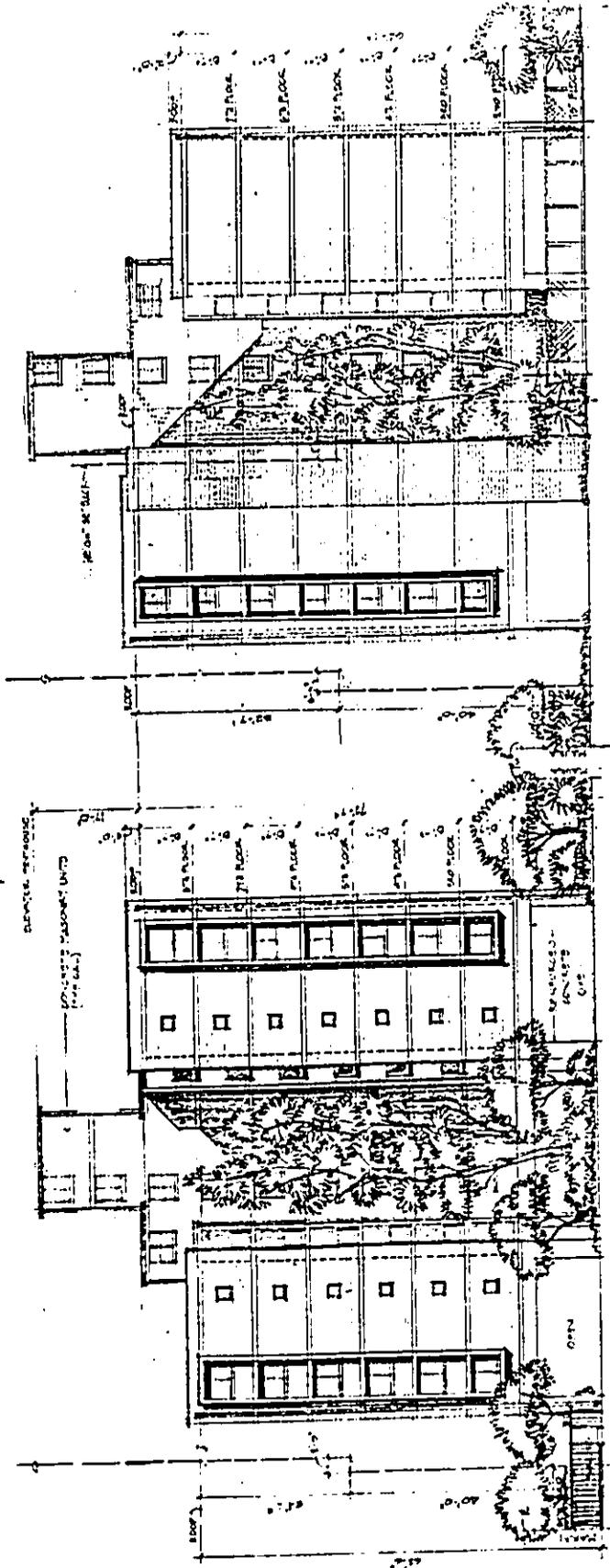
SCALE: 1/8" = 1'-0"



2 TWO-STORY FLOOR PLAN (RECAL)
Scale: 1/8" = 1'-0"

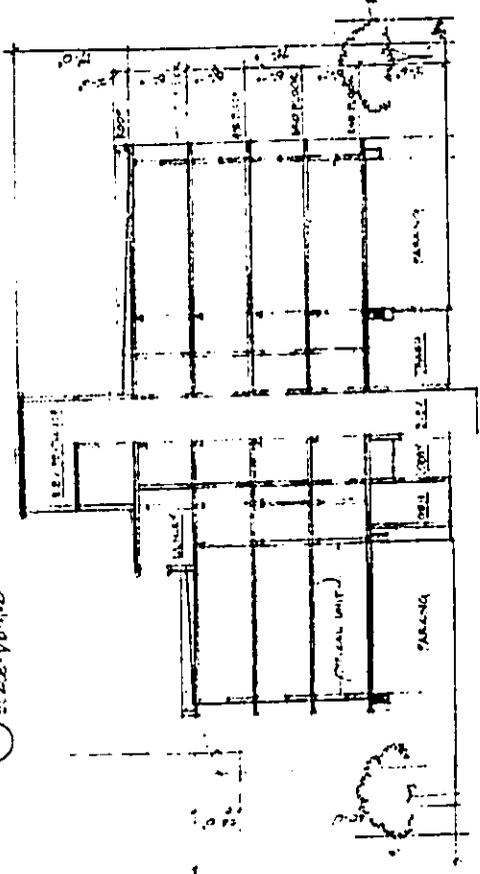


(A) UNIT TYPE A / 1A (REVISED)

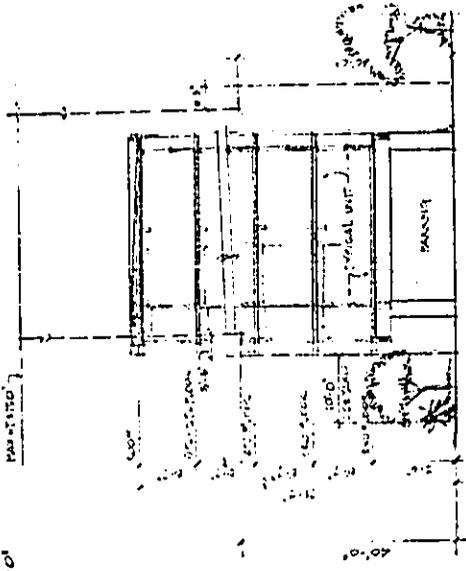


○ BISHOP STREET ELEVATION (FRONT)
SCALE: 1/8" = 1'-0"

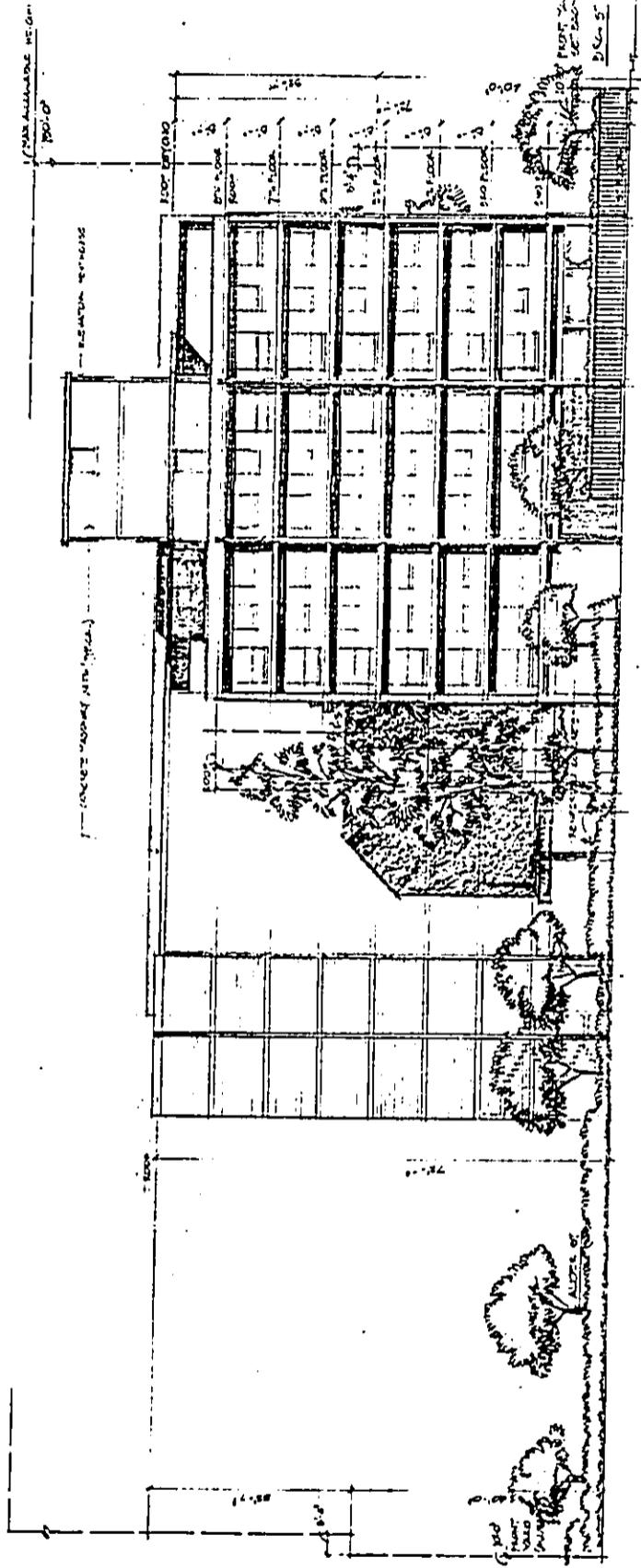
○ ALDER STREET ELEVATION (REAR)
SCALE: 1/8" = 1'-0"



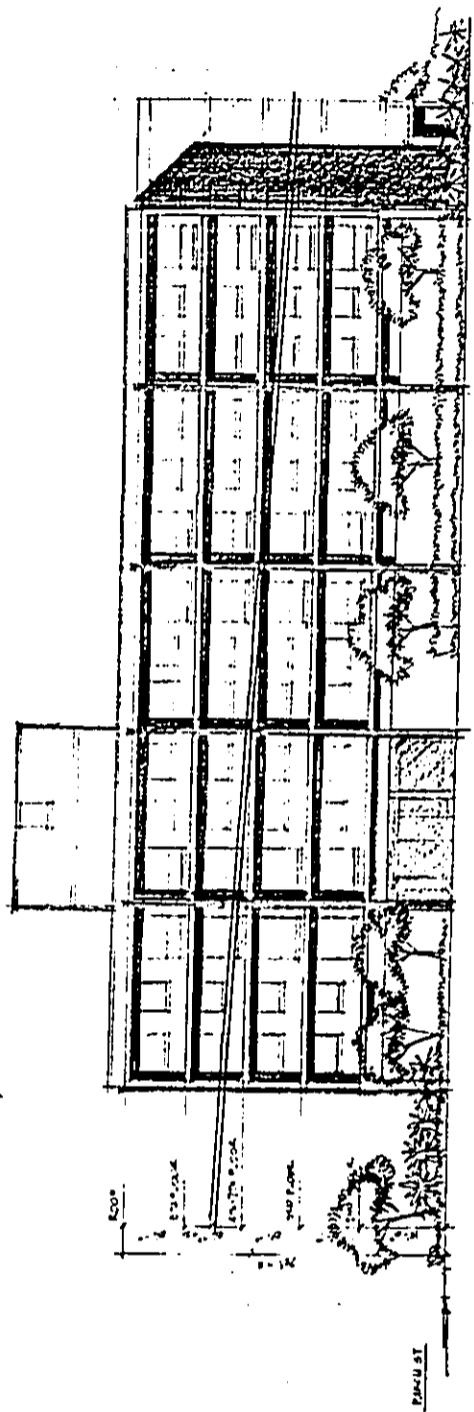
○ BUILDING SECTION
SCALE: 1/8" = 1'-0"



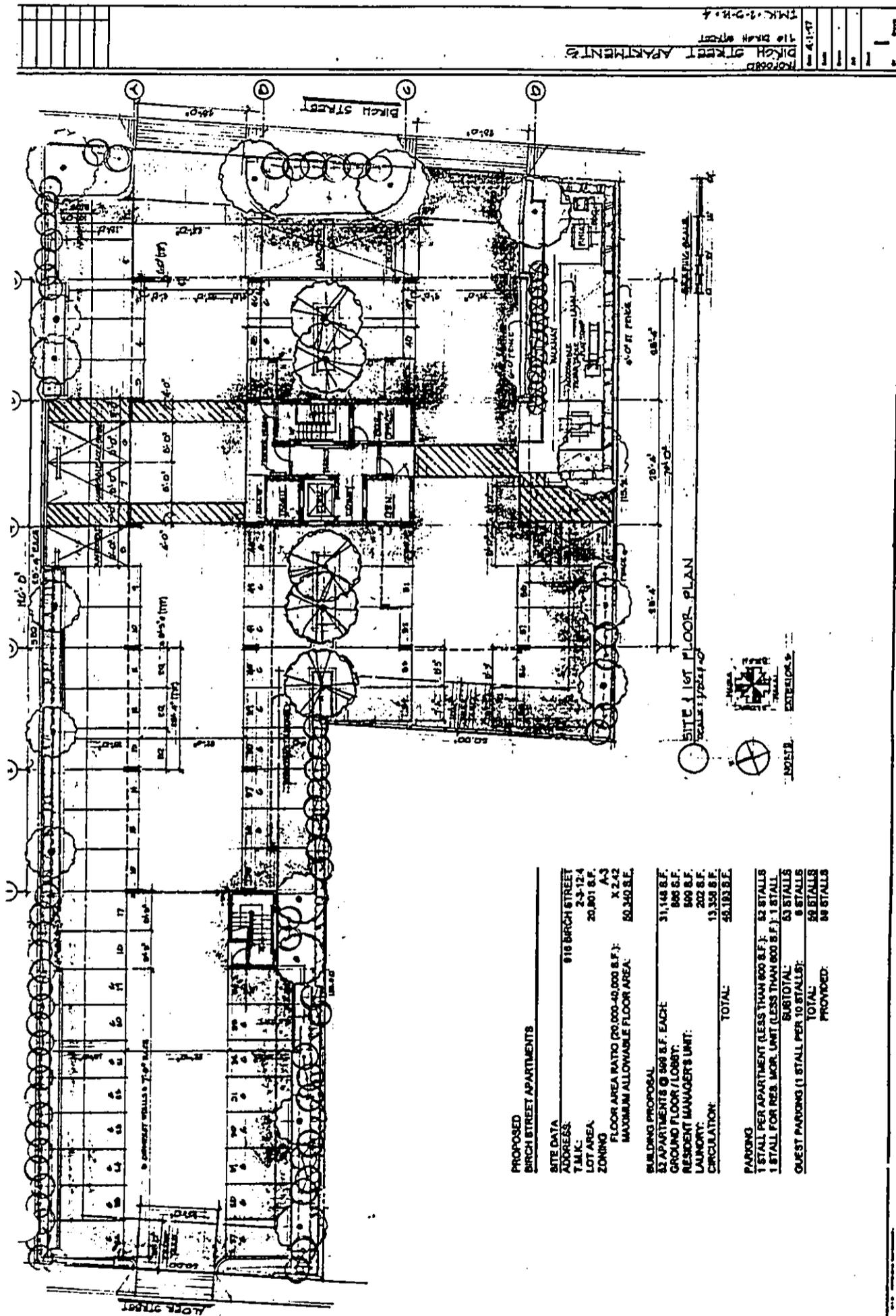
○ BUILDING SECTION
SCALE: 1/8" = 1'-0"



○ MAKA ELEVATION (LEFT)
SCALE: 1/8"=1'-0"



○ MAUKA ELEVATION (RIGHT)
SCALE: 1/8"=1'-0"



**PROPOSED
BIRCH STREET APARTMENTS**

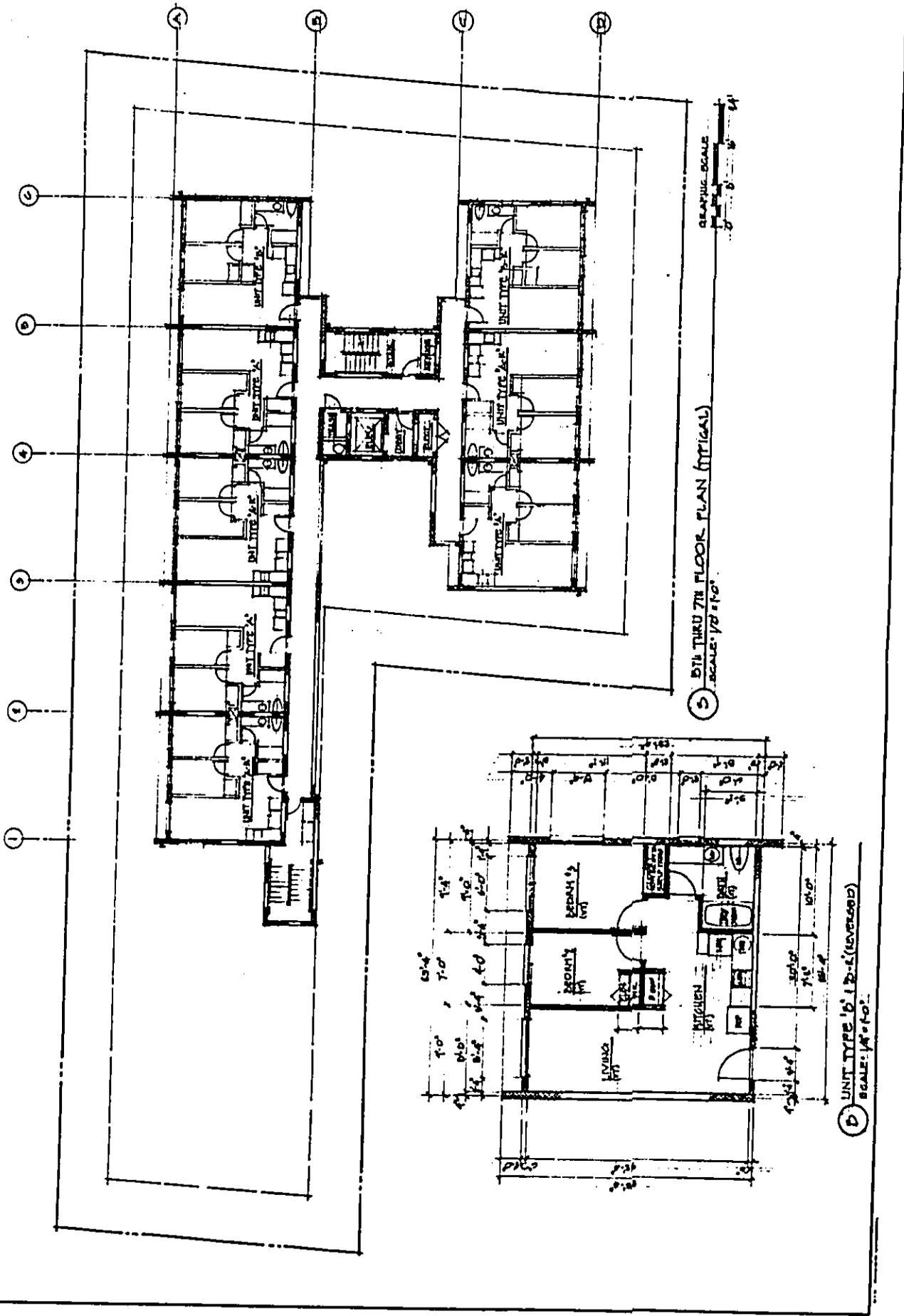
SITE DATA
 ADDRESS: 918 BIRCH STREET
 T.M.K.: 2-3-12.4
 LOT AREA: 20,901 S.F.
 ZONING: A-3
 FLOOR AREA RATIO (20,000-40,000 S.F.): X-2.42
 MAXIMUM ALLOWABLE FLOOR AREA: 50,340 S.F.

BUILDING PROPOSAL
 51 APARTMENTS @ 569 S.F. EACH: 31,149 S.F.
 GROUND FLOOR/LOBBY: 968 S.F.
 RESIDENT MANAGER'S UNIT: 500 S.F.
 LAUNDRY: 202 S.F.
 CIRCULATION: 13,358 S.F.
TOTAL: 58,183 S.F.

PARKING
 1 STALL PER APARTMENT (LESS THAN 800 S.F.): 52 STALLS
 1 STALL FOR RES. MGR. UNIT (LESS THAN 800 S.F.): 1 STALL
SUBTOTAL: 53 STALLS
 GUEST PARKING (1 STALL PER 10 STALLS): 5 STALLS
TOTAL: 58 STALLS
 PROVIDED: 58 STALLS

SITE & LOT FLOOR PLAN
 SCALE: 1/8" = 1'-0"

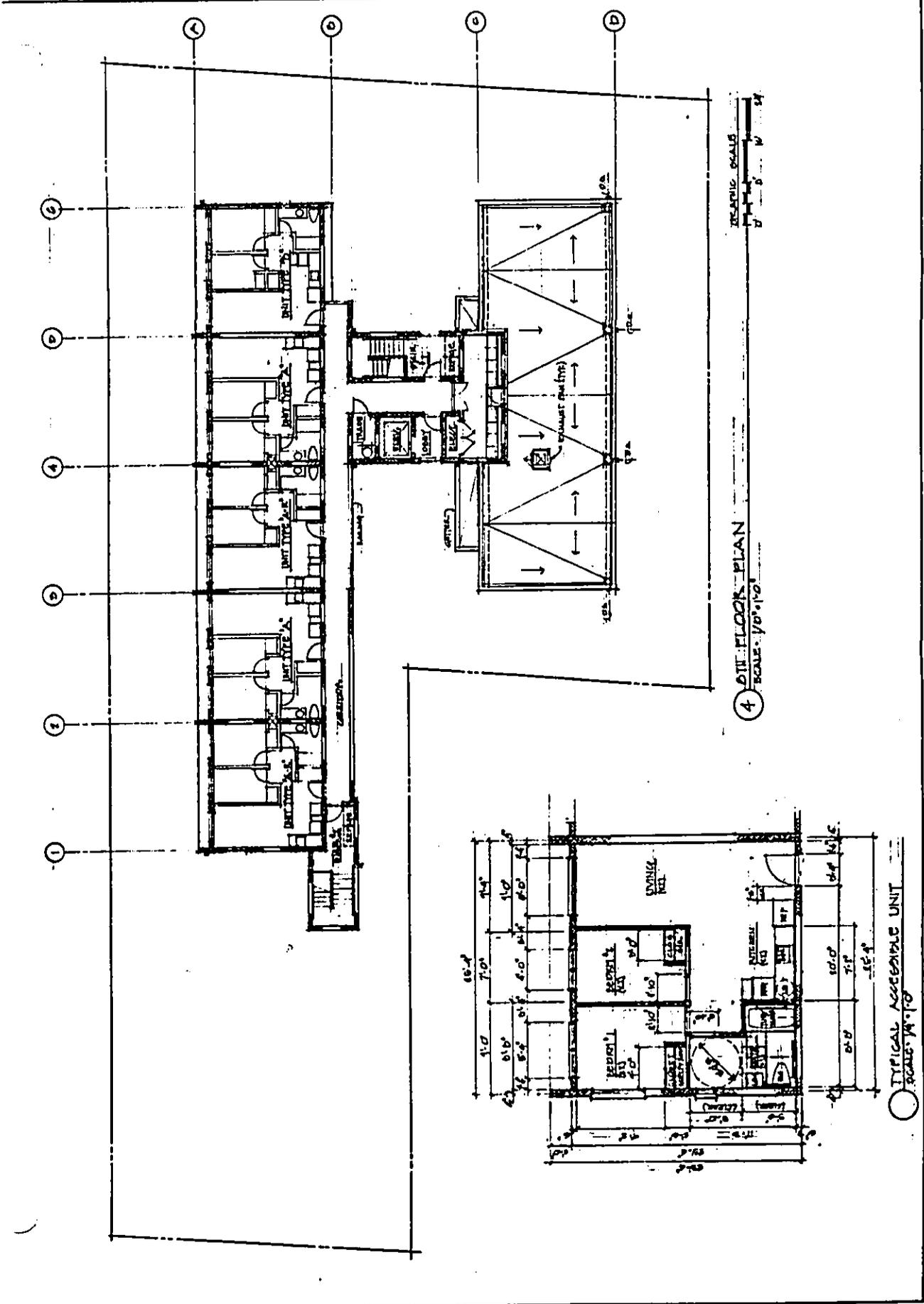




(a) 7TH THRU 7TH FLOOR PLAN (TYPICAL)
SCALE: 1/32" = 1'-0"

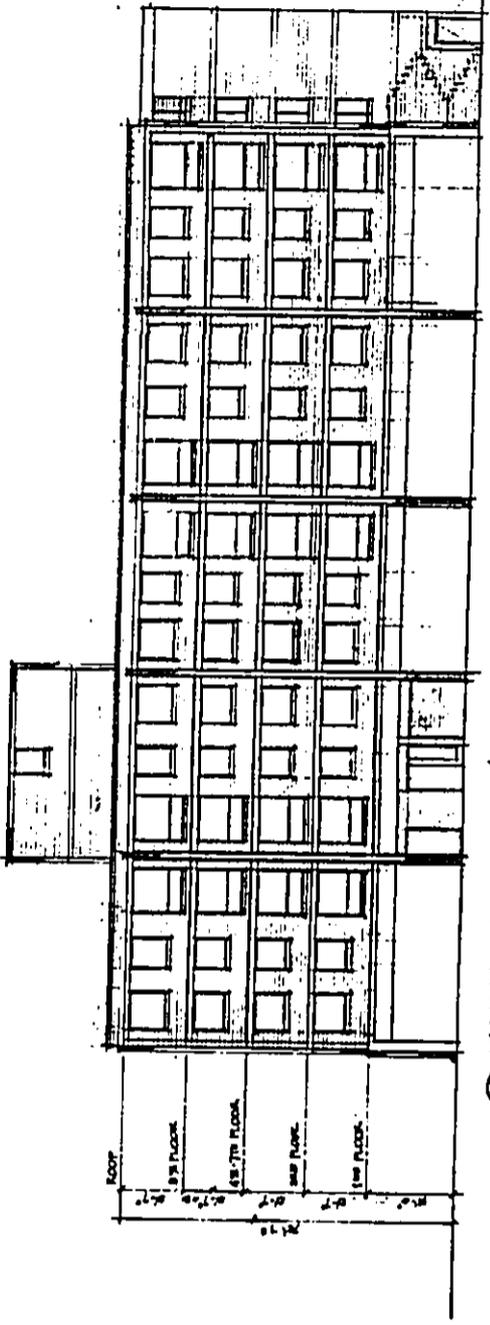
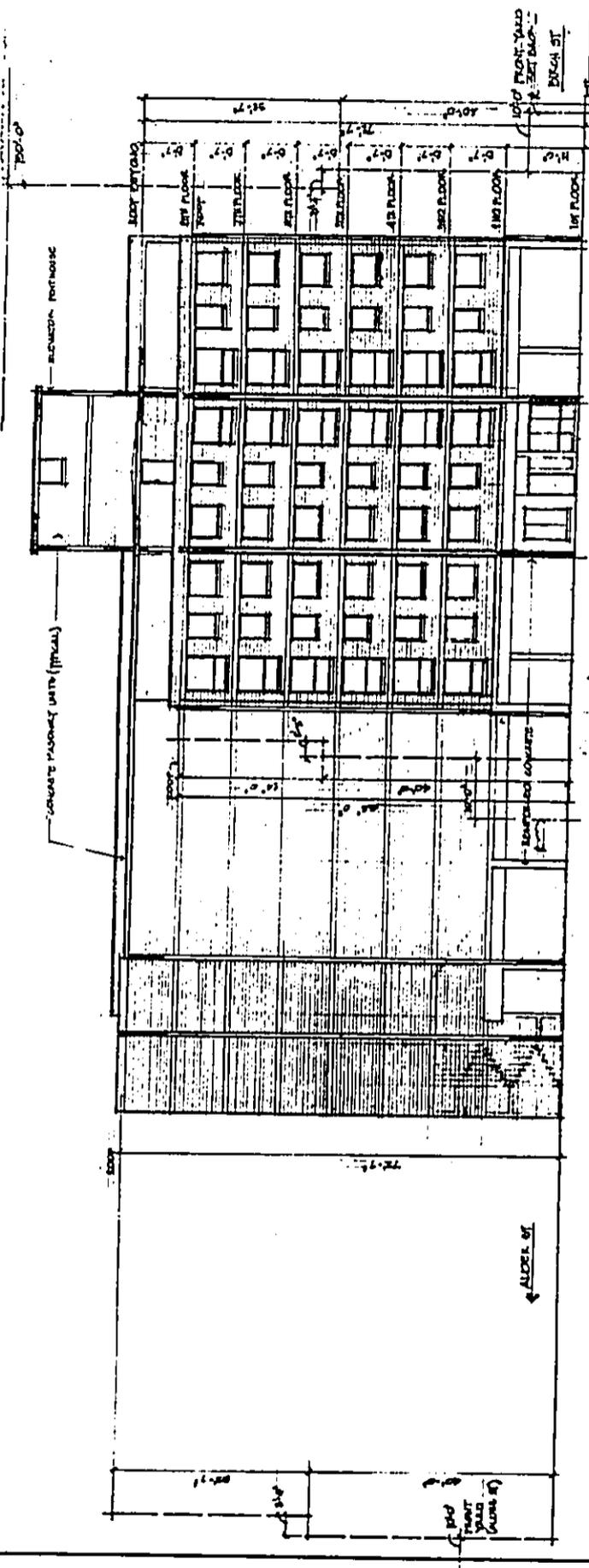
(b) UNIT TYPE 'b' (OVERLOOK)
SCALE: 1/8" = 1'-0"

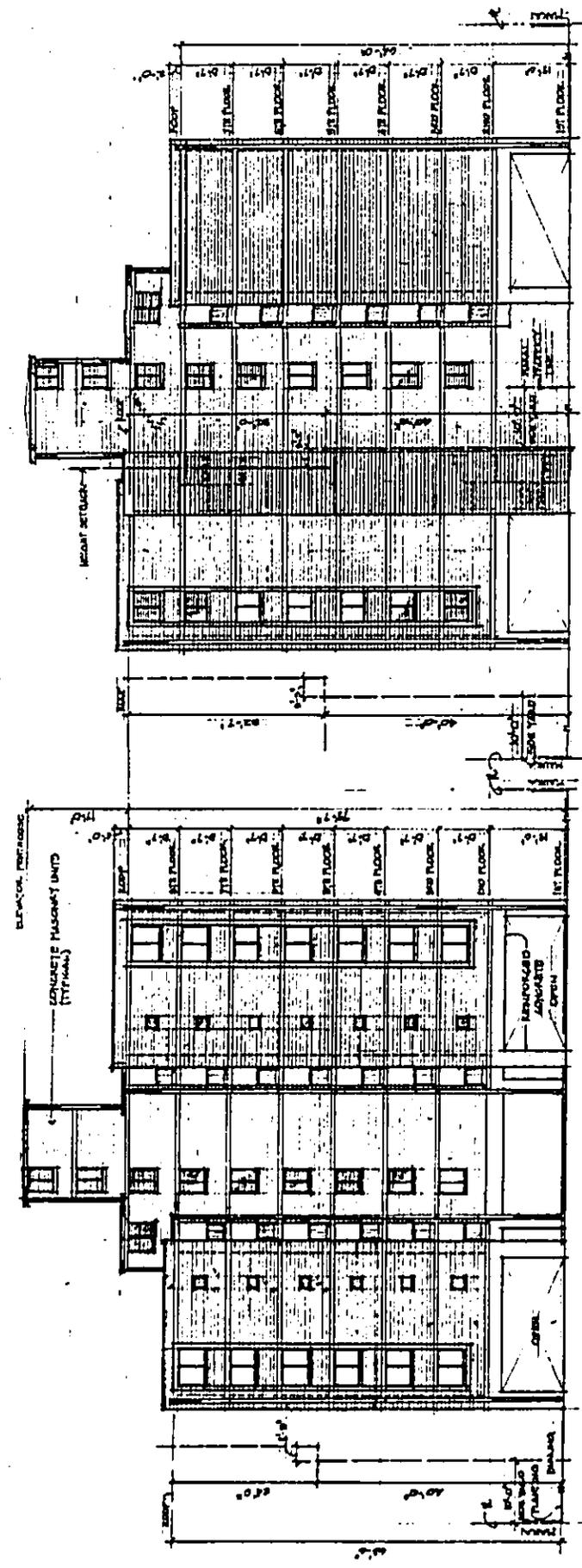
DATE	11/15/54
PROJECT	110 WEST STREET
DESCRIPTION	APARTMENTS
SCALE	1/8" = 1'-0"
DRW. NO.	101
REV.	
BY	
CHECKED	
APPROVED	



4 4TH FLOOR PLAN
SCALE: 1/8" = 1'-0"

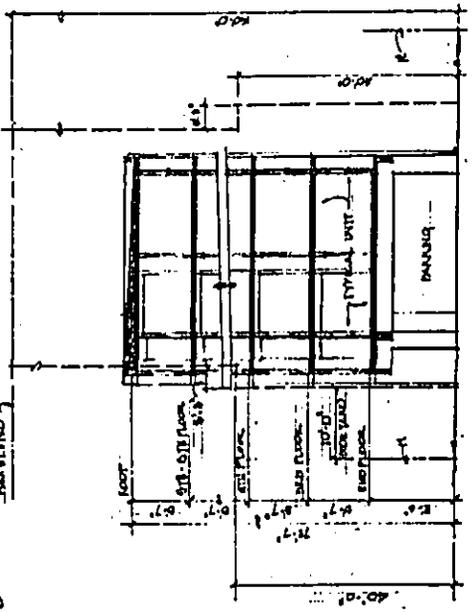
TYPICAL ACCESSIBLE UNIT
SCALE: 1/4" = 1'-0"



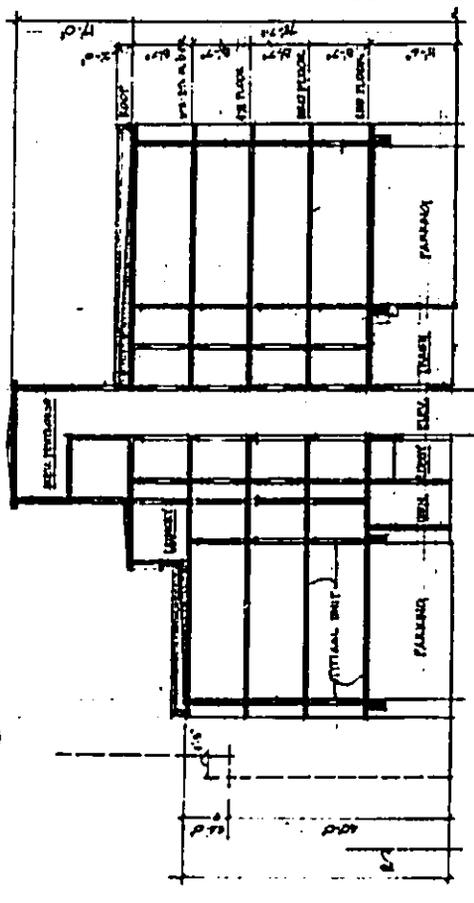


BIRCH STREET ELEVATION (FRONT)
 SCALE: 1/8" = 1'-0"

BIRCH STREET ELEVATION (REAR)
 SCALE: 1/8" = 1'-0"



BUILDING SECTION
 SCALE: 1/8" = 1'-0"



BUILDING SECTION
 SCALE: 1/8" = 1'-0"

ATTACHMENT "D"
PRO FORMA PROJECT FINANCING

PRO FORMA PROJECT FINANCING

SOURCES	INTERIM FINANCING	PERMANENT FINANCING
<i>Equity</i>	<u>\$ 34,000</u>	<u>\$ 34,000</u>
<i>RHTF Building Capacity Grant</i>	<u>50,000</u>	<u>50,000</u>
<i>RHTF Project Award</i>	<u>3,400,000</u>	<u>3,400,000</u>
<i>City Bank Interim Loan</i>	<u>6,143,255</u>	<u>0</u>
<i>Federal & State Tax Credit Equity</i>	<u>0</u>	<u>3,965,000</u>
<i>HCRC First Mortgage Financing</i>	<u>0</u>	<u>2,178,255</u>
TOTAL PROJECT COST \$9,627,255	\$9,627,255	\$9,627,255

Legend: RHTF -- State Rental Housing Trust Fund
 HCRC -- Hawaii Community Reinvestment Corporation

ATTACHMENT "E"

**ENVIRONMENTAL SITE ASSESSMENT
PHASE 1**

**PHASE I
ENVIRONMENTAL SITE ASSESSMENT**

FOR

**BIRCH STREET APARTMENTS
TMK 2-3-12-4**

PREPARED FOR

**THOMAS B. DE COSTA AIA, INC.
866 KULANI STREET
HONOLULU, HI 96825**

PROJECT NUMBER 643-6E002

December 13, 1996

PROFESSIONAL SERVICE INDUSTRIES, INC.

TABLE OF CONTENTS

1. SUMMARY.....	4
2. INTRODUCTION.....	2
Purpose And Scope.....	2
Authorization.....	2
Access.....	3
Information Provided by Client.....	3
Warranty.....	4
Unidentifiable Conditions.....	4
Use By Third Parties.....	4
3. SITE DESCRIPTION.....	5
Location.....	5
Vicinity Characteristics.....	5
Subject Site Description.....	5
Subject Site Use.....	5
Adjoining Property Use.....	5
Past Use.....	6
4. RECORDS REVIEW.....	7
Standard Federal and State Environmental Record Sources.....	7
Findings From Lists.....	7
Physical Setting Sources.....	9
5. HISTORICAL USE INFORMATION.....	10
Aerial Photograph Review.....	10
Sanborn Map Review.....	10
City Directories.....	10
6. RECONNAISSANCE AND INTERVIEWS.....	11
Interviews.....	11
On-Site Reconnaissance.....	11
Off-Site Reconnaissance.....	12
7. FINDINGS & CONCLUSIONS.....	14
Phase I ESA.....	14
Conclusions.....	14
APPENDICES	
A. Maps	
B. Regulatory Documentation	
C. Reconnaissance Photographs	
D. Author Credentials	

1.0 EXECUTIVE SUMMARY

PSI, Inc. has performed a Phase I Environmental Site Assessment (ESA) in general accordance with the scopes and limitations of ASTM E 1597-94.

The property investigated is located at 916 and 920 Birch St. in the central urban core of Honolulu, in the lower Makiki district, approximately one block Diamond Head of the Piikoi and King Street intersection. It is a half block south of King Street and fronts both Birch and Alder Streets. The area is essentially a built-up older neighborhood. Some properties have and are undergoing redevelopment.

There is no apparent on site evidence or research information that the property has generated or contains contaminants. Historically, its use has been primarily residential in nature. It is currently vacant except for a portion on the ewa side of the property which is being used as a parking lot.

The adjacent properties are a mix of commercial and residential uses. A parking lot and house abut the north boundary of the property. The parking lot is a part of a Texaco service station. The service station is mauka of the parking and located on King Street. The service station has a documented leak from one or more of its underground storage tanks. This was documented in 1995. The location of the tanks in questions is approximately 100 feet upgradient of the subject site. State record indicates that Texaco will be performing a Phase II ESA on their site. Public record indicates this has not been performed yet.

All other adjacent properties are residential in nature and have no evidence, either previously or currently, of generating contaminants.

Based on the findings in this report, there is evidence of potential environmental conditions associated with this site. Subsurface soil and groundwater may be affected by the adjacent Texaco station.

2.0 INTRODUCTION

2.1 PURPOSE AND SCOPE

This Phase I Environmental Site Assessment (ESA) was performed to identify, to the extent feasible, recognized environmental conditions in connection with the site. The protocol utilized for this assessment is in general accordance with the requirements of ASTM Standard E 1527-94.

The site assessment included four components: Records Review, Site Reconnaissance, Interviews and Report Preparation. The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions in connection with the site. The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the site. The objective of the interviews is to obtain additional information indicating recognized environmental conditions in connection with the site. The report includes documentation to support the analysis, opinions and conclusions as presented.

2.2 AUTHORIZATION

Authorization to perform this assessment was given by acceptance of PSI Proposal No. 643-6102 on behalf of the Hawaii Housing Development Corporation and PSI, Inc. The proposal was addressed to Thomas B. De Costa Inc. AIA dated September 17, 1996 and signed October 22, 1996.

2.3 ACCESS

Field reconnaissance was performed on October 29, 1996. Instructions as to the location of the subject site, access, and an explanation of the subject site and facilities to be assessed were provided by Mr. Thomas B. De Costa.

2.4 INFORMATION PROVIDED BY CLIENT

The following site information was provided to PSI.

ITEM	PROVIDED BY CLIENT	NOT PROVIDED BY CLIENT	DISCUSSED BELOW	DOES NOT APPLY
Environmental Questionnaire and Disclosure Statement		X		
Site Plan	X			
Legal Description	X			
Chain of Title	X			
Identification of Key Site Manager				X
Letter of Access				X
Environmental Liens		X		
Specialized Knowledge	X		X	

Identification of Key Site Manager

The Key Site contact was identified as Mr. Thomas B. De Costa of Thomas B. De Costa AIA, Inc. representing the Hawaii Housing Development Corporation. The contact's telephone number is (808) 395-0735.

Chain Of Title

Chain-of-Title documents were provided by the client. The site has been owned by the Okumura Boys Home since 1951. It is still currently owned by the Okumura Boys Home.

2.5 WARRANTY

Phase I Assessment

PSI warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the protocol. These methodologies are described by the standard as representing good commercial and customary practice for conducting an Environmental Site Assessment of a parcel of property for the purpose of identifying recognized environmental conditions. However, these findings and conclusions contain all of the limitations inherent in these methodologies which are referred to in the protocol and some of which are more specifically set forth below.

2.6 UNIDENTIFIABLE CONDITIONS

There is a possibility that even with proper application of these methodologies, there may exist on the subject site conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. PSI believes that the information obtained from the records review and the interviews concerning the site is reliable. However, PSI cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The methodologies of this assessment are not intended to produce all inclusive or comprehensive results, but rather to provide the client with information regarding apparent suspicions of existing and potential adverse environmental conditions relating to the subject property.

2.7 USE BY THIRD PARTIES

This report was prepared pursuant to the contract PSI has with Thomas B. De Costa AIA, Inc., on behalf of the Hawaii Housing Development Corporation. That contractual relationship included an exchange of information about the subject site that was unique and between PSI and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between PSI and its client, reliance or any use of this report by anyone other than for whom it was prepared, is prohibited and therefore not foreseeable to PSI.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third party beneficiary to PSI's contract with Birch Street Apartments. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at the third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

3.0 SITE DESCRIPTION

3.1 LOCATION

Site Address: 916 & 920 Birch Street
919 Alder Street
(Consolidated)

Tax Map Key: 2-3-12-4

3.2 VICINITY CHARACTERISTICS

The site is located in the central urban core of Honolulu, in the Makiki/McCully district, approximately one block Diamond Head of the Piikoi and King Street intersection. It is approximately mid-block makai of King Street and fronts both Birch and Alder Streets. The site is in an older neighborhood which is essentially 100% built-up. Several properties in the vicinity have been or are being redeveloped.

3.3 SUBJECT SITE DESCRIPTION

The subject site is approximately 20,801 square feet. The west portion of the site is being used as a parking lot by the State of Hawaii. The remainder of the site is a vacant lot.

The site is "L" shaped with the longest property dimension of 231+/- feet along the north side of the site, paralleling King Street, with street fronts of approximately 120 feet at Birch Street, and 60 feet at Alder Street.

The site is essentially a flat lot, with a slight slope from north to south.

The site is vacant, except for a paved parking area off Alder Street.

Utilities

Utilities on the site consisted of:

Water Utility By:	City & County of Honolulu
Electrical Services By:	Hawaiian Electric
Telephone Services By:	GTE Hawaiian Tel
Solid Waste Disposal:	Not applicable

3.4 SUBJECT SITE USE

Current Use

The subject site is currently in mixed use. The northwest (mauka/ewa) section (bordered by Alder Street) is a paved area being used as a parking lot by staff of the Hawaii Youth Correctional Facility. The southeast side of the site is vacant. This portion of the site is not being used for any purpose.

Visual Observation

Evidence of former structures were noted on the vacant portion of the lot. Remnants of concrete and asphalt pads were noted in several areas. Remains of piping was noted across the vacant lot. A hedge is also located in the center of the lot. The hedge appears to have been a lot divider between the former two houses that occupied the site.

Past Use

Records indicate that the vacant portion of the site was the previous location of two structures. The structures were residential in character, and used as the Okumura Boys and Girls Home until 1991.

Proposed Use

The project will be a concrete and masonry structure of 14 stories, with a building height of approximately 121'-6". There will be a 13 dwelling floors above the main lobby, ground floor. Each dwelling floor will have four (4) typical rental units for a total of 52 units.

The building structure will be located in the southeast (makai/Diamond Head) portion of the site.

The project will have 56 on site parking stalls at grade. Parking is planned to be located primarily along the north (mauka) portion of the site to take advantage of the existing parking area located on the northwest (mauka/Diamond Head) portion of the property.

The project will not have any subgrade building. The only anticipated impact to subgrade conditions include pile driving, building foundation footings, and trenching for utility service. All excavation and trenching is not anticipated to exceed five (50 feet in depth. All work for the proposed structure is planned to be in the larger southeast (makai/Diamond Head) portion of the site, fronting Birch Street.

3.5 ADJOINING PROPERTY USE

Current Use

The current use of adjoining properties was observed from the subject site as follows:

North (Mauka) - The north side of the property is bordered by two parcels. The northeast half (mauka/Diamond Head) of the property is currently in residential use. The area adjacent to northwest half (Mauna/Ewa) of the property currently used by the Texaco Station as a parking area. The Texaco Station is physically located north (mauka) of the parking area. The portion of the Texaco station that abuts the subject site is used by Texaco as a parking lot. The location of the gasoline tanks is situated on the King Street side of the site.

East (Diamond Head) - East of the site is Birch St. residential structures including single story homes, apartment buildings, and condominiums are located across the street and for several blocks.

South (Makai) - Directly south is a apartment building, and single story homes. A 2-story duplex is further south towards Elm Street, and then several more blocks of residential type areas.

West (Ewa) - West of the site is Alder Street. The Hawaii Youth Correction facility is located across the street and extends to Piikoi Street . Further west are more residential areas.

Past Use

Visual Observations

There was no evidence of past use on any adjoining property that could be determined from visual observations from the subject site.

4.0 RECORDS REVIEW

4.1 STANDARD FEDERAL AND STATE ENVIRONMENTAL RECORD SOURCES

Information from standard federal and state environmental record sources is provided through EDR. Data from governmental agency lists are updated and integrated into one database which is updated as these data are released.

This integrated database also contains postal service data in order to enhance address matching. Records from one government source are compared to records from another to clarify any address ambiguities. The demographic and geographic information available provides assistance in identifying and managing risk. The accuracy of the geocoded locations is approximately +/- 300 feet. Computerized maps of a subject site and surrounding area can be generated for most areas of the country, and a comprehensive source of aerial photographs and fire insurance maps may be used to provide information about the historical use of the subject site.

Regulatory information from the following sources regarding possible recognized environmental conditions within the noted distance from the subject site was reviewed. Refer to the Appendix for a complete listing.

Federal

<u>List</u>	<u>Approximate Search Distance, Miles</u>
Federal National Priorities List (NPL)	1.0
Federal Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) List	0.5
Federal Resource Conservation Recovery Act (RCRA) Corrective Actions	1.0
Federal RCRA Temporary Storage Disposal (TSD) Facilities List	1.0
Federal RCRA Generators List	Site and adjoining properties
Federal Emergency Response Notification System (ERNS) List	Site only

State

<u>List</u>	<u>Approximate Search Distance, Miles</u>
Hawaii Leaking Underground Storage Tank (LUST)	0.5
Hawaii Underground Storage Tank (UST)	Site and adjoining properties

4.2 FINDINGS FROM LISTS

Federal NPL Listing

The National Priorities (Superfund) List is EPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program.

No NPL sites are located within one mile of the subject site.

Federal CERCLIS Listing

This list is a compilation of sites which the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances.

No sites are located within 1/2 mile of subject site.

Federal RCRA Corrective Actions (CORRACTS)

The EPA maintains this database of RCRA facilities which are undergoing "corrective action". A "corrective action order" is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility's boundary and can be required regardless of when the release occurred, even if it predates RCRA.

No sites are located within 1/2 mile of subject site.

Federal RCRA TSD Facilities Listing (RCRIS)

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA TSD database is a compilation by the EPA of reporting facilities that transport, treat, store or dispose of hazardous waste.

No sites are located within 1/2 mile of subject site.

Federal RCRA Generators Listing

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Generators database is a compilation by the EPA of reporting facilities that generate hazardous waste.

Four sites are located within 1/8 of a mile from the subject site. All eleven (11) sites are Small Quantity Generators. Four sites are located within one-eighth to one-fourth mile of the subject site. These sites are not expected to impact the subject site.

Federal Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil or hazardous substances.

No ERNS sites were reported within the search distance.

Hawaii Leaking Underground Storage Tank List

Hawaii List - The State of Hawaii Leaking Underground Storage Tank (LUST) list is a compilation of known LUST's.

Three sites are located within 1/8 of a mile from the site. Two sites are within 1/8 to 1/4 mile a mile of the site and there are fourteen (14) sites from 1/4 to 1/2 mile of the site.

One-eighth mile at a higher or same elevation:

1. Texaco Station 622000090
1239 S. King St.

Adjacent to the northwest (mauka/Ewa) portion of the subject site.

Five underground storage tanks are located at this station. A release has been documented from this group of tanks. Upon review of the release, a report filed with the Department of Health. No determination has been made concerning the extent of the leak. Texaco has committed to determining the extent thru a Phase II ESA. Public record pertaining this assessment is currently unavailable, the release was reported on 10/13/95 and was detected through a site observation well. No other details are currently available.

This site may have affected subsurface soil and groundwater at the site.

2. Mark's Piikoi Service L3667
1180 S. King St.

One eighth to one fourth mile. northwest of the site.

3. Schuman Carriage
1234 S. Beretania St.

Approximately two-and-a-half blocks north (mauka) of site.

These sites are not expected to have impacted the subject site.

Hawaii Underground Storage Tank List

This is a database maintained by State or Local agencies of registered Underground Storage Tanks. Eight tanks are registered within 1/4 mile of the subject site. Three are located at a higher elevation than the subject site. They are:

1. Dennis Chevron Service
1201 S. King St.

South west of subject site.
2. Meadow Gold Dairy, Inc.
925 Cedar St.

Two blocks west of subject site.
3. Unocal 76 SS L3667
1012 Piikoi St.

Northwest of subject site. One fourth to one eighth mile

These sites are not expected to impact the property.

4.3 PHYSICAL SETTING SOURCES

Topographic Map Review

The USGS 1983 Honolulu Quadrangle 7.5 minute topographic map was reviewed for this ESA.

According to the contour lines on the topographic map, the subject site is located approximately 10 feet above Mean Sea Level.

Soils Map

Soils on the subject site are of the Makiki series. This series consists of well-drained soils on alluvial fans and terraces in the city of Honolulu on the island of Oahu. These soils formed in alluvium mixed with volcanic ash and cinders. They are nearly level. Elevations range from 20 to 200 feet. The annual rainfall amounts to 30 to 60 inches. Most of it falls between November and April. The mean annual soil temperature is 73°F. Makiki soils are generally geographically associated with Kaena and Tantalus soils.

These soils are used almost entirely for urban purposes.

Makiki clay loam, 0 to 2 percent slopes - This soil is on smooth fans and terraces. Included in mapping were small, stony areas and small areas of Kaena.

In a representative profile the surface layer is dark-brown clay loam about 20 inches thick. The subsoil, about 10 inches thick, is dark-brown clay loam that has sub-angular blocky structure. It contains cinders and rock fragments. The subsoil is underlain by similar material, about 24 inches thick, that is massive. Below this are volcanic cinders. The soil is strongly acid to medium acid.

Permeability is moderately rapid. Runoff is slow, and the erosion hazard is no more than slight. The available water capacity is about 1.7 inches per foot of soil. In places, roots penetrate to a depth of 5 feet or more.

5.0 HISTORICAL USE INFORMATION

5.1 AERIAL PHOTOGRAPH REVIEW

Available aerial photographs from 1950 to 1995 were reviewed for this Phase I Environmental Site Assessment (ESA). The aerial photo was reviewed and reproduced by R.M. Towill. No environmental concerns were observed.

1. February 16, 1949
Site comprised of residences, trees, and grassed areas. Surrounding area predominantly residential in nature.
2. January 19, 1959
No significant change from 1949.
3. November 23, 1960
No significant change from 1959. Chevron site located on the southeast corner of King and Piikoi St. had a different structure than the present service station.
4. May 17, 1965
HIC Arena with adjoining annex and parking were present. Site was still comprised of two houses, trees, and grassed areas.
5. July 21, 1974
Service station present at current Chevron site. Ewa half of project site was comprised of a paved parking lot. Remaining site was still comprised of residences and trees.
6. June 24, 1981
No significant change from 1974
7. February 28, 1994
Residences were no longer present on site.

5.2 SANBORN MAP REVIEW

Sanborn maps from 1917 indicate that the site was and has been residential. The surrounding areas have been mixed used light industrial and residential.

5.3 CITY DIRECTORIES

No City directory is available.

6.0 RECONNAISSANCE AND INTERVIEWS

Where possible, photographs were taken during the reconnaissance to document the features observed and recognized environmental conditions. The photographic locations are shown on the site sketch included in the report section "Site Description". Interviews were conducted with persons as noted in the following table. Photographs, the site sketch, results of the regulatory search, and correspondence are included in the Appendix.

6.1 INTERVIEWS

Interviews were conducted with the following:

NAME	FUNCTION	EMPLOYER	DATE	PHONE
Thomas De Costa	Architect	Thomas De Costa AIA, Inc.	10/22/96	(808) 395-0735

Mr. De Costa, the project architect for the proposed project, inform us for this report that the design of the proposed project will include the following:

The project will be a concrete and masonry structure of 14 stories, with a building height of approximately 121'-6". There will be 13 dwelling floors above the main lobby, ground floor. Each dwelling floor is planned to have four (4) typical rental units for a total of 52 units.

The building structure is planned to be located in the southeast (makai/Diamond Head) portion of the site.

The project will have 56 parking stalls on grade. Parking is planned to be located primarily along the north (mauka) portion of the site. The existing parking area on the west (Ewa) portion of the property will be retained and reused as parking for the proposed project.

The project will not have any subgrade building. There will be no mass excavation of the subgrade. The only anticipated impact to subgrade conditions include pile driving, building foundation mat footings, and trenching for utility service. All excavation and trenching are not anticipated to exceed five (5) feet in depth. All work for the proposed structure is planned to be in the larger southeast (makai/Diamond Head) portion of the site, fronting Birch Street.

6.2. ON-SITE RECONNAISSANCE

On-site visual reconnaissance of the subject site and improvements for indications of possible environmental concerns was conducted on October 29, 1996 by Michael Polkinghorn, Branch Manager of the PSI Honolulu Office. Reconnaissance consisted of systematically traversing the site to provide an overlapping field of view. When possible, photographs were taken to document the features observed during the reconnaissance and environmental conditions of concern and the photographs are included in the Appendix.

Drums, Containers, and Storage Tanks

The on-site included observation for visible drums, containers, and storage tanks.

No drums, containers, or storage tanks were noted.

Evidence of Waste Disposal

The on-site reconnaissance addressed dumps, pits, ponds, landfills, borrow pits, and lagoons which may have been used for disposal purposes.

No evidence of waste disposal were found.

Surface Fill

The on-site reconnaissance included observation for visible indications of fill soils.

No indication of fill soils were observed.

Surface Staining and Stressed Vegetation

The on-site reconnaissance addressed indications of environmental conditions as evidence of surface staining and/or stressed vegetation.

No evidence of surface staining and/or stressed vegetation was observed.

Transformers

The on-site reconnaissance addressed location of transformers servicing the site.

A letter has been sent to Hawaiian Electric concerning the PCB status of the transformers servicing the site. Client will be notified of the findings.

Air Stacks, Vents, and Odors

The on-site reconnaissance addressed air stacks, vents, and strong, pungent, noxious odors.

None were noted at the time of inspection.

Surface Drainage

The on-site reconnaissance addressed surface drainage at the site.

- Surface drainage flows from the south direction.
- Surface water or drainage from adjacent properties was not observed.
- Surface water or drainage from the site to adjacent properties was not observed.

Evidence of Underground Storage Tanks

The on-site reconnaissance addressed observable indications of underground storage tanks (USTs) such as

- Pumps, pipes or vents
- Tank related manholes
- Tank related concrete pads or surface depressions

None of the following indications of underground storage tanks (USTs) were found on the subject site.

Evidence of Improper Waste Discharge

No pipes and/or vents, indicating improper release of waste discharge were found.

Hazardous Waste

No indications of hazardous waste generating operations were observed at the site.

General Environmental Practices

Currently, the site does not have operations of an environmental nature occurring on it. A homeless person is apparently living in the hedge that separates the Birch St. lots. There is some litter and trash generated by this person. The Alder St. side of the site is a parking lot. Fluids from the automobiles parked here may have stained the paving. This should not be a concern.

6.3 OFF-SITE RECONNAISSANCE

Off-site visual reconnaissance of adjacent properties from the subject site was conducted on October 29, 1996 by Michael Polkinghorn of PSI. The off-site reconnaissance was limited to areas and facilities that were readily accessible for visual observation, immediately adjacent to and visible from the subject site.

ITEM	NONE OBSERVED	OBSERVED	DISCUSSED BELOW
Drums, Containers & Storage Tanks	X		
Dumps, Pits & Lagoons	X		
Surface Soil Staining or Stressed Vegetation	X		
Transformers	X		
Air Stacks, Vents & Odors	X		
Off-Site Drainage	X		
Underground Storage Tanks		X	X
Aboveground Storage Tanks	X		
Shafts & Wells	X		
Off-Site Environmental Management Practices	X		

UNDERGROUND STORAGE TANKS

The Texaco Station adjacent to the northwest (mauka/Ewa) portion of the site has underground storage tanks (UST), and has had a documented release in 1995. Subsurface soil and groundwater in the area could have been affected by the release.

Since the subsurface flow generally follows the natural surface drainage from north to south (mauka to makai), ground water and any potential contamination could be expected to flow in a southwesterly direction towards the ocean. Soil contamination potentially could have occurred in the west (Ewa) portion of the site.

The west (Ewa) portion of the site is intended to be used for on-grade parking of the proposed project. No subsurface disturbance is anticipated.

7.0 FINDINGS AND CONCLUSIONS

7.1 PHASE I ESA

PSI has performed a Phase I Environmental Site Assessment on the subject site in general conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the site.

A documented release from an underground storage tank at the Texaco Station during work to upgrade the tanks, could have potentially affected the subsurface soil of that property. That property is located adjacent to the northwest (mauka/Ewa) portion of the project site.

No evidence has been produced to verify or confirm previous contamination of subsurface soil in the project site.

The proposed project will not disturb the existing subsurface soil conditions in the west (Ewa) portion of the site, and will not generate contaminants in its intended use as a residential apartment building.

7.2 CONCLUSIONS

Based on the findings of this Phase 1 report, it is concluded that a Phase II Preliminary Contamination Assessment should be performed to determine if subsurface soil and groundwater are affected. It is the further recommendation of this report that monitoring for possible contamination of soils conditions be performed during the construction phase of the project.

ATTACHMENT "F"
FOUNDATION INVESTIGATION
REPORT

ERNEST K. HIRATA & ASSOCIATES, INC.

Geotechnical Engineering

99-1433 Koaha Place • Aiea, Hawaii 96701-3279
Phone (808) 486-0787 • Fax (808) 486-0870

ERNEST K. HIRATA, P.E.
PAUL S. MORIMOTO, P.E.
DAVID M. KITAMURA, P.E.
JUNG K. KIM, P.E.
STACEY A. KIMURA, P.E.
CON C. TRUONG, P.E.

March 6, 1997
W.O. 97-2840

Mr. Gary S. Furuta
Imperial Plaza, Suite C-103
725 Kapiolani Boulevard
Honolulu, Hawaii 96813

Dear Mr. Furuta:

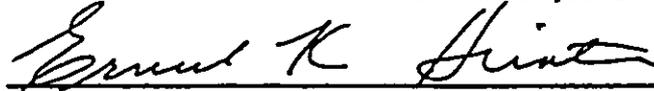
Our report, "Foundation Investigation, Birch Street Apartments, Honolulu, Hawaii, TMK: 2-3-12: 4," dated March 6, 1997, our Work Order 97-2840 is enclosed. This investigation was conducted in general conformance with the scope of work presented in our proposal dated February 9, 1996.

Due to the potential for excessive settlement of conventional spread footings, we recommend that pile foundations be used to support the proposed apartment building. Piles will derive their load bearing capacity in end bearing on the coral stratum which underlies the site at depths ranging from about 11 to 13 feet. Recommendations are based on 12-inch square prestressed concrete piles designed to support a vertical load of 40 tons.

Additional geotechnical recommendations are presented in the report. We appreciate this opportunity to be of service. Should you have any questions concerning this report, please feel free to call on us.

Very truly yours,

ERNEST K. HIRATA & ASSOCIATES, INC.



Ernest K. Hirata

President

EKH:CCT:ph

TABLE OF CONTENTS

INTRODUCTION	1
PROJECT CONSIDERATIONS	2
SITE CONDITIONS	2
FIELD EXPLORATION	2
SOIL CONDITIONS	3
CONCLUSIONS AND RECOMMENDATIONS	4
Foundations	5
Test Piles	6
Lateral Design	6
Foundation Settlement	7
Slabs-on-Grade	7
Pavement Design	8
Site Grading	8
ADDITIONAL SERVICES	9
LIMITATIONS	9

APPENDIX

Appendix of Laboratory Testing	Pages 1 through 3
Boring Log Legend	Plate A1
Unified Soil Classification System	Plate A2
Boring Logs	Plates B1 through B3
Consolidation Test Reports	Plates C1 through C3
Direct Shear Test Results	Plates D1 and D2
Maximum Density Curve	Plate E
CBR Stress Penetration Curve	Plate F
Location Map	Plate 1
Boring Location Plan	Plate 2

**FOUNDATION INVESTIGATION
BIRCH STREET APARTMENTS
HONOLULU, HAWAII
TMK: 2-3-12: 4**

INTRODUCTION

This report presents the results of our foundation investigation performed for the proposed apartment building on Birch Street in Honolulu, Hawaii. Our work scope for this study included the following:

- A visual reconnaissance of the site and its vicinity to observe existing conditions which may affect the project. The general location of the project site is shown on the enclosed Location Map, Plate 1.
- A review of available soils information pertinent to the site and the proposed project.
- Drilling and sampling three exploratory borings to depths ranging from approximately 28 to 31 feet to determine the subsurface soil conditions. The soils encountered are described on the Boring Logs, Plates B1 through B3. The approximate exploratory boring locations are shown on the enclosed Boring Location Plan, Plate 2.
- Laboratory testing of selected soil samples to determine classification and engineering properties. Laboratory testing procedures are presented in the Appendix of Laboratory Testing, Pages 1 through 3. Laboratory test results are shown in the Appendix of Laboratory Testing, on the Boring Logs, and on Plates A2, C1 through C3, D1, D2, E, and F.
- Engineering analyses of the field and laboratory data.
- Preparation of this report presenting geotechnical recommendations for the design of foundations, slabs-on-grade, resistance to lateral pressures, flexible pavement, and site grading.

PROJECT CONSIDERATIONS

The proposed development will consist of an 8-story apartment building of masonry and reinforced concrete construction. The structure will have plan dimensions on the order of 50 by 80 feet. The ground level will be used for parking with the upper floors housing one and two-bedroom units. Based on discussions with the Structural Engineer, maximum column loads of about 400 kips are expected.

Finish grades were not available at the time of this report. However based on the relatively level topography, only minor site grading is expected for the project.

SITE CONDITIONS

The property is located on the west side of Birch Street, between its intersections with King and Elm Streets. The site is bordered by a five-story apartment building on the south, by single family residences on the northeast and southwest, and by Alder Street on the west.

The property is relatively level, with drainage generally flowing in a southerly direction. The eastern section of the site is vacant, and landscaped with grass, several hedges, and trees. The western section is paved with asphaltic concrete pavement and used for parking.

FIELD EXPLORATION

The site was explored on January 14 and 15, 1997 by drilling 3 exploratory test borings with a truck-mounted CME 55 drill rig. The borings varied in depth from about 28 to 31 feet. The soils were continuously logged by our field engineer and classified by visual examination in accordance with the Unified Soil Classification System. A Boring Log Legend is presented on Plate A1, while the Unified Soil

Classification System is shown on Plate A2. The approximate boring locations are shown on Plate 2, and the soils encountered are logged on Plates B1 through B3.

Representative soil samples and core samples of coral were recovered from the borings for selected laboratory testing and analyses. Representative samples were obtained by driving a 3-inch O.D. thin-walled split tube sampler with a 140-pound hammer from a height of 30 inches. The blow counts required for 12 inches of penetration are shown at the appropriate depths on the enclosed Boring Logs. Core samples were obtained by drilling with NX and 4-inch core barrels having inside diameters of 2.1 and 4 inches, respectively. Recovery percentages for each core run are also shown on the enclosed Boring Logs.

SOIL CONDITIONS

The subsurface soil conditions encountered were relatively uniform between our borings. The surface soil was classified as brown silty clay. The silty clay was in a stiff condition, except in the upper 2 to 3 feet where the soils were medium stiff. The silty clay extended to depths of about 7.5 to 8 feet. Laboratory testing indicated that the silty clay is moderately expansive.

Underlying the surface silty clay was medium dense cinder. The cinder layer graded to a loose condition with increasing depth. Boring B1 encountered about 2 feet of loose silty sand underlying the cinder layer.

Dense to medium hard coral was encountered at depths ranging from approximately 11 to 13 feet. The coral stratum extended down to the maximum depths drilled.

Groundwater was encountered at depths ranging from about 8.3 to 9.7 feet.

CONCLUSIONS AND RECOMMENDATIONS

We believe that conventional spread footings supporting the anticipated heavy column loads would experience excessive settlement due to the loose layers of cinder and silty sand which underlie the surface silty clay. Based on a 400 kip column load, our analyses resulted in computed settlements in excess of 1 inch. It is our opinion that settlements of this magnitude would result in distress to the masonry/concrete structure.

As a result, prestressed concrete piles extending through the surface soils and end bearing on the medium hard coral are recommended for support of the proposed apartment building. Recommendations for 12-inch square, prestressed concrete piles are presented in this report.

Laboratory testing on the surface silty clay indicates a moderate expansion potential. We believe that the expansive soil would impact the performance of concrete slabs-on-grade. As a result, to reduce the potential for structural distress due to uplift and swelling of the onsite soils, we recommend that all concrete slabs-on-grade be underlain by at least 18 inches of imported, non-expansive granular fill.

The surface silty clay is in a relatively moist condition. It is important that the moist condition of the soil be maintained prior to the construction of slabs-on-grade. The silty clay should *not* be allowed to dry before placement of the imported granular fill. This precautionary measure will significantly reduce the potential effect of the expansive soil on slabs-on-grade. It may be necessary for the contractor to occasionally add water to the site to maintain the natural moisture content.

Foundations

Pile foundations are recommended for support of the proposed structure. Recommendations are presented based on the use of 12-inch square prestressed concrete piles.

Piles will derive their load capacity in end bearing on the dense to medium hard coral. Piles may be designed to support an axial load of 40 tons. Pile lengths of about 15 feet may be used for cost estimating purposes.

Piles should be spaced a minimum of 3 feet on centers, and driven with a hammer delivering approximately 26,000 foot-pounds of energy per blow. The minimum driving resistance required will depend on the type of hammer and pile driving equipment used, and final determination of the driving criteria can be specified after test driving of piles.

Analyses were performed to provide an indication of the final driving criteria required to attain the design load capacity and a guide for test pile driving. Based on the use of a hammer delivering approximately 20,600 foot-pounds of energy per blow, a minimum blow count of 4 blows per inch for the final 3 inches will be required.

Vibrations caused by driving piles through the surface silty clay layer may affect adjacent structures supported on shallow foundations. Predrilling is therefore recommended at all pile locations. Predrilling should extend completely through the surface layer of silty clay, or to a minimum depth of 10 feet.

Test Piles

Indicator test piles should be driven throughout the proposed building area to help determine production pile lengths and pile driving criteria. We recommend that approximately 10 percent of the total number of piles for the project be driven during the indicator test pile driving operations. Test piles should be at least 10 feet longer than that estimated for production piles.

Test piles should be driven with the same hammer which will be used for production pile driving. The test driving should be monitored by an engineer from our staff. Our office should be notified of any unexpected conditions encountered during the test driving operations, so any necessary changes can be reviewed by us.

Lateral Design

The pile capacity indicated above is for the total of dead and frequently applied live loads, and may be increased by one-third for short duration loading which includes the effect of wind and seismic forces. Piles may be designed to resist lateral loads of 9 kips per pile for fixed head conditions.

Resistance to lateral loading may also be provided by passive earth pressure acting on pile caps and grade beams. Passive earth pressure may be computed as an equivalent fluid having a density of 300 pounds per cubic foot. Unless covered by pavement or concrete slabs, the upper 12 inches of soil should not be considered in computing lateral resistance.

For active earth pressure considerations, equivalent fluid pressures of 45 and 60 pounds per cubic foot per foot of depth may be used for freestanding and restrained conditions, respectively.

To prevent buildup of hydrostatic pressures, weepholes or subdrains should be included in the design of all retaining structures.

Foundation Settlement

Final structural loads were not available at the time of this report. However, settlement of pile foundations bearing on medium hard coral is expected to be negligible.

Slabs-on-Grade

Due to the moderate expansion potential of the surface silty clay, all concrete slabs-on-grade should be underlain by at least 18 inches of imported granular fill.

To provide a capillary break, the upper 4 inches of this section should consist of a cushion of clean gravel, such as #3 Fine (ASTM C33, Size No. 67). The remainder of the granular fill section should consist of well-graded material, such as select borrow.

The cushion of clean gravel should be compacted to a level surface. The well-graded granular material should be compacted to a minimum 95 percent compaction as determined by ASTM D 1557.

All building slabs should also be protected by a plastic moisture barrier placed over the cushion material. A thin layer of sand should overlie the moisture barrier to aid the concrete curing process.

Concrete slabs which will be subjected to vehicle loading should be underlain by at least 6 inches of base course compacted to a minimum 95 percent compaction as determined by ASTM D 1557. The base course is in lieu of the gravel cushion.

Pavement Design

Flexible pavement for driveways and parking areas may be designed based on the following section. The subgrade should be compacted to a minimum 90 percent compaction as determined by ASTM D 1557, while the select borrow and base course should be compacted to a minimum 95 percent compaction as determined by ASTM D 1557.

2.0"	Asphaltic Concrete
6.0"	Base Course
6.0"	Select Borrow
<hr/>	<hr/>
14.0"	Total Thickness

Site Grading

The project site should be cleared of all vegetation, including tree roots, asphaltic concrete fragments, and other deleterious material. Prior to placement of fill, the existing ground should be scarified to a depth of six inches, moistened if necessary to slightly above the optimum moisture content, and compacted to a minimum 90 percent compaction as determined by ASTM D 1557.

The onsite soils may be reused in compacted fills, except in the granular fill sections recommended beneath slabs-on-grade. All rock fragments larger than six inches in maximum dimension should be removed from the onsite soils prior to reuse in compacted fills. The moisture content of the silty clay should be maintained at slightly above optimum moisture content during compaction.

Imported structural/granular fill should be well-graded, non-expansive granular material. Specifications for imported structural fill should indicate a maximum particle size of 3 inches, and state that not more than 20 percent of soil by weight shall pass the #200 sieve. In addition, the plasticity index (P.I.) of that portion of the soil passing the #40 sieve shall not be greater than 10.

Fill consisting of cohesive soils, such as the onsite silty clay, shall be placed in horizontal lifts restricted to eight inches in loose thickness and compacted to a minimum 90 percent compaction as determined by ASTM D 1557. Granular fill should also be placed in lifts, but compacted to at least 95 percent compaction as determined by ASTM D 1557. Fill placed in areas which slope steeper than 5:1 (horizontal to vertical), should be continually benched as the fill is brought up in lifts.

ADDITIONAL SERVICES

We recommend that we perform a general review of the final design plans and specifications. This will allow us to verify that the earthwork and foundation design recommendations have been properly interpreted and implemented in the design plans and construction specifications.

For continuity, we recommend that we be retained during construction to (1) observe all pile driving, including predrilling and test driving operations, (2) review and/or perform laboratory testing on import borrow to determine its acceptability for use in compacted fills, (3) observe and monitor structural fill placement, and (4) provide geotechnical consultation as required. Our services during construction will allow us to verify that our recommendations are properly interpreted and included in construction, and if necessary, to make modifications to those recommendations, thereby reducing construction delays in the event subsurface conditions differ from those anticipated.

LIMITATIONS

The boring logs indicate the approximate subsurface soil conditions encountered only at those times and locations where our borings were made, and may not represent conditions at other times and locations.

This report was prepared specifically for Mr. Gary S. Furuta and his consultants for design of the proposed apartment building on Birch Street. The boring logs and recommendations presented in this report are for design purposes only, and are not intended for use in developing cost estimates by the contractor.

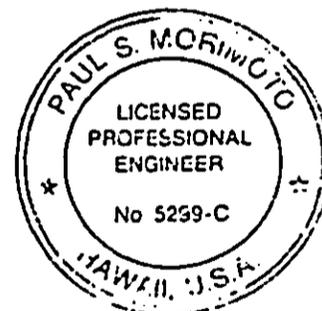
During construction, should subsurface conditions differ from those encountered in our borings, we should be advised immediately in order to re-evaluate our recommendations, and to revise or verify them in writing before proceeding with construction.

Our recommendations and conclusions are based upon the site materials observed, the preliminary design information made available, the data obtained from our site exploration, our engineering analyses, and our experience and engineering judgement. The conclusions and recommendations are professional opinions which we have strived to develop in a manner consistent with that level of care, skill, and competence ordinarily exercised by members of the profession in good standing, currently practicing under similar conditions. No other warranty is expressed or implied.

Respectfully submitted,

ERNEST K. HIRATA & ASSOCIATES, INC.

Paul S. Morimoto
Paul S. Morimoto, P.E.



This work was prepared by
me or under my supervision

PSM:CCT

APPENDIX OF LABORATORY TESTING

CLASSIFICATION

Field classification was verified in the laboratory in accordance with the Unified Soil Classification System. Laboratory classification was determined by both visual examination and Atterberg Limit tests performed in general accordance with ASTM D 4318. Atterberg Limit tests performed on a sample obtained from boring B1 at depth of about 1 to 4 feet resulted in a liquid limit of 62 and a plasticity index (P.I.) of 30. Results are plotted on the Plasticity Chart on Plate A2. The final classifications are shown at the appropriate locations on the Boring Logs, Plates B1 through B3.

MOISTURE-DENSITY

The field moisture content and dry unit weight were determined for each of the representative samples. The information was useful in providing a gross picture of the soil consistency between borings and any local variations. The dry unit weight was determined in pounds per cubic foot while the moisture content was determined as a percentage of dry weight. Samples were obtained using a 3-inch O.D. split tube sampler. Test results are shown at the appropriate depths on the Boring Logs, Plates B1 through B3.

CONSOLIDATION

Settlement predictions of the soil's behavior under load were made on the basis of consolidation test results. Test samples were 2.42 inches in diameter and 1 inch high. Porous stones were placed in contact with the top and bottom of test samples to permit addition and release of pore fluid. Loads were then applied in several increments in a geometric progression, and the resulting deformations recorded at

selected time intervals. Results of tests on representative samples are plotted on the Consolidation Test Reports, Plates C1 through C3.

SHEAR TESTS

Shear tests were performed in the Direct Shear Machine which is of the strain control type. The rate of deformation was approximately 0.02 inches per minute. Each sample was sheared under varying confining loads in order to determine the Coulomb shear strength parameters, cohesion and angle of internal friction. Eighty percent of the maximum value was taken to determine the shear strength parameters. Test results are presented on Plates D1 and D2.

SWELL TESTS

Swell tests were performed to determine the relative expansiveness of the onsite soils. The tests were performed on representative soil samples by placing a 90 PSF surcharge load on one inch high specimens. The sample was inundated with water, and total expansion recorded after a period of at least 24 hours. Air-dried samples were allowed to dry overnight prior to testing.

The following is a summary of our test results. Test results are indicated as a percentage of original height.

Sample	Sample Type	Recorded Expansion
B1 @ 3'	Representative	0.4%
B3 @ 3'	Representative	1.8%
B3 @ 3'	Representative, Air-dried	6.1%

PROCTOR TESTS

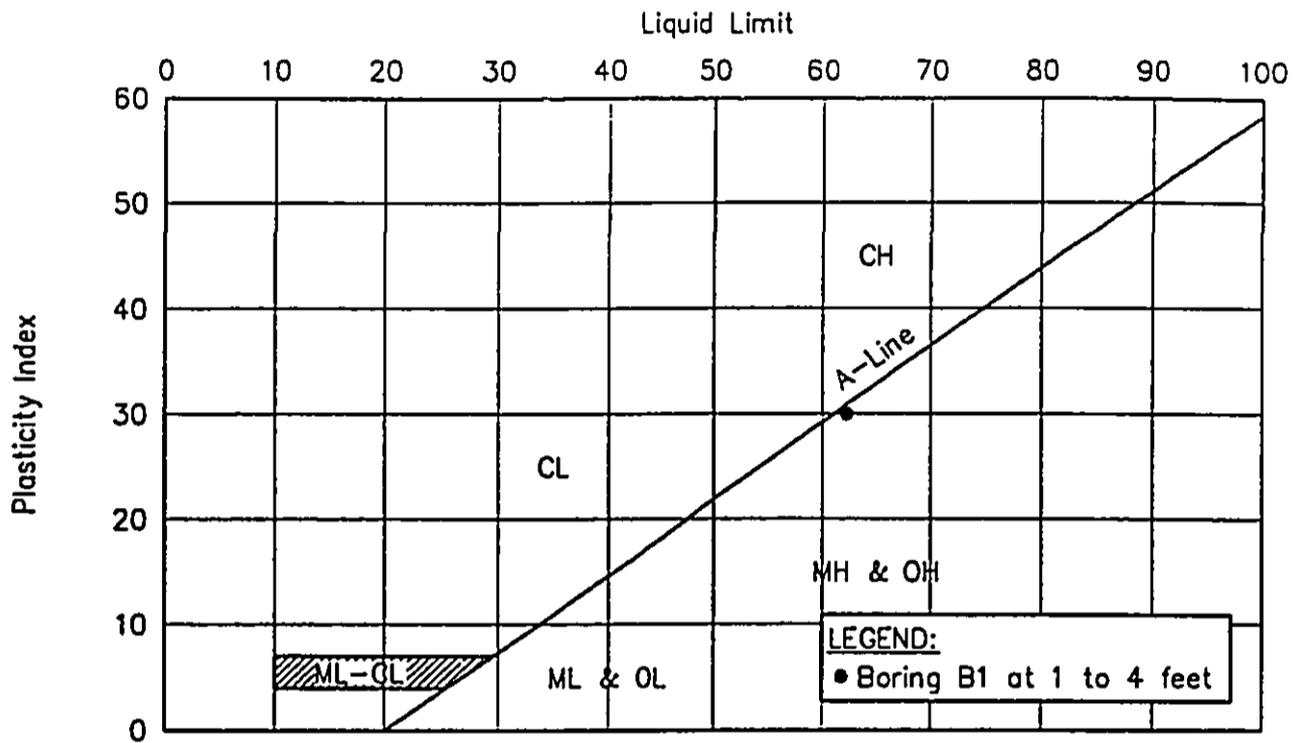
A Proctor test was performed on a bag sample to determine the optimum moisture content at which each soil type compacts to 100 percent density. The test was performed in general accordance with ASTM D 1557, and results are shown on Plate E.

CALIFORNIA BEARING RATIO TESTS

A CBR test was performed on a bag sample to evaluate the relative quality of subgrade soils to be used in the design of flexible pavements. The test was performed in general accordance with ASTM D 1883, and results are shown on Plate F.

MAJOR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS (More than 50% of the material is LARGER than No. 200 sieve size.)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size.)	CLEAN GRAVELS (Little or no fines.)	GW Well graded gravels, gravel-sand mixtures, little or no fines.
			GP Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVELS WITH FINES (Appreciable amt. of fines.)	GM Silty gravels, gravel-sand-silt mixtures.
			GC Clayey gravels, gravel-sand-clay mixtures.
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 sieve size.)	CLEAN SANDS (Little or no fines.)	SW Well graded sands, gravelly sands, little or no fines.
			SP Poorly graded sands or gravelly sands, little or no fines.
		SANDS WITH FINES (Appreciable amt. of fines.)	SM Silty sands, sand-silt mixtures.
			SC Clayey sands, sand-clay mixtures.
FINE GRAINED SOILS (More than 50% of the material is SMALLER than No. 200 sieve size.)	SILTS AND CLAYS (Liquid limit LESS than 50.)	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
		OL	Organic silts and organic silty clays of low plasticity.
	SILTS AND CLAYS (Liquid limit GREATER than 50.)	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
		CH	Inorganic clays of high plasticity, fat clays.
		OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS		PT	Peat and other highly organic soils.
			FRESH TO MODERATELY WEATHERED BASALT
			VOLCANIC TUFF / HIGHLY TO COMPLETELY WEATHERED BASALT
			CORAL
SAMPLE DEFINITION			
<input checked="" type="checkbox"/> 2" O.D. Standard Split Spoon Sampler		<input checked="" type="checkbox"/> Shelby Tube	
<input type="checkbox"/> 3" O.D. Split Tube Sampler		<input checked="" type="checkbox"/> NX / 4" Coring	
		RQD Rock Quality Designation	
		<input checked="" type="checkbox"/> Water Level	
W.O. 97-2840	Birch Street Apartments		
Ernest K. Hirata & Associates, Inc.	BORING LOG LEGEND		

PLASTICITY CHART



GRADATION CHART

COMPONENT DEFINITIONS BY GRADATION	
COMPONENT	SIZE RANGE
Boulders	Above 12 in.
Cobbles	3 in. to 12 in.
Gravel	3 in. to No. 4 (4.76 mm)
Coarse gravel	3 in. to 3/4 in.
Fine gravel	3/4 in. to No. 4 (4.76 mm)
Sand	No. 4 (4.76 mm) to No. 200 (0.074 mm)
Coarse sand	No. 4 (4.76 mm) to No. 10 (2.0 mm)
Medium sand	No. 10 (2.0 mm) to No. 40 (0.42 mm)
Fine sand	No. 40 (0.42 mm) to No. 200 (0.074 mm)
Silt and clay	Smaller than No. 200 (0.074 mm)

W.O. 97-2840	Birch Street Apartments
Ernest K. Hirata & Associates, Inc.	UNIFIED SOIL CLASSIFICATION SYSTEM Plate A2

ERNEST K. HIRATA & ASSOCIATES, INC.

Geotechnical Engineering

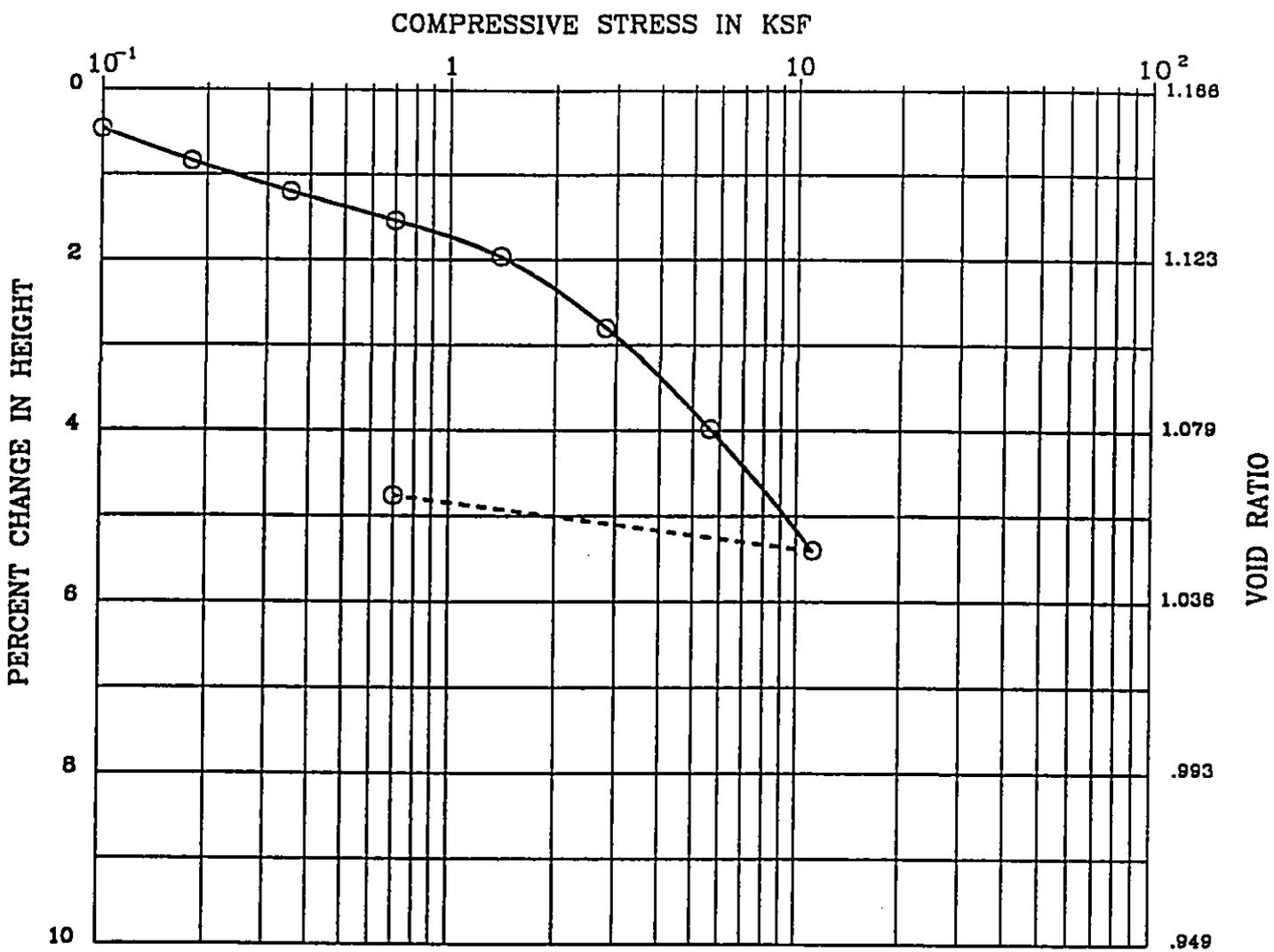
BORING LOG

W.O. 97-2840

BORING NO. B1 DRIVING WT. 140 lb. DATE OF DRILLING 1-15-97
 SURFACE ELEV. 11.5±* DROP 30 in. WATER LEVEL @ 9.5 feet

DEPTH FOOT	GRAPH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (PCF)	MOIST. CONT. (%)	DESCRIPTION
0						Silty CLAY (MH-CH) - Brown, moist, stiff, with sand. Mixed with gravel from 0 to 0.5 feet.
5			28	85	39	
10			18	78	37	
10			6	78	46	SAND (SP) - Dark gray, moist, medium dense, with silt. (Cinders)
15						Silty SAND (SM) - Tan, loose, with coral fragments.
15						CORAL - Tan, medium hard to hard. Begin 4 inch coring at 13 feet. 96% Recovery from 13 to 18 feet.
20						92% Recovery from 18 to 23 feet.
20						Highly fragmented from 20 to 23 feet.
25						100% Recovery from 23 to 28 feet.
28						End boring at 28 feet.
30						* Elevations based on Topographic Survey Map prepared by William Dean Alcon & Associates, Inc., dated January 31, 1997.

Plate B1

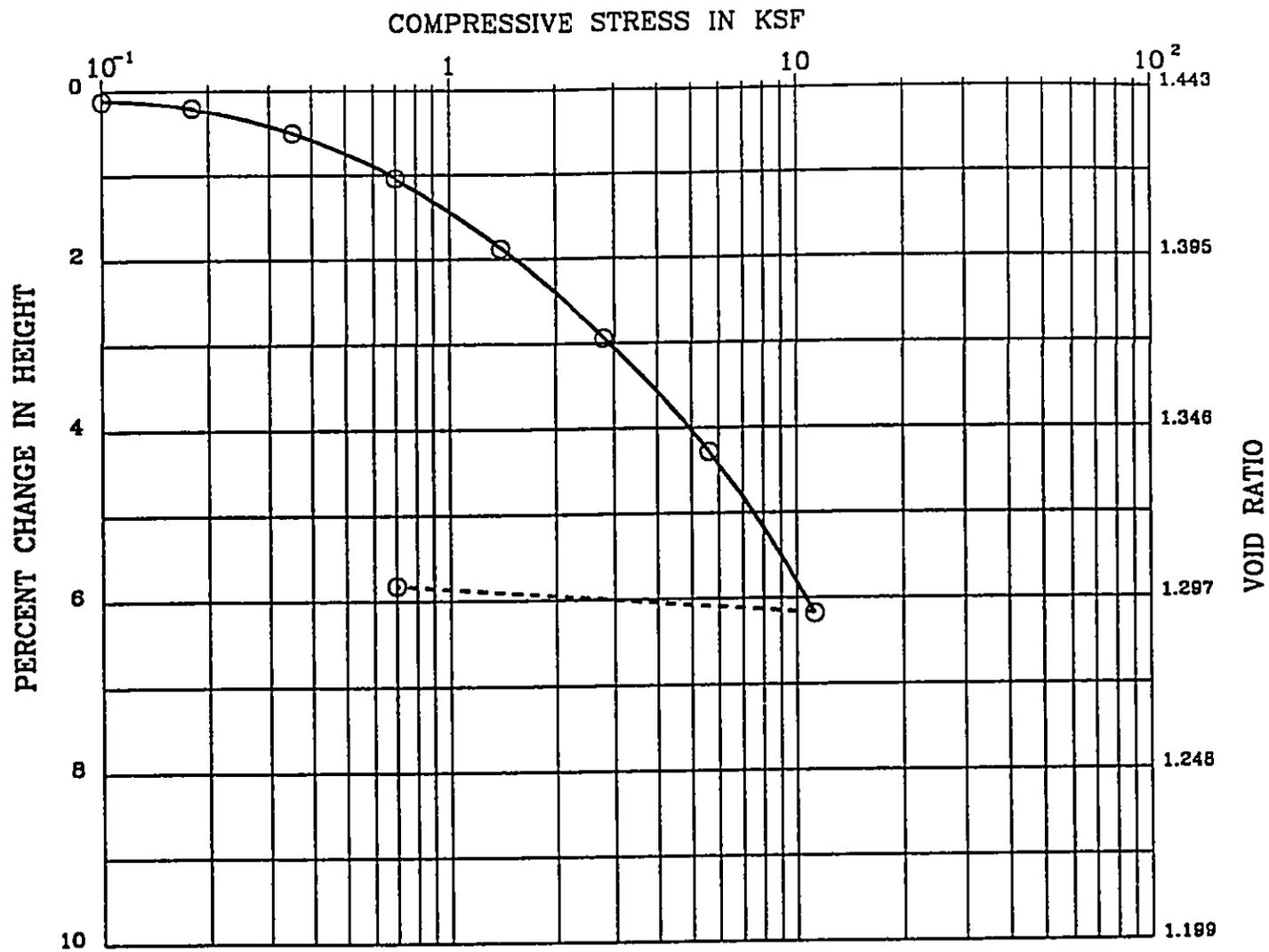


BORING : B1 DESCRIPTION : Brown silty clay
 DEPTH (ft) : 3' LIQUID LIMIT :
 SPEC. GRAVITY : PLASTIC LIMIT :

	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	PERCENT SATURATION	VOID RATIO
INITIAL	38.6	85.1	98	1.166
FINAL	35.9	89.4	100	1.062

Remark : Date: 1/20/97

W.O. 97-2840	Birch Street Apartments
Ernest K. Hirata & Associates, Inc.	CONSOLIDATION TEST Plate C1

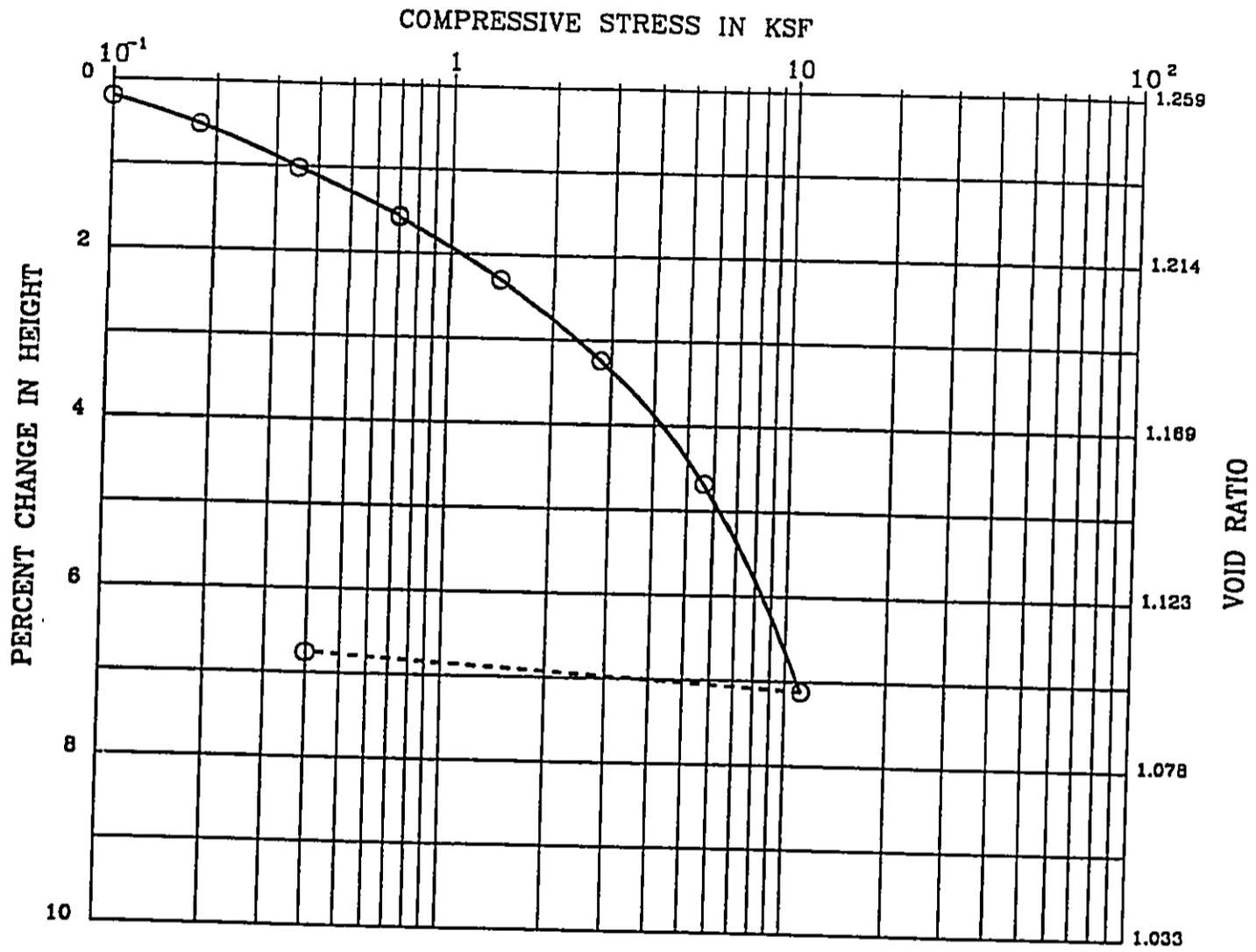


BORING : B1 DESCRIPTION : Tan silty sand
 DEPTH (ft) : 10' LIQUID LIMIT :
 SPEC. GRAVITY : PLASTIC LIMIT :

	<u>MOISTURE CONTENT (%)</u>	<u>DRY DENSITY (pcf)</u>	<u>PERCENT SATURATION</u>	<u>VOID RATIO</u>
INITIAL	45.6	78.1	97	1.443
FINAL	42.5	82.9	100	1.302

Remark : Water added at 700 PSF Date: 1/20/97

W.O. 97-2840	Birch Street Apartments	
Ernest K. Hirata & Associates, Inc.	CONSOLIDATION TEST	Plate C2

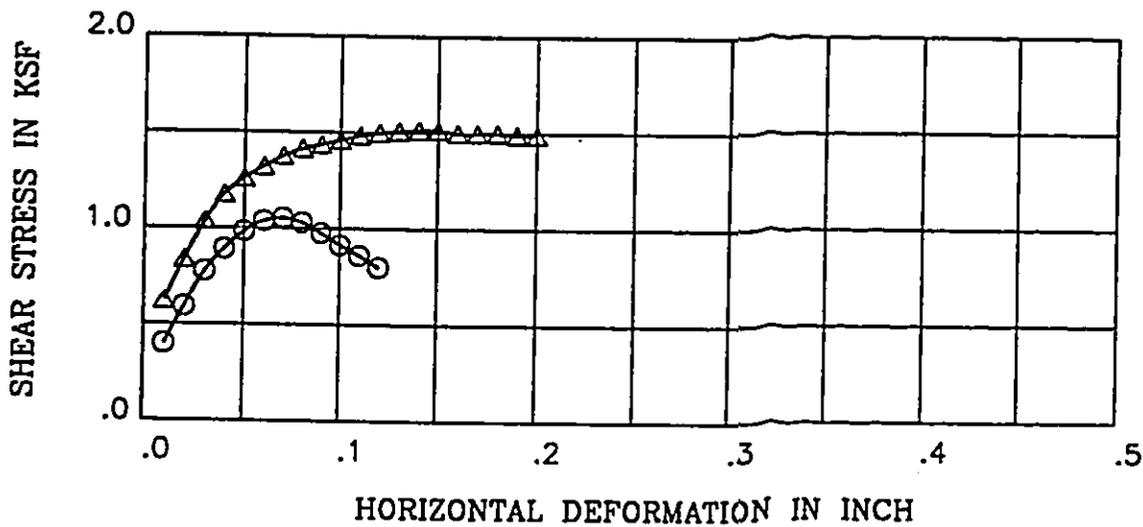
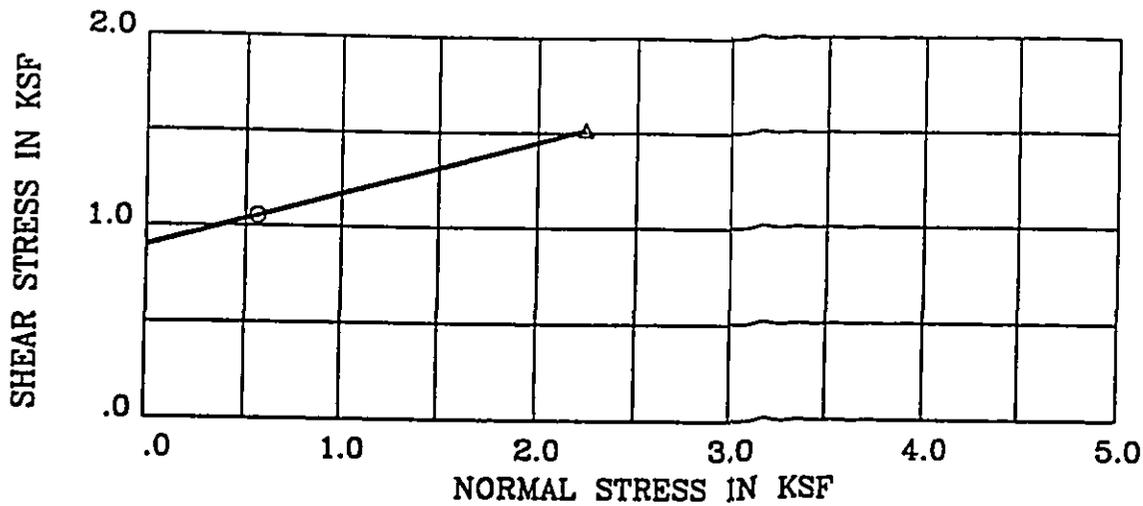


BORING : 83
 DEPTH (ft) : 9'
 SPEC. GRAVITY :
 DESCRIPTION : Dark gray cinders
 LIQUID LIMIT :
 PLASTIC LIMIT :

	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	PERCENT SATURATION	VOID RATIO
INITIAL	37.5	83.2	90	1.259
FINAL	36.8	89.1	100	1.108

Remark : Water added at 700 PSF Date: 1/20/97

W.O. 97-2840	Birch Street Apartments	
Ernest K. Hirata & Associates, Inc.	CONSOLIDATION TEST	Plate C3

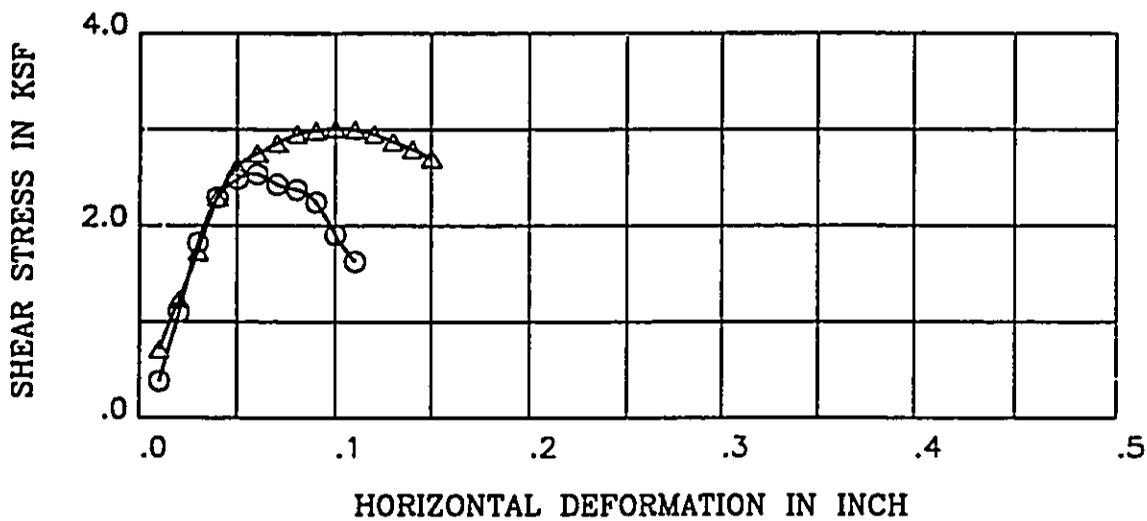
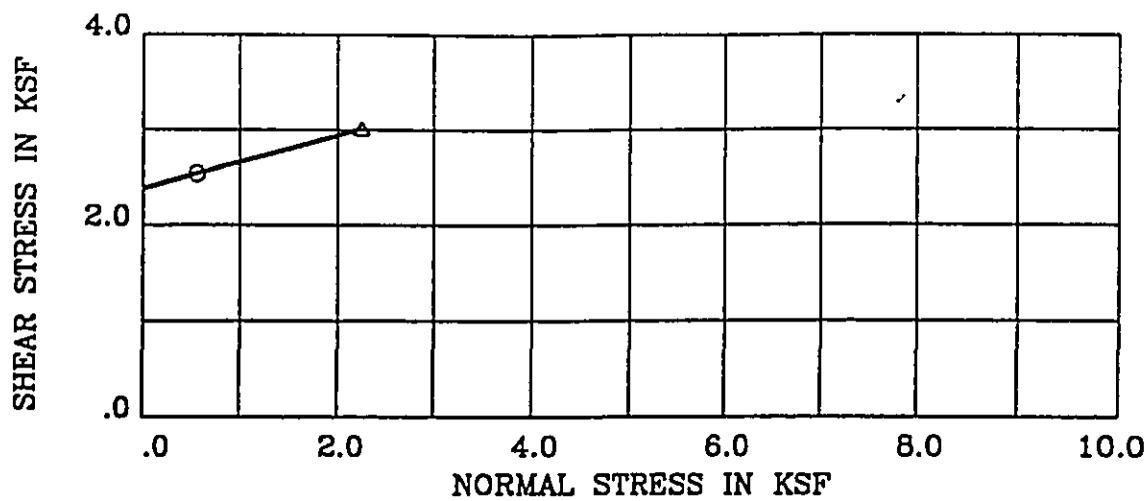


BORING/SAMPLE : 81 DEPTH (ft) : 3
 DESCRIPTION : Brown silty clay
 STRENGTH INTERCEPT (C) : .898 KSF (PEAK STRENGTH)
 FRICTION ANGLE (PHI) : 15.4 DEG (PEAK STRENGTH)

SYMBOL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	VOID RATIO	NORMAL STRESS (ksf)	PEAK SHEAR (ksf)	RESIDUAL SHEAR (ksf)
○	38.7	85.2	1.161	.56	1.05	.80
△	38.7	85.2	1.161	2.24	1.52	1.49

Remark : Date: 1/20/97

W.O. 97-2840	Birch Street Apartments
Ernest K. Hirata & Associates, Inc.	DIRECT SHEAR TEST Plate D1

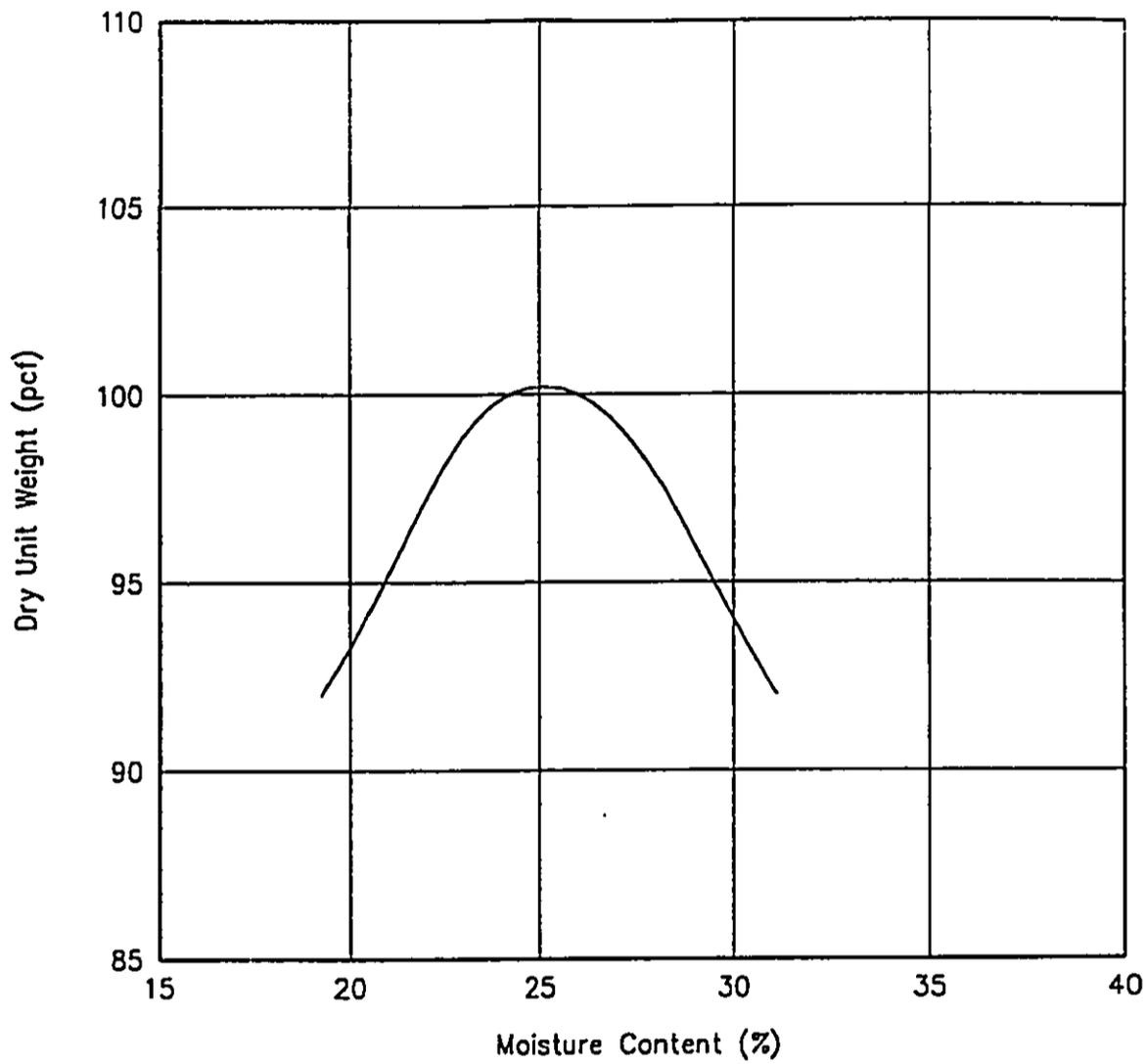


BORING/SAMPLE : 83 DEPTH (ft) : 5
 DESCRIPTION : Brown silty clay
 STRENGTH INTERCEPT (C) : 2.381 KSF (PEAK STRENGTH)
 FRICTION ANGLE (PHI) : 15.7 DEG (PEAK STRENGTH)

SYMBOL	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	VOID RATIO	NORMAL STRESS (ksf)	PEAK SHEAR (ksf)	RESIDUAL SHEAR (ksf)
O	25.5	104.2	.618	.56	2.54	1.63
Δ	25.5	104.2	.618	2.24	3.01	2.70

Remark : Date: 1/20/97

W.O. 97-2840	Birch Street Apartments
Ernest K. Hirata & Associates, Inc.	DIRECT SHEAR TEST Plate D2



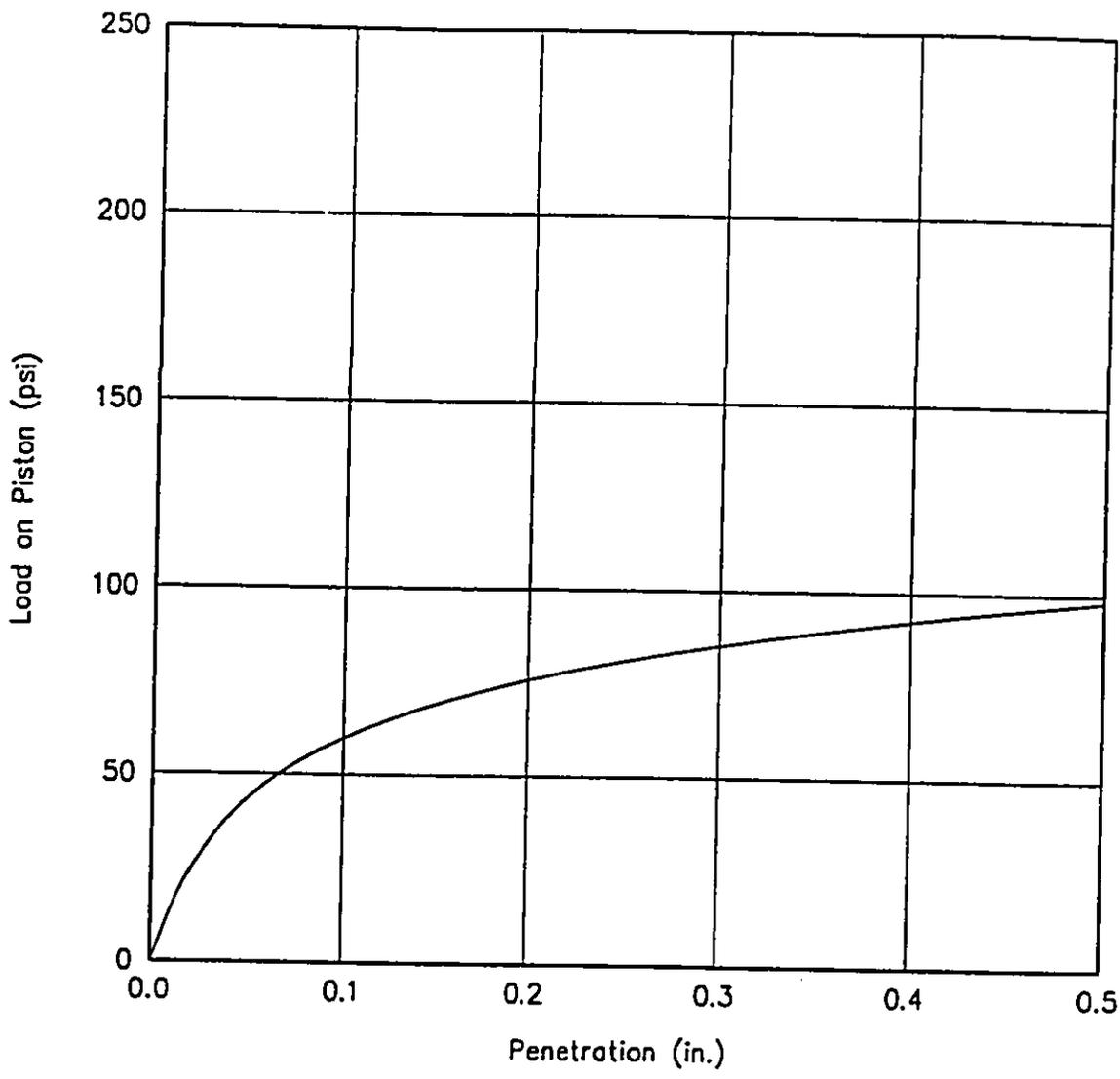
Soil Data

Location: Boring B1 at 1 to 4 feet
 Description: Brown silty clay with gravel

Test Results

Maximum Dry Density: 100.5 PCF
 Optimum Moisture Content: 25.5%

W.O. 97-2840	Birch Street Apartments
Ernest K. Hirata & Associates, Inc.	<p style="text-align: center;">MAXIMUM DENSITY CURVE</p> <p style="text-align: right;">Plate E</p>



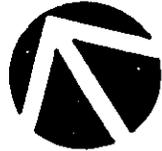
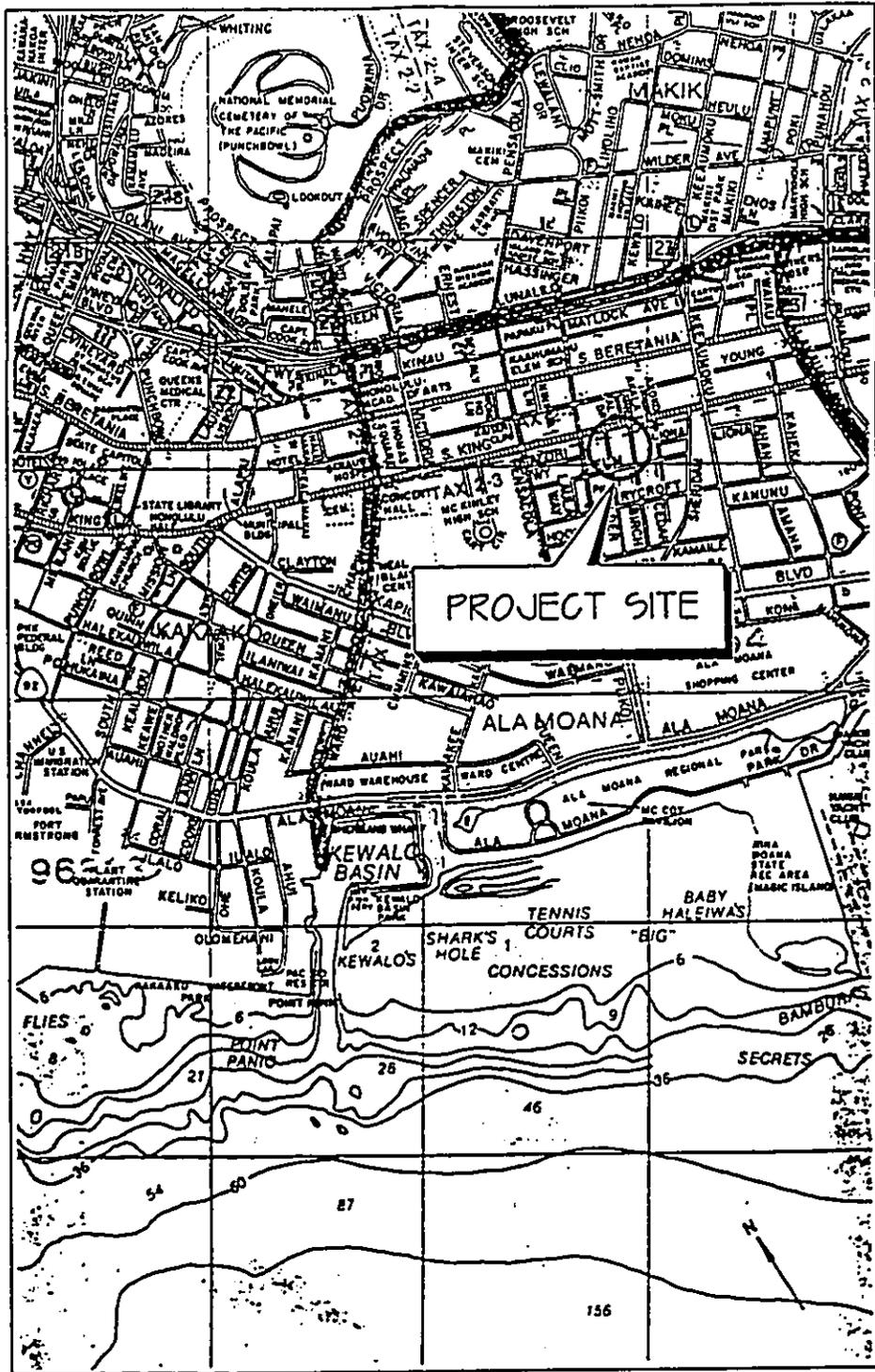
Soil Data

Location: Boring B1 at 1 to 4 feet
 Description: Brown silty clay with gravel
 Maximum Dry Density: 100.5 PCF
 Optimum Moisture Content: 25.5%

Test Results

CBR Value: 6%
 Expansion: 3.9%

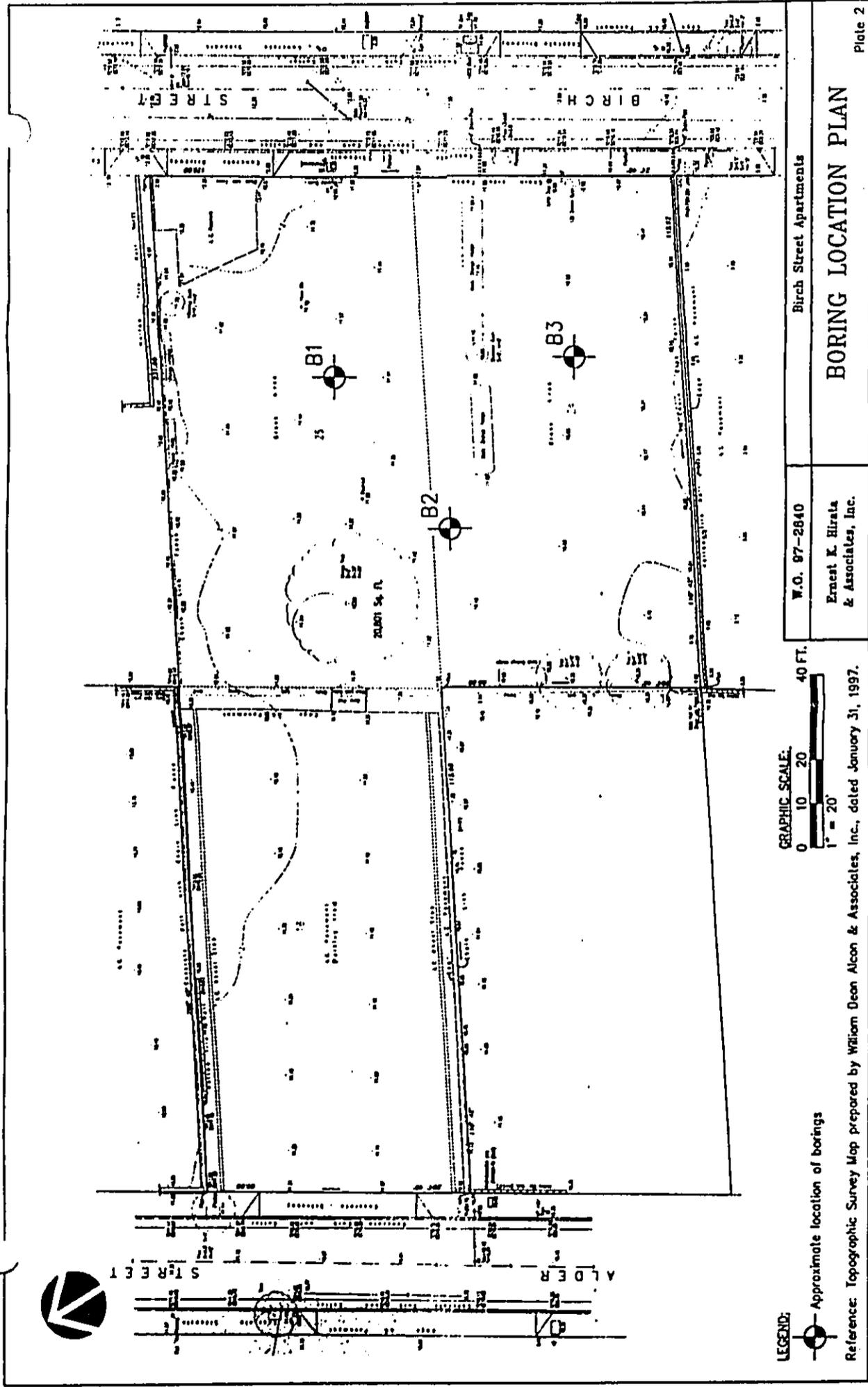
W.O. 97-2840	Birch Street Apartments
Ernest K. Hirata & Associates, Inc.	<p style="text-align: center;">STRESS PENETRATION CURVE</p> <p style="text-align: right;">Plate F</p>



Reference: Bryan's Sectional Maps, 1996 Edition
 (Copyright J.R. Clere, used with permission)

Scale: 1:24,000

W.O. 97-2840	Birch Street Apartments
Ernest K. Hirata & Associates, Inc.	<p style="text-align: center;">LOCATION MAP</p> <p style="text-align: right;">Plate 1</p>



LEGEND:



Approximate location of borings

GRAPHIC SCALE:
0 10 20 40 FT.
1" = 20'

W.O. 97-2840

Ernest K. Hirata
& Associates, Inc.

BIRCH STREET APARTMENTS
BORING LOCATION PLAN

Reference: Topographic Survey Map prepared by William Dean Alcon & Associates, Inc., dated January 31, 1997.

ATTACHMENT "G"
TRAFFIC IMPACT ASSESSMENT
REPORT

TRAFFIC IMPACT ASSESSMENT REPORT
FOR
BIRCH STREET APARTMENTS

March 1997

Honolulu, Oahu, Hawaii

Prepared for:

Hawaii Housing Development Corporation

Prepared By:

Pacific Planning & Engineering, Inc.
1221 Kapiolani Boulevard, Suite PH-60
Honolulu, Hawaii 96814

PACIFIC PLANNING
& ENGINEERING . I N C

March 4, 1997

TO: Gary Furuta

FROM: Reed Matsuo *Reed Matsuo*

Subject: Birch Street Apartments -- Alder Street Access

The traffic study did not include the access off Alder Street because at the time the study was prepared, the only access was off Birch Street.

Alder Street parallels Birch Street and is a single-lane one-way road paralleling Birch Street. An access point off Alder Street would reduce the project traffic volumes on Birch Street.

Based on conclusions from the traffic study, it seems reasonable that adding the Alder Street Access would not affect the level-of-service for the surrounding intersections.

Please call myself or Benson Chow if you have any questions.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	1
Project Description	1
Methodology	5
Conclusions and Recommendations	6
PROJECT DESCRIPTION	7
EXISTING CONDITIONS	9
Land Uses	9
Roadway Facilities	9
Traffic Conditions	10
FUTURE CONDITIONS	13
Future Land Uses	13
Future Roadway Facilities	13
PROJECTED TRAFFIC CONDITIONS	14
Future Traffic Without Project	14
Future Traffic With Project	16
TRAFFIC IMPACT ANALYSIS	19
Analysis Methods	19
Analysis Results	20
CONCLUSIONS AND RECOMMENDATIONS	22

LIST OF TABLES

Table 1. Trip Generation for Birch Street Apartments Project 18

Table 2 - Unsignalized Intersection Analysis - Morning Peak Hour 21

Table 3 - Unsignalized Intersection Analysis - Afternoon Peak Hour 21

LIST OF FIGURES

Figure ES-1. South King Street at Birch Street (looking south) 3

Figure ES-2. Birch Street at Elm Street (looking south) 3

Figure ES-3. Birch Street at Vicinity of Project Driveways (looking northwest) 4

Figure 1. Project Location Map & Site Plan 8

Figure 2. Existing Laneages and Weekday Morning & Afternoon Peak Hour Traffic Volumes 11

Figure 3. 1998 Weekday Morning and Afternoon Peak Hour Traffic Volumes Without Project 15

Figure 4. 1998 Weekday Morning and Afternoon Peak Hour Traffic Volumes With Project 17

APPENDICES

Appendix A. Manual Traffic Count Data

Appendix B. Definitions of Level-of-Service for Unsignalized Intersections

FOREWORD

The traffic forecasts shown within this report's figures and tables are the direct result of Pacific Planning & Engineering, Inc.'s proprietary analytical tools. For report editing and review purposes, some or all of the forecast values have been rounded to the nearest five vehicles from our mathematical results, although we do not imply this level of accuracy can exist in any forecast method. The rounded values, however, reasonably quantify the forecasted traffic volumes for the purposes of this study.

Analytical methods are based on the 1994 edition of the Highway Capacity Manual. The 1994 Highway Capacity Manual contains significant changes to the evaluation methods of level-of-service, and comparisons with previous versions would not be valid.

The findings and conclusions contained herein are based solely in terms of roadway capacity. No inference should be made from the conclusions regarding traffic safety.

EXECUTIVE SUMMARY

Pacific Planning & Engineering, Inc. (PPE) was engaged to undertake a study to identify and assess future traffic impacts that would be caused by the proposed Birch Street Apartments project in Honolulu, Oahu, Hawaii. This traffic impact report identifies and evaluates the probable impact of traffic generated by the proposed development.

Project Description

Hawaii Housing Development Corporation is proposing to develop a residential project in Honolulu, Oahu, Hawaii. The project site is located along Birch Street and is identified by Tax Map Key: 2-3-12:4. Figure 1 shows the project location, roadway network in the vicinity and project site plan.

The proposed Birch Street Apartments project consists of 52 two-bedroom units in the "affordable" range and one unit for the resident manager, in accordance with all applicable State and County requirements. The project will have provisions for 56 parking stalls. Approximately 1,500 square feet of recreational space is also provided. The project is expected to be completed by the year 1998.

Access to the project will be via the intersection of Birch Street with Elm Street. Egress from the project will be via the intersection of Birch Street with South King Street.

Figure ES-1 shows the intersection of South King Street with Birch Street. Figure ES-2 shows the intersection of Birch Street with Elm Street. Figure ES-3 shows the location of the project driveways along Birch Street.



Figure ES-1. South King Street at Birch Street (looking south)



Figure ES-2. Birch Street at Elm Street (looking south)



Figure ES-3. Birch Street at Vicinity of Project Driveways (looking northwest)

Methodology

Analysis was conducted for the unsignalized intersections of South King Street with Birch Street, Birch Street with Elm Street and Birch Street with the proposed main project driveway to determine the relative impact of the proposed Birch Street Apartments Project on the local roadway system.

Future traffic was forecasted for the study intersections by adding the following:

- Existing traffic volumes at the study intersections.
- The increase in traffic along South King Street, based on the historical traffic growth rate.
- Traffic generated by other nearby developments in the area that would impact the study intersections, and
- Traffic generated by the project.

This study assesses the impact on each intersection by determining and comparing the level-of-service (LOS) for existing traffic, 1998 forecast without the project, and 1998 forecast with the project traffic conditions.

The time periods analyzed include the two weekday commuter peak hours (morning and afternoon). These periods were studied since traffic volumes on the surrounding roadways or the project traffic would be highest at these times.

Conclusions and Recommendations

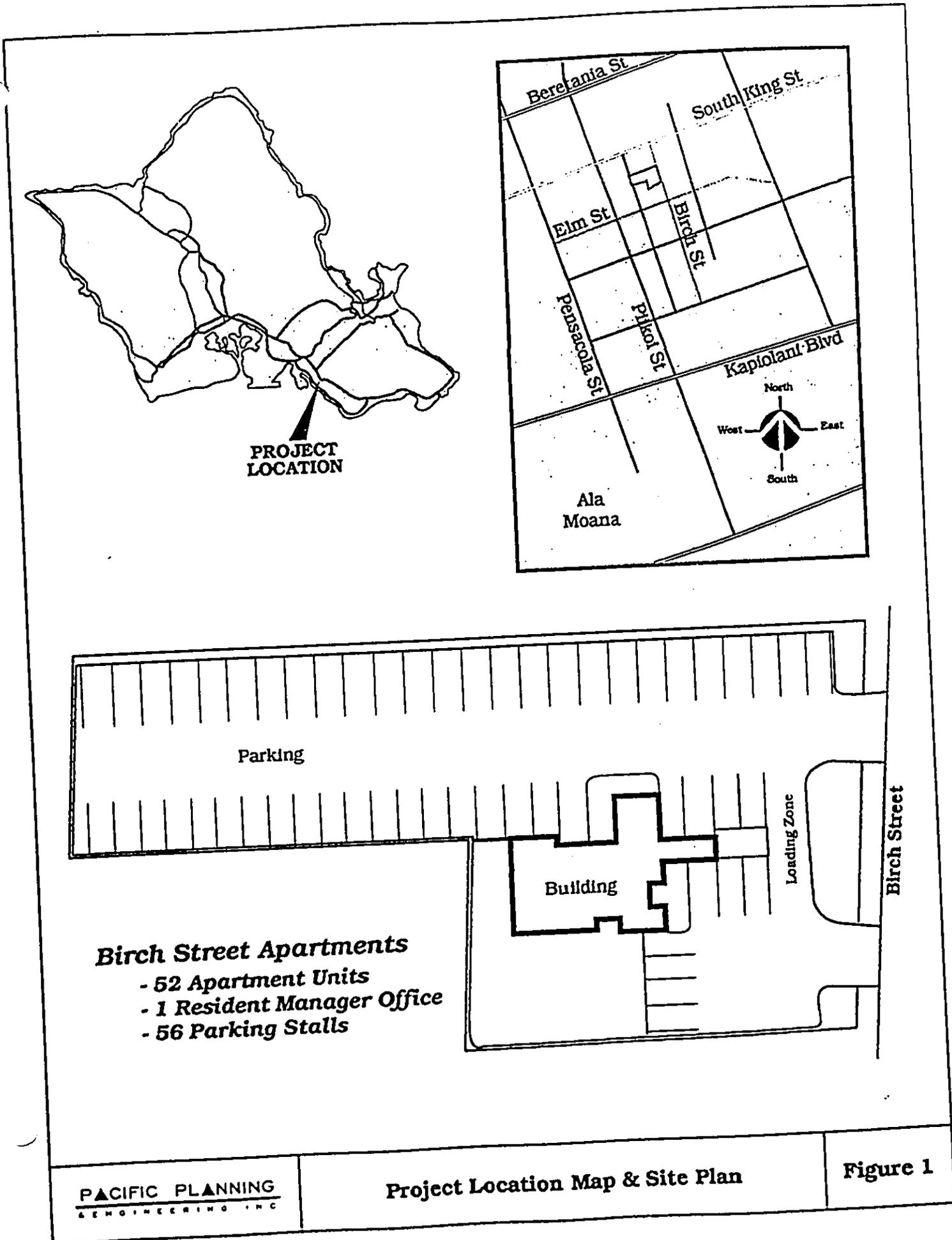
The Birch Street Apartments Project, when completed in the year 1998, would not affect the Level-of-Service at the existing study intersections of South King Street with Birch Street and Birch Street with Elm Street during the weekday commuter hours. The intersection of Birch Street with the Project Driveway would operate at a Level-of-Service A condition. No capacity mitigating actions are required.

PROJECT DESCRIPTION

Hawaii Housing Development Corporation is proposing to develop a residential project in Honolulu, Oahu, Hawaii. The project site is located along Birch Street and is identified by Tax Map Key: 2-3-12:4. Figure 1 shows the project location, roadway network in the vicinity and site plan.

The Birch Street Apartments project consists of 52 two-bedroom units in the "affordable" range and one unit for the resident manager, in accordance with all applicable State and County requirements. The project will have provisions for 56 parking stalls. Approximately 1,500 square feet of recreational space is also provided. The project is expected to be completed by the year 1998. Currently, the project site is vacant and the perimeter is fenced off.

Access to the project will be via the intersection of Birch Street with Elm Street. Egress from the project will be via the intersection of Birch Street with South King Street.



EXISTING CONDITIONS

An inventory of existing conditions was conducted to ascertain the current traffic conditions in the area and to provide a basis for estimating the potential traffic impact of the proposed project. The review included the land uses in the area, roadway facilities, and existing traffic conditions.

Land Uses

The land uses immediately surrounding the site consists primarily of residential uses. Commercial uses are predominately located along South King Street.

Roadway Facilities

South King Street is a major one-way urban arterial road running through Honolulu. Near the T-intersection with Birch Street, South King Street has four through lanes with provisions for parking on both sides. During the afternoon commuter peak times (3:30 - 5:30 p.m.), parking is banned along South King Street. The result is six through lanes. On-street parking consists of metered parallel stalls. The posted speed limit in the vicinity of the intersection with Birch Street is 30 miles per hour (mph).

Birch Street is a single-lane one-way road paralleling Piikoi Street. Makai of Elm Street, parking is allowed on the east side of the street. Mauka of Elm

Street, parking is allowed on the west side of the street. The intersection is unsignalized with pedestrian crosswalks. The posted speed limit on Birch Street is 20 mph.

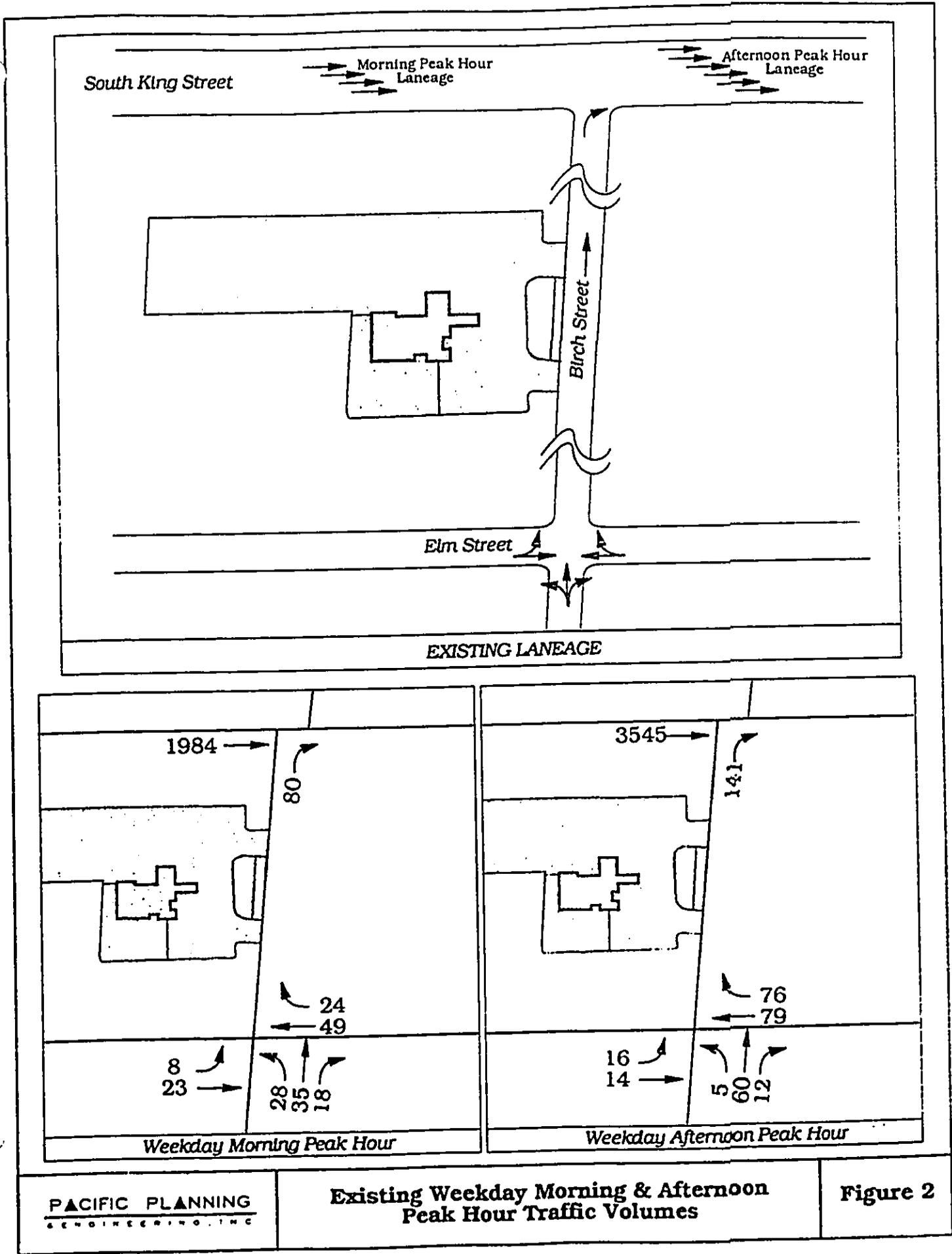
Elm Street is a two-lane road paralleling South King Street with parking allowed on the north side of the street. The posted speed limit on Elm Street is 25 mph.

Figure 2 shows the existing laneage at the study intersections.

Traffic Conditions

A review of 1995 Hawaii Department of Transportation (HDOT) traffic count data for Station SL-72C on South King Street East of Ward Avenue indicate that the commuter peak periods generally occurs on weekdays between 7:00 to 8:30 in the morning and 4:15 to 5:45 in the afternoon. These peak hours were used to determine traffic impacts, since the project traffic would impact the surrounding roads the most during these time periods.

Manual traffic counts were taken at the intersections of South King Street with Birch Street and Birch Street with Elm Street. The counts were taken on Wednesday, February 12, 1997 during the morning peak period and on Thursday, February 13, 1997 during the afternoon peak period. These counts were used as the baseline condition upon which future estimated traffic volumes were added.



Manual counts were taken of passenger cars, trucks and buses by turning movements and approaches. During the field counts, the weather was sunny and the roadway pavement was dry. Figure 2 shows the present volume of traffic at the study intersections for the observed peak hours. Manual traffic count data is summarized in Appendix A.

Observed Traffic Conditions

The following observations were made during the field survey:

- Traffic along South King Street flowed smoothly during the study periods and was heavily platooned.
- The majority of vehicles exiting Birch Street did so between the platooned flows on South King Street.

FUTURE CONDITIONS

A survey was conducted of planned developments in the immediate area to estimate future traffic conditions at the study intersections.

Future Land Uses

For the adjacent area and for the foreseeable future (by year 1998), research indicates that there are no significant known adjacent developments. Thus, no increase in traffic would occur due to this condition.

Future Roadway Facilities

Within the study time frame, there are no known roadway improvements planned in the vicinity of the project. The roadway patterns and study intersection laneages are expected to remain the same as existing.

PROJECTED TRAFFIC CONDITIONS

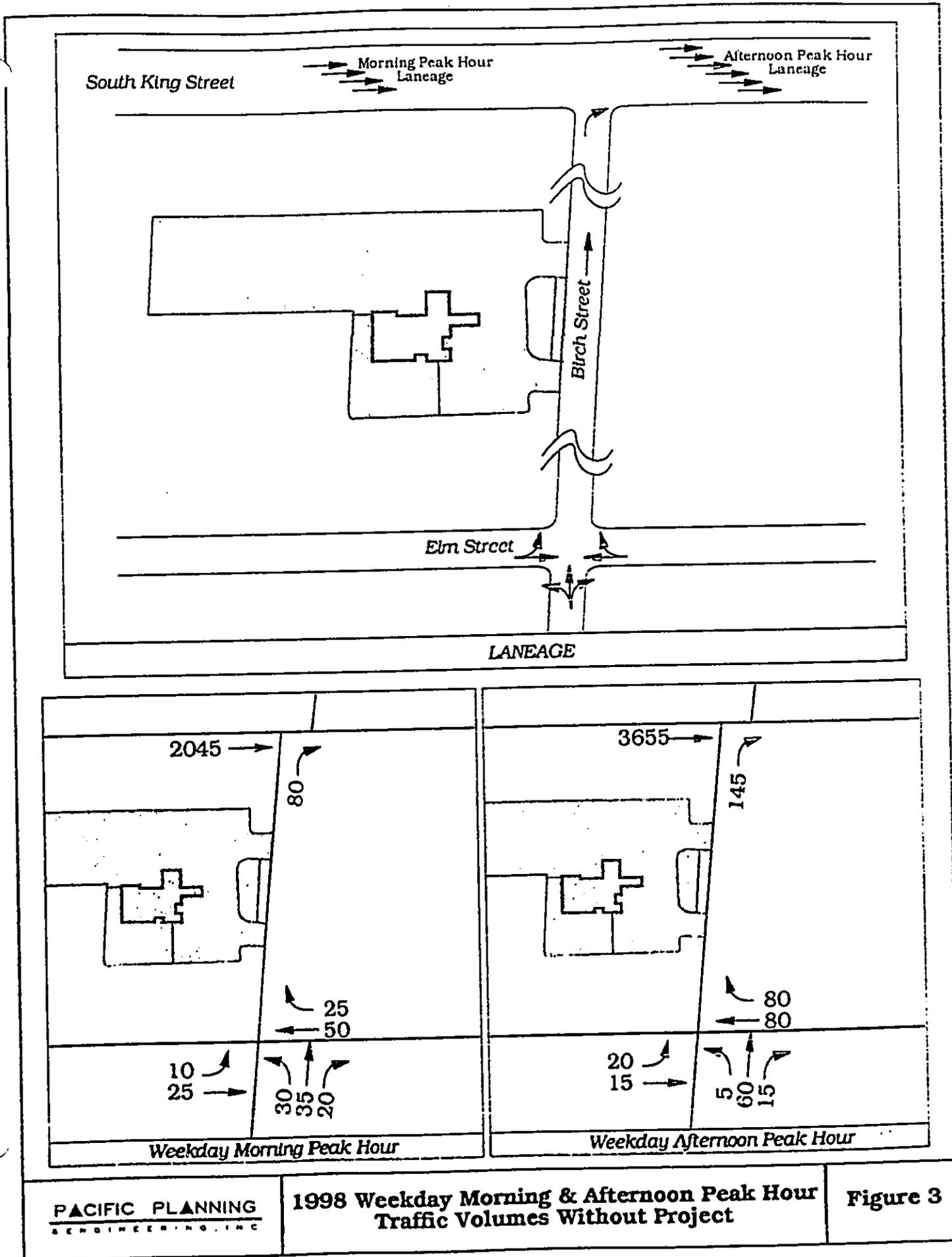
Future traffic was forecasted for traffic conditions without and with the Birch Street Apartments Project. Traffic forecasts were estimated for the year 1998 when the project is expected to be completed.

Future Traffic Without Project

Future traffic without the project was forecasted by adding the following: 1) existing traffic volumes, 2) increasing the existing through-traffic along South King Street using the historical traffic growth rate and 3) adding traffic from other proposed developments in the area. The resulting traffic volume forecasts at the study intersections for the traffic peak hours without the project in year 1998 are shown in Figure 3.

Through Traffic Growth along South King Street

Through-traffic is traffic that travels on South King Street without a specific origin or destination near the project site. The growth in through-traffic was estimated using historical data obtained from various DOT traffic count stations east of Ward Avenue and linear regression analysis. DOT data indicates a growth trend of about 3% per year along this screenline. The existing peak hour through traffic along South King Street was increased by 3% (1 years x 3%). The growth trend accounts for other developments outside the project vicinity.



Traffic From Other Developments

For the adjacent areas and for the foreseeable future (by year 1998), research indicates that there are no significant known adjacent developments. Thus, no increase in traffic would occur due to this condition.

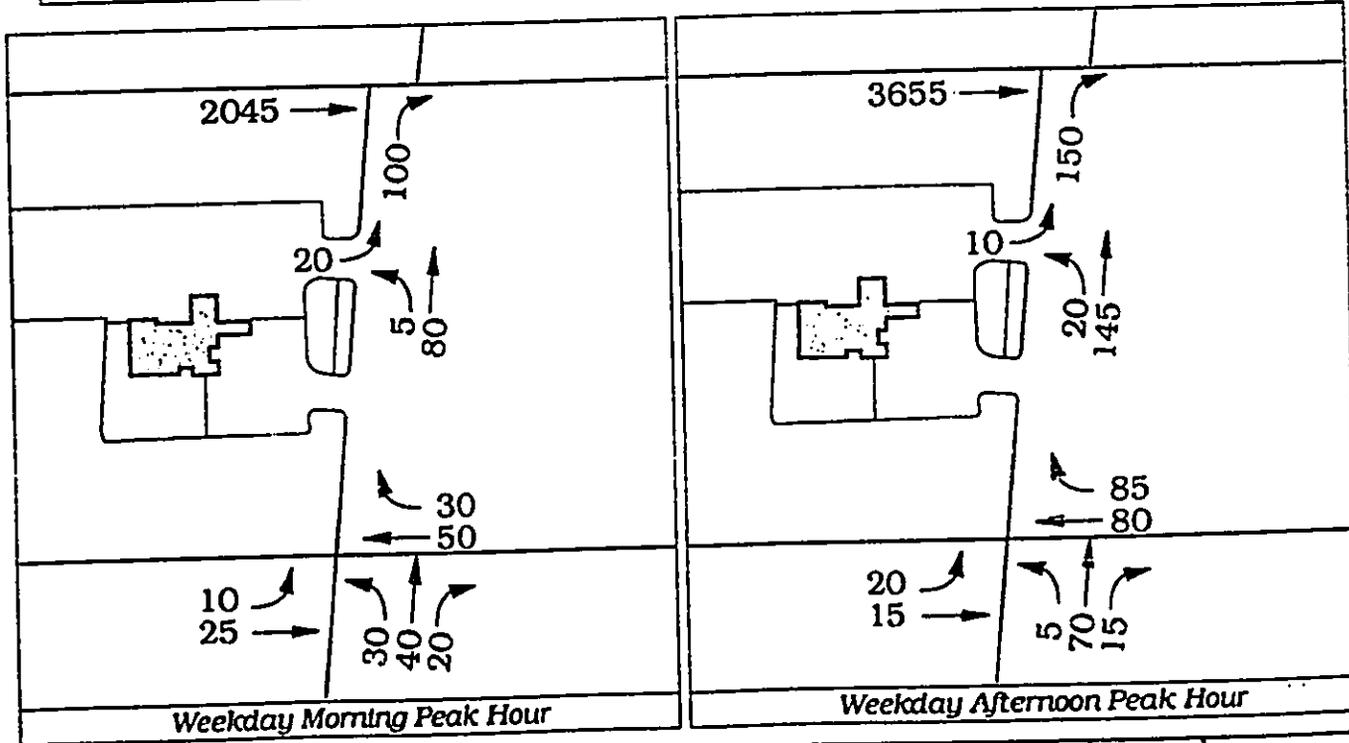
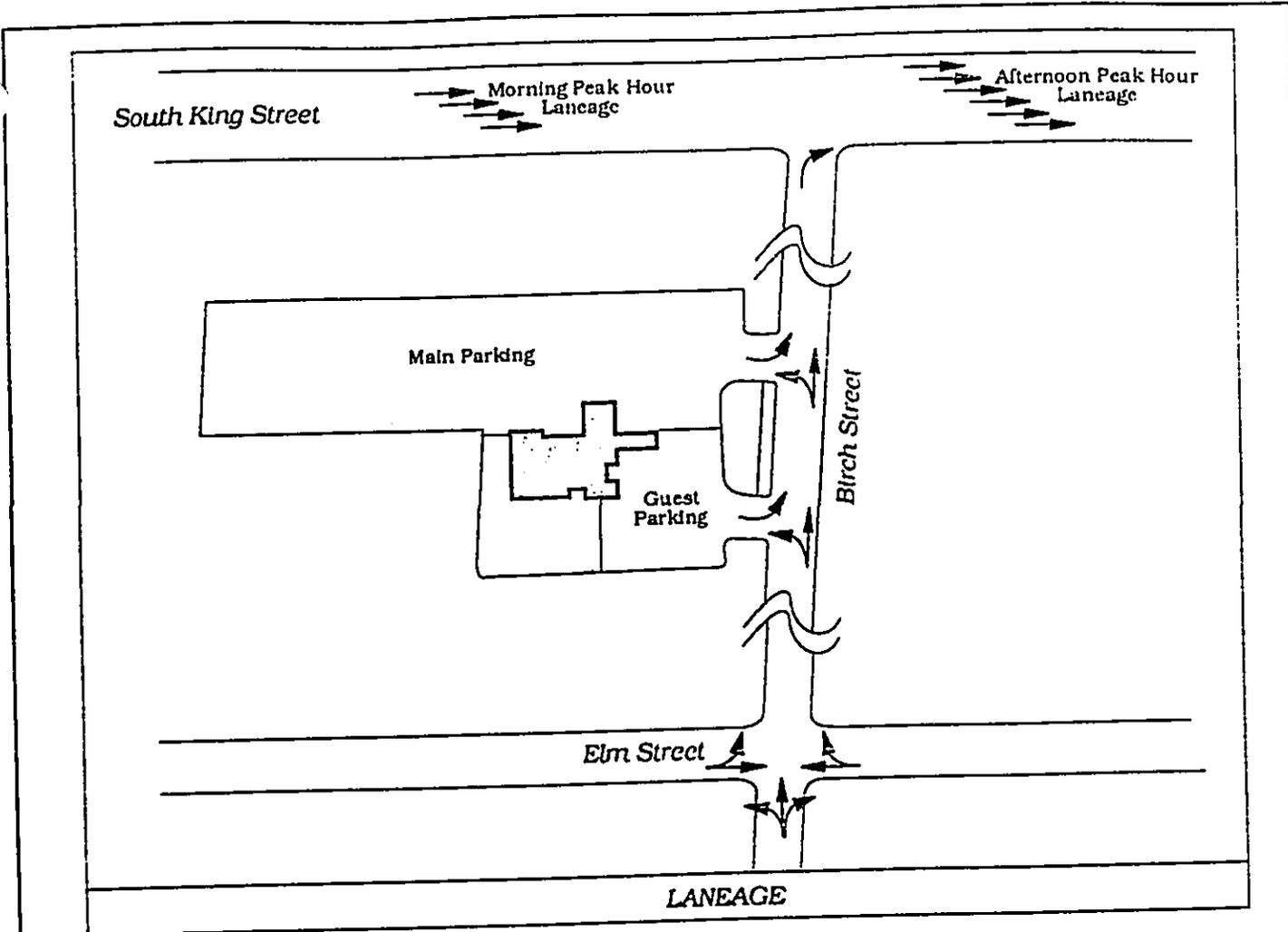
Future Traffic With Project

Future traffic with the project was forecasted by adding traffic generated by the Birch Street Apartments Project to the forecasted traffic without the project. The resulting peak hour traffic volume forecasts with the project are shown in Figure 4.

The standard three-step procedure of trip generation, trip distribution, and traffic assignment was used to estimate peak hour traffic from the proposed project.

Trip generation was determined based on the project land uses and data from the ITE Trip Generation Report¹. Table 1 shows the number of trips generated due to the project.

¹ Trip Generation Report, by the Institute of Transportation Engineers, Fifth Edition, 1991.



PACIFIC PLANNING
ENGINEERING, INC.

1998 Weekday Morning & Afternoon Peak Hour Traffic Volumes With Project

Figure 4

Table 1. Trip Generation for Birch Street Apartments Project				
Land Use	Morning		Afternoon	
	Enter	Exit	Enter	Exit
52 Apartment Units	5	17	16	9

The trip distribution step estimates the distribution of vehicle trips to their predicted destinations and origins. It is not expected that the trip distribution will be significantly different from existing conditions, so trips were distributed based on existing data.

The traffic assignment step assigns vehicle trips to specific routes on the roadway network that drivers would take from their trip origin to their destination. All of the entering project traffic was assigned to the intersection of Birch Street with Elm Street. All of the exiting project traffic was assigned to South King Street, Elm Street and Birch Streets.

TRAFFIC IMPACT ANALYSIS

Analyses were conducted for the intersections of South King Street with Birch Street, Birch Street with Elm Street and Birch Street with the project driveway to determine the relative impact of the proposed project. The study analyses were conducted for the existing, 1998 forecasts without project, and 1998 forecast with project traffic conditions.

Analysis Methods

The three study intersections were analyzed using the appropriate methods for unsignalized intersections outlined in the 1994 Highway Capacity Manual. Appendix B provides detailed definitions of the "level-of-service" (LOS) used in this study.

The "level-of-service" (LOS) for unsignalized intersections is determined by total delay which is defined as the total elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line. This includes the time required for the vehicle to travel from the last-in-queue position. LOS for unsignalized intersections is also classified into six categories ranging from less than 5 seconds of average total delay per vehicle (LOS A) to over 45 seconds of average total delay per vehicle (LOS F).

Analysis Results

The results of the analysis for the weekday morning and afternoon peak hours generally are shown in Tables 2 and 3. Certain highlights are described below.

The unsignalized intersection of South King Street with Birch Street

- Presently, during the weekday morning and afternoon peak hours, motorists experience LOS B conditions turning right from Birch Street onto South King Street.
- By 1998 without the project, the LOS remains the same as the existing case during both study peak hours.
- By 1998 with the project, motorists would continue to experience LOS B conditions turning right from Birch Street onto South King Street during both study peak hours.

The unsignalized intersection of Birch Street with Elm Street

- Presently, during the weekday morning and afternoon peak hours, motorists experience LOS A conditions.
- By year 1998 without the project, the LOS remains the same as the existing case during both study peak hours.
- By year 1998 with project, motorist would continue to experience LOS A conditions during both study peak hours.

The unsignalized intersection of Birch Street with the Project Driveway

- With the project, the driveways will operate at LOS A during both peak hours.

Table 2 - Unsignalized Intersection Analysis - Morning Peak Hour			
Movement	LOS (delay-seconds/vehicle)		
	Existing	1998 Without Project	1998 With Project
South King Street with Birch Street			
Northbound RT from Birch Street	B	B	B
Birch Street with Elm Street			
Northbound LT/TH/RT on Birch St	A	A	A
Eastbound LT from Elm St	A	A	A
Birch Street with Project Driveway			
Eastbound LT from Project	n/a	n/a	A
Northbound LT from Birch St	n/a	n/a	A

Table 3 - Unsignalized Intersection Analysis - Afternoon Peak Hour			
Movement	LOS (delay-seconds/vehicle)		
	Existing	1998 Without Project	1998 With Project
South King Street with Birch Street			
Northbound RT from Birch Street	B	B	B
Birch Street with Elm Street			
Northbound LT/TH/RT on Birch St	A	A	A
Eastbound LT from Elm St	A	A	A
Birch Street with Project Driveway			
Eastbound LT from Project	n/a	n/a	A
Northbound LT from Birch St	n/a	n/a	A

Note: TH - Through, RT - Right turn, LT- Left turn

CONCLUSIONS AND RECOMMENDATIONS

The Birch Street Apartments Project, when completed in the year 1998, would not affect the Level-of-Service at the existing study intersections of South King Street with Birch Street and Birch Street with Elm Street during the weekday commuter hours. The intersection of Birch Street with the Project Driveway would operate at a Level-of-Service A condition. No capacity mitigating actions are required.

APPENDIX A

TRAFFIC COUNT DATA

Project : 65.0 Birch St
 Date: 2/12/97

Direction North-South Road Direction
 NORTHBOUND Birch Street SOUTHBOUND

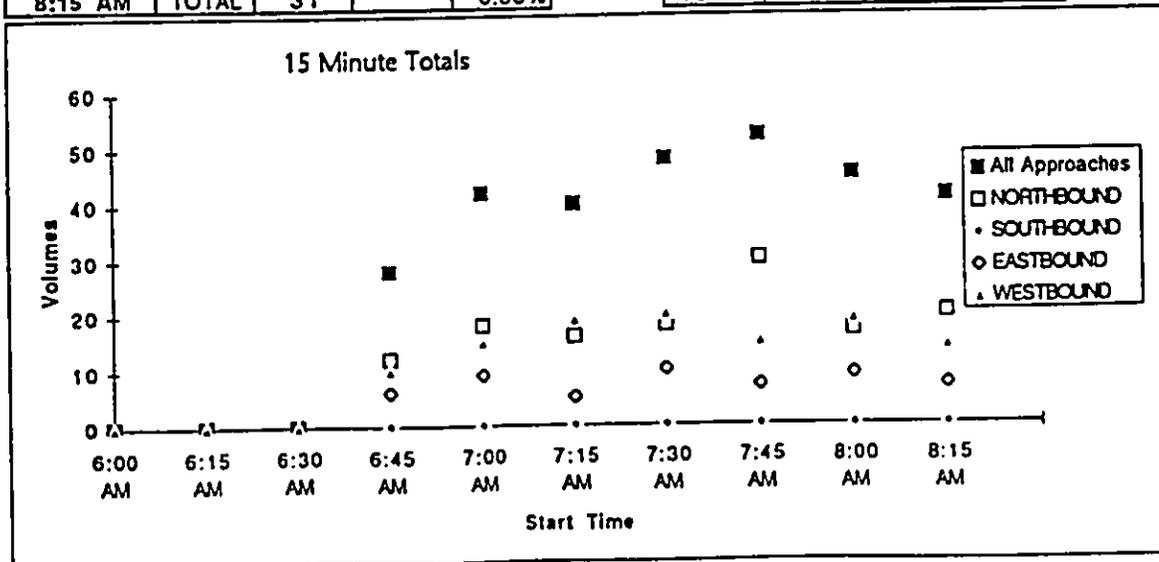
Start Time	NB-LT	NB-TH	NB-RT	T/B		SB-LT	SB-TH	SB-RT	T/B	
6:00 AM										
6:15 AM										
6:30 AM										
6:45 AM	6	5	1							
7:00 AM	7	9	2							
7:15 AM	7	9	0							
7:30 AM	6	8	4							
7:45 AM	9	13	8							
8:00 AM	6	5	6							
8:15 AM	6	9	5							

PEAK HOUR	NB-LT	NB-TH	NB-RT	T/B		SB-LT	SB-TH	SB-RT	T/B	
7:15 AM	28	35	18	0	0	0	0	0	0	0
8:15 AM	TOTAL	81		0.00%		TOTAL	0		#DIV/0!	

Direction East-West Road Direction
 EASTBOUND Elm Street WESTBOUND

Start Time	EB-LT	EB-TH	EB-RT	T/B		WB-LT	WB-TH	WB-RT	T/B	
6:00 AM										
6:15 AM										
6:30 AM										
6:45 AM	2	4					7	3		
7:00 AM	0	9					12	3		
7:15 AM	0	5					15	4		
7:30 AM	5	5					12	8		
7:45 AM	2	5					11	4		
8:00 AM	1	8					11	8		
8:15 AM	3	4					11	3		

PEAK HOUR	EB-LT	EB-TH	EB-RT	T/B		WB-LT	WB-TH	WB-RT	T/B	
7:15 AM	8	23	0	0	0	0	49	24	0	0
8:15 AM	TOTAL	31		0.00%		TOTAL	73		0.00%	



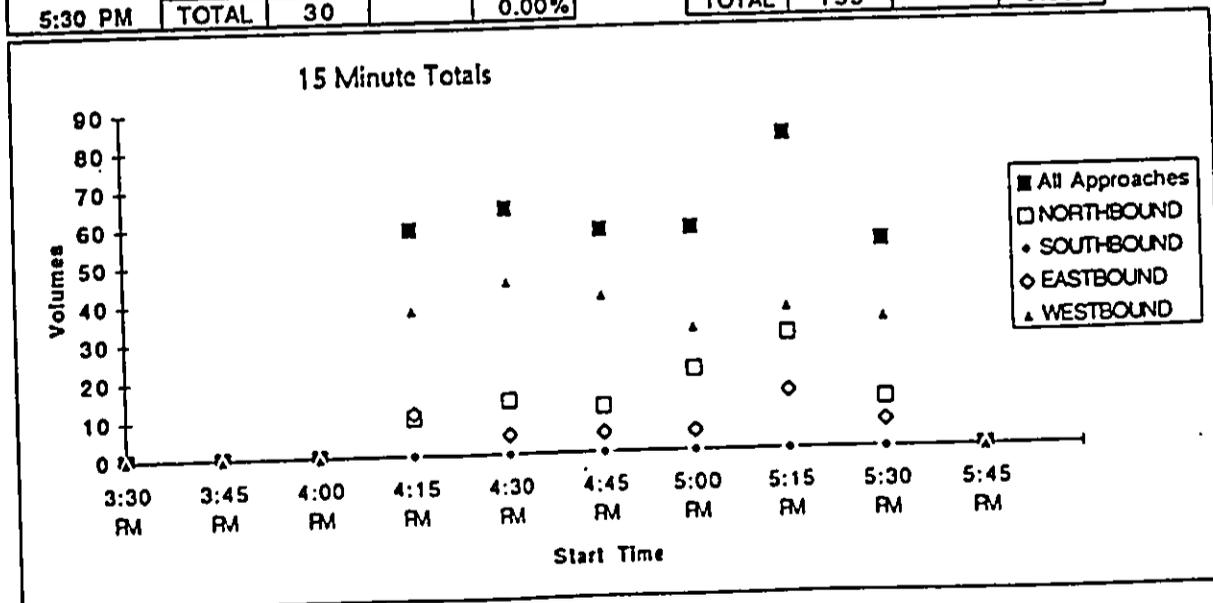
Project : 65.0 Birch St
Date: 2/13/97

Start Time	Direction NORTHBOUND				North-South Road Birch St				Direction SOUTHBOUND			
	NB-LT	NB-TH	NB-RT	T/B	SB-LT	SB-TH	SB-RT	T/B				
3:30 PM												
3:45 PM												
4:00 PM												
4:15 PM	1	8	1									
4:30 PM	1	11	2									
4:45 PM	2	6	4									
5:00 PM	0	19	2									
5:15 PM	2	24	4									
5:30 PM	1	10	2									

PEAK HOUR	NB-LT	NB-TH	NB-RT	T/B		SB-LT	SB-TH	SB-RT	T/B	
4:30 PM	5	60	12	0	0	0	0	0	0	0
5:30 PM	TOTAL				0.00%	TOTAL			0	#DIV/0!

Start Time	Direction EASTBOUND				East-West Road Elm St				Direction WESTBOUND			
	EB-LT	EB-TH	EB-RT	T/B	WB-LT	WB-TH	WB-RT	T/B				
3:30 PM												
3:45 PM												
4:00 PM												
4:15 PM	3	8				22	16					
4:30 PM	3	2				25	20					
4:45 PM	3	2				22	19					
5:00 PM	4	1				16	16					
5:15 PM	6	9				16	21					
5:30 PM	3	4				22	12					

PEAK HOUR	EB-LT	EB-TH	EB-RT	T/B		WB-LT	WB-TH	WB-RT	T/B	
4:30 PM	16	14	0	0	0	0	79	76	0	0
5:30 PM	TOTAL				0.00%	TOTAL			155	0.00%



Project : 65.0 Birch St
Date: 2/11/97

Direction NORTHBOUND North-South Road Birch Street Direction SOUTHBOUND

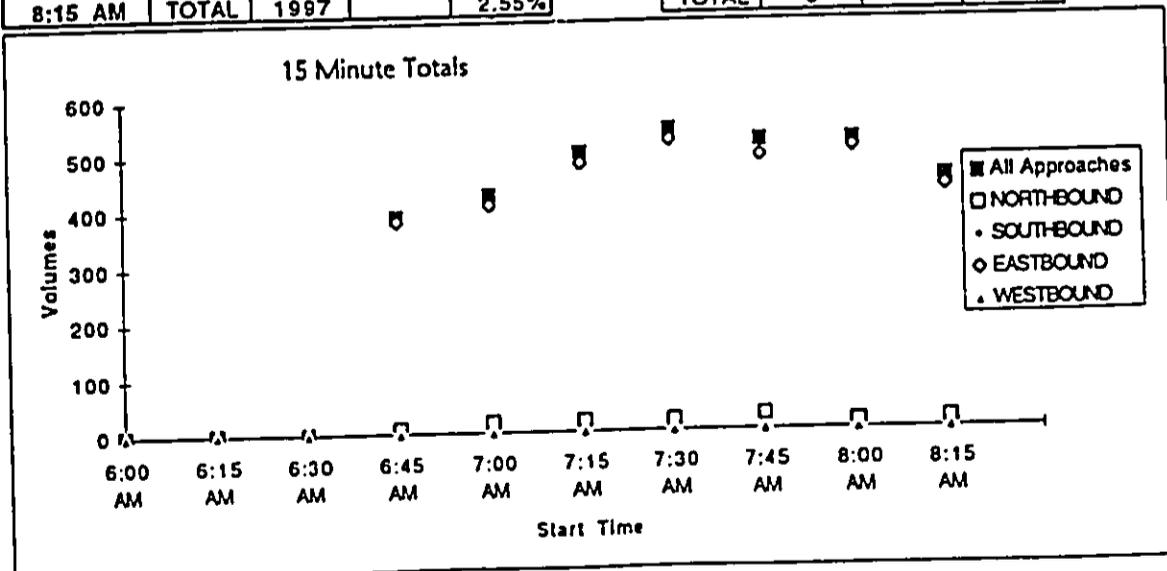
Start Time	NB-LT	NB-TH	NB-RT	T/B		SB-LT	SB-TH	SB-RT	T/B
6:00 AM									
6:15 AM									
6:30 AM									
6:45 AM		2	7						
7:00 AM		7	12						
7:15 AM		5	15						
7:30 AM		2	17						
7:45 AM		5	22						
8:00 AM		2	12						
8:15 AM		2	16						

PEAK HOUR	NB-LT	NB-TH	NB-RT	T/B		SB-LT	SB-TH	SB-RT	T/B
7:15 AM	0	14	66	0	0	0	0	0	0
8:15 AM	TOTAL	80		0.00%		TOTAL	0		#DIV/0!

Direction EASTBOUND East-West Road South King St Direction WESTBOUND

Start Time	EB-LT	EB-TH	EB-RT	T/B		WB-LT	WB-TH	WB-RT	T/B
6:00 AM									
6:15 AM									
6:30 AM									
6:45 AM	1	380		19					
7:00 AM	4	404		14					
7:15 AM	3	478		11					
7:30 AM	3	517		18					
7:45 AM	2	489		9					
8:00 AM	5	500		13					
8:15 AM	2	430		12					

PEAK HOUR	EB-LT	EB-TH	EB-RT	T/B		WB-LT	WB-TH	WB-RT	T/B
7:15 AM	13	1984	0	51	0	0	0	0	0
8:15 AM	TOTAL	1997		2.55%		TOTAL	0		#DIV/0!



Project : 65.0 Birch St
Date: 2/13/97

Direction North-South Road Direction
NORTHBOUND Birch St SOUTHBOUND

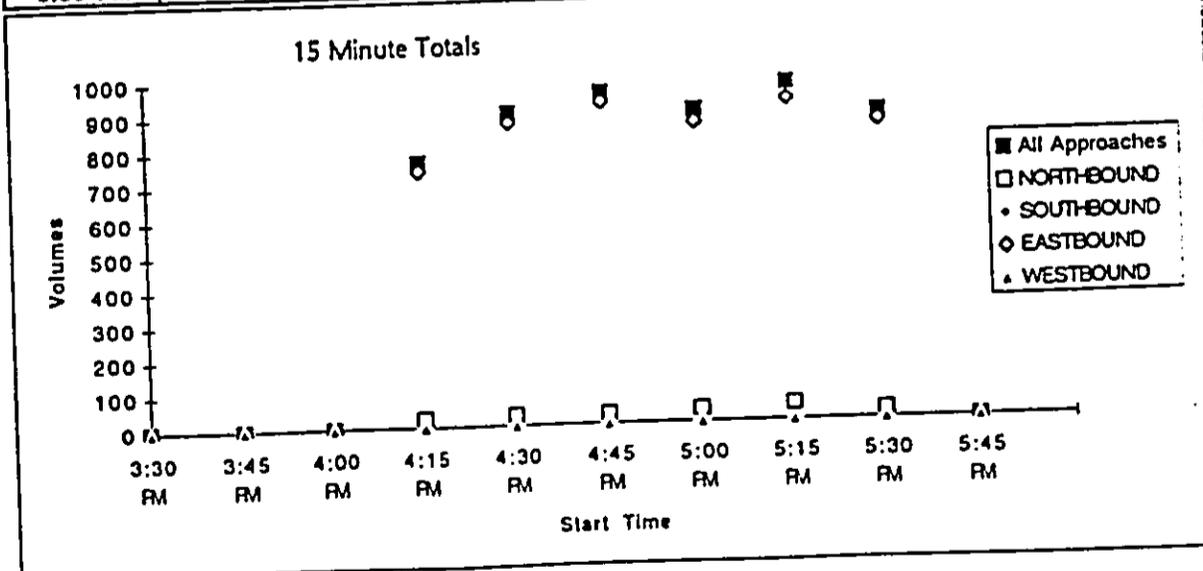
Start Time	NB-LT	NB-TH	NB-RT	T/B		SB-LT	SB-TH	SB-RT	T/B	
3:30 PM										
3:45 PM										
4:00 PM										
4:15 PM		2	23							
4:30 PM		1	29							
4:45 PM		3	25							
5:00 PM		3	33							
5:15 PM		5	42							
5:30 PM		3	22							

PEAK HOUR	NB-LT	NB-TH	NB-RT	T/B		SB-LT	SB-TH	SB-RT	T/B	
4:30 PM	0	12	129	0	0	0	0	0	0	0
5:30 PM	TOTAL	141		0.00%		TOTAL	0		#DIV/0!	

Direction East-West Road Direction
EASTBOUND South King St WESTBOUND

Start Time	EB-LT	EB-TH	EB-RT	T/B		WB-LT	WB-TH	WB-RT	T/B	
3:30 PM										
3:45 PM										
4:00 PM										
4:15 PM	2	735		9						
4:30 PM	7	862		9						
4:45 PM	7	916		8						
5:00 PM	8	851		7						
5:15 PM	5	916		6						
5:30 PM	4	850		6						

PEAK HOUR	EB-LT	EB-TH	EB-RT	T/B		WB-LT	WB-TH	WB-RT	T/B	
4:30 PM	27	3545	0	30	0	0	0	0	0	0
5:30 PM	TOTAL	3572		0.84%		TOTAL	0		#DIV/0!	



APPENDIX B

LEVEL-OF-SERVICE DEFINITIONS

FOR

UNSIGNALIZED INTERSECTIONS¹

REFERENCE: Highway Capacity Manual (Special Report 209, 1994)

LEVEL-OF-SERVICE FOR UNSIGNALIZED INTERSECTIONS

The level of service criteria are given in the table to the right. As used here, total delay is defined as the total elapsed time from when a vehicle stops at the end of a queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position.

Level of Service	Average Total Delay (sec/veh)
A	≤ 5
B	$> 5 \text{ and } \leq 10$
C	$> 10 \text{ and } \leq 20$
D	$> 20 \text{ and } \leq 30$
E	$< 30 \text{ and } \leq 45$
F	> 45

The proposed level of service criteria are somewhat different from the criteria for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, several driver behavior considerations combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, whereas drivers on the minor approaches to unsignalized intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized than signalized intersections. For these reasons, it is considered that the total delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection.

ATTACHMENT "H"
AGENCY COMMENTS

DOCUMENT CAPTURED AS RECEIVED

DEC-10-96 07:39 FROM:KANEHOE RANCH

ID:

PAGE 3/3

DEPARTMENT OF LAND UTILIZATION
CITY AND COUNTY OF HONOLULU

250 SOUTH KING STREET, 7TH FLOOR, HONOLULU, HAWAII 96813
PHONE: (808) 527-4414 • FAX: (808) 527-5743

JEREMY HARRIS
MAYOR



PATRICIA Y. ONIBEE
DIRECTOR

LORETTA K.C. CHOE
DEPUTY DIRECTOR

96-07821 (AS)

December 4, 1996

Mr. Randolph G. Moore
Hawaii Housing Development Corporation
c/o Hawaii Community Foundation
900 Fort Street, Suite 1300
Honolulu, Hawaii 96813

Dear Mr. Moore:

Tax Map Key 2-3-012:004
~~916 & 920 Birch Street; 919 Alder Street~~

This is in response to your request for our review and comment on the draft environmental assessment for the above-referenced property. We do not have any comments to offer at this time. However, should the project be processed under Chapter 201E, Hawaii Revised Statutes (HRS), we will review the request for exemptions thoroughly at that time.

Should you have any questions, you may contact Adrian Siu-Li of our staff at 527-5072.

Very truly yours,

PATRICIA Y. ONIBEE
Director of Land Utilization

PTO:fa

klr@hawaii.gov

04/21/1997 18:22 5960505

KINGS TRAVEL INC

PAGE 02

ENVIRONMENTAL ENGIN
COPY

ENV 96-284

November 21, 1996

Mr. Randolph G. Moore
Chairman of the Board
Hawaii Housing Development Corporation
c/o Hawaii Community Foundation
900 Fort Street, Suite 1300
Honolulu, Hawaii 96813

Dear Mr. Moore:

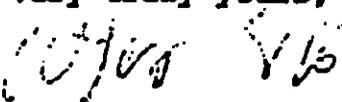
Subject: Draft Environmental Assessment (DEA)
Birch Street Apartments
TMK: 2-3-12: 4

We have reviewed the subject DEA and have the following comments:

1. The DEA should address City Ordinance 96-34 for controlling peak runoff.
2. The condition of the existing frontage may require improvements which shall be in accordance with City standards and the Americans with Disabilities Act Accessibility guidelines.
3. The driveway apron on Alder Street should be reconstructed to match new access to parking area.
4. Adequate on-site parking should be provided.
5. Runoff from parking area should be diverted to planted area to improve percolation.
6. The DEA should address discharge of runoff from car washing. Will there be a designated wash area? Will there be a storm drain connection to the City drainage system?

Should you have any questions, please contact Mr. Alex Ho, Environmental Engineer, at 523-4150.

Very truly yours,


FOR KENNETH E. SPRAGUE
Director and Chief Engineer

bcc: Eng

DOCUMENT CAPTURED AS RECEIVED

HAWAII HOUSING DEVELOPMENT CORPORATION
c/o Gary S. Furuta
Imperial Plaza - Suite C-103
Honolulu, Hawaii 96813
Telephone: 596-2120 • Fax: 596-0505

March 7, 1997

Mr. Jonathan K. Shimada, Director and Chief Engineer
DEPARTMENT OF PUBLIC WORKS
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Re: Environmental Assessment -- Final
Birch Street Apartments
A Low-Income Rental Housing Project

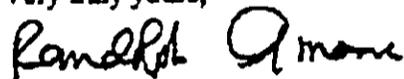
Dear Mr. Shimada:

We appreciate your Department's review and comments to our Draft Environmental Assessment for the Birch Street Apartments project.

We will provide engineering studies through the final design process of the project to respond to the concerns expressed by your Department.

We are preparing our Final Environmental Assessment and will include a copy of your Department's letter in our submittal.

Very truly yours,

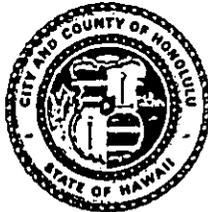


Randolph G. Moore, Chair
Hawaii Housing Development Corporation

DOCUMENT CAPTURED AS RECEIVED

DEPARTMENT OF WASTEWATER MANAGEMENT
CITY AND COUNTY OF HONOLULU

630 SOUTH KING STREET
HONOLULU, HAWAII 96813



JEREMY HARRIS
MAYOR

FELIX B. LIMTIACO, P.E.
DIRECTOR

CHERYL K. OKUMA-SEPE, ESQ.
DEPUTY DIRECTOR

In reply refer to:
WCC 96-123

November 8, 1996

Mr. Randolph G. Moore, Chairman of the Board
Hawaii Housing Development Corporation
c/o Hawaii Community Foundation
900 Fort Street, Suite 1300
Honolulu, Hawaii 96813

Dear Mr. Moore:

Subject: **BIRCH STREET APARTMENTS**
DRAFT ENVIRONMENTAL ASSESSMENT
916 & 920 BIRCH STREET, 919 ALDER STREET
MAKIKI, OAHU
TMK: 2-3-12:004

In reference to your letter dated October 29, 1996, regarding the subject project, the municipal wastewater system is available and adequate to accommodate the proposed 52-unit Birch Street Apartments. This statement shall not be construed as confirmation of sewage capacity reservation. Sewage capacity reservation is contingent on submittal and approval of a "Sewer Connection Application" form. This project is also liable for payment of a Wastewater System Facility Charge.

If you have any questions, please contact Mr. Scott Gushi of the Service Control Branch at 523-4886.

Very truly yours,

CHERYL K. OKUMA-SEPE

for FELIX B. LIMTIACO
Director

cc: ✓ Gary S. Furuta

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA
 711 KAPOLANI BOULEVARD, SUITE 1200
 HONOLULU, HAWAII 96813



JEREMY HARRIS
 RATOR

CHARLES O. SHANNON
 DIRECTOR

December 2, 1996

TSP96-00807R

Mr. Randolph G. Moore
 Chairman of the Board
 Hawaii Housing Development Corporation
 c/o Hawaii Community Foundation
 900 Fort Street, Suite 1300
 Honolulu, Hawaii 96813

Dear Mr. Moore:

Subject: Birch Street Apartments

In response to your October 29, 1996 letter, we reviewed the draft environmental assessment for the subject project and have the following comments:

1. The existing driveway along Alder Street should be adjusted to match the width of the vehicular access to the site. The sections of the driveway which will not be used by the project should be adjusted to the standard curb grade.
2. All vehicular access points should be constructed as standard City dropped driveways.
3. Driveways should be wide enough to accommodate two-way traffic, and adequate sight distance to pedestrians and other vehicles should be provided and maintained.
4. Landscaping should be placed in locations where it does not obstruct vehicular sight lines.
5. Due to the limited amount of street parking available in the area, we recommend providing additional on-site parking to adequately serve the residents and their guests.
6. All maneuvering of loading/trash pick-up activities should occur on-site.

DOCUMENT CAPTURED AS RECEIVED

Mr. Randolph G. Moore
Page 2
December 2, 1996

7. Construction plans for all off-site work should be submitted to this department for review and approval.

Should you have any questions regarding these comments, please contact Faith Miyamoto of the Transportation System Planning Division at 527-6976.

Respectfully,

C. Swanson
for CHARLES O. SWANSON
Director

DOCUMENT CAPTURED AS RECEIVED

HAWAII HOUSING DEVELOPMENT CORPORATION
c/o Gary S. Furuta
Imperial Plaza · Suite C-103
Honolulu, Hawaii 96813
Telephone: 596-2120 · Fax: 596-0505

March 7, 1997

Ms. Cheryl Soon, Director
DEPARTMENT OF TRANSPORTATION SERVICES
City and County of Honolulu
711 Kapiolani Blvd., Suite 1200
Honolulu, Hawaii 96813

Re: Environmental Assessment -- Final
Birch Street Apartments
A Low-Income Rental Housing Project

Dear Ms. Soon:

We appreciate your Department's review and comments to our Draft Environmental Assessment for the Birch Street Apartments project.

In response to those comments, we provide the following:

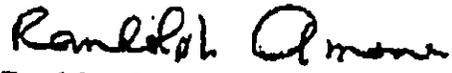
1. Project plans will provide for new driveways for the site and the reconstruction of existing driveways to become sidewalks.
2. The driveways planned for the project will be designed and built according to city standards for dropped curb driveways.
3. The driveways will be sized for two-way traffic, and with adequate sight clearance to assure pedestrian safety and vehicular access.
4. Landscaping will be selected to allow clear sight lines.
5. The project will have adequate resident and guest parking, per provisions of the Land Use Ordinance (LUO). The design will provide as much additional parking as can be accommodated without excessively encroaching on open space and on-site park requirements.
6. The project includes a loading space that has an on-site maneuvering area.
7. Plans will be submitted to your Department during Building Permit application processing, for your review and approval.

DOCUMENT CAPTURED AS RECEIVED

We are preparing our Final Environmental Assessment and will include a copy of your letter in our submittal.

Should you require any additional information or clarification, please feel free to contact us.

Very truly yours,



Randolph G. Moore, Chair
Hawaii Housing Development Corporation

DOCUMENT CAPTURED AS RECEIVED

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96843
PHONE (808) 527-6180
FAX (808) 533-2714



November 26, 1996

JEREMY HARRIS, Mayor
WALTER O. WATSON, JR., Chairman
MAURICE H. YAMASATO, Vice Chairman
KAZU HAYASHIDA
MELISSA Y.J. LUM
FORREST C. MURPHY
KENNETH E. SPRAGUE
BARBARA KIM STANTON

RAYMOND H. SATO
Manager and Chief Engineer

Mr. Gary S. Furuta
Hawaii Housing Development Corporation
Imperial Plaza, Suite C-103
725 Kapiolani Boulevard
Honolulu, Hawaii 96813

Dear Mr. Furuta:

Subject: Your Letter of October 29, 1996 on the Draft Environmental Assessment for the Birch Street Apartments, Honolulu, Oahu, TMK: 2-3-12: 04

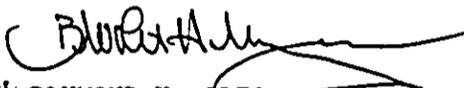
Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the proposed low income housing project.

We have the following comments to offer:

1. The existing off-site water system is presently adequate to accommodate the proposed development.
2. The availability of water will be determined when the Building Permit Application is submitted for our review and approval. If water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.
3. If a 3-inch or larger water meter is required, the construction drawings showing the installation of the meter should be submitted for our review and approval.
4. There was a domestic water service to the property which was ordered-off on September 19, 1991.
5. Board of Water Supply approved Reduced Pressure Principle Backflow Prevention Assemblies are required to be installed immediately after each domestic water meter serving the site.

If you have any questions, please contact Barry Usagawa at 527-5235.

Very truly yours,


FOR RAYMOND H. SATO
Manager and Chief Engineer

cc: Office of Environmental Quality Control
Thomas B. DeCosta, AIA, Inc.

DOCUMENT CAPTURED AS RECEIVED

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU

HONOLULU MUNICIPAL BUILDING
800 SOUTH KING STREET, 2ND FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4546 • FAX: (808) 523-4867



JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI
DIRECTOR AND BUILDING SUPERINTENDENT
IBIDRO M. SAOULAR
DEPUTY DIRECTOR AND BUILDING SUPERINTENDENT

PB 96-665

November 6, 1996

Hawaii Housing Development Corporation
c/o Hawaii Community Foundation
900 Fort Street, Suite 1300
Honolulu, Hawaii 96813

Attn: Randolph G. Moore
Chairman of the Board

Gentlemen:

Subject: Birch Street Apartments
Draft Environmental Assessment (DEA)

This is in response to your letter dated October 29, 1996.

We have reviewed the DEA for the Birch Street Apartments and
have no comments to offer.

Very truly yours,

RANDALL K. FUJIKI
Director and Building Superintendent

DOCUMENT CAPTURED AS RECEIVED

To: Gary Furuta

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU

850 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HADFOR
MAYOR



DONA L. HANAIKE
DIRECTOR

ALVIN K.C. AN
DEPUTY DIRECTOR

November 12, 1996

Mr. Randolph G. Moore
Chairman of the Board
Hawaii Housing Development Corporation
c/o Hawaii Community Foundation
900 Fort Street, Suite 1300
Honolulu, Hawaii 96813

Dear Mr. Moore:

Subject: Draft Environmental Assessment for
Birch Street Apartments, Honolulu, Oahu, Hawaii
Tax Map Key 2-3-012:004

We have reviewed the proposed project and request that a
detailed private park plan and an itemized cost estimate for
park improvements for the 1,500 square foot, on-site
recreation area be submitted for our review and approval.

Thank you for the opportunity to review the project.

Should you have any questions, please contact Lester Lai
of our Advance Planning Branch at 523-4696.

Sincerely,

For DONA L. HANAIKE
Director

DLH:ei

DOCUMENT CAPTURED AS RECEIVED

DEC-19-96 THU 10:59 PLANNING DEPT CBC

P. 02/05

Tim
X

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU

825 SOUTH KING STREET, HONOLULU - HAWAII, 96813
PHONE: (808) 525-3471 FAX: (808) 525-3472

JSC/ym/awb
11/21/96



CHEYLD SOON
CITY PLANNING OFFICER
CARRIE TAKAHASHI
CITY PLANNING OFFICER

TH 11/96-2177

November 21, 1996

Mr. Randolph G. Moore, Chairman of the Board
Hawaii Housing Development Corporation
c/o Hawaii Community Foundation
900 Fort Street, Suite 1900
Honolulu, Hawaii 96813

Dear Mr. Moore:

Draft Environmental Assessment (EA) for the
Proposed Birch Street Low-Income Rental Project,
Honolulu, Oahu, Hawaii. Tax Map Key: 2-3-12: 04

In response to your letter of October 29, 1996, we have reviewed the subject draft EA and offer the following comments:

1. We have no objections to the proposed project. The proposal to construct a 14-story, 32-unit apartment building is consistent with the site's Medium Density Apartment land use designation.
2. The subject site is situated within the Alapai/Sheridan Special Area. As such, the applicant shall ensure that the building's design is compatible with the surrounding area and that *mauikele* views are preserved in accordance with Section 24-2.2(b)(4) of the Primary Urban Center Development Plan.
3. Section II (General Information) of the draft EA does not identify the approving agency for the proposed project. In accordance with Chapter 343, Hawaii Revised Statutes and Section 11-200-10, Hawaii Administrative Rules, the final EA should identify the "approving agency."

DOCUMENT CAPTURED AS RECEIVED

JAN-27-97 SUN 1:00 PM THOMAS B DE COSTA INC

FAX NO. 3950735

P. 4

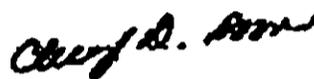
DEC-19-96 THU 10:01 PLANNING DEPT CMC

P. 02/02

Mr. Randolph G. Moore, Chairman of the Board
Hawaii Housing Development Corporation
November 21, 1996
Page 2

Thank you for the opportunity to comment on this matter. Should you have any questions, please contact Tim Hata of our staff at 527-6070.

Sincerely,



CHERYL D. SOON
Chief Planning Officer

CDS:ft

DEC-19-96 WED 10:51 AM

0095224050
0005234350

P. 3

DOCUMENT CAPTURED AS RECEIVED

HAWAII HOUSING DEVELOPMENT CORPORATION
c/o Gary S. Furuta
imperial Plaza - Suite C-103
Honolulu, Hawaii 96813
Telephone: 596-2120 • Fax: 596-0505

March 7, 1997

Mr. Patrick T. Onishi, Chief Planning Officer
PLANNING DEPARTMENT
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

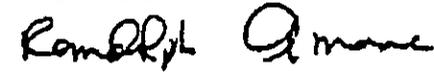
Re: Environmental Assessment -- Final
Birch Street Apartments
A Low-Income Rental Housing Project

Dear Mr. Onishi:

We appreciate your Department's review and comments to our Draft Environmental Assessment for our Birch Street Apartments project.

We are preparing our Final Environmental Assessment and will include a copy of your letter in our submittal.

Very truly yours,


Randolph G. Moore, Chair
Hawaii Housing Development Corporation

DOCUMENT CAPTURED AS RECEIVED

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 5TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4427 • FAX: (808) 527-5498

JEREMY HARRIS
MAYOR



ROLAND D. LIBBY, JR.
DIRECTOR

ROBERT AGRES, JR.
DEPUTY DIRECTOR

December 3, 1996

Mr. Gary Furuta
Imperial Plaza, Suite C-103
725 Kapiolani Boulevard
Honolulu, Hawaii 96813

Dear Mr. Furuta:

Subject: Birch Street Apartments

The Department of Housing and Community Development (DHCD) has completed its review of your application for exemptions from planning, zoning and land development standards pursuant to Section 201E-212, Hawaii Revised Statutes. Based on our review of your application, we have the following comments and requests.

201E Exemptions

All exemptions should be depicted on the project plans to the extent possible in order that reviewing agencies can accurately assess the nature and impacts of your requested 201E exemptions. Your requested exemptions related to density and parking are shown on your site plan. The park dedication exemption request should also be shown in similar fashion on the site plan. We could not assess your exemptions relating to yards and open space, and yard setbacks because they were not shown clearly on the plans. On-street parking in the area is very limited. We recommend that all effort be made to provide full guest parking. Outline specifications and a market study to verify absorption and rental rates should also be forwarded to our office.

We request that you keep us informed regarding future presentations to the Ala Moana/Kakaako Neighborhood Board.

Project Financing

We would appreciate receiving a 15-year operating cash flow, as well as supporting calculations regarding the mortgage amount and tax credit syndication. We would also appreciate receiving a

Mr. Gary Furuta
December 3, 1996
Page 2

status on your recent activities to secure project financing, and an estimated schedule for the commitment of funds.

Environmental Assessment

DHCD will not accept the Environmental Assessment (EA) in the absence of letters from appropriate agencies. We note that you are presently circulating the draft EA for agency comments, however, such draft EAs typically contain agency comments prior to their circulation. We strongly recommend preparation of a traffic study for this project. Although the Department of Transportation Services has noted that no roadway improvements will be required, the City Council has made traffic impacts and parking adequacy a point of discussion during several previous projects.

Documentation regarding authorization from the Department of Wastewater Management to connect to the municipal wastewater system should be included in the EA.

The requested information along with three sets of full size plans should be forwarded to our Department for review. Please review your plans prior to submittal to ensure that all dimensions for typical dwelling units, common areas and parking stalls are shown. Should all plans and the requested information be satisfactory, DHCD will circulate the 201E request and project plans to City agencies for review and comment. DHCD is supportive of your efforts to provide affordable housing in the urban core, and we look forward to working with you on this project.

Should you have any questions regarding this matter, please call Keith Ishida at 527-5092.

Sincerely,


ROLAND D. LIBBY, JR.
Director

FROM : BOBBIE JENNINGS — BOTTOM LINE PHONE NO. : +808 533 2699

Jan. 27 1997 03:44PM P01



ALA MOANA/KAKAÄKO NEIGHBORHOOD BOARD NO. 11

c/o NEIGHBORHOOD COMMISSION • CITY HALL, ROOM 400 • HONOLULU, HAWAII 96813

January 27, 1997

TO: Gary Faruta
Project Director
Hawaii Housing Development Corp.

FROM: Bobbie Jennings
Secretary-Treas.
Ala Moana/Kakaäko
Neighborhood Board #11

Our Board appreciated your informing us, at our November Board meeting, of your proposed Birch Street Apartments project.

As the Minutes of that meeting will reflect, a brief presentation was made, after which there were comments and concerns. We made note of this information but no position was taken.

Bobbie Jennings



Oahu's Neighborhood Board System—Established 1973

DOCUMENT CAPTURED AS RECEIVED

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 527-3111

JEREMY HARRIS
MAYOR



MICHAEL S. NAKAMURA
CHIEF

HAROLD M. KAWASAKI
LEE DONOHUE
DEPUTY CHIEFS

OUR REFERENCE BS-TL

November 6, 1996

Mr. Randolph G. Moore
Chairman of the Board
Hawaii Housing Development Corporation
c/o Hawaii Community Foundation
900 Fort Street, Suite 2300
Honolulu, Hawaii 96813

Dear Mr. Moore:

This is in response to your letter of October 29, 1996, regarding the Draft Environmental Assessment for the Birch Street Apartments at 916-920 Birch Street and 919 Alder Street, Honolulu, Hawaii 96814.

This project should have no significant impact on the operations of the Honolulu Police Department.

Thank you for the opportunity to review the draft environmental assessment.

Sincerely,

MICHAEL S. NAKAMURA
Chief of Police

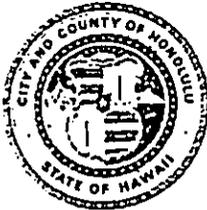
By *Eugene Uemura*
EUGENE UEMURA, Assistant Chief
Administrative Bureau

cc: Gary S. Furuta
Thomas B. De Costa

POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU

801 SOUTH BERETANIA STREET
HONOLULU, HAWAII 96813 - AREA CODE (808) 529-3111

JEREMY HARRIS
MAYOR



MICHAEL S. NAKAMURA
CHIEF

HAROLD M. KAWASAKI
LEE DONOHUE
DEPUTY CHIEFS

OUR REFERENCE BS-TL

November 6, 1996

Mr. Randolph G. Moore
Chairman of the Board
Hawaii Housing Development Corporation
c/o Hawaii Community Foundation
900 Fort Street, Suite 1300
Honolulu, Hawaii 96813

Dear Mr. Moore:

This is in response to your letter of October 29, 1996, regarding the Draft Environmental Assessment for the Birch Street Apartments at 916 920 Birch Street and 919 Alder Street, Honolulu, Hawaii 96814.

This project should have no significant impact on the operations of the Honolulu Police Department.

Thank you for the opportunity to review the draft environmental assessment.

Sincerely,

MICHAEL S. NAKAMURA
Chief of Police

A handwritten signature in cursive script, appearing to read "Eugene Uemura".

By

EUGENE UEMURA, Assistant Chief
Administrative Bureau

cc: Gary S. Furuta ✓
Thomas B. De Costa

HAWAII HOUSING DEVELOPMENT CORPORATION
c/o Hawaii Community Foundation
900 Fort Street • Suite 1300
Honolulu, Hawaii 96813
Telephone: 596-2120 • Fax: 596-0505

HONOLULU POLICE DEPT
COMMUNICATIONS SECTION

Nov 4 05 51 '96

October 29, 1996

Police Chief Michael S. Nakamura
POLICE DEPARTMENT
801 South Beretania Street
Honolulu, Hawaii 96813

Re: Birch Street Apartments
Draft Environmental Assessment

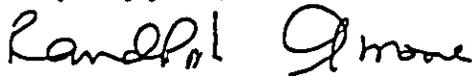
Dear Police Chief Nakamura:

Attached for your review and further action are Hawaii Housing Development Corporation's ("HHDC") subject environmental assessment for a 52 unit low-income rental project situated in the Makiki/McCully neighborhood. The application has been prepared in accordance with the "Guidebook For The Hawaii State Environmental Impact Review Process", Environmental Impact Statement Rules of Chapter 343, HRS Chapter 200, Title 11 Administrative Rule of the Office of Environmental Quality Control ("OEQC"). It also conforms in format and with information provided with a sample environmental assessment provided us by OEQC.

HHDC was organized as a non-profit company by the Hawaii Community Foundation and other grantmakers in 1993. Its purpose is to develop lower income rental housing in Hawaii on an ongoing basis.

If you or your staff should have any questions regarding the project or the environmental assessment, please contact Gary Furuta, at 596-2120 (o) or 596-0505 (f). We look forward to an expeditious and favorable response from your office. Mahalo!

Very truly yours,



Randolph G. Moore, Chairman of the Board

cc: Gary Furuta -- 596-0505 (f)
Tom De Costa -- 395-0735 (o/f)

BENJAMIN J. CAYetano
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

September 20, 1996

Thomas B. DeCosta
Mitsunaga & Associates
747 Amana St., Suite 216
Honolulu, Hawaii 96814

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTY
GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT
PROGRAM

AQUATIC RESOURCES
CONSERVATION AND

ENVIRONMENTAL AFFAIRS
CONSERVATION AND
RESOURCES ENFORCEMENT

CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION

DIVISION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

LOG NO: 18102 ✓
DOC NO: 9609TD14

Dear Mr. DeCosta:

**SUBJECT: Chapter 6E-42 Review--Birch Street Apartments, A Low Income Rental
Housing Project at 916 Birch Street
Honolulu, Kona, O`ahu
TMK: 2-3-12:4**

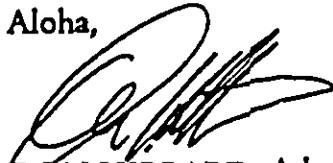
Thank you for the opportunity to review this project, which proposes to construct a nine story, 40 unit low income housing project without any below grade structure. The structure will be supported by foundation piles.

A review of our records shows that there are no known historic sites at this parcel. The parcel has been developed and the portion fronting Alder Street is now used for parking. It is unlikely that subsurface historic sites are located here. We believe the project will have "no effect" on historic sites.

It is possible that historic sites, including human burials, will be uncovered during routine construction activities. Should this be the case all work in the vicinity must stop and the Historic Preservation Division must be contacted at 587-0047.

If you have any questions please call Tom Dye at 587-0014.

Aloha,


DON HIBBARD, Administrator
State Historic Preservation Division

TD:jk

BENJAMIN A. CAYetano
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

November 7, 1996

STATE HISTORIC PRESERVATION DIVISION
321 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

Randolph G. Moore, Chairman of the Board
Hawaii Housing Development Corporation
c/o Hawaii Community Foundation
900 Fort Street Suite 1300
Honolulu, Hawaii 96813
Attn: Gary Furuta

MICHAEL S. DYKSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

Gilbert Colcan-Agaran

AGRICULTURE DEVELOPMENT PROGRAM

AQUATIC RESOURCES CONSERVATION AND

ENVIRONMENTAL AFFAIRS CONSERVATION AND

RESOURCES ENFORCEMENT CONVEYANCES

FORESTRY AND WILDLIFE HISTORIC PRESERVATION

DIVISION

LAND MANAGEMENT STATE PARKS

WATER AND LAND DEVELOPMENT

LOG NO: 18455
DOC NO: 9611cc02
Architecture

Dear Mr. Moore:

Subject: Birch Street Apartments
Draft Environmental Assessment
Historic Preservation Compliance
TMK 2-3-12-1 Honolulu, Oahu

Thank you for the submittal of the draft Environmental Assessment for the Birch Street Apartments. We have no additional comments and we believe that the project will have 'no effect' on any known historic site as stated in the September 20, 1996, letter to Thomas B. DeCosta.

Thank you for the opportunity to comment. Should you have any questions please call Tom Dye at 587-0014.

Aloha,

DON HEBBARD, Administrator
State Historic Preservation Division

CO:jk

DOCUMENT CAPTURED AS RECEIVED

05/25/1997 23:55 0083951520

GARY FURUTA

PAGE 01

BENJAMIN J. CAYETANO
GOVERNOR



GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

226 SOUTH BERITANA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 588-4188
FACSIMILE (808) 588-4188

September 3, 1997

Robert Agres, Jr.
Department of Housing and Community Development
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Attention: Lorna Uesato

Dear Mr. Agres:

Subject: Draft Environmental Assessment (EA) for Birch Street
Apartments, Oahu

We have the following comments to offer:

1. Project cost: The total funding for this project is not given. If any state or county funds are involved (including funds that flow through the state or county) they must be disclosed in the final EA.
2. Landscaping: The renderings of the project elevations do not show any landscaping. Please indicate what kind of landscaping is planned.
3. Energy conservation: Will solar water heating or any other resource conservation measures be included in this project?
4. Responses to comment letters: The draft EA includes copies of letters from the Department of Public Works, the Department of Transportation Services and the Planning Department. Please include copies of your responses to these agencies in the final EA.
5. Ground contamination: The conclusion in the Environmental Site Assessment, Attachment D, recommends a phase II report to assess site contamination. Will such a study be undertaken? If so, include the results in the final EA, along with corrective measures planned for any contamination found.

Robert Agres, Jr.
September 3, 1997
Page 2

6. Significance criteria: In the final EA include a discussion of findings and reasons, according to the significance criteria listed in HAR Title 11-200-12, that support the anticipated Finding of No Significant Impact (FONSI) determination. A simple reiteration of the criteria in the negative will not suffice. Please also note that there are 13 significance criteria. You may use the enclosed sample as a guideline.

If you have any questions, call Nancy Heinrich at 586-4165.

Sincerely,



GARY GILL
Director

Enc.

c: Gary Furuta

DOCUMENT CAPTURED AS RECEIVED

THOMAS B. DE COSTA AIA Inc.

Architectural Consultant
888 KULANI STREET, HONOLULU, HAWAII 96825
PHONE/FAX: (808) 395-0735

September 26, 1997

Mr. Gary Gill, Director
Office Of Environmental Quality Control
236 South Beretania Street
Honolulu, Hawaii 96813

Attention: Nancy Heinrich

Dear Mr. Gill,

Subject: Office of Environmental Quality Control (OEQC)
Comments on the submittal of:
DRAFT ENVIRONMENTAL ASSESSMENT (EA) for;
Birch Street Apartments, Oahu (March - Updated July, 1997)

On behalf of the applying agency, the Department of Housing and Community Development (DHCD), and the proposing agency, the Hawaii Housing Development Corporation (HHDC), we have reviewed your letter of September 3, 1997, and have prepared the following responses:

COMMENT #1. Project Cost

The "Pro Forma Project Financing" has been included in the Final EA as ATTACHMENT "D".

COMMENT #2: Landscaping

The revised and updated plans regarding landscaping, including a planting list, has been inserted into ATTACHMENT "C".

COMMENT #3: Energy Conservation

The EA has been revised to include energy and other resource conservation measures incorporated into the design of the project. These include:

1. Energy efficient common area light fixtures.
2. Energy efficient residential appliances.
3. Water saving toilets.

4. Low flow plumbing fixtures such as shower heads and faucets.

COMMENT #4: Responses to comment letters

The copies of the three letters referenced in your comment have been included in ATTACHMENT "H", along with a copy of this response to OEQC comments, as per your instructions.

As of this date we have not received any additional letters of comment regarding the review of the Daft EA.

COMMENT #5: Ground Contamination

We have provided an expanded explanation regarding the site contamination in Paragraph II R.: "Major Environmental Concerns:.. It states, in summary, that the Phase I ESA will be performed by the Texaco service station adjoining the property.

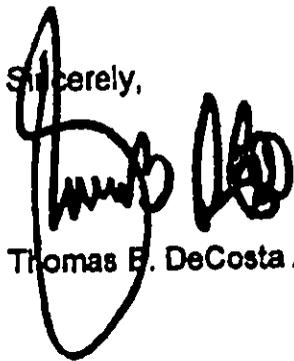
COMMENT #6: Significance Criteria

We have revised and expanded Section X: "Basis for a Finding of No Significant Impact (FONSI)" to respond to the Significance Criteria (13 items) as per Title 11 Chapter 200-12.

We hope the above, and the corresponding revisions made to the Daft EA, are a satisfactory response to your review comments. Please let us know if anything has been left out or requires additional attention.

As per your further instructions, during our telephone call today, we will submit four (4) copies of the Final Environmental Assessment through the applying agency, DHCD, for their transmittal to the OEQC via a Bulletin Publication form.

Sincerely,

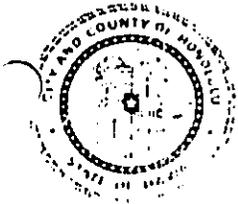


Thomas B. DeCosta AIA

ATTACHMENT " I "

RESOLUTION 97-229, CDI

**AUTHORIZING EXEMPTIONS WITH REGARD TO
CHAPTER 210 E (HRS)**



GENEVIEVE G. WONG
CITY CLERK

OFFICE OF THE CITY CLERK
CITY AND COUNTY OF HONOLULU
HONOLULU, HAWAII 96813 / TELEPHONE 523-4352

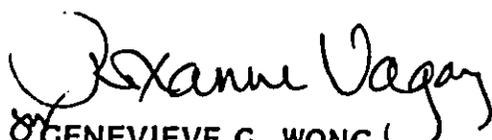
August 11, 1997

Mr. Gary S. Furuta
Hawaii Housing Development Corporation
725 Kapiolani Boulevard
Suite C-103
Honolulu, HI 96813

Dear Mr. Furuta:

This is to inform you that Resolution 97-229, CD1, relating to the development of the Birch Street Apartments, was adopted by the Council of the City and County of Honolulu on Wednesday, August 6, 1997.

Sincerely,


GENEVIEVE G. WONG
City Clerk

dsh

Enclosure



RESOLUTION

AUTHORIZING EXEMPTIONS FROM CERTAIN REQUIREMENTS RELATING TO THE DEVELOPMENT OF THE BIRCH STREET APARTMENTS (LOW-INCOME RENTAL HOUSING PROJECT) AT 916 & 920 BIRCH STREET, OAHU, TAX MAP KEY: 2-3-12: 04.

WHEREAS, Hawaii Housing Development Corporation (HHDC) proposes to develop 52 low-income rental units on 20,801 square feet on Birch Street identified as Tax Map Key: 2-3-12: 04 to be known as Birch Street Apartments (the "Project"); and

WHEREAS, HHDC, a non-profit organization, will develop, own and operate the Project; and

WHEREAS, the Project consists of 52 apartments for low-income families, 1 manager's unit, 59 parking stalls for residents and guests, 1,135 square feet of recreation space, and a 202 square-foot laundry room; and

WHEREAS, 100% of the units will be rented to households earning 60% and below of Oahu's median income for a period of 60 years and the Project will be regulated as an affordable housing project for 60 years, expiring on December 26, 2058 or in perpetuity should the leased fee be acquired; and

WHEREAS, the City Council is empowered to authorize exemptions from statutes, ordinances, charter provisions and rules of any government agency relating to planning, zoning, construction standards for subdivision, development and improvement of land and the construction of units thereon pursuant to Sections 46-15.1 and 201E-210 of the Hawaii Revised Statutes (HRS); and

WHEREAS, the City Council has reviewed the plans dated July 7, 1997 and outline specifications dated March 1997 for the Project submitted to the Council by the Department of Housing and Community Development ("DHCD"); and

WHEREAS, the Project is consistent with the housing goals and objectives of the City; and

WHEREAS, the granting of the exemptions is necessary for the timely and successful implementation of the Project; and

WHEREAS, the Project does not contravene any safety standards or tariffs approved by the Public Utilities Commission for public utilities; and



RESOLUTION

WHEREAS, the exemptions meet minimum requirements of health and safety; now, therefore,

BE IT RESOLVED by the Council of the City and County of Honolulu that it approves the Project which approval includes exemptions from certain requirements for the Project as set forth in the Preliminary Plans and Specifications for the Project, as follows:

1. Exemption from Section 24-2.2(a)(4)(C), Revised Ordinances of Honolulu 1990 ("ROH"), Development Plan Special Provisions, Primary Urban Center, relating to allowable units per net acre, to allow the Project to exceed the allowable 90 units per net acre by 9 units.
2. Exemption from Table 21-5.3-B, ROH, relating to land use zoning, to allow the Project (46,193 square feet) to exceed the allowable A-2 FAR of 1.52 (31,618 square feet) and to fall under an A-3 FAR of 2.42 (50,338 square feet).
3. Exemption from Section 21-3.30(a), ROH, relating to setback encroachment, to allow recreational structures (picnic tables and barbecue grills) exceeding 30 inches in height within the required front and side yards along Birch Street.
4. Exemption from Section 21-3.30(d), ROH, relating to setback encroachment, to allow portions of four parking stalls to encroach a maximum of 9 feet within the front yard setback along Alder Street.
5. Exemption from Section 21-3.70-2(d), ROH, relating to parking stall ratio, to allow the Project to exceed the maximum allowed 29 compact parking stalls by 2 additional compact stalls.
6. Exemption from Sections 21-5.50-1(d)(2)(A) and 21-5.60-1(d)(2)(A), ROH, relating to optional yard siting/setback encroachment, to allow less than the required open space under the optional yard siting provisions which allow parking area encroachment into required side yards.
7. Exemption from Sections 21-5.50-1(d)(3) and 21-5.60-1(d)(3), ROH, relating to height setback encroachment,



RESOLUTION

to allow a portion of the building facing Alder Street to encroach 3 feet 3 inches into the required additional side yard setback at the 40-foot level along the Makai property line.

8. Exemption from the Park Dedication Ordinance, Article 7, Chapter 22, ROH, relating to land area requirements, to exempt the Project from the required 5,034 square feet of park dedication space or monetary fee requirements. (Project provides 1,135 square feet of recreation/open space.)
9. Exemption from Sections 18-6.1 and 18-6.2, ROH, relating to building plan review/permit fees, to allow exemption from building plan review/permit fees estimated at \$19,075.

BE IT FURTHER RESOLVED that this Resolution shall be void unless HHDC shall begin construction of the Project within 12 months after the approval date of this Resolution; and

BE IT FURTHER RESOLVED that the exemptions granted for this Project are not transferrable to other unaffiliated developers, operators or owners; and

BE IT FURTHER RESOLVED that except as authorized herein, the final plans and specifications for the Project shall be deemed approved if those plans and specifications do not substantially deviate from the preliminary plans and outline specifications submitted to the Council; and

BE IT FURTHER RESOLVED that no action may be prosecuted or maintained against the City and County of Honolulu, its officials or employees, on account of actions taken by them in reviewing or approving the plans and specifications or in granting these exemptions; and

BE IT FURTHER RESOLVED that the Director of the Department of Housing and Community Development is authorized to execute the agreement substantially in the form which is marked Exhibit A which is attached to this Resolution and made a part of it pursuant to the terms, conditions and provisions approved as to form and legality by the City Corporation Counsel as being necessary, advisable, or desirable for the purposes of carrying out this Resolution; and

RESOLUTION

BE IT FURTHER RESOLVED that the Director of the Department of Housing and Community Development is hereby authorized to execute any incidental or related documents to carry out the transactions, above described, as long as said documents do not increase either directly or indirectly the financial obligation of the City; and

BE IT FINALLY RESOLVED that the Clerk is directed to transmit certified copies of this Resolution to the Director of Housing and Community Development and the Hawaii Housing Development Corporation.

INTRODUCED BY:

John Henry Felix (BR)

Councilmembers

DATE OF INTRODUCTION:

July 16, 1997
 Honolulu, Hawaii

(OCS/072197/ct)

-4-

CITY COUNCIL
 CITY AND COUNTY OF HONOLULU
 HONOLULU, HAWAII

I hereby certify that the foregoing RESOLUTION was adopted by the COUNCIL OF THE CITY AND COUNTY OF HONOLULU on the date and by the vote indicated to the right.

Genevieve G. Wong
 GENEVIEVE G. WONG
 City Clerk

John DeSoto
 JOHN DeSOTO
 CHAIR AND PRESIDING OFFICER

Dated 8/6/97

ADOPTED MEETING HELD 8/6/97		
	AYE	NO
BAINUM	X	
FELIX	X	
HANNEMANN	X	
HOLMES	X	
KIM	X	
MANSHO		X
MIRIKITANI	X	
YOSHIMURA	X	
DeSOTO	X	
	8	0 1

Reference:

Report No. Z-406

Resolution No.
 97-229, CD1

— EXHIBIT(S) ON FILE WITH THE CITY CLERK'S OFFICE —