Pearl City Bus Facility

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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September 9, 1998

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

Dear Mr. Gill:

Subject: Finding of No Significant Impact (FONSI)
for the Proposed Pearl City Bus Facility
TMK 9-7-24:41, Pearl City, Oahu, Hawaii

The City and County of Honolulu, Department of Transportation Services (DTS), has reviewed the comments received during the 30-day public comment period which began on July 23, 1998. The agency has determined that this project will not have significant environmental effects and has issued a FONSI. Please publish this notice in the September 23, 1998, OEQC *Environmental Notice*.

We have enclosed a completed OEQC Publication Form, four copies of the Final Environmental Assessment, and the project summary in WordPerfect 5.1 (DOS format).

Please call Paul Steffens, Chief, Public Transit Division, at 523-4138 if you have any questions.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Attachments:
Pearl City Bus Facility Final Environmental Assessment (4 copies)
OEQC Publication Form
Diskette

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1998-09-23-OA-FEA-Pearl City Bus Facility

FINAL ENVIRONMENTAL ASSESSMENT

PEARL CITY BUS FACILITY
PEARL CITY, OAHU, HAWAII

Prepared by:

SSFM Engineers, Inc.

Prepared for:

City and County of Honolulu
Department of Transportation Services

SEPTEMBER1998

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EDITORIAL NOTE

During the preparation of this document, the City and County of Honolulu underwent a reorganization. The majority of it has been implemented, although a portion of the reorganization is still outstanding pending amendment of the City Charter. This reorganization resulted in the creation of new agencies which subsumed functions of old agencies. Therefore, this document may include references to both the former agency name as well as that of the new agency depending on the nature of the reference.

To assist the reader in his/her review, the following table provides a cross reference between the former agencies and the new ones that are mentioned in this document.

FORMER AGENCY NAME	PROVISIONAL AGENCY NAME
Board of Water Supply	No change
Building Department	Department of Design and Construction
Department of Community & Social Resources	Department of Community Services
Department of Corporation Counsel	No change
Department of Housing and Community Development	Department dissolved
Department of Land Utilization	Department of Planning & Permitting
Department of Parks and Recreation	Department of Parks & Recreation Services
Department of Personnel	Department of Human Resources
Planning Department	No change pending amendment of City Charter
Department of Public Works	Department of Facility Maintenance
Department of Transportation Services	No change
Department of Wastewater Management	Department of Environmental Services
Honolulu Police Department	No change
Honolulu Fire Department	No change

EXECUTIVE SUMMARY

ES-1 AGENCY ROLES AND PROJECT BACKGROUND

The City and County (City) of Honolulu Department of Transportation Services (DTS) plans to construct a new bus facility using both City and federal funds at the former Manana Storage Area in Pearl City, Oahu (Figure ES-1). The Federal Transit Administration (FTA) is the agency that would approve a grant for federal funding for construction. Because the project involves the use of both City and federal funds, it must comply with the requirements of both federal (National Environmental Policy Act) and State (Chapter 343 Hawaii Revised Statutes) environmental impact regulations.

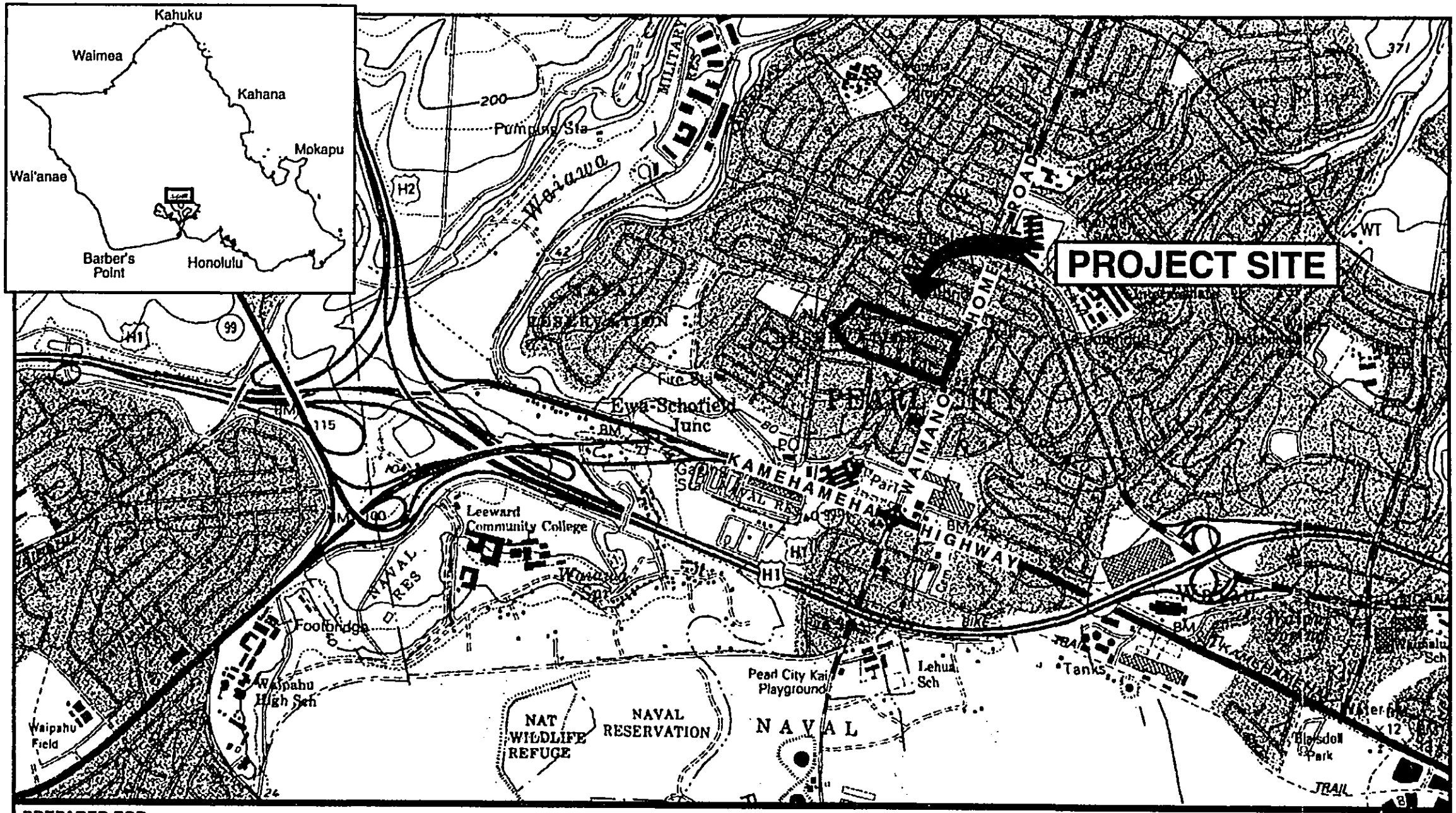
DTS is the project proponent and the approving agency/accepting authority for the Chapter 343 HRS EA and, as such, it determines if a finding of no significant impact (FONSI) is appropriate for the project. DTS is also the applicant for federal funds and a joint lead agency for the purposes of complying with the environmental impact statement requirements of the National Environmental Policy Act (NEPA). As a joint lead agency, DTS is also responsible for developing substantial portions of the environmental documentation needed to satisfy NEPA. FTA is the joint lead agency under NEPA and is responsible for procedural oversight and technical assistance. FTA will review the Environmental Assessment, any public comments, and DTS' recommendation of a FONSI. The FTA Regional Administrator will decide whether to issue a FONSI for the purpose of NEPA.

The City purchased the 109-acre Manana Storage Area (portion of TMK 9-7-24:41) and nearby 14-acre Pearl City Junction properties from the U.S. Navy in the early 1990s with the intention of developing a mixed-use, master-planned development. The City established the Pearl City Planning Task Force to develop community-based land use recommendations for the property. The City Department of Housing and Community Development and the Task Force jointly developed a conceptual redevelopment plan for the property. The plan for the former Manana Storage Area includes commercial (retail and offices) space, public facilities, a community park, a family entertainment center, medical facilities, and light industrial sites. The redevelopment master plan specifically included provisions for a transit facility.

ES-2 DESCRIPTION OF THE PROPOSED PROJECT

Following review of several alternative conceptual facility plans, DTS selected the layout shown in Figure ES-2 as its preferred alternative. The layout and associated space and equipment program meet the functional and operational requirements identified by DTS. They also mitigate potential adverse impacts by locating the bulkiest, most "industrial" facilities away from the neighboring residential areas.

The proposed facilities provide the space that DTS needs to accommodate 250 buses on the site. The Transportation Building on the Waimano Home Road side of the 21-acre site would contain space for administration, training, and bus operator support. Other structures would house vehicle service (including daily refueling and washing) and maintenance activities, paint and body repair activities, and spare parts and supplies. Bus and maintenance personnel access would be via the proposed Spine Road. Administrative staff, bus operators and the



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PREPARED BY:
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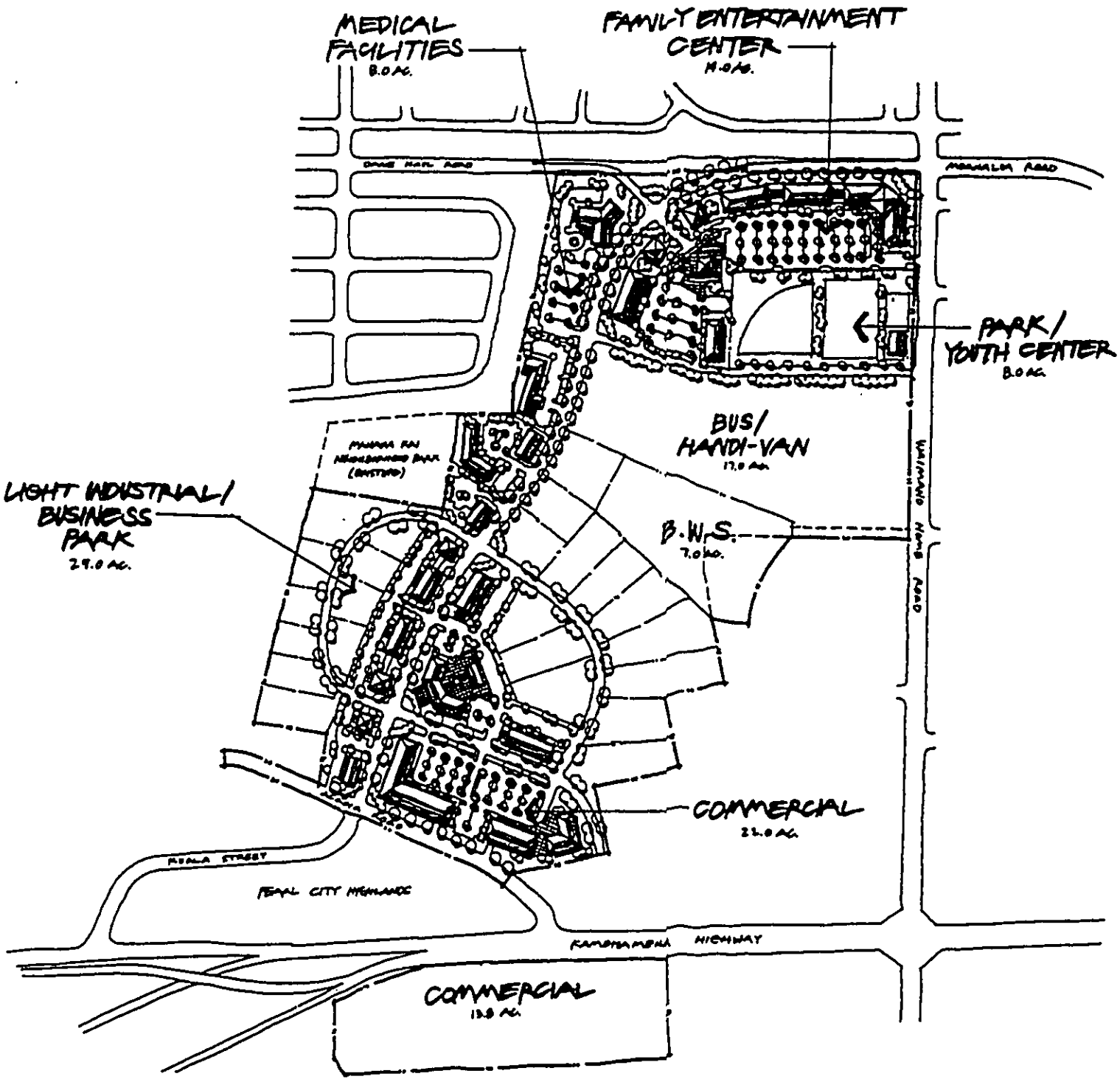
SOURCE:
USGS Digital Raster Graphic of
7.5 Minute Waipahu, 1983.

FIGURE ES-1:

Project Location Map

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility, Fig ES-1 Project Location Map, 5-4-99



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SOURCE:
City and County of Honolulu
Dept. of Housing and Community Development(1996)
Manana and Pearl City Junction Development EIS

N

0 600 1200 Feet

FIGURE ES-2

Pearl City Planning Task Force Preferred Conceptual Master Plan

Pearl City Bus Facility
Environmental Assessment

PDD Pearl City Bus Facility, Fig. ES-2 Master Plan, 11-4-96

public would reach the facility from Waimano Home Road via the existing Board of Water Supply driveway.

Construction work would begin with demolition of the existing warehouses and site grubbing and grading. Buffers of trees would be provided along Waimano Home Road and the proposed Spine Road. *Mauka* and *makai* site boundaries would be landscaped with bushes. Acoustic walls of masonry or concrete would be constructed as needed.

ES-3 PURPOSE OF THIS DOCUMENT

This Draft Environmental Assessment has been prepared to comply with:

- Chapter 343, Hawaii Revised Statutes (HRS)
- National Environmental Policy Act (NEPA)
- Federal Transit Administration and Federal Highway Administration Joint Regulations, Environmental Impact and Related Procedures, 23 CFR 771

ES-4 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

The City presently maintains a 525-bus fleet. The buses are housed and maintained at two facilities. One is situated at Middle Street; the other is at Halawa. Both the Middle Street and Halawa facilities are presently operating near or at capacity.

Three factors dictate the need for a new bus facility. First, the City plans to increase the number of buses in its fleet from the present 525 to 650 buses by the year 2005. New facilities are needed to accommodate the additional vehicles. Second, the City plans to relocate a number of corporation baseyards from Kakaako to the existing Halawa site. This will reduce the number of buses the facility can accommodate. Finally, there is a need to base a portion of the City's bus fleet closer to Ewa and Central Oahu. Those areas, which are far from the existing Halawa and Kalihi-Palama (a.k.a. Middle Street) facilities, are already home to a sizeable part of the population of the Island and are growing rapidly.

The proposed Pearl City Bus Facility is needed to enable the City to expand the public transit system as planned. Its location close to areas of predicted rapid growth *i.e.*, those with increasing needs for bus service, will reduce the relative cost of maintaining the bus fleet compared with the existing situation.

ES-5 ALTERNATIVES CONSIDERED

The City considered a number of options before focusing on the site at the former Manana Storage Area (Parson Brinkerhoff Quade & Douglas, 1994), including various combinations of expanding existing and/or constructing new facilities.

As the planning process progressed, both the City and the community (through the Pearl City Planning Task Force) focused on locating the proposed bus facility at Manana. Each of the conceptual plans considered by the Task Force, including the preferred master plan included a public transit storage/maintenance facility on the Manana property.

The "No Action" alternative would force the City to continue to rely solely on its existing bus facilities at Halawa and Middle Street. These are too small to accommodate the 650-bus fleet planned, and they are too far to the east to serve Ewa and Central Oahu bus routes efficiently. Moreover, other City services may also be compromised if the baseyard operations currently at Kakaako cannot be located to the Halawa bus facility as planned. The City would have to operate the displaced operations from temporary, and probably scattered, quarters until a permanent location(s) could be found which is expected to result in poor service and/or increased costs.

ES-6 POTENTIAL IMPACTS AND MITIGATION MEASURES

The proposed bus facility project site is part of the previously developed "Manana Storage Area", and is surrounded by mature urban development. The entire parcel has been substantially disturbed in the past, through both sugar cane cultivation and military activities. Soils are no longer suitable for agricultural production. No surface water or wetlands exist on the project site. No known archaeological or historic resources are located in the Manana Storage Area. No rare, threatened or endangered species or critical habitats are located in the vicinity.

The primary concerns associated with the proposed facility are temporary construction-related impacts and long-term operational impacts such as noise (from on-site operations and bus traffic), traffic, and other impacts associated with nighttime operations. These effects, as well as proposed mitigation measures will be summarized here. Chapter 4 presents a full discussion of potential impacts and mitigation.

ES-6.1 NOISE

Early morning noise is of the greatest concern. Based on the current conceptual layout of the facility and noise measurement at the existing Middle Street Bus Facility, bus movements within the facility during the early morning hours would probably be the primary source of noise that might affect nearby residences. The acoustical consultant recommended the following measures be incorporated in the design of the facility to mitigate potential noise impacts:

- Noise attenuation walls as needed along the property line between the noise sources and nearby residential areas.
- Bus operation in compliance with State DOH's vehicular noise standards; and
- Administrative restrictions on vehicle speeds within the facility and the use of horns.

Vehicle traffic near the PCBF will increase as a result of regional growth, redevelopment of the adjoining parts of the Manana Storage Area, and the PCBF. Most of the traffic increase is unrelated to the PCBF. Nonetheless, cumulative traffic noise levels will be such that noise barriers and/or sound attenuation of some residences will be needed to avoid significant adverse effects.

ES-6.2 TRAFFIC

Results of an extensive traffic study prepared for the project indicate that:

- Because of the nature of the bus facility operation, the hours during which it would generate the most vehicle trips are different from the peak hours of the adjacent street traffic. Most employees and most buses will arrive and depart during the off-peak time periods.
- Buses moving to and from the PCBF would be traveling in the opposite direction from the primary traffic flow during the peak traffic hours.
- Peak hour intersection operations at surrounding intersections, summarized by Levels of Service (LOS), are expected to be remain the same with or without the proposed PCBF project.
- In view of the preceding, the PCBF would have very little effect on peak hour operations at surrounding intersections.

ES-6.3 AIR QUALITY

Maximum estimated carbon monoxide (CO) concentrations were modeled at four intersections[1] near the proposed PCBF site for three scenarios: (1) existing (1998), (2) 2020 with the PCBF, and (3) 2020 without the PCBF.

The modeling indicates that the federal 1-hour CO standard is currently being met at all four intersections and will continue to be met with or without the proposed project. The more stringent State 1-hour CO standard is met at the Moanalua Road and Kuala Street intersections both now and in the future. At the Kamehameha Highway/Waimano Home Road intersection, the modeling suggests that the standard may currently be exceeded on a few days out of the year during the a.m. peak hour. However, as a result of the roadway improvements and traffic management measures that the traffic study assumed would be made in the future, concentrations decrease to about the value of the standard by 2020. The modeling results indicate that afternoon CO concentrations at this location are below the limit now and will remain so in the future.

The afternoon CO levels at the Kamehameha Highway/Acacia Road intersection are above the standard at present but are forecast to drop back to the level of the State standard in the future. The existing morning values were just beneath the standard; they are predicted to rise to it by 2020 with or without the project.

Estimates of 8-hour CO concentrations indicate current compliance with the federal and State standards at all the intersections except Kamehameha Highway at Waimano Home Road, where there appears to be a potential for exceedance. The modeling indicates that CO concentrations at all intersections will comply with both the State and federal standard in the 2020 forecast year both with and without the proposed project.

[1] The four intersections with the greatest potential for air pollution impacts due to their traffic volumes, level of service, and other factors are: Moanalua Road at Waimano Home Road, Waimano Home Road at Kamehameha Highway, Acacia Road at Kamehameha Highway, and Kuala Street at Acacia Road.

ES-7 DETERMINATION

In accordance with Chapter 343, HRS and the significance criteria described in HAR §11-200-12, DTS has made a determination that the proposed bus facility will have no significant impact on water quality, air quality, existing utilities, noise, archaeological sites, wildlife habitat, or other natural or man-made resources. All potential impacts will be mitigated to the extent practicable. No new information was presented during public review of the Draft Environmental Assessment, therefore DTS intends to issue a Finding of No Significant Impact for the proposed action.

ES-8 MAJOR UNRESOLVED ISSUES

Because the proposed facility is the result of a long-term public planning process that has involved all known stakeholders, most issues have been resolved. Those that remain include the following:

- Funding limitations may prevent DTS from constructing all of the proposed facilities under a single contract. Consequently, some functions may have to be housed temporarily in alternate spaces on the project site or in existing facilities elsewhere on Oahu. The exact manner in which this will be accomplished and its timing have not been determined.
- This document is based on DTS' conceptual master plan for the proposed facilities. That plan incorporates certain assumptions about the facility's final design and mitigation measures. Details regarding proposed noise abatement measures, bus operational constraints (on-site and access), retaining walls for grading purposes, landscaping, and fencing will be determined before the start of construction of the PCBF.

ES-9 PROJECT SCHEDULE AND COST

Because of funding constraints, DTS proposes to develop the proposed facilities in phases. Consequently, the Paint and Body Shop, Training/Fitness Center, and other minor improvements will not be included in the first phase of construction. Thus, some of the functions that would eventually have their own building would be carried out temporarily in other spaces. DTS plans to award the contract for the first-phase in December 1998; construction of the first-phase would be completed in September 2000 and the first-phase facilities would be fully operational in February 2001. The total cost for full build-out of the project is anticipated to be $32,431,000 (1998 dollars).

CHAPTER 1
PURPOSE OF AND NEED FOR THE PROPOSED ACTION

1.1 BACKGROUND

The City and County of Honolulu (City), through the Department of Transportation Services (DTS), is responsible for the administration and operation of "TheBus" and "TheHandi-Van". TheBus is the City's fixed-route bus system. TheHandi-Van provides demand-responsive service for Americans with Disabilities Act (ADA) paratransit-eligible passengers who cannot use TheBus system. Oahu Transit Services, Inc. (OTS) serves as the City's management services contractor for the day-to-day operation of both TheBus and TheHandi-Van. As part of its long-term plans for its transit system, DTS plans to develop a new bus storage, maintenance, and repair facility in Pearl City (Figure 1-1).

1.1.1 PLANNED REDEVELOPMENT OF THE OVERALL MANANA STORAGE AREA

The proposed Pearl City Bus Facility (PCBF) would be located on approximately 21 acres of the former Manana Storage Area property. The City acquired the Manana Storage Area and Pearl City Junction properties from the U.S. Department of the Navy between 1993 and 1996.[1] The bus facility is one part of the City's overall redevelopment plan for the property.

On January 25, 1995, the City Council adopted Resolution 94-327. The Resolution established a 24-member "Pearl City Planning Task Force" (PCPTF) for the specific purpose of developing community-based land use recommendations for the Manana and Pearl City Junction properties. The Task Force consists of twelve community members representing the Pearl City Neighborhood Board and several local community associations. Five City personnel and seven non-voting elected officials are also members.[2] During the original land use-planning period of January through August 1995, the PCPTF met nine times and held four community meetings.[3] The result of the task force's efforts was a report entitled *Pearl City Task Force Final Report: Recommended Land Use Alternative for the Manana and Pearl City Junction Properties.*

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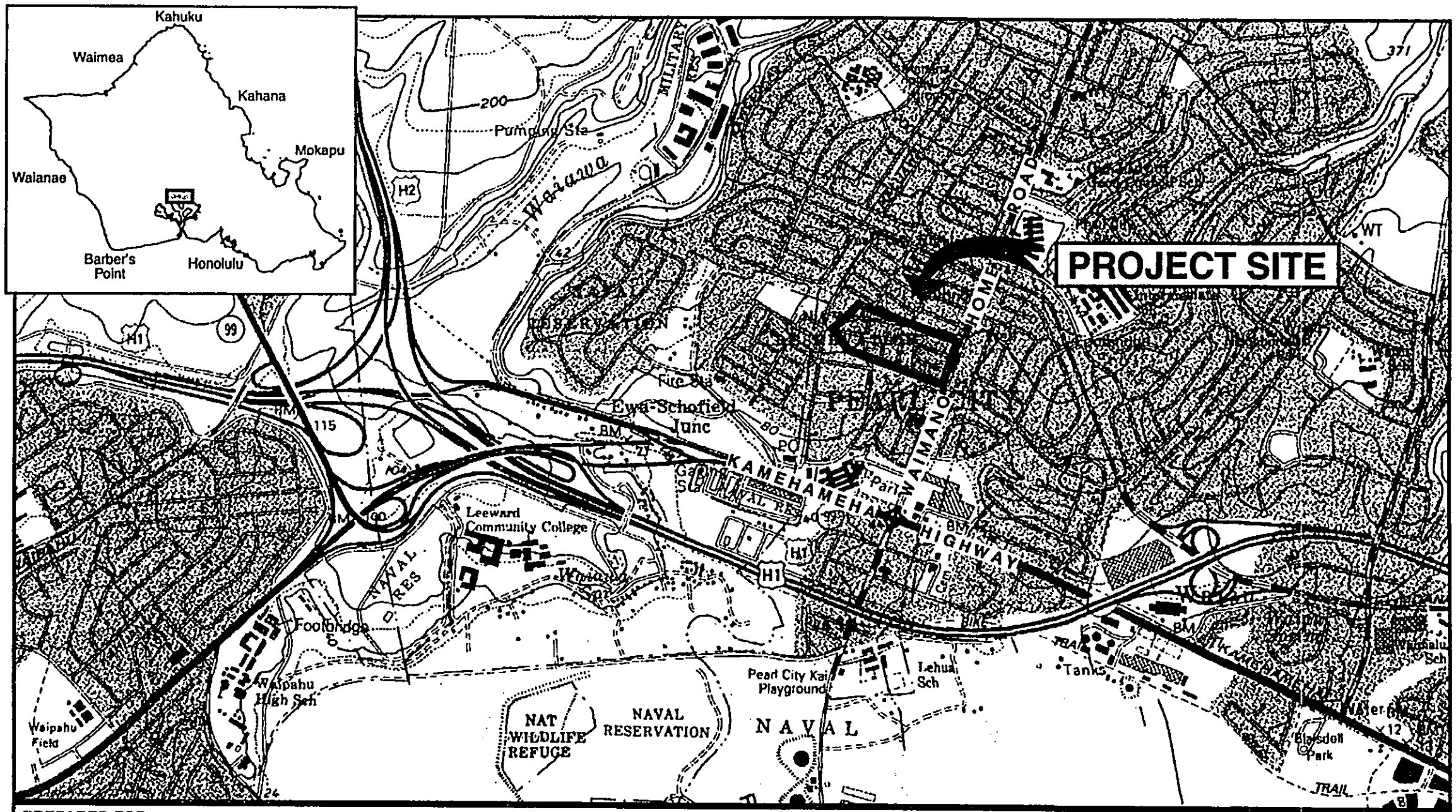
[1] Ordinance 91-220, adopted by the City Council on September 11, 1991, authorized the City to acquire the 109-acre Manana Storage Area parcel for $94 million and the nearby 13.75-acre Pearl City Junction parcel for $15 million. The City took possession of the Pearl City Junction Site in 1994. It acquired the Manana Storage Area parcel in phases, completing its acquisition in 1996.

[2] The members of the Task Force included representatives of the City Planning Department, Department of Land Utilization, Department of Housing and Community Development, Department of Transportation Services, and the Honolulu Public Transit Authority (now part of DTS). Community groups included: Hale Ola Association, Century Park Plaza Association, Manana Community Association, Pearl City Neighborhood Board, Pearl City Community Association, Wailuna Recreation Association, Pacific Palisades Community Association, Aiea and Pearl City Business Association, and Newtown Community Association.

[3] Meeting times and dates were publicized through paid advertisements in the local area newspaper, *The Leeward Current*, the *Ka Leo Lalo* newsletter, community banners, press advisories, and canvassing efforts by the PCPTF and the staff of the City Department of Housing and Community Development. Community representatives also served as liaisons between their respective community associations and groups and helped disseminate information (PKF/PKR Hawaii, May 1996:7)



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SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
USGS Digital Raster Graphic of
7.5 Minute Waipahu, 1983.

FIGURE 1-1:

Project Location Map

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility; Fig 1-1 Project Location Map; 7-10-98

The original conceptual master plan for the former Navy land in Manana that was developed jointly by the City Department of Housing and Community Development and the Pearl City Planning Task Force reflects a mixed-use concept. The Plan includes commercial (retail and offices) space, public facilities, a community park, a family entertainment center, medical facilities, and light industrial sites (Figure 1-2). The master plan specifically included provisions for a transit facility[4].

In accordance with Chapter 343, Hawaii Revised Statutes (HRS) and Hawaii Administrative Rules (HAR) Title 11 Chapter 200, the City Department of Housing and Community Development prepared an Environmental Impact Statement Preparation Notice (EISPN) for the proposed Manana and Pearl City Junction Development. The EISPN was published on October 23, 1995. The City sought comments from more than 50 agencies, elected officials, community groups, and individuals.

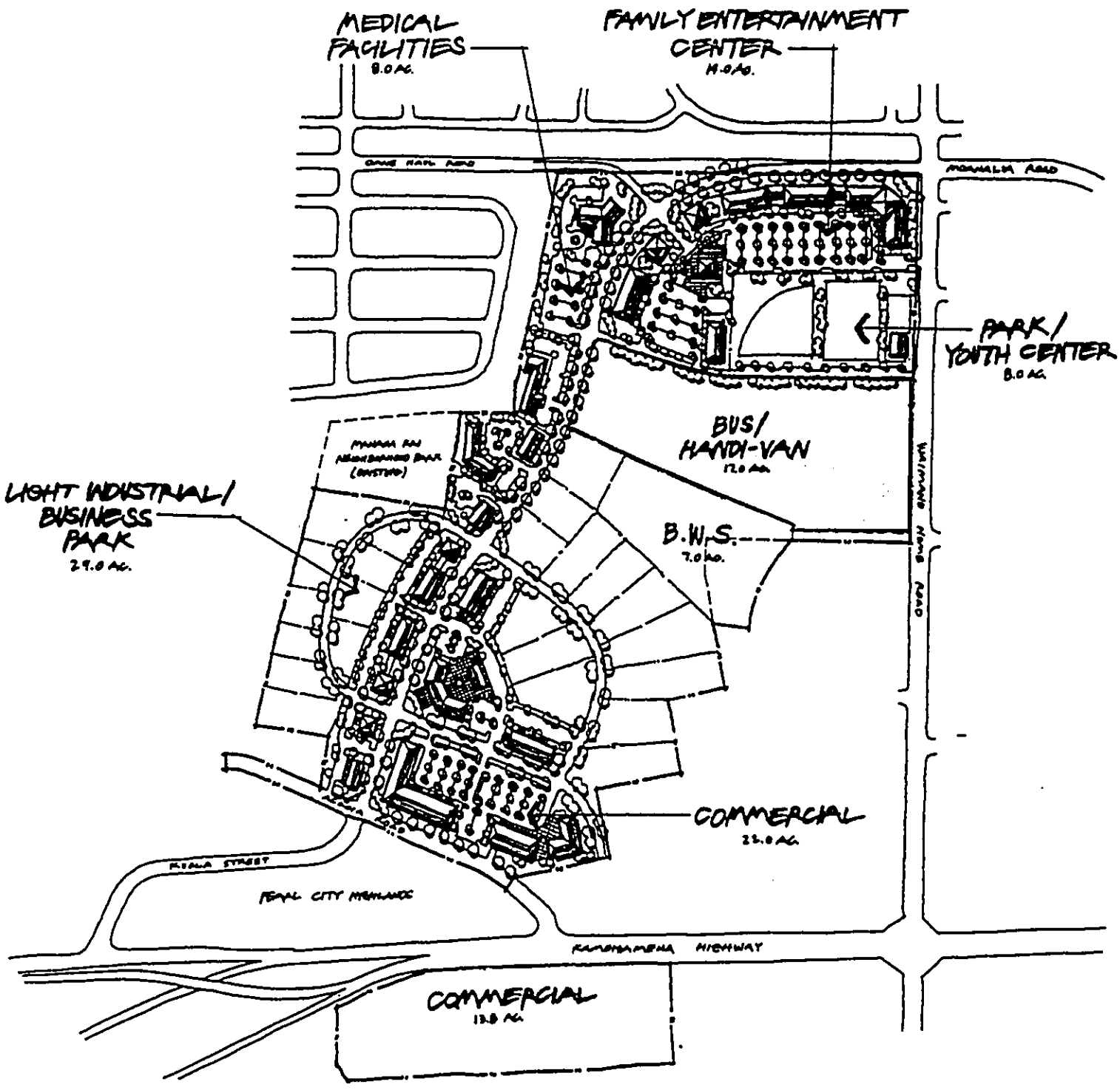
The *Manana and Pearl City Junction Development Draft Environmental Impact Statement (DEIS)* was prepared incorporating comments on the EISPN; it was made available to the public in February 1996. The 45-day comment period on the DEIS was extended an additional month to April 25, 1996, and the *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)* was published in May 1996. The City Planning Department accepted the FEIS on July 1, 1996.

1.1.2 NEED FOR ADDITIONAL ENVIRONMENTAL DOCUMENTATION

Chapter 343, Hawaii Revised Statutes. Construction of the proposed bus facility would require expenditure of City funds and the use of City land. Because of this, the project is subject to Chapter 343 HRS. The *Manana and Pearl City Junction Development FEIS* fulfilled the City's Chapter 343 obligations for the general redevelopment plan for the Manana and Pearl City Junction parcels. However, the plans available for the proposed bus facility during preparation of the *FEIS* were not detailed enough to permit evaluation of all the facility's potential impacts. Therefore, the City decided that project-specific environmental documentation was needed for the project.

National Environmental Policy Act. DTS is seeking funds to construct the proposed bus facility from the Federal Transit Administration (FTA), an operating agency of the U.S. Department of Transportation. Consequently, this document must also comply with the National Environmental Policy Act (NEPA), the implementing regulations of the Council on Environmental Quality (*Code of Federal Regulations* (CFR) Title 40, Parts 1500-1508) and the FTA's environmental impact regulations (CFR Title 23, Part 771).

[4] The transit facility described in the *Manana and Pearl City Junction Development Final Environmental Impact Statement* was in essentially the same location as the proposed bus facility discussed in this document. However, the site area has been expanded slightly (from 17 to 21 acres). Similar modifications have been made to other uses identified in the *FEIS* as planning has proceeded to a more advanced level.



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SSFM Engineers, Inc.

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Planning Solutions, Inc.
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SOURCE:
City and County of Honolulu Dept. of Housing and Community Development, 1996.
Manana and Pearl City Junction Development EIS

LEGEND:

0 600 1200 Feet

FIGURE 1-2:

Pearl City Planning Task Force Preferred Conceptual Master Plan

Pearl City Bus Facility
Environmental Assessment

P00 Pearl City Bus Facility, Fig. 2-1 Master Plan; 7-1-98

This Environmental Assessment (EA) will fulfill both Federal (NEPA) and State (Chapter 343) requirements. Although the Council on Environmental Quality regulations do not specify the contents of environmental assessments (versus environmental impact statements), both Part 771 and (HAR) Title 11 Chapter 200 provide pertinent guidance.

1.1.3 ENVIRONMENTAL DOCUMENTATION FOR OTHER PLANNED REDEVELOPMENT

Other City agencies also have projects planned for the Manana Storage Area (Figure 1-3). Two of these are pertinent to the proposed bus facility. The first is the expansion of the Board of Water Supply (BWS) baseyard immediately *makai* (south) of the bus facility site. The BWS is in the process of preparing an environmental assessment (EA) for its proposed improvements in accordance with Chapter 343, HRS.

The second project is the "Spine Road" that is planned as the principal collector street for the Manana Storage Area. Present plans call for the Spine Road to be a four-lane divided parkway with a landscaped median, dedicated left turn lanes, and limited access points. The Department of Design and Construction (DDC) is preparing an EA addressing the potential impacts of the Spine Road. Because DDC intends to seek funds from the Federal Highway Administration (FHWA), the EA for the proposed Manana Storage Area Spine Road is also being prepared as a joint Chapter 343/NEPA document.

1.2 NEED FOR BUS STORAGE & MAINTENANCE FACILITIES

1.2.1 EXISTING BUS FLEET AND BUS FACILITIES

A fleet of about 525 buses currently serves the island of Oahu with 65 numbered bus routes and over 120 sub-routes. The buses are housed at two facilities. One is situated at Middle Street; the other is at Halawa (Figure 1-4). All maintenance and repair activities for the City's bus fleet occur at one or both of these facilities. These include daily washing, fueling, and maintenance, as well as major repairs such as painting, welding, and sheet metal fabrication. Both the Middle Street and Halawa facilities are presently operating near or at capacity. Moreover, they incorporate undesirable design and/or operating features (e.g., overlap parking of employee vehicles and buses and stack (theater) parking). Furthermore, future City plans to relocate a number of corporation baseyards from Kakaako to the Halawa bus facility property will require DTS to relinquish the use of most of that facility.

In addition to its bus operations, DTS maintains a fleet of approximately 150 "Handi-Vans" which it uses for its paratransit operations. These vans are currently based in old warehouses at the former Manana Storage Area. They will be relocated before work on the proposed Pearl City Bus Facility is initiated.

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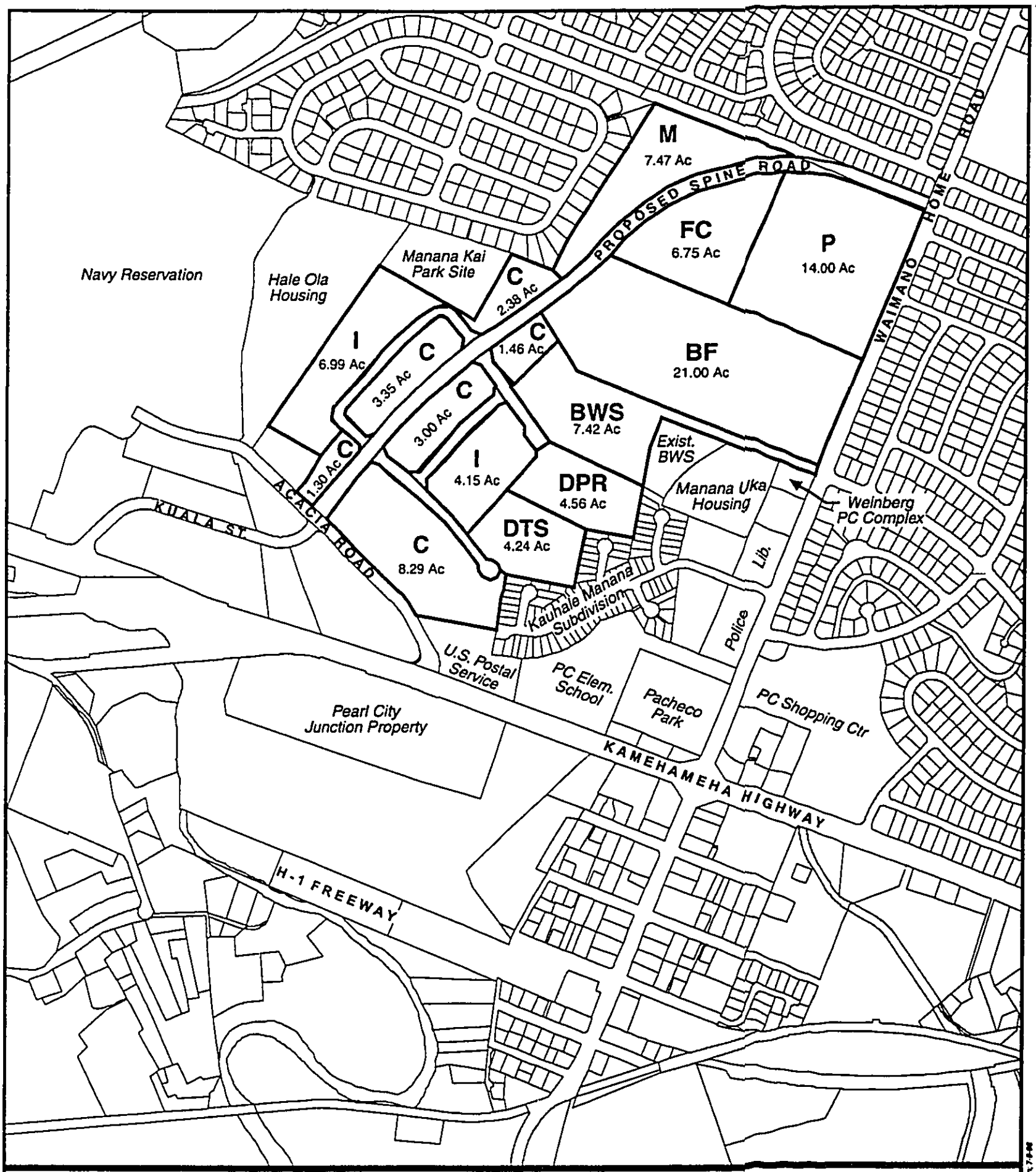

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Planning Solutions, Inc.
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SOURCE:
C & C of Honolulu, DPW, April 1998.
C & C of Honolulu, DLU, June 5, 1998.

LEGEND:

BF	Bus Facility	FC	Family Center
BWS	Board of Water Supply	I	Industrial
C	Commercial	M	Medical
DPR	Dept. of Parks & Recreation	P	Park
DTS	Dept. of Transportation Services		

0 3000 Feet

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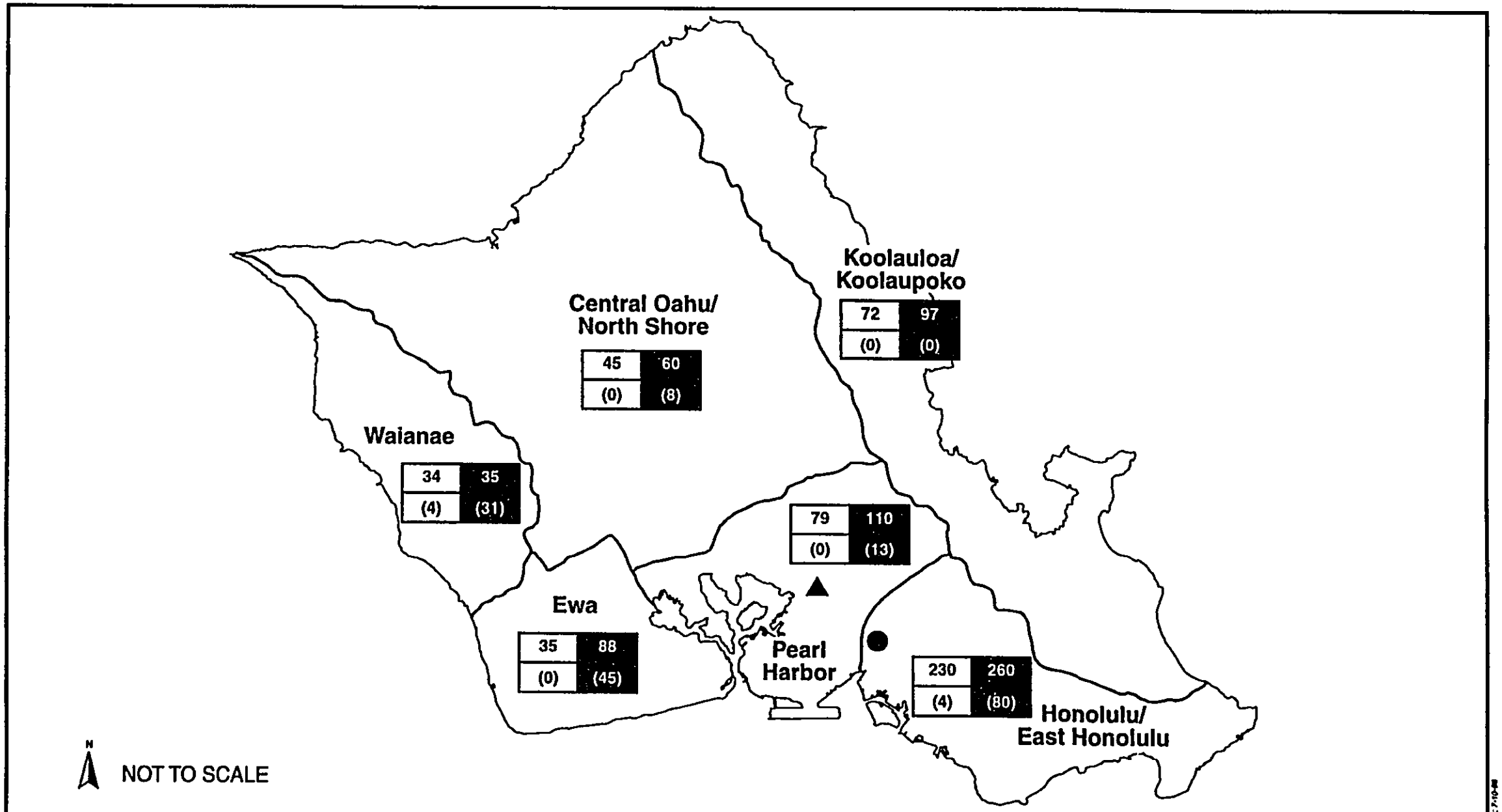
FIGURE 1-3:

Manana Storage Redevelopment Plan

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility; Fig. 1-3 Manana Storage Redevelopment Plan; 7-8-98



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PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
Parsons Brinckerhoff Quade & Douglas, Inc.
August 1994: Figure ES-1.

LEGEND:

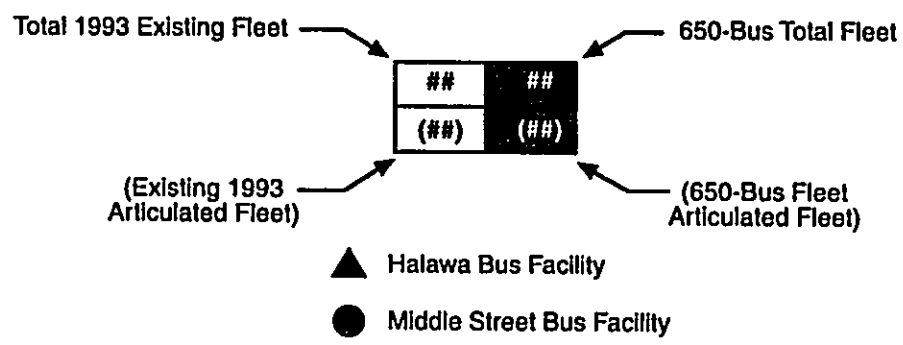

FIGURE 1-4:

Location of Existing Bus Facilities and 1993 and 2005 Bus Assignments by Service Area

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility; Pg 1-4 Existing Bus Facilities and Bus Assignments; 7-10-96

1.2.2 PLANNED CHANGES IN TRANSIT FLEET SIZE AND OPERATIONS

The Mayor of the City and County of Honolulu has announced plans to increase the number of buses in the City's fleet to 650 by the year 2005. This 125-bus increase is in accordance with recommendations in the 1994 *Comprehensive Bus Facility and Equipment Requirements Study* prepared for the Honolulu Public Transit Authority (Parsons Brinckerhoff Quade & Douglas, Inc., August 1994). The needs assessment contained in the 1994 report determined that additional facilities would be needed to maintain a fleet of more than about 550 buses. The City plans to begin adding buses to its fleet incrementally as soon as the PCBF is complete so that it can achieve its year 2005 target. Oahu's Ewa District[5] has grown at a comparatively faster rate than the rest of Oahu in recent years. That trend is forecasted to continue through the next decade as further development occurs in Kapolei, Ewa Villages, Makakilo, and elsewhere in West Oahu. The increase in population results in a predicted need for increased mass transit servicing the region (Parsons Brinckerhoff Quade & Douglas, 1994). Most of the expanded service would be in areas far from the City's two existing bus facilities[6]. After detailed study of its options, the City concluded that the best means of accommodating the future maintenance needs of its bus fleet was to construct a new bus maintenance facility in the Manana/Pearl City area.[7] Section 2.4 of this report summarizes the bases of this decision.

1.3 PURPOSE OF THE PROPOSED ACTION

The Pearl City Planning Task Force established the following goal for redevelopment of the Manana Storage Area parcel:

> *"To develop the Manana Property and Pearl City Junction in a manner which addresses the needs of the City and Community while maintaining fiscal responsibility."*

The following DTS objectives for the Pearl City Bus Facility (PCBF) are consistent with the overall redevelopment goals:

- Provide facilities needed to store and maintain approximately 250 buses in accordance with recommendations developed in the *Comprehensive Bus Facility and Equipment Requirements Study* (1994) and the *Manana Bus Maintenance Complex Preliminary Programming Report* (January 1998).

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[5] The Ewa District extends from Red Hill to Kahe and from the shoreline to Mililani.

[6] Oahu's "Second City" of Kapolei, for example, is over 13 miles from the Halawa facility and nearly 16 miles from the Middle Street facility.

[7] The City's consultants evaluated numerous alternatives using established criteria. These included capacity, capital cost, additional operating cost, efficiency of layout on operations, ease of bus access, environmental impacts, and staging implications. Results of the evaluation indicated that construction of new facilities on a site in the Manana/Pearl City area was far superior to the other options.

- Adopt design and operational measures to maintain compatibility with surrounding land uses.

The proposed Pearl City Bus Facility is needed to enable the City to expand the public transit system as planned. Its location close to areas of predicted rapid growth, i.e., those with increasing needs for bus service, will reduce the relative cost of maintaining the bus fleet compared with the existing situation.

CHAPTER 2
DESCRIPTION OF ALTERNATIVES

2.1 INTRODUCTION

This chapter summarizes the alternatives that the Department of Transportation Services (DTS) considered to achieve the objectives described in Section 1.3. Section 2.2 reviews bus facility requirements and Section 2.3 operational aspects of the fleet. Section 2.4 describes the circumstances surrounding the selection of the former Manana Storage Area as the preferred location for the facility, and identifies earlier alternatives that were considered, but subsequently rejected. Section 2.5 describes the conceptual layout plan developed for the bus facility. Section 2.6 concludes the chapter with a description of the No Action alternative.

2.2 FACILITY REQUIREMENTS

The design of the proposed Pearl City Bus Facility (PCBF) is based on DTS' conceptual planning effort. Through this process, functional and operational requirements were identified based on the assumption that 150 standard-length (40-foot) buses and 100 longer (60-foot) articulated buses would be stored, maintained, and serviced at the facility. The PCBF would also provide maintenance and repair capabilities for service and non-revenue support vehicles. In addition, several system-wide facilities would be located on site. These include a paint and body shop, a training facility, and a fitness center.

Table 2-1 summarizes the interior and exterior space requirements associated with the six different functional areas at the PCBF. The activities that take place in each of the space categories listed in the table include the following:

- **Transportation**: operations needed to ensure that: *(i)* bus operators are dispatched in the correct vehicle and on the correct route; and (*ii*) operators are provided with recreational and training opportunities for downtime between split shifts.
- **Central Training**: training and other educational activities for bus operators, dispatchers, and other staff.
- **Maintenance**: periodic servicing of buses, including brake replacement, lubrication/48,000 mile inspections, air-conditioning repairs, electrical equipment repairs, and tire replacement.
- **Service**: daily activities such as refueling and washing.
- **Division Stores**: storage of components necessary for maintenance and repair; and
- **Paint and Body Shop**: activities associated with major repairs and painting.

Two other important functional requirements are included implicitly in the space summary in Table 2-1. These are: (*i*) infrastructure and (*ii*) site access and parking for buses and passenger vehicles. Altogether, approximately 21 acres are needed for the facilities listed in the table.

Table 2-1. Proposed Pearl City Bus Facility Space Summary

Function	*Vehicle Bays*	*Area (in square feet)*		
		Building (floor area)	*External Space*	*Total Area*
TRANSPORTATION				
Transportation Administration	0	2,470	3,350	5,820
Dispatching (includes operator parking)	0	6,030	108,880	114,910
Fitness Center	0	3,750	0	3,750
Public Spaces (parking)	0	0	4,000	4,000
Transportation Subtotal	0	12,250	116,230	128,480
CENTRAL TRAINING	0	4,130	14,660	18,790
MAINTENANCE				
Maintenance Administration	0	1,740	2,950	4,690
Employee Facilities	0	3,060	0	3,060
Running Repair	13	20,510	0	20,510
QA/QC	3	3,830	0	3,830
Lubrication/48K	3	3,390	0	3,390
Brake Shop	3	6,670	0	6,670
Tire Shop	1	3,460	0	3,460
Air-Conditioning Shop	4	6,090	0	6,090
Electric Shop	4	6,960	0	6,960
Automotive Repair Shop	2	1,650	0	1,650
Steam Cleaning Bay	1	1,860	0	1,860
Miscellaneous Spaces	0	7,900	0	7,900
Parking (includes bus parking)	0	0	532,860	532,860
Maintenance Subtotal	34	67,120	535,810	602,930
SERVICE				
Brake Inspection	2	2,970	0	2,970
Fueling and Interior Cleaning	4	7,660	37,550	45,210
Wash Building	2	4,580	0	4,580
Service Subtotal	8	15,210	37,550	52,760
DIVISION STORES	0	11,550	8,840	20,390
CENTRAL PAINT AND BODY SHOP				
Offices and Shops	0	9,040	57,240	66,280
Vehicle Bays	9	15,910	0	15,910
Central Paint & Body Shop Subtotal	9	24,950	57,240	82,190
FUNCTIONAL AREA SUBTOTAL	51	135,200	770,300	905,500
Landscaping (3% of external space)		0	23,100	27,200
GRAND TOTAL	51	**135,200**	**793,400**	**932,700**

Source: SSFM Engineers, Inc., May 1998

2.3 BUS OPERATIONAL CHARACTERISTICS

Bus access to and from the PCBF would be via the proposed Spine Road that the City is developing to serve the entire Manana Storage Area. A majority of inbound buses would follow Kamehameha Highway to Acacia Road, turn right onto the Spine Road, and then turn right again into the bus facility. Similarly, almost all buses would exit the facility by making a left turn onto Spine Road. Buses would use the portion of Spine Road *mauka*[1] (north) of the bus facility and Moanalua Road only when returning from Windward or Central Oahu via Interstates H-2 or H-3.

Approximately 80 percent of the vehicles in the bus fleet can be expected to operate during any particular weekday. Therefore, when the proposed facility is at its full capacity of 250 buses, about 200 buses would be in service on a typical weekday; fewer would be in service on the weekends and holidays. The first buses would leave the facility around 3:30 a.m. The peak weekday morning departure period would be from 4:00 a.m. to 5:00 a.m., during which 70 to 75 percent of the 200 buses in service would leave the facility. All buses in service would leave the facility by 6:30 a.m. Approximately 30 buses would return to the facility throughout the rest of the morning, most of them by 9:00 a.m. About 50 buses would be stored in town at the Alapai bus terminal until the start of the afternoon rush hour and would not return to the PCBF until after their afternoon/evening routes were complete.

During the afternoon, approximately 30 express buses would leave the PCBF between 2:30 p.m. and 4:00 p.m. Most buses would return for the night between 5:00 p.m. and 8:00 p.m. The last buses would arrive back at the facility around 1:00 a.m.

2.4 ALTERNATIVE LOCATIONS CONSIDERED

The City considered a number of options before focusing on the site at the former Manana Storage Area. These options, and the basis of the City's selection of the Pearl City area for the facility, are described in the *Comprehensive Bus Facility and Equipment Requirements Study* (Parsons Brinckerhoff Quade & Douglas, August 1994).[2] The options considered included:

- Development of a new facility at the "Pearl City Junction" site *makai* (south) of the Manana property;
- Development of a new facility on City-owned land on Kalaeloa Boulevard in Campbell Industrial Park;
- Development of a new facility at the "Ewa Drum" site, south of Farrington and Kamehameha Highways, adjacent to Leeward Community College;
- Development of a new facility on the Pearl City Peninsula;

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[1] Regular compass directions (i.e., north, south, east, and west) are seldom used by Honolulu residents. Instead, they more commonly use the terms *mauka* (towards the mountain), *makai* (towards the ocean or sea), *Koko Head* (meaning towards *Koko Head*, or to the east), and *Ewa*, meaning toward the town of Ewa, or to the west). This report uses compass directions and the local terminology interchangeably.

[2] The discussion is presented as *Technical Memorandum No. 2: Bus/Handi-Van Maintenance Facilities Plan* in the report.

- Expansion of DTS' existing Middle Street and/or Halawa bus facilities; and
- Various combinations of expanding existing and constructing new facilities.

The *Comprehensive Bus Facility and Equipment Requirements Study* evaluated the alternatives using several parameters and established criteria. The parameters included capacity, capital cost, additional operating cost, efficiency of layout on operations, ease of bus access, environmental impacts, and staging implications. The study concluded that two alternatives — concentrating all expansion at Pearl City Junction or concentrating all expansion at the Manana Storage Area — were clearly superior to the others.[3] The study recommended that: "*...these sites be rigorously pursued due to their advantages in minimizing operating costs and their high rating in every evaluation category.*" (Parsons Brinckerhoff Quade & Douglas, August 1994: *v*)

As the planning process progressed, both the City and the community (through the Pearl City Planning Task Force) agreed that the Manana Storage Area was the best location for a transit facility. Each of the conceptual plans considered by the Task Force (including the preferred master plan shown in Figure 1-2) contained a public transit storage/maintenance facility on the Manana property.

2.5 DESCRIPTION OF PROPOSED FACILITIES AND ACTIVITIES

Following review of several alternative conceptual facility plans developed by its bus facility consultant, DTS selected the layout shown in Figure 2-1 as its preferred alternative. The layout and associated space and equipment program meets DTS' functional and operational requirements. They also mitigated potential adverse impacts by locating the bulkiest, most "industrial" facilities away from the neighboring residential areas. Important characteristics of the conceptual plan are summarized below.

2.5.1 TRANSPORTATION BUILDING

The Transportation Building would be located near Waimano Home Road. The design calls for two parallel wings separated by a wide corridor. The east wing of the building would contain transportation/administration functions; the west wing would house training and fitness functions. Plans call for the building to be surrounded on three sides by landscaped parking lots. This building would be closest to, and most visible from, public vantage points on Waimano Home Road and adjacent residences. To the extent practicable, this building is being designed to fit in with the neighborhood, which includes both one- and two-story homes and municipal facilities, such as the Pearl City Library. Current plans call for this building to be a single-story structure no more than 30 feet high. It would be lower in height

[3] The ratings were done using a 5-point scale, with 5 points being the best and 1 point the worst. The rating factors were weighted as follows: Capacity - 15 percent; Capital Cost - 20 percent; Additional Annual Operating Cost - 25 percent; Efficiency of Layout on Operations - 15 percent; Ease of Bus Access - 5 percent; Environmental Impacts - 10 percent; Staging Implications - 10 percent. The score for each alternative was determined by multiplying the score by the weighting percent. Thus, a site receiving a perfect score would have received 500 points (5 times 100 percent). Pearl City Junction and Manana Storage Area both received 450 points or more. All other alternatives received less than 400 points.

PREPARED FOR:
SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
Gannett-Flemming, Inc.
June 22, 1998

0 250 500 Feet

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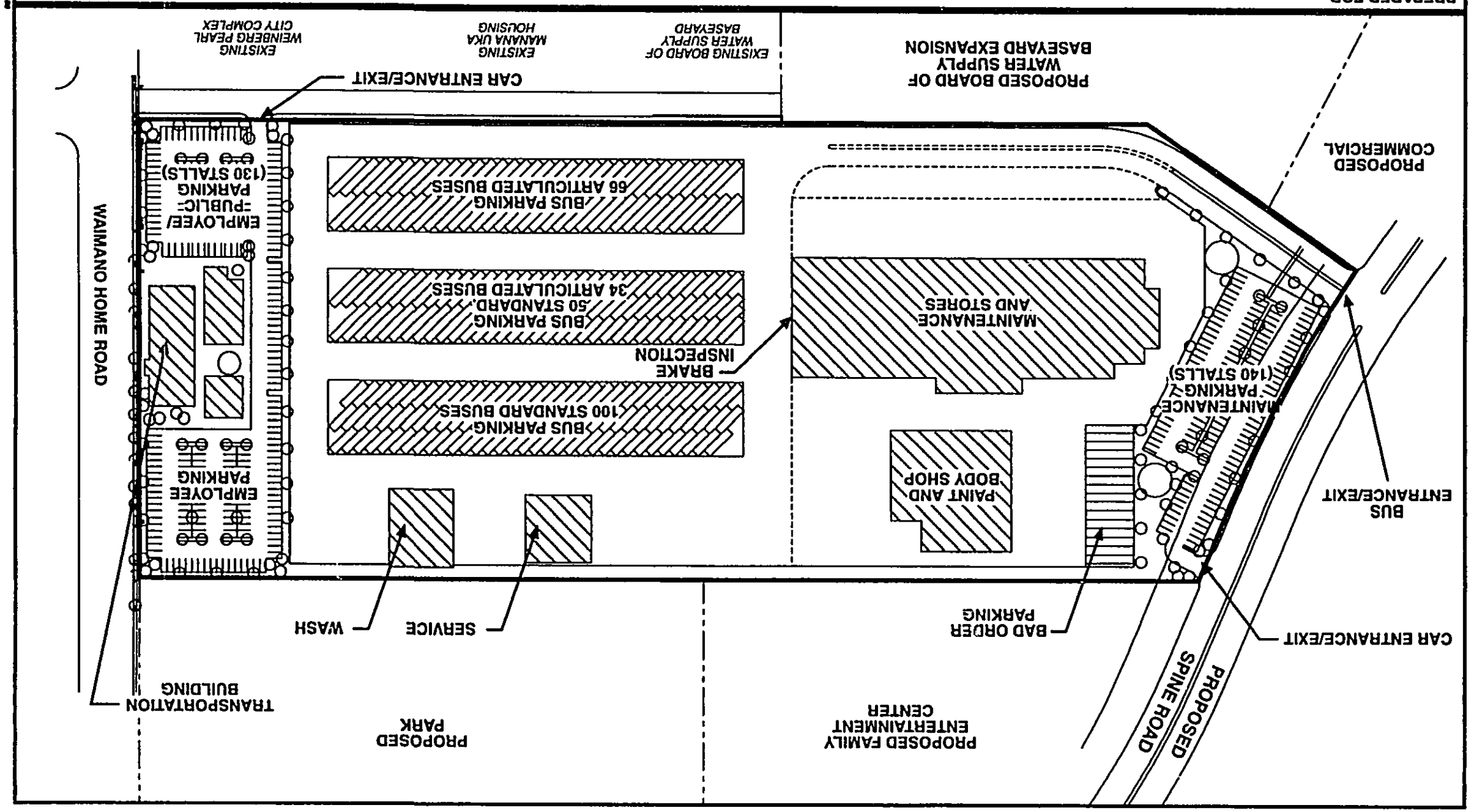
FIGURE 2-1:
Conceptual Master Plan for the Proposed Bus Facility

Pearl City Bus Facility
Environmental Assessment



Pearl City Bus Facility, Fig 2-1 Preferred Conceptual Site Layout, 7-4-98

than the two-story Weinberg Pearl City Complex that is adjacent to, and *makai* of, the Transportation Building.

The Transportation/Administration wing would be closest to Waimano Home Road. It would house activities associated with transportation administration and with dispatching the buses and their drivers to their correct routes. Operator Dispatch would operate 24 hours a day, with the busiest periods corresponding to peak hours of bus departures. Most bus operators are expected to arrive at the PCBF approximately 30 minutes before their scheduled departure and to leave within 30 minutes of returning from their last route. The majority of operators work split shifts; generally they would remain at the bus facility during the period between returning from their morning route(s) and departing for their evening route(s). The Transportation/Administration wing would also provide lounges, lockers, showers, and recreation spaces for the drivers.

The Training/Fitness wing farther from the road would include the training and exercise spaces. The training center would house both large and small training rooms, audiovisual equipment, and administrative offices. The training rooms would be available for community meetings during off-hours. Transportation administration staff, training staff, and trainees, whose numbers would range between 16 and 53 persons, depending on the training schedules, work day shifts from about 7:00 a.m. to 4:00 p.m. A 3,750-square foot fitness center would also be provided for use by all transit employees.

2.5.2 MAINTENANCE AND DIVISION STORES

The Maintenance Building (which would be the largest, bulkiest structure on the site) would be situated toward the *Ewa* (western) side of the property. The location is away from Waimano Home Road and *mauka* of the area proposed for the City Board of Water Supply (BWS) baseyard expansion. This structure would be a single-story building between 32 and 40 feet high with a central mezzanine. Mechanical equipment and exhaust vents would be located on the roof.

The structure would contain 34 vehicle bays, each equipped with large, 14-foot by 14-foot overhead doors. Typical activities to be undertaken in this building include running repair, brake and tire inspections and repairs, safety inspections, air-conditioning and electrical equipment rehabilitation, and State of Hawaii Quality Assurance inspections. The facilities and equipment used for these activities include cranes and lifts, jacks, pumps, steam-cleaning equipment, compressed air, spill containment kits, and de-greasing equipment. Offices and other personnel spaces would be located near the center of the structure, including on the mezzanine level.

The Maintenance Building would operate 24 hours a day. However, most activity would be concentrated from 6:30 a.m. to 3:00 p.m. Approximately 45 staff would be assigned to this shift. During the day shift, maintenance activities would focus on major inspections and repairs that take four or more hours to complete. Second-shift work would concentrate on minor inspections and repair work that takes less than four hours. Third-shift work would involve running repair and minor inspections. Employee-related traffic associated with the Maintenance Building would occur primarily during two peak periods, 6:00 to 6:30 a.m. and

2:30 to 3:00 p.m. Approximately 50 people would work in the Maintenance Building during the busiest shift.

Division Stores would be located in the center of the Maintenance Building. In addition to parts storage/dispensing and shipping/receiving activities, this area would be used to store pallet racks, flammable materials, and gas cylinders. Division Stores would be open from 6:30 a.m. to 10:30 p.m., but most activity would occur between 6:30 a.m. and 3:00 p.m. when approximately five personnel would be working there.

2.5.3 SERVICE

The two dedicated service structures (service and wash) would be located along the *mauka* boundary of the property, adjacent to the proposed Neighborhood Park. Each structure would be approximately 20-25 feet high. The brake inspection area would be located in the far eastern portion of the Maintenance Building. Servicing would occur daily, generally between 6:00 p.m. and 2:00 a.m. when approximately 25 staff would be involved.

Bus operators would return to the PCBF in the evening and proceed to the head of the service lane, where they would leave their buses with the service crew. A queuing area preceding the service lane would allow up to twenty buses to be staged awaiting service. During the service cycle, service personnel would first drive the vehicle over the brake inspection pit. After the brakes are inspected, they would drive the vehicles to the Service Building, where the buses would be refueled and other consumable fluids, such as oil and washer fluid, would be topped-off.[4] After fueling, service personnel would sweep and vacuum the interior of the buses. Finally, service personnel would drive the buses to the wash area and clean the exterior, if necessary. Washwater would be reclaimed, treated, and reused. A number of fluids would be stored in the service area, including aboveground tanks of motor oil, automatic transmission fluid, and coolant. Approximately 50,000 gallons of diesel fuel would be stored in four underground tanks.

2.5.4 PAINT AND BODY SHOP

The Paint and Body Shop would service the entire bus fleet, TheHandi-Van vehicles, and non-revenue support vehicles. This facility is anticipated to approximately 30 feet high. Specific activities that would be undertaken in this shop include painting of vehicles and parts, welding, metal fabrication, radiator repairs, and bodywork. The Paint and Body Shop would operate between 6:30 a.m. and 10:30 p.m. However, most work would be done between 6:30 a.m. and 3:00 p.m. Approximately 24 people would work in these facilities during the busiest (daylight) shift.

[4] Diesel emergency generators would be installed in the Service Building adjacent to the fueling bays. This would permit vehicle fueling in case of a power outage.

2.5.5 SITE ACCESS AND PARKING

The majority of bus operators, who report to work in their private vehicles, would access the PCBF from Waimano Home Road via the existing driveway[5] opposite Hoomalu Street. This driveway currently provides access to the existing BWS baseyard, the Manana Uka Housing area, and the Weinberg Pearl City Complex. DTS would share use of this roadway with the BWS. The driveway would continue to be used for access to the residential areas, and as an emergency access road for BWS. Parking for 130 passenger vehicles would be provided adjacent to the Transportation Building. About ten percent of the bus operators would be required to park in the maintenance parking area and would access the site from the proposed Spine Road. Maintenance personnel would access the PCBF via the proposed Spine Road and would park adjacent to the Maintenance Building and Paint and Body Shop where about 140 parking stalls would be located (Figure 2-1). Emergency access to and from the bus parking and maintenance portion of the site would be provided via the driveway opposite Hoomalu Street.

Most of the paving would be sealed asphaltic concrete, but the aprons adjacent to the Maintenance Building and the Paint and Body Shop would be of reinforced concrete. Bus parking would be provided in 45-degree angled stalls that could accommodate three standard buses or two articulated vehicles, with space for a total of about 150 standard buses and 100 articulated buses. Employee and visitor parking lots would be landscaped in compliance with the City's Land Use Ordinance. Employee parking lots on the proposed bus facility property may be used for weekend overflow parking associated with the Neighborhood Park that is expected to be developed just *mauka* of PCBF.

2.5.6 SITE PREPARATION AND INFRASTRUCTURE

Before construction of the proposed PCBF, the City would relocate the paratransit (TheHandi-Van) operations currently using two of the existing warehouses to a temporary location. Eventually, the City will move them to its existing Halawa Bus Facility site. Other users and lessees of the warehouses would vacate the premises after given proper notice by the City.

Construction work would begin with the demolition of the existing warehouses and site grubbing and grading. Grading would result in slightly higher elevations near the center of the project site, sloping slightly toward the proposed Spine Road and Waimano Home Road. Excavation would exceed fill by approximately 40,000 cubic yards of soil. The excess material would be disposed off-site by the contractor. If required for grade adjustment, retaining walls would be built along the *mauka* and *makai* boundaries of the site.

Buffers of trees would be provided along Waimano Home Road and the proposed Spine Road. *Mauka* and *makai* site boundaries would be landscaped with bushes. Acoustic walls of masonry or concrete would be constructed along the *mauka* and *makai* boundaries, and on the western side of the Transportation Building, as needed.

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[5] Driveway is constructed over a Board of Water Supply easement.

On-site infrastructure improvements would include potable water, fire suppressant/ protection, sanitary sewer, stormwater drainage, telephone, electrical distribution, and cable television systems. All on-site utilities would be connected to new facilities that the City is installing in the adjacent Spine Road right-of-way. Stormwater runoff would flow away from the center of the site to drainage systems in the proposed Spine Road and in Waimano Home Road. Three oil-water separators would be provided adjacent to the parking areas. Water and wastewater facilities would connect to the City's existing systems. Electrical and telecommunications services would be provided through connections to existing networks.

2.5.7 PRELIMINARY COST ESTIMATES

Table 2-2 presents preliminary estimates of the cost of the proposed facilities.

Table 2-2. Preliminary Cost Estimates (in 1998 dollars)

Description	*Construction Costs*	*Equipment Costs*	*Total Estimated Cost*
Transportation/Administration	$1,641,500	0	$1,641,500
Training	$532,800	0	$532,800
Maintenance	$7,743,200	$2,492,335	$10,235,535
Stores	$1,097,300	$175,670	$1,272,970
Service	$1,460,500	$543,455	$2,003,955
Paint and Body Shop	$2,984,200	$1,169,102	$4,153,302
Site Work	$8,050,000	0	$8,050,000
Off-site Improvements	$50,000	0	$50,000
Subtotal	$23,559,500	$4,380,562	**$27,940,062**
Total Capital Costs (incl. 15% contingency)			**$32,131,000**
Water system facility charge			$180,000
Wastewater system facility charge			$70,000
Electrical/Telecommunications connection charge			$50,000
TOTAL			**$32,431,000**

Source: SSFM Engineers, Inc., May 1998. Page 3, revised.

2.5.8 CONSTRUCTION PHASING

Because of funding constraints, DTS proposes to develop the proposed facilities in phases. Consequently, the Paint and Body Shop, the Training and Fitness Centers, and other minor improvements will not be included in the first phase of construction. Thus, some of the functions that would eventually have their own building would be carried out temporarily in other spaces.

2.5.9 IMPLEMENTATION SCHEDULE

As of June 1998, the DTS' schedule for the development of the proposed bus facility is as follows:

- Publish *Draft Environmental Assessment* – July 1998
- Publish *Final Environmental Assessment/FONSI* – September 1998
- Complete preliminary engineering – October 1998
- Complete construction plans – November 1998
- Award first-phase construction contract – December 1998
- Complete first-phase construction – September 2000
- First-phase facilities fully operational – February 2001

The remaining facilities will be constructed as soon as funding allows.

2.6 NO ACTION ALTERNATIVE

In this instance, "No Action" means that DTS would continue to rely solely on its existing bus facilities at Halawa and Middle Street. These facilities already handle the number of buses for which they were designed. While each might accommodate a few more buses, they are far too small to accommodate the 650-bus fleet planned by the City. Consequently, under the No Action scenario, TheBus fleet would unable to expand as planned to accommodate Oahu's growing population. It is likely that the City would not be able to maintain the current level of transit service it now provides. Under the No Action alternative, the paratransit operations are likely to remain in their present location over the short term. They would eventually be relocated when the City finds an alternate long-term use for the 21-acre site.

The City leases land from the State in Kakaako for a number of corporation yards and other light industrial uses that are inconsistent with the State's Master Plan for the area. The State has not renewed the City's leases in Kakaako, so these operations must be relocated. If the PCBF is not developed, DTS would not be able to relocate the buses it now bases at its existing Halawa bus facility. This, in turn, means that the City would not be able to use the Halawa bus site for relocation of its Kakaako baseyard facilities as now planned. At best, the State would permit the City to remain in Kakaako, delaying implementation of the State's redevelopment plans for that area. However, the City could be forced to move. In this case, it would have to operate the displaced operations from temporary, and probably scattered,

quarters until a permanent location(s) could be found. This is likely to result in poor service and/or increased costs.

If development of the PCBF is abandoned, the City would have to find other uses for the site. In the meantime, the existing warehouses would remain vacant or under-used and the City's substantial investment in the 21-acre property would provide only limited benefits to the community. The debt on the property would continue to grow.

CHAPTER 3
AFFECTED ENVIRONMENT

This chapter provides an overview of existing conditions on and around the project site. The *Manana and Pearl City Junction Development FEIS* is the source of a substantial amount of information, supplemented as necessary where conditions have changed or more recent data are available.

3.1 LAND USE AND DEVELOPMENT

3.1.1 LAND OWNERSHIP

The 21-acre project site (portion of TMK 9-7-24:41) is part of a larger, 109-acre property owned by the City & County of Honolulu (City). The surrounding property, including parcels across Waimano Home Road, *mauka* (north) of the cane haul road, and adjacent to the southeast corner of the Pearl City Bus Facility (PCBF) near Waimano Home Road, are privately owned and are used for a variety of purposes (see Section 3.1.2). The Manana Naval Housing area, which continues to be owned by the U.S. Navy, is located less than a quarter mile *Ewa* (west) of the project site.

3.1.2 EXISTING STRUCTURES AND USES

3.1.2.1 Present Uses

The 21-acre site on which the proposed facilities would be constructed contains eight entire warehouses; three others straddle the site boundary. Six of the eleven warehouses are currently leased. The existing lessees include the following:

- Eckard Brandes, Inc. (for-profit organization)
- Project Renewal (non-profit organization, leases two warehouses)
- Victory-Ohana Prison Fellowship, Inc. (non-profit organization)
- Angel Network Charities, Inc. (non-profit organization)
- Adams Computer Institute (non-profit organization)

Three City agencies, the Honolulu Police Department, Department of Transportation Services (DTS) and the Building Department, also occupy space in four of the 11 warehouses. Observations of the property suggest that the most extensively used structures include the warehouse leased by Victory-Ohana Prison Fellowship and those used by DTS for their TheHandi-Van paratransit operation.

The project site is bounded on the north (*mauka*) and west (*Ewa)* by other warehouses, also part of the Manana Storage Area. The *makai* (southern) boundary abuts the existing Board of Water Supply (BWS) baseyard, other Manana warehouses, the Manana Uka multi-family housing complex, and the Harry and Jeanette Weinberg Pearl City Complex. Waimano

Home Road bounds the *Koko Head* (east) side of the PCBF site; single-family residences are located on the opposite (eastern) side of that roadway. Most of these uses can be seen on the aerial photograph reproduced in Figure 3-1.

3.1.2.2 Hazardous Materials

When the Navy transferred the site to the City, it did so in accordance with a "Memorandum of Understanding" (MOU) between the City and the Navy dated August 9, 1993. The MOU made the Navy responsible for *"...deliver[ing] the property to the City free of all surface and subsurface hazardous materials."* According to two "Finding of Suitability to Transfer" documents (dated November 2, 1994 and May 29, 1996), the Navy certified that the property was cleared of all known hazardous waste in accordance with the standards of the Resource Conservation and Recovery Act (RCRA) of 1976 as amended, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 as amended, and as applicable, Chapters 128D and 342J of the Hawaii Revised Statutes, as amended.

Non-friable and low-friability asbestos are present in the roofing and flooring of 28 warehouses on the Manana site (U.S. Navy, December 2, 1994), including some of those in the area on which the proposed PCBF would be located. The Navy's "Finding of Suitability for Transfer" noted that while it had not conducted a lead-based paint survey of the Manana Storage Area, the age of the structures make it likely that all contain lead-based paint as well. Procedures used to demolish, repair, and/or reconstruct the existing structures must consider the likely presence of asbestos and lead-based paint.

3.1.3 EXISTING LAND USE DESIGNATIONS

The Manana property is owned by the City and is in the State Urban Land Use District. Consequently, the City has sole responsibility for regulating land use on the site. The project site is designated "Military" on the City's Primary Urban Center (PUC) Development Plan (DP) Land Use map and activities conducted on that site have been characterized as "Industrial" (see Figure 3-2). The roadways, water lines, sewer mains, and storm drainage facilities needed to serve the former Manana Storage Area are shown on the City PUC DP Public Facilities Map (Figure 3-3). The City Council recently (June 9, 1998) amended the Public Facilities Map to reflect an adjustment to the parcel size for the proposed PCBF, the proposed park, and the BWS corporation yard; the amendment also added symbols representing two new City corporation yards (See Chapter 5 for a more detailed discussion).

As shown on Figure 3-4, the Manana parcel is zoned F-1, "Military and Federal".

PREPARED FOR:
SSFM Engineers, Inc

PREPARED BY:
Planning Solutions, Inc
Pacific Data Digitizing

SOURCE:
Air Survey Hawaii, 1993

N

NOT TO SCALE

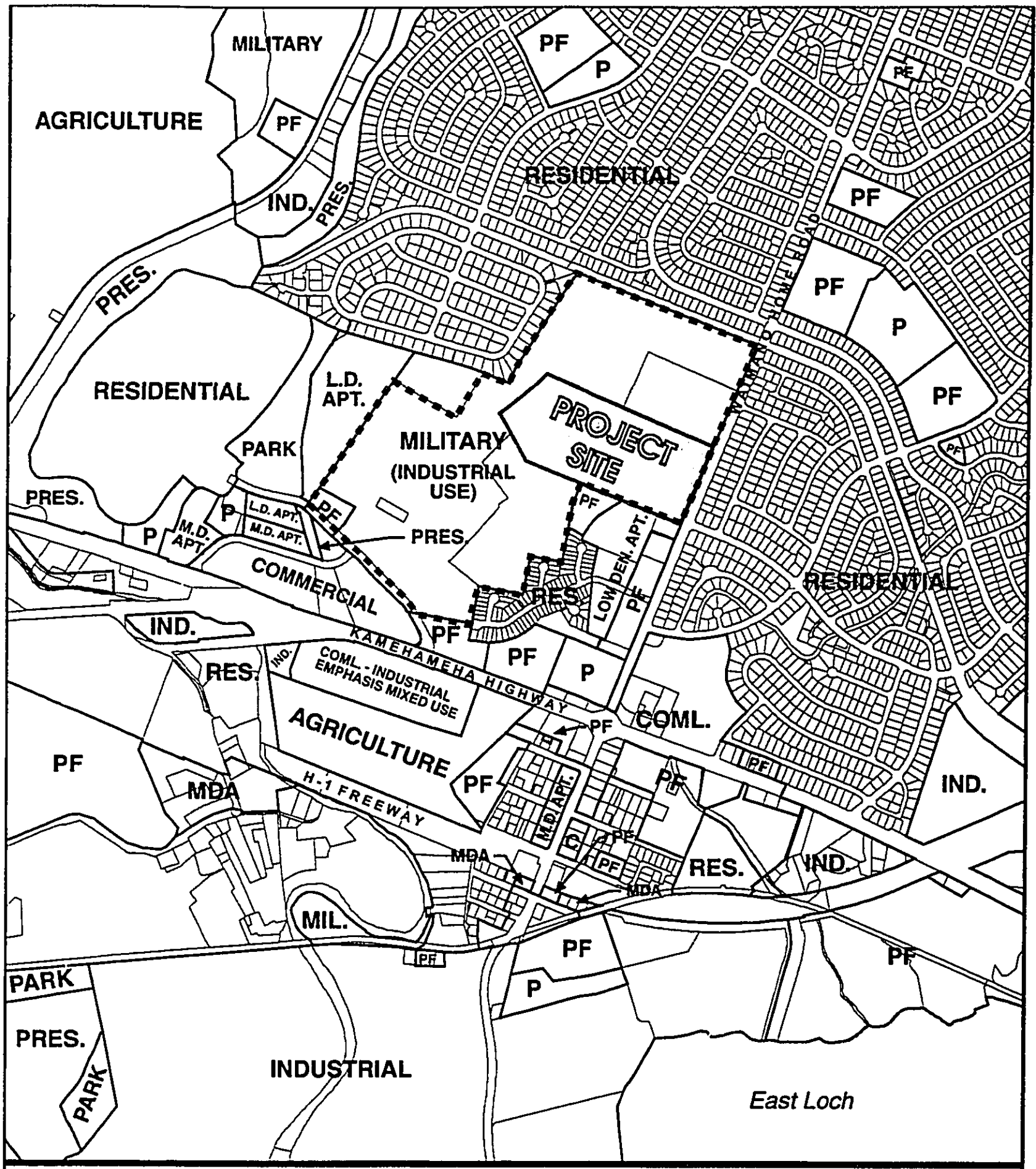
FIGURE 3-1:

Aerial Photograph of Site and Vicinity

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility Fig 3-1 Aerial Photo 8-29-96

0000 0019 2142



PREPARED FOR:
SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
C & C of Honolulu, DLU, June 5, 1998.

LEGEND:

- Project Site
- Land Use Boundary
- Manana Storage Area Boundary

0 2000 Feet

N

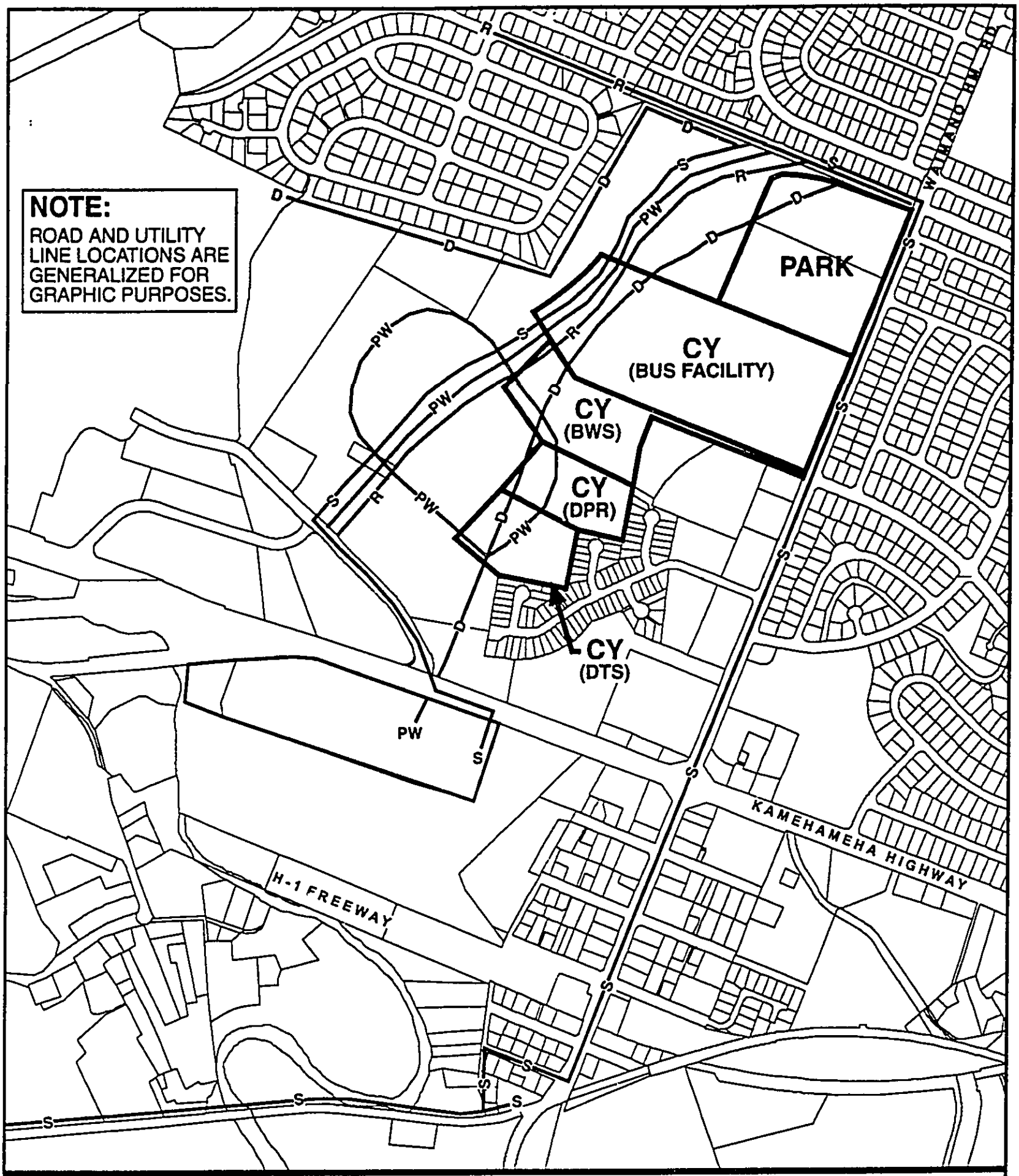
FIGURE 3-2:

Primary Urban Center Development Plan Land Use Map

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility; Fig 3-2 DP Land Use; 7-1-98

0000 0019 2143



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SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
C & C of Honolulu, DLU, June 5, 1998

LEGEND:

CY	Corporation Yard
—D—	Drain Line
-PW-	Potable Water
—R—	Road
—S—	Sanitary Sewer Line

0 1450 Feet

N

FIGURE 3-3:

Primary Urban Center Development Plan Public Facilities Map

Pearl City Bus Facility
Environmental Assessment

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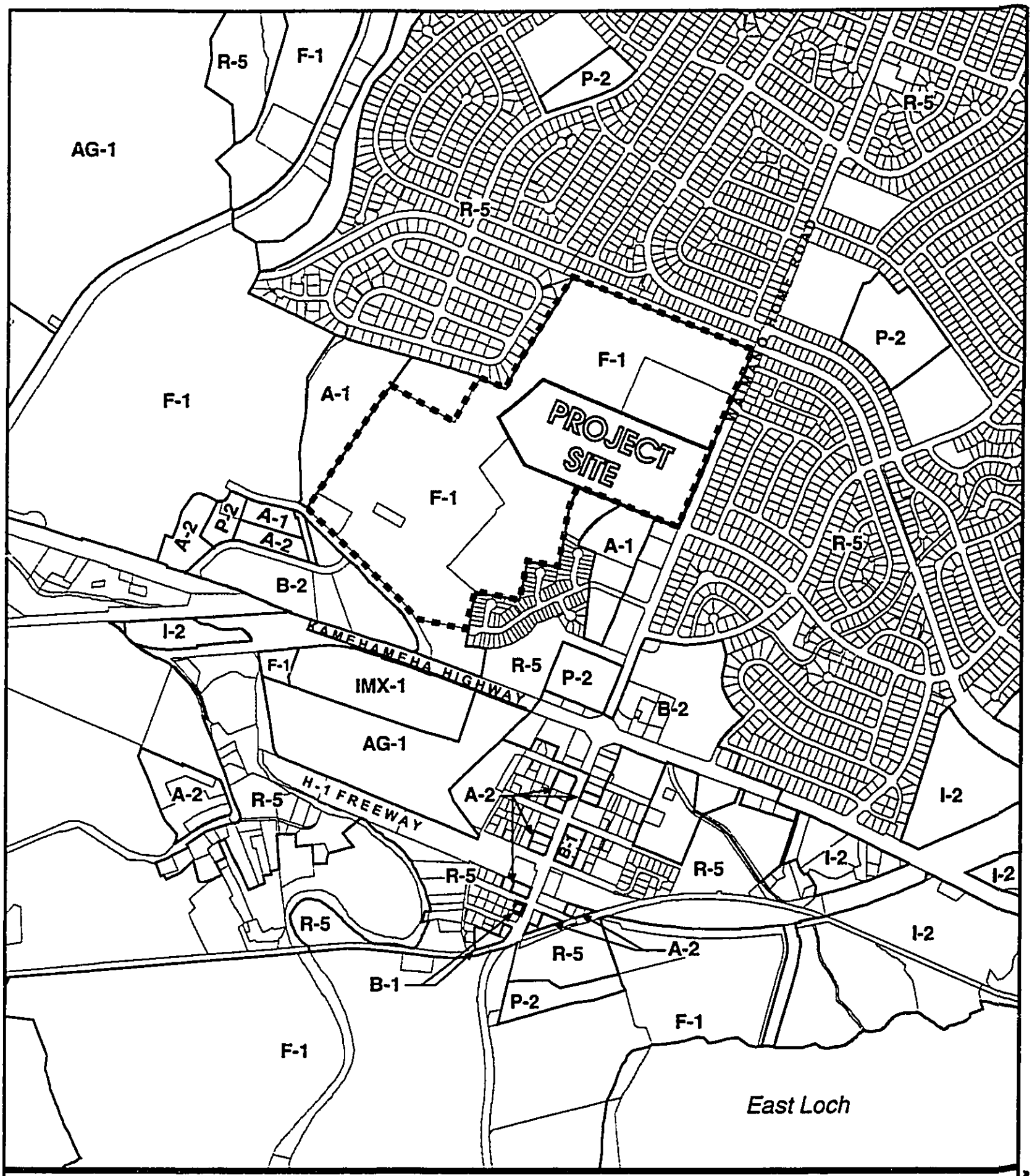

PREPARED FOR:
SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
C & C of Honolulu, DLU,June 5, 1998.

LEGEND:

- Project Site
- Zoning Boundary
- Manana Storage Area Boundary

0 2000 Feet

N

FIGURE 3-4:

Land Use Zoning Designations

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility; Fig 3-4 Land Use Zoning Designations; 7-1-98

3.2 NEIGHBORHOOD CHARACTERISTICS

The *Manana and Pearl City Junction Development FEIS Market Assessment* (PKF Hawaii, 1996) reviewed census data to assess demographics of the region. The authors of that report concluded that households in the Ewa District[1] are larger than average for Oahu, younger than average, and with above-average household incomes. The authors of the *Market Assessment* noted that this suggests that residents in the area are more family-oriented and affluent than the island as a whole. The ethnicity of residents of the Ewa District generally resembles that of the rest of Oahu, but Pearl City, Aiea, and Waimalu show statistically higher than average percentages of people of Japanese ancestry.

The Pearl City Neighborhood Board and a number of local resident and community groups represent the community surrounding the PCBF. The primary ones include the Hale Ola Association, the Manana Community Association, the Wailuna Recreation Association, the Momilani Community Association, and the Newtown Community Association.

3.3 PHYSICAL ENVIRONMENT

3.3.1 TOPOGRAPHY

The ground elevation of the entire Manana Storage Area parcel ranges from about 50 to 145 feet above sea level. The parcel slopes gently downwards towards the south/south-east. The PCBF site ranges from approximately 90 to 120 feet above sea level. The original topography was undoubtedly modified when the area was placed into sugarcane cultivation and again when the U.S. Navy constructed the existing warehouses on the property.

3.3.2 GEOLOGY AND SOILS

The majority of soil in the Manana Storage Area and surrounding region formed from weathering of basaltic lavas. According to the U.S. Soil Conservation Service soil survey of the area (Foote, *et al.*, August 1972), the original soil on the PCBF site consisted principally of Molokai silty clay loam, 3 to 7 percent slopes.[2] Soils in this series have moderate permeability, slow to medium runoff and slight to moderate erosion hazard. They may be used for sugarcane, pineapple, pasture, wildlife habitat, and home sites.

The Land Study Bureau (LSB) inventoried each island in the state with the intent of developing a land inventory and agricultural productivity evaluation (Baker *et al.*, 1965). The LSB designated the Manana property as "Urban", and did not classify it for agricultural purposes. Similarly, because of the urbanized nature of the project area and surrounding

[1] The Ewa District is a geographical unit that extends from Red Hill to Kahe, from the shoreline to Mililani. It includes the Pearl City/Manana area.

[2] Note that most of the Manana Storage Area has been modified extensively by previous development. Excavation, compaction, and paving of the area have substantially altered the natural physical properties of the soils. Consequently, site-specific geotechnical tests will be needed to establish soil properties to be used in design.

region, the soils on the property were not evaluated for the Agricultural Lands of Importance to the State of Hawaii mapping (Hawaii State Department of Agriculture, 1977).

3.3.3 EXISTING CLIMATE AND AIR QUALITY

3.3.3.1 Climate and Meteorology

Temperature and Rainfall. Temperatures in the project area are similar to those found elsewhere in Hawaii. The nearest long-term weather station operated by the National Weather Service is located at the Honolulu International Airport some six miles southeast of the project site. Data from that station indicate that the range of temperatures is only about 8 degrees between the warmest months (August and September) and the coolest months (January and February). As an annual average, the day/night variation is about 14 degrees. Average daily high temperatures range from the low 80s in the winter to the high 80s in the summer. Average daily low temperatures range from the mid-60's to the low 70s. The historical high at the airport is 95 degrees, while the low is 53 degrees.

Average annual precipitation at Honolulu International Airport averages 22.0 inches (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, 1995; Hawaii Department of Business, Economic Development, and Tourism, 1996). Average annual precipitation at the project site is approximately 30 inches. Average monthly rainfall during the wettest months (December and January) is nearly five inches. During the summer months, average monthly rainfall drops to less than two inches. In accordance with Thornwaite's scheme for climatic classification (Thornwaite, 1931), the area has a precipitation/evaporation (P/E) Index = 26.9 (Morrow, June 1998).

Surface Winds. Meteorological data records from Honolulu International Airport and Hickam Air Force Base (U.S. Air Force, 1974) were reviewed. The annual prevalence of northeasterly trade winds is shown in the summary of those data presented in Table 3-1. A closer examination of the data, reveals that low velocities (less than 10 mph) occur frequently, and that the "normal" northeasterly trade winds tend to break down in the fall giving way to more light, variable wind conditions through the winter and on into early spring. It is during these times that Honolulu generally experiences its highest pollutant levels.

Twelve months of hourly wind data for the a.m. and p.m. peak traffic hours were analyzed to determine the prevailing wind directions and speeds during those periods. Table 3-2 summarizes the results of this analysis. Stability wind roses prepared for Hickam Air Force Base (U.S. Air Force, September 1974) indicate that stable conditions, i.e., Pasquill-Gifford stability categories E and F (U.S. Environmental Protection Agency, 1973), occur about 28% of the time on an annual basis. They occur 36% of the time during January, the month with the highest frequency of stable conditions. Another, more recent analysis of five years of meteorological data from the Honolulu International Airport (1987 - 91) revealed a 32.7% annual frequency of E and F stabilities. It is under such conditions that the greatest potential for air pollutant buildup from ground level sources, e.g., motor vehicles, exists.

Table 3-1 Annual Frequency Distribution of Wind Speed and Direction: Honolulu International Airport.

Wind Direction (in degrees)	Frequency of Occurrence by Wind Speed (meters per second)						
	<3.1	<4.5	<5.8	<7.2	<8.5	>/= 8.5	All
10	0.0065	0.0038	0.0023	0.0016	0.0009	0.0001	0.0152
20	0.0082	0.0041	0.0025	0.0023	0.0011	0.0001	0.0183
30	0.0100	0.0061	0.0051	0.0038	0.0028	0.0007	0.0285
40	0.0188	0.0157	0.0258	0.0222	0.0174	0.0040	0.1039
50	0.0268	0.0290	0.0449	0.0385	0.0307	0.0054	0.1753
60	0.0344	0.0289	0.0436	0.0273	0.0238	0.0041	0.1621
70	0.0250	0.0181	0.0197	0.0122	0.0096	0.0009	0.0855
80	0.0113	0.0081	0.0065	0.0039	0.0009	0.0003	0.0310
EAST	0.0073	0.0049	0.0040	0.0009	0.0008	0.0000	0.0179
100	0.0031	0.0016	0.0014	0.0006	0.0002	0.0000	0.0069
110	0.0027	0.0019	0.0010	0.0007	0.0005	0.0001	0.0069
120	0.0027	0.0013	0.0019	0.0009	0.0003	0.0003	0.0074
130	0.0022	0.0032	0.0018	0.0015	0.0007	0.0002	0.0096
140	0.0034	0.0033	0.0039	0.0018	0.0011	0.0006	0.0141
150	0.0022	0.0030	0.0019	0.0003	0.0002	0.0005	0.0081
160	0.0024	0.0033	0.0023	0.0010	0.0005	0.0000	0.0095
170	0.0031	0.0046	0.0023	0.0007	0.0003	0.0000	0.0110
SOUTH	0.0055	0.0042	0.0018	0.0008	0.0005	0.0000	0.0128
190	0.0065	0.0038	0.0013	0.0002	0.0000	0.0000	0.0118
200	0.0057	0.0032	0.0011	0.0001	0.0000	0.0000	0.0101
210	0.0076	0.0038	0.0016	0.0001	0.0000	0.0000	0.0131
220	0.0083	0.0077	0.0016	0.0001	0.0001	0.0000	0.0178
230	0.0076	0.0049	0.0014	0.0001	0.0001	0.0000	0.0141
240	0.0042	0.0016	0.0013	0.0000	0.0000	0.0000	0.0071
250	0.0040	0.0010	0.0003	0.0000	0.0000	0.0000	0.0053
260	0.0064	0.0023	0.0005	0.0000	0.0000	0.0000	0.0092
WEST	0.0065	0.0010	0.0005	0.0002	0.0000	0.0000	0.0082
280	0.0099	0.0005	0.0002	0.0000	0.0000	0.0000	0.0106
290	0.0123	0.0003	0.0002	0.0001	0.0000	0.0000	0.0129
300	0.0167	0.0018	0.0011	0.0000	0.0000	0.0000	0.0196
310	0.0235	0.0022	0.0015	0.0001	0.0000	0.0000	0.0273
320	0.0200	0.0022	0.0013	0.0006	0.0001	0.0000	0.0242
330	0.0121	0.0023	0.0011	0.0005	0.0000	0.0000	0.0160
340	0.0094	0.0010	0.0003	0.0001	0.0000	0.0000	0.0108
350	0.0082	0.0025	0.0016	0.0002	0.0000	0.0000	0.0125
NORTH	0.0093	0.0027	0.0022	0.0006	0.0005	0.0001	0.0154
Total	0.3538	0.1899	0.1918	0.1240	0.0931	0.0174	0.9700
						Calms:	0.0302

Note: Totals may not agree due to rounding.

Source: Morrow, June 1998: Table 4.

Table 3-2. Summary Of Typical Wind Conditions During Peak Traffic Hours: Honolulu, Oahu.

Period	Direction Quadrant	Annual Frequency (%)	Mean Wind Speed (m/sec)
A.M. Peak (7:00 - 8:00 a.m.).	NE	67.1	4.1
	SE	4.8	3.9
	SW	3.3	2.9
	NW	24.4	1.8
P.M. Peak (4:00 - 5:00 p.m.).	NE	78.8	6.0
	SE	7.1	4.2
	SW	10.1	3.3
	NW	3.9	4.8

Notes:
1. Frequencies may not total 100% due to rounding.
2. Based on 1991 Honolulu International Airport data.
3. A.M. frequency for winds 1.5 m/s = 3.7%
4. P.M. frequency for winds 1.5 m/s = 0.27%
5. Wind speeds not reported at 1.0 m/s.

Source: Morrow, June 1998: Table 4.

3.3.3.2 Applicable Air Quality Standards

Table 3-3 summarizes State of Hawaii and national ambient air quality standards. Note that Hawaii's standards are not divided into primary and secondary standards as are the federal standards. Primary standards are intended to protect public health with an adequate margin of safety. Secondary standards, which are intended to protect public welfare through the prevention of damage to soils, water, vegetation, man-made materials, animals, wildlife, visibility, climate, and economic values (Library of Congress, 1974), are more stringent (i.e., the limits are lower.) In the case of the automotive pollutants [carbon monoxide (CO), nitrogen dioxide (NO_2), and ozone (O_3)], there are only primary standards. Some of Hawaii's standards (CO, NO_2, and O_3) are more stringent than their federal counterparts. Ambient pollutant concentrations may exceed the levels shown once each year without constituting a violation of the standard. The City and County of Honolulu is in an attainment area with respect to all national ambient air quality standards.

In addition to the standards shown in the table, the State of Hawaii also has fugitive dust regulations for particulate matter (PM) emanating from construction activities. There simply can be no visible emissions from fugitive dust sources (Hawaii Administrative Rules, Title 11, Chapter 60).

3.3.3.3 Existing Air Quality

State Department of Health Monitoring Stations. The State Department of Health maintains a limited network of air monitoring stations around the State. These stations gather data on seven regulated pollutants. The pollutants are: particulate matter <10 microns (PM_{10}), total suspended particulate matter (TSP), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), ozone (O_3), and lead (Pb). In the case of PM_{10}, measurements are made on a 24-hour basis to correspond with the averaging period specified in State and federal standards. Samples are collected once every six days in accordance with U.S. Environmental Protection Agency (EPA) guidelines. Due to the short-term averaging period of the standards (1-, 3-, and 8-hour), carbon monoxide, sulfur dioxide, and ozone are measured on a continuous basis. Nitrogen dioxide is measured with continuous instruments and averaged over a full year to correspond to its annual standards. Lead concentrations are determined from particulate matter (TSP) samples.

The State DOH monitoring station nearest to the project site is located at the Leeward Medical Center on Fourth Street in Pearl City. Only PM_{10} is monitored at this site. Table 3-4 summarizes the most recent published air quality data from that station and from the nearest other stations measuring the pollutants that are not monitored at Pearl City.

Results of Onsite Carbon Monoxide Sampling. CO data was collected on the *Ewa* (west) side of the Moanalua Road/Waimano Home Road intersection during the a.m. and p.m. peak traffic hours on May 29, 1998 (Morrow, June 1998). This was done using a continuous sampling carbon monoxide (CO) instrument. An anemometer and vane were used to record onsite surface winds during the air sampling period, and the vehicles passing the monitoring location were counted.

Table 3-3. Summary of State of Hawaii and Federal Ambient Air Quality Standards

POLLUTANT	SAMPLING PERIOD	NAAQS PRIMARY	NAAQS SECONDARY	STATE STANDARDS
PM_{10}	Annual	50	50	50
	24-hr	150	150	150
SO_2	Annual	80	---	80
	24-hr	365	---	365
	3-hr	---	1,300	1,300
NO_2	Annual	100	---	70
CO	8-hr	10	---	5
	1-hr	40	---	10
O_3	1-hr	235	---	100
H_2S	1-hr	---	---	35
Pb	Calendar Quarter	1.5	---	1.5

KEY: NAAQS - National Ambient Air Quality Standards
PM_{10} - particulate matter ≤ 10 microns
SO_2 - sulfur dioxide
NO_2 - nitrogen dioxide
CO - carbon monoxide
O_3 - ozone
H_2S - hydrogen sulfide
Pb - lead

Note: All concentrations except CO are in micrograms per cubic meter ($\mu g/m^3$). CO values are in milligrams per cubic meter (mg/m^3).

Source: Morrow, June 1998 (from 40 CFR and HAR § 11-59)

Table 3-4 Air Quality Data from Department of Health Monitoring Sites: 1996

Pollutant	Concentration ($\mu g/m^3$)
Particulate matter ≤ 10 microns (PM_{10})	
24-hr (max)	26
Annual	14
Sulfur dioxide (SO_2)	
3-hr (max)	73
24-hr (max)	18
Annual	3
Carbon monoxide (CO)	
1-hr (max)	4,589
8-hr (max)	2,127
Annual	936
Ozone (O_3)	
1-hr (max)	92
Annual	27
Nitrogen dioxide (NO_2)	
Annual	2
Lead (Pb)	
Quarterly (max)	0.0
Annual	0.0

Notes: 1. PM_{10} data are from the Pearl City site.
2. CO, SO_2, and Pb are from the State DOH building in downtown Honolulu
3. O_3 data are from the Sand Island site.
4. NO_2 data are from the Kapolei site.

Source: Morrow, June 1998: Table 2.

Skies were mostly cloudy during the sampling period on the morning of May 29. Winds were light (about 1 mph) and from the northwest during the first part of the sampling period. They changed to northeasterly trade winds shortly before 8:00 a.m. Total traffic along the segment of Waimano Home Road fronting the sampling site was comparable to the a.m. peak hour volume reported elsewhere in this chapter. The effects of wind direction were clearly demonstrated in the CO data collected. The northwesterly winds during most of the peak traffic hour put the sampling site *upwind* of the roadway and thus CO levels were very low, i.e., less than 1 mg/m^3. As soon as the winds shifted to the normal trade wind direction, CO concentrations increased markedly. However, the measured concentrations remained below State and federal standards (see Table 3-3).

Skies continued to be overcast with northeasterly winds averaging about 6 mph during the afternoon sampling period on May 29. Total traffic was about 90% of the existing a.m. volume reported in the aforementioned traffic study. The CO level was higher than the level recorded during the morning sampling period, averaging 2.5 mg/m^3. This was due primarily to the steadier wind direction, and it came despite the lower traffic volume. As in the morning, measured CO concentrations were below State and federal standards.

Modeled Carbon Monoxide Concentrations. Existing carbon monoxide concentrations in the vicinity of major intersections which will serve the proposed development were also estimated using U.S. EPA recommended computer modeling methods. The results were comparable to the onsite measurements and to the State DOH historical data at other sites.

3.3.4 HYDROLOGY

3.3.4.1 Surface Water and Flooding

The locations of significant hydrologic features in the vicinity of the PCBF site are depicted in Figure 3-5. No surface water or wetlands occur on it or in adjacent portions of the former Manana Storage Area. According to United States Geological Service (USGS) maps of the area, the closest water body is an unnamed intermittent drainageway (subsequently referred to as Waiau Stream in this environmental assessment) in Waiau Gulch east of Waimano Home Road. It is approximately 1,500 feet away from the PCBF site.

No significant flooding of the existing warehouses has been reported. The Flood Insurance Rate Map (FIRM) for the area indicates that the project site is within *Zone D - areas in which flood hazards are undetermined.* The Zone D designation is generally given to areas which do not have serious flooding hazards but which have not been studied in detail. In the general vicinity of the project site, FIRM *Zone A - inundated by the 100-year flood event* centers around Waiawa Stream. *Zone X - beyond 500-year flood event* surrounds this Zone A. Zone D is located even farther from Zone A and Waiawa Stream.

The Manana Storage Area site contributes runoff to both the Waiawa Stream and the Waiau Streams. Approximately 57 acres (including the *Ewa* (western) half of the PCBF site) drains toward the west into existing drainage ditches, channels, and pipeline systems located in the adjoining residential developments and in Acacia Road (Community Planning, Inc.,

December 1997:2). Storm runoff from these systems discharges into Waiawa Stream at two points. The first system traverses the Pearl Highlands commercial area and discharges into Waiawa Stream just *mauka* of the inbound Farrington Highway ramp. The second part runs from Acacia Road along Kamehameha Highway into culverts which cross the highway and discharge into Waiawa Stream. The stream eventually flows into Pearl Harbor. An additional 23 acres along the *makai* portion of the Manana Storage Area drains to the south into two existing pipeline systems in the Kauhale Manana Subdivision and near the Pearl City Post Office (see Figure 1-3). These systems cross Kamehameha Highway in culverts and discharge into a lined ditch which also empties into Waiawa Stream.

Approximately 29 acres of the Manana Storage Area drain toward two existing pipeline systems in Waimano Home Road. Both pipelines systems extend to connections with the Waiau drainage channel. That drainage channel crosses Kamehameha Highway and drains into a lined drainageway that empties into the East Loch of Pearl Harbor.

3.3.4.2 Groundwater

The Manana Storage Area overlies the island's basal lens. It is within the Commission on Water Resource Management's (CWRM) Waipahu-Waiawa Water Management Area. The Waipahu-Waiawa groundwater aquifer is recharged by rainfall in the Koolau mountain range. Relatively impermeable coastal deposits retard the seaward movement of the groundwater, providing elevated heads. Measurements by the BWS indicate that the water level in the basal lens stands approximately 17 feet above sea level in this area. Wells #2458-03 and #2458-04 (See Figure 3-5), located near the PCBF site just east of Waimano Home Road, average a sustained yield of 0.3 million gallons per day (MGD) (Honolulu Board of Water Supply, February 1998).

As of 1996, the aquifer had an estimated sustainable yield of 119 MGD. Already permitted uses total just over 110 MGD, leaving about 8 MGD surplus for possible future development. Several existing potable water sources are within one-half mile of the project site. These are Pearl City Wells I (Wells #2458-03 and #2458-04), Pearl City Wells II (Wells #2457-01, #2457-02 and #2457-03), and the Pearl City Shaft (Well #2458-01) (Honolulu Board of Water Supply, February 1998). The Pearl City Shaft, which is a short distance *makai* of the PCBF site, presently has a "permitted" use of 1.32 MGD for municipal purposes. The Waiawa Springs Complex is a private source of irrigation and potable water located south of the H-1 Freeway near the Leeward Community College/West Oahu College campus.

3.3.5 EXISTING NOISE ENVIRONMENT

Noise level measurements were conducted on April 21, 1998 and June 17, 1998 to assess the existing acoustical environment of the project site, its vicinity, and existing noise sensitive areas which may be impacted by the proposed project. The measurement locations are shown in Figure 3-6.

The measurements were obtained using Larson-Davis Laboratories, Models 700 and 820, Sound Level Meters. The results are expressed in terms of the equivalent continuous noise

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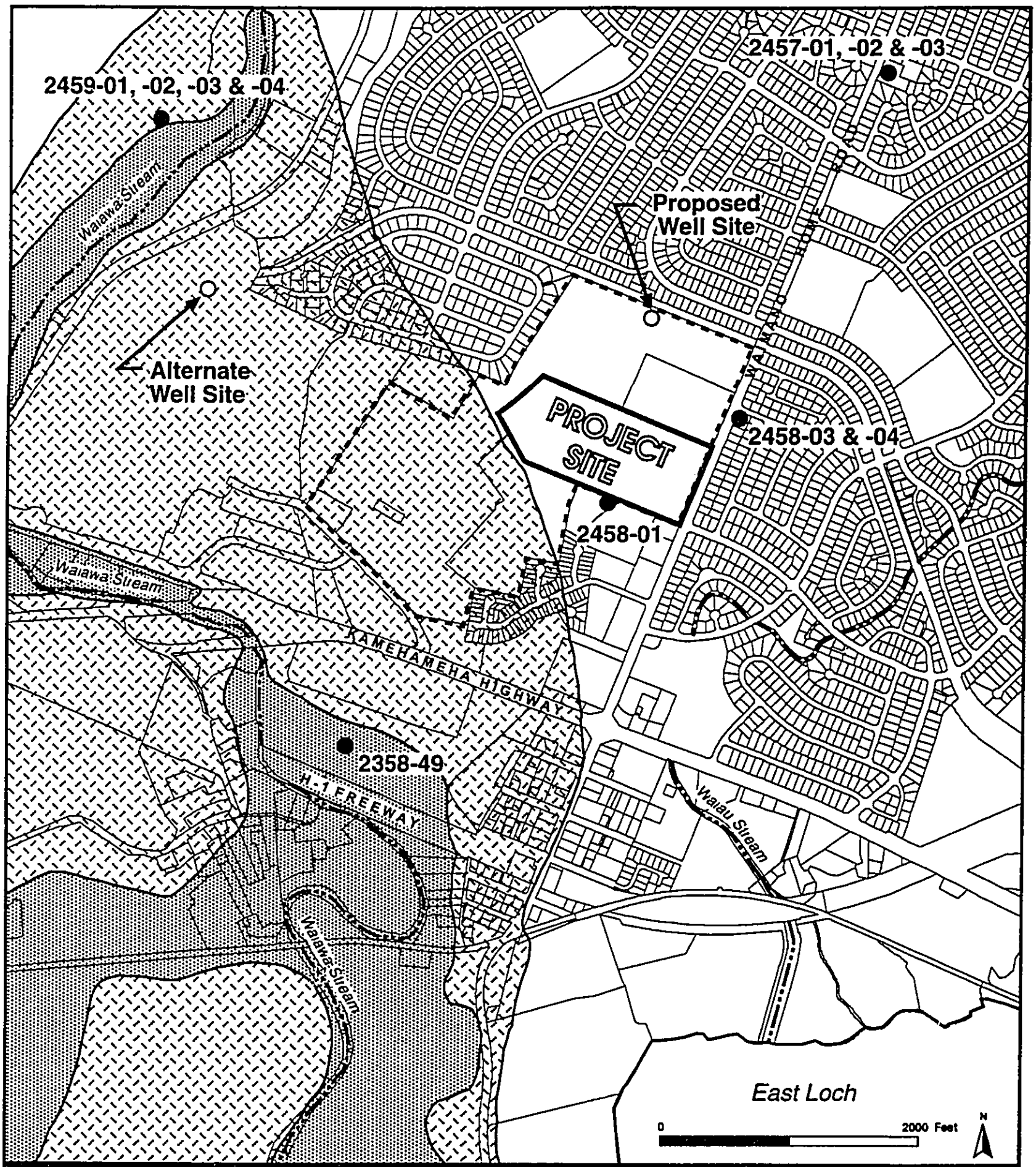

PREPARED FOR:
SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
RM Towill Corporation, Feb. 1998.
C & C Honolulu, DLU, June 5, 1998.

LEGEND:

- Existing Production Well & Well Identification Number
- Proposed & Alternate Board of Water Supply Production Well Sites
- Manana Storage Area Boundary
- Stream
- Zone A: 100-Yr Flood Area No Base Flood Elev. Determined
- Zone D: Areas in which Flood Hazards are Undetermined
- Zone X: Areas Determined to be Outside 500-Yr Flood Plain

FIGURE 3-5:

Significant Hydrologic Features

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility, Fig 3-5 Significant Hydrologic Features, 7-1-98

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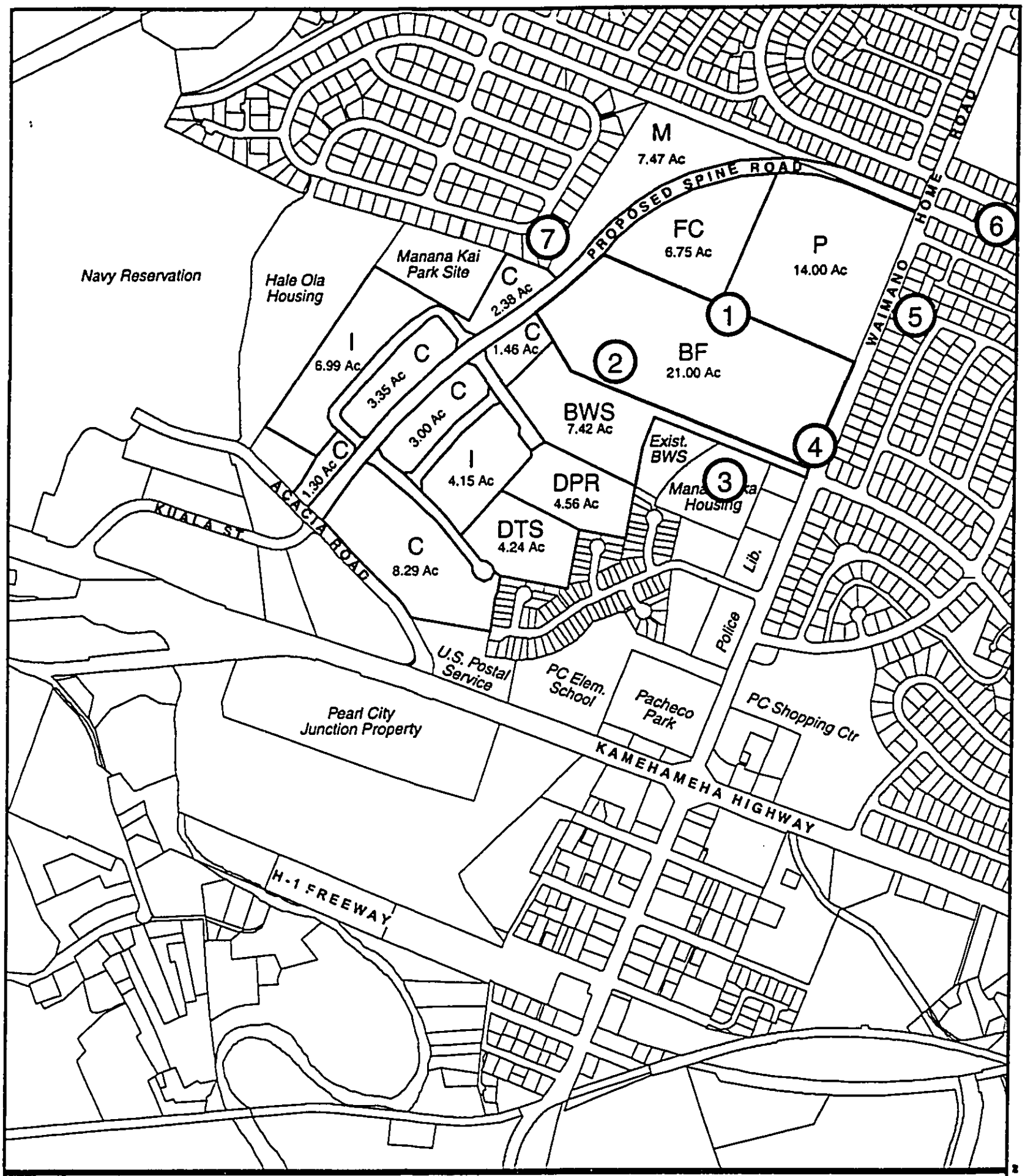


PREPARED FOR:
SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
D. L. Adams Assoc., Ltd., June 1998
C & C of Honolulu, DPW, April 1998
C & C of Honolulu, DLU, June 5, 1998

LEGEND:

BF	Bus Facility	FC	Family Center
BWS	Board of Water Supply	I	Industrial
C	Commercial	M	Medical
DPR	Dept. of Parks & Recreation	P	Park
DTS	Dept. of Transportation Services		

0 1450 Feet

N

FIGURE 3-6:

Acoustic Measurement Locations

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility, Fig 3-6 Acoustic Measurement Locations, 7-1-98

level, L_{eq}, and in units of A-weighted decibels (dBA). (Appendix A provides a brief description of A-weighted sound level and statistical noise levels commonly used to describe environmental noise.)

Measurements at Locations 1 through 5 were taken between 8:30 a.m. and 12:00 noon on Tuesday, April 21, 1998. Each measurement was approximately 10 to 15 minutes in duration. Longer, 24-hour measurements, were made at Locations 6 and 7 and hourly L_{eq}s were recorded starting from about 9:00 a.m. on Wednesday, June 17, 1998. The longer sampling period at Locations 6 and 7 provided information needed to evaluate the potential effects of project-related noise during late-night and early-morning hours.

Referring to the measurement locations shown in Figure 3-6, the following sound levels were measured:

Measurement Location (See Figure 3-6)	**L_{eq} (dBA)**
1	49
2	50
3	49
4	71
5	49
6: (5:00 a.m. to 10:00 p.m.)	49 to 57
6: (10:00 p.m. and 5:00 a.m.)	41 to 48
7: (5:00 a.m. to 10:00 p.m.)	36 to 44
7: (10:00 p.m. and 5:00 a.m.)	32 to 38

Source: D.L. Adams Associates, Ltd., June 1998.

Identifiable noise sources at the above locations during the measurement sessions included traffic on local roads, occasional aircraft flyovers, birds, and wind in the foliage.

3.3.6 NATURAL HAZARDS

All of Oahu is situated in Seismic Zone 2A. Therefore, the project area is no more or less likely to experience an earthquake than elsewhere on the island. The site's location, one mile inland of Pearl Harbor at an elevation of over 90 feet above sea level, means that there is no threat from tsunamis or coastal flooding.

3.4 BIOLOGICAL ENVIRONMENT

3.4.1 VEGETATION

A botanical assessment was performed to identify vegetation on the Manana Storage Area property and to determine if any significant vegetative resources exist (Char and Associates, 1995). The study concluded that most of the original flora of the area has been replaced by introduced weedy species and grassed areas. The latter generally include pitted beardgrass (*Bothriochloa pertusa*), Bermuda grass (*Cynodon dactylon*), and Guinea grass (*Panicum maximum*). Trees planted near the warehouses include mango (*Mangifera indica*), African tulip (*Spathodea campanulata*), plumeria (*Plumeria* spp.), octopus (*Schefflera actinophylla*), avocado (*Persea americana*), banana (*Musa*), and coconut (*Cocos nucifera*). Only one native species, the indigenous hialoa or uhaloa (*Waltheria indica*), was identified in the botanical assessment study. Notable vegetation observed on the bus facility site include a large mango tree, several octopus and bougainvillea plants, and a line of Norfolk Island pines. None of the plants found are rare, listed, proposed for listing, or candidate threatened or endangered species.

3.4.2 FAUNA

A faunal survey was conducted to identify bird and mammal species present on the project site, their abundance, and the presence of important wildlife habitat (Bruner, 1995). The results indicate that mammals on the property are those typically found throughout urbanized portions of the Hawaiian Islands, i.e., feral cats, mongoose, and dogs. No endemic birds were observed, although 28 indigenous (migratory) Pacific golden plovers (*Pluvialis fulva*), which winter in Hawaii, were seen. Plovers are very site-faithful to their wintering grounds and establish foraging territories that they defend vigorously.

Bruner (1995) reported that the vast majority of birds present in the area are introduced species. The most abundant are spotted doves (*Streptopelia chinensis*), zebra dove (*Geopelia striata*), common waxbill (*Estrilda astrild*), house finch (*Carpodacus mexicanus*), and Java sparrow (*Padda oryzivora*). No threatened, endangered, or rare species were observed. The Hawaiian owl, or *pueo* (*Asio flammeus sandwichensis*), listed by the State of Hawaii as endangered on Oahu, does occur in some leeward areas of the island, but it is unlikely to use the project site because there is no suitable habitat.

Habitat for other wildlife on the property is extremely limited, due to previous use and manipulation. Habitat similar to that found on the property occurs throughout leeward Oahu. The U.S. Fish and Wildlife Service's April 8, 1996, letter commenting on the *Manana and Pearl City Junction Development Draft EIS* stated that the PCBF site *"does not provide significant habitat for fish and wildlife resources."*

3.5 HISTORIC AND ARCHAEOLOGICAL RESOURCES

Scientific Consultant Services, Inc. (July 1995) prepared an assessment of historic and archaeological remains on the Manana Storage Area site. The assessment included a review

of available documents and a field inspection conducted on June 22, 1995. The assessment noted that the property is bisected by the boundary between the *ahupuaa*[3] of Waiawa and Manana. Scientific Consultant Services' document review indicated that there were few myths or legends relating specifically to the *ahupuaa* of Manana or Waiawa. The only reference noted is in Sterling and Summers (1978), which contains an account of the legend of the Eel boy of Pilimoo, a pool in Pearl City. Both Manana and Waiawa are mentioned in a chant for Kualii recorded by Fornander (1917: Volume IV, Part II), but both references pertain to the shoreline of Pearl Harbor, an area that is well *makai* of the project site.

Based on a review of Land Court Awards, the assessment report concluded that the Manana area had at one time been cultivated for dryland crops, such as yams and sweet potatoes. By the end of the 19th century, much of the area had been purchased by the Honolulu Plantation and was used for sugarcane cultivation. The U.S. military assumed control of the Manana Storage Area property and much other land around Pearl Harbor during World War II and maintained control until the City acquired the property in the early 1990s.

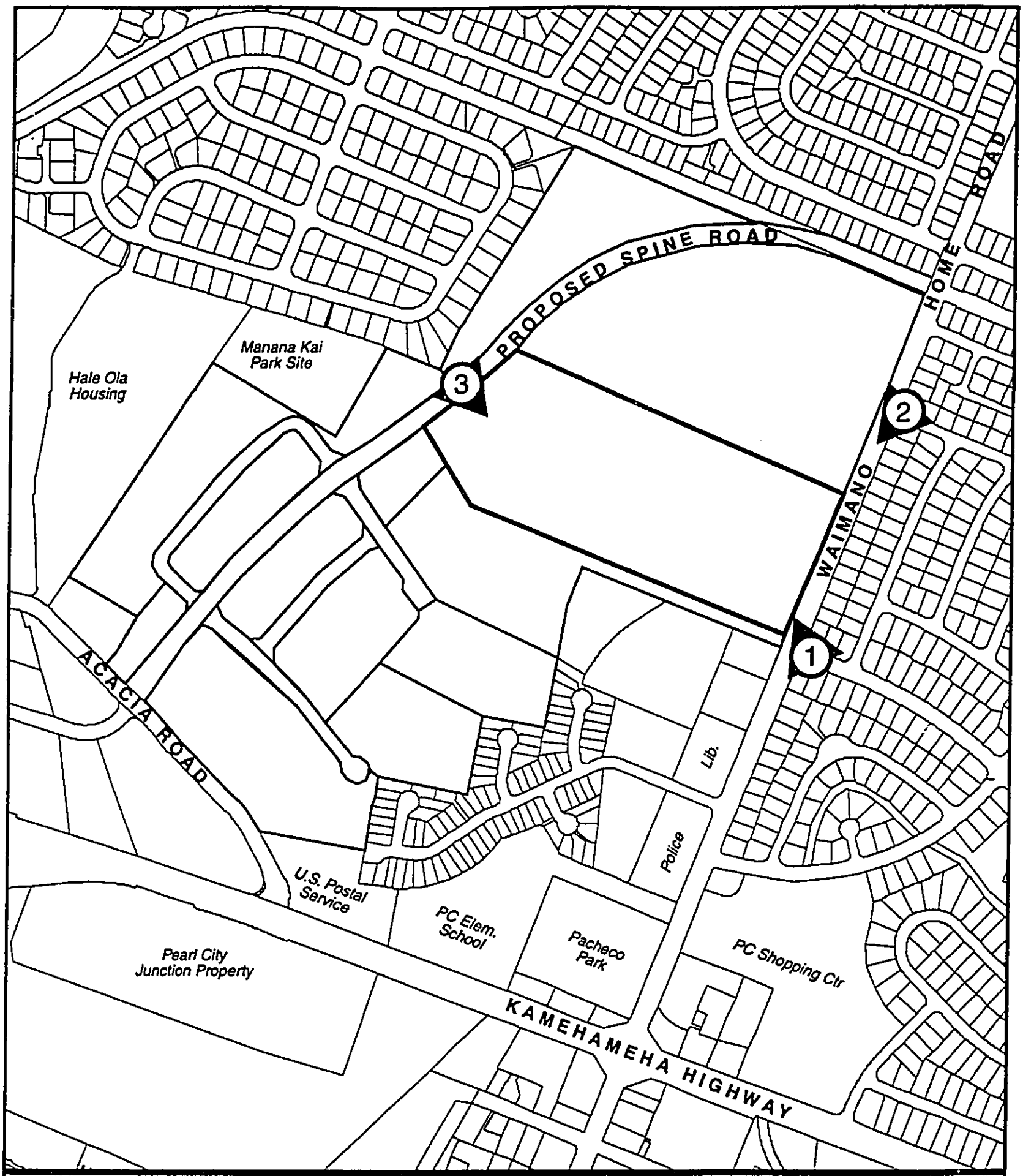
Scientific Consultant Services, Inc.'s report did not identify any potential historic, archaeological, or cultural resources. It concluded that, based on the extensive amount of disturbance to the property, the presence of historic or archaeological resources is unlikely. The State Historic Preservation Officer's March 25, 1996 letter to the City concurred with this conclusion. It determined that the proposed re-use of the Manana Storage Area, including the PCBF site, would have "no effect" on historic sites. In view of the foregoing, no native Hawaiian gathering rights are believed to be exercised on the PCBF site and are therefore not expected to be an issue.

3.6 SCENIC AND AESTHETIC RESOURCES

The existing view of the project area is dominated by light gray warehouses, chain link fences, and overhead utility lines (see Figures 3-7, 3-8, 3-9, and 3-10). Most of the existing structures are in some degree of disrepair, and there is little landscaping. The overall character of the property is one of industrial deterioration. Signs erected by the small number of occupants and occasional vegetation break the monotony.

Residential communities composed of single-family homes and medium-density multi-family townhouses are located adjacent to the project site and across Waimano Home Road. No unique or spectacular views presently exist, partially because the existing warehouses block the view of Pearl Harbor.

[3] "*Ahupuaa*" is a traditional Hawaiian land division. Ahupuaa are usually pie-shaped areas running from the sea to the mountains and encompassing a full range of microenvironments. Thus, they included fishing rights, cultivable land, upland timber and planting zones, and bird-catching and other resource areas in the highlands and mountains.



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SOURCE:
C & C of Honolulu, DLU, June 5, 1998

LEGEND:

1. View Angle for Figure 3-8 Photo
2. View Angle for Figure 3-9 Photo
3. View Angle for Figure 3-10 Photo

NOT TO SCALE

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FIGURE 3-7:

View Angle for Figure 3-8, Figure 3-9 and Figure 3-10

Pearl City Bus Facility
Environmental Assessment

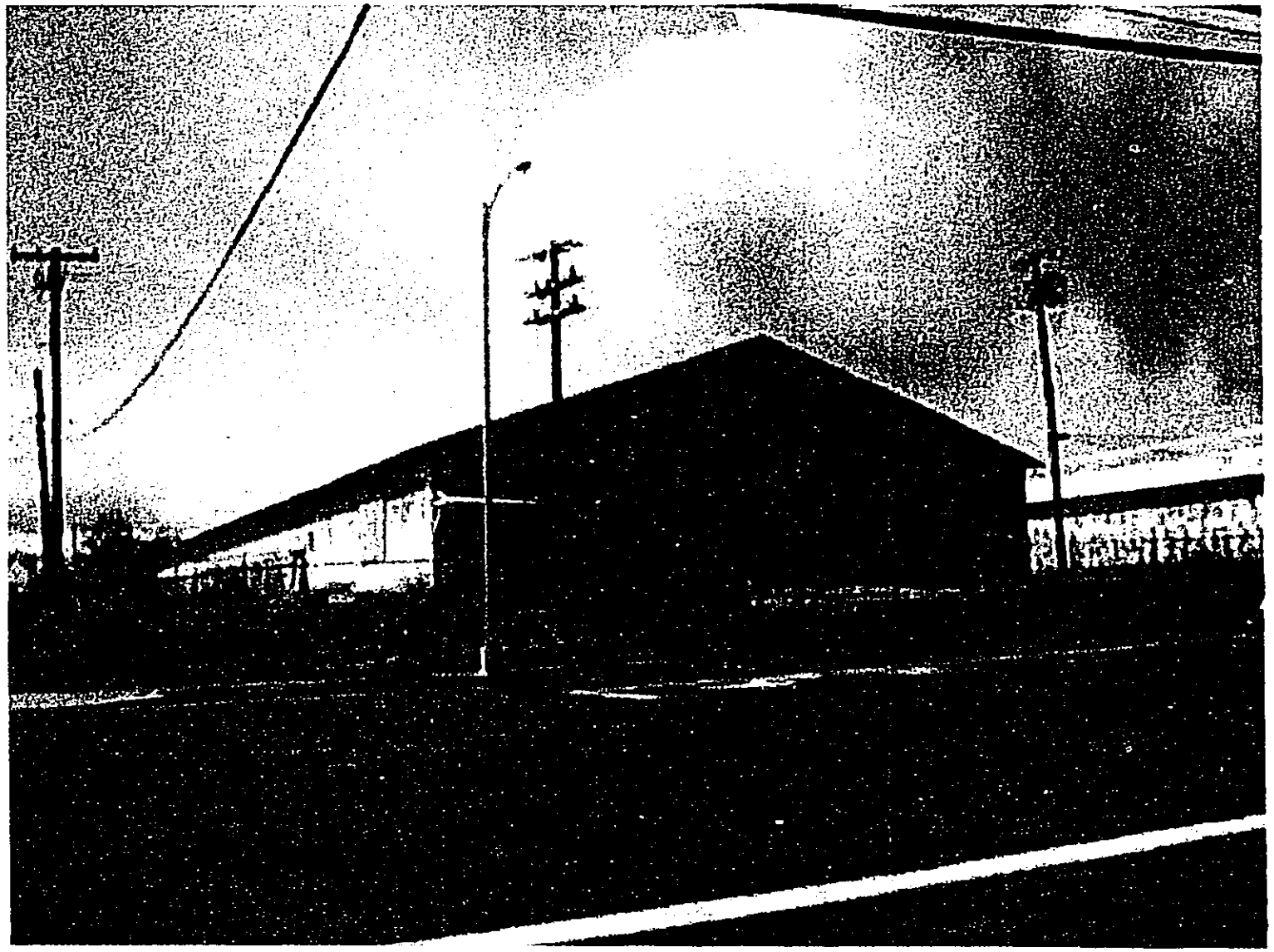

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FIGURE 3-8:

Existing View of Proposed Bus Facility Site from Hoomalu Street at Waimano Home Road

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility; Fig 3-8 Existing View Photo 23 8-98

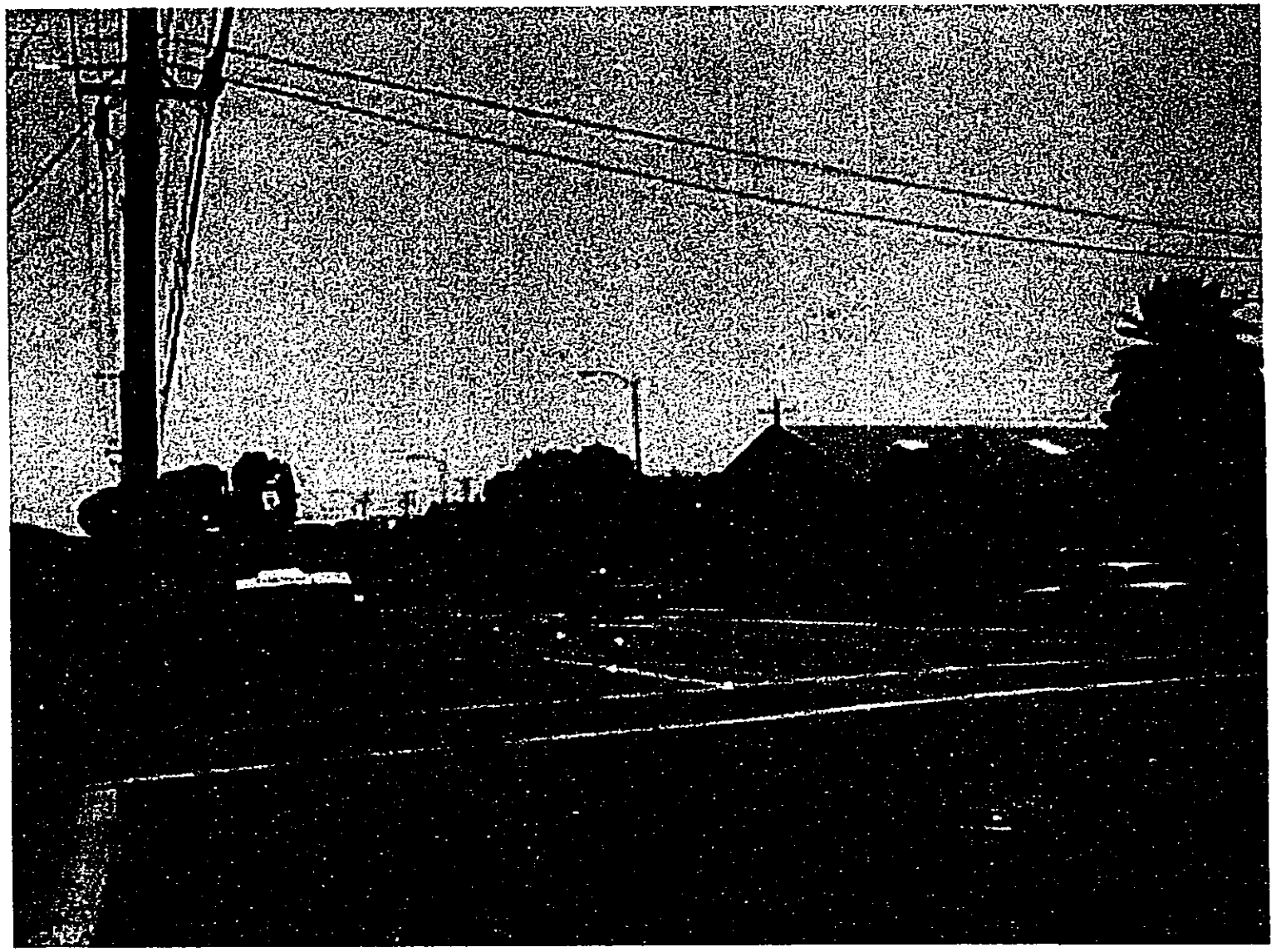

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FIGURE 3-9:
Existing View of Manana Storage Area from Wahinani Street at Waimano Home Road Looking Toward Proposed Bus Facility Site

Pearl City Bus Facility
Environmental Assessment

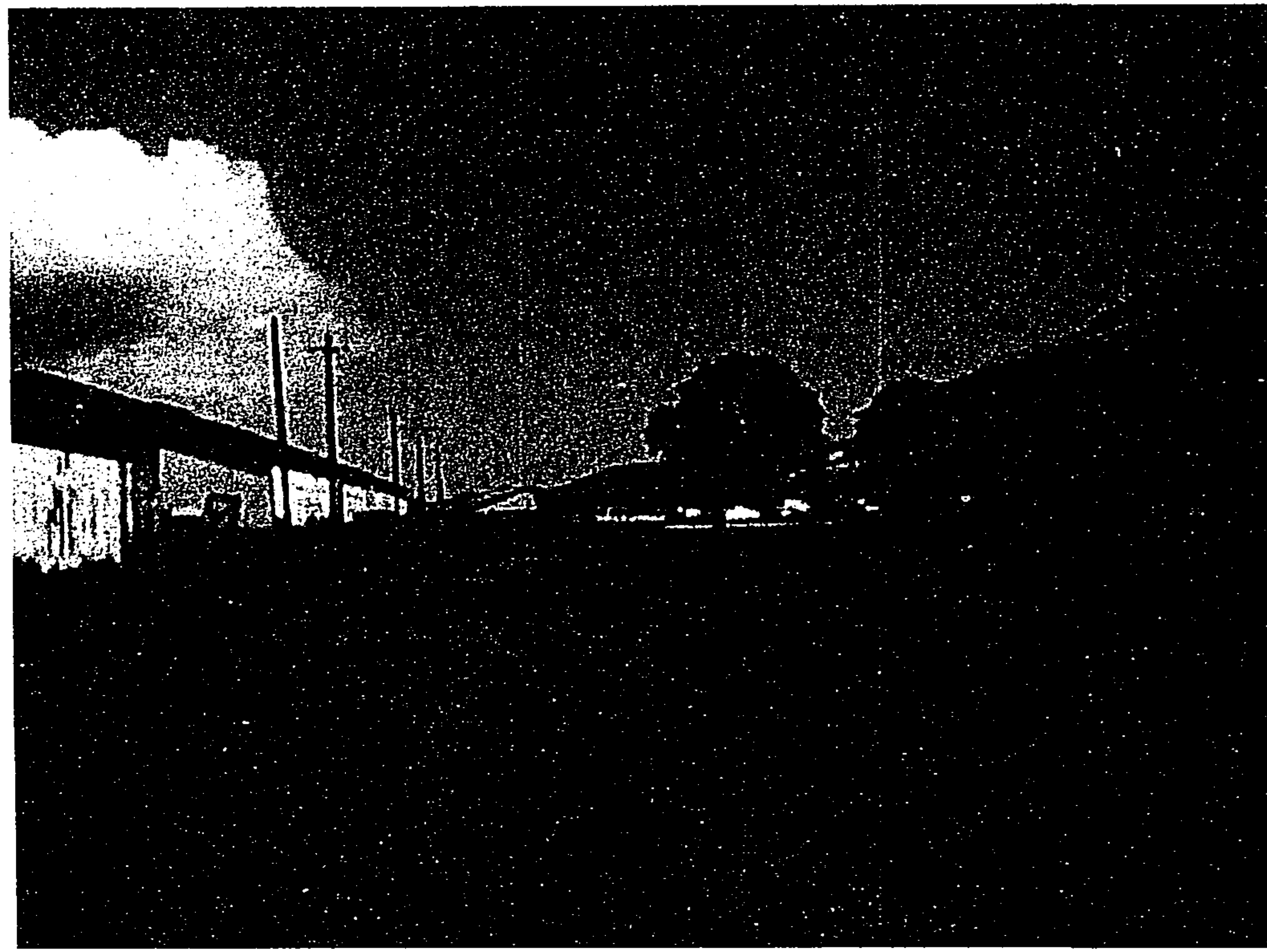

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FIGURE 3-10:

Existing View of Proposed Bus Facility Looking Eastward From Approximate Location of Proposed Spine Road

Pearl City Bus Facility
Environmental Assessment

CORRECTION

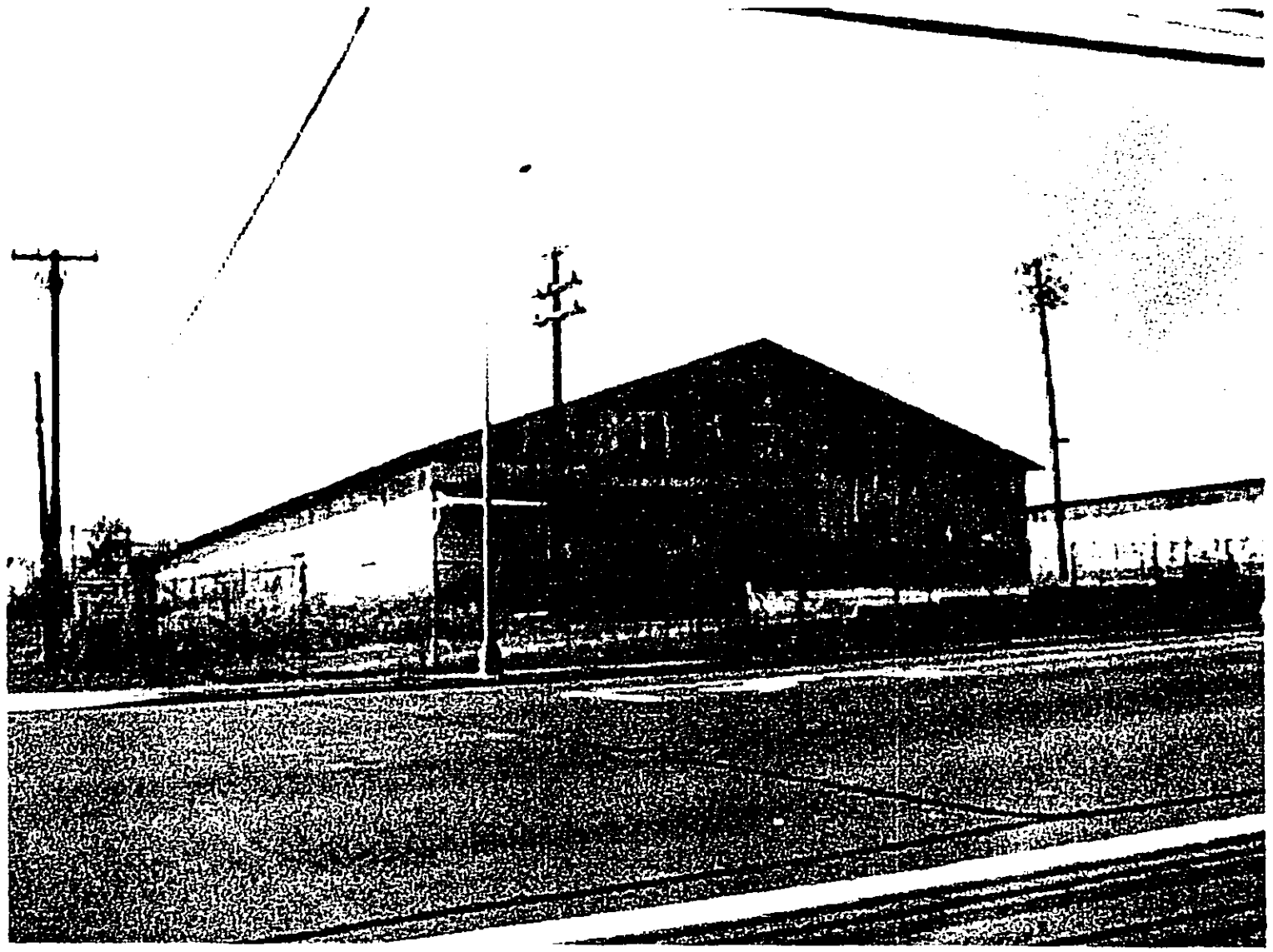

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FIGURE 3-8:

Existing View of Proposed Bus Facility Site from Hoomalu Street at Waimano Home Road

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility, Fig 3-8 Existing View Photo 73 4-6-98

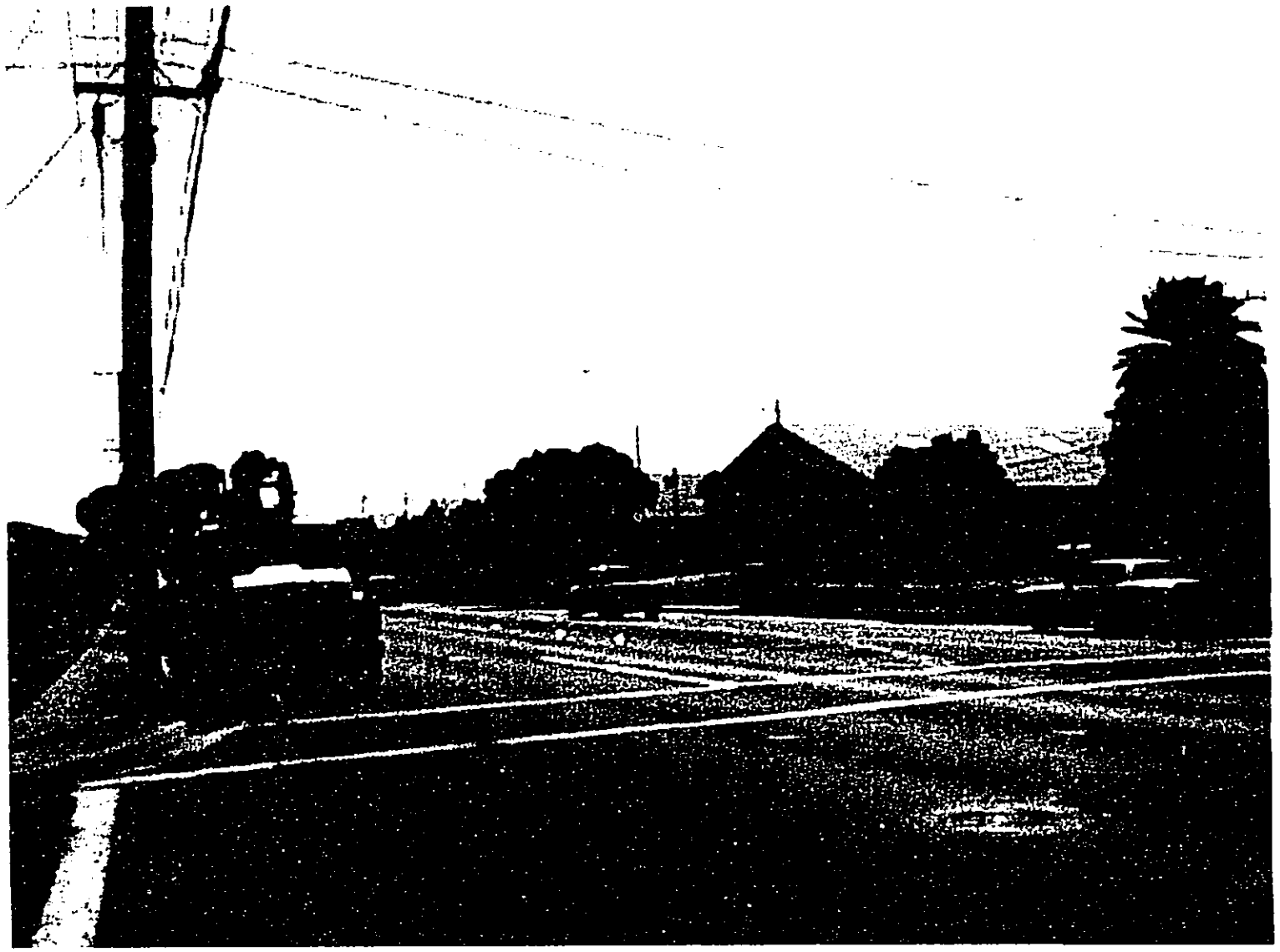

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FIGURE 3-9:
Existing View of Manana Storage Area from Wahinani Street at Waimano Home Road Looking Toward Proposed Bus Facility Site

Pearl City Bus Facility
Environmental Assessment

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SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
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NOT TO SCALE

FIGURE 3-10:

Existing View of Proposed Bus Facility Looking Eastward From Approximate Location of Proposed Spine Road

Pearl City Bus Facility
Environmental Assessment

3.7 ROADWAYS AND TRAFFIC

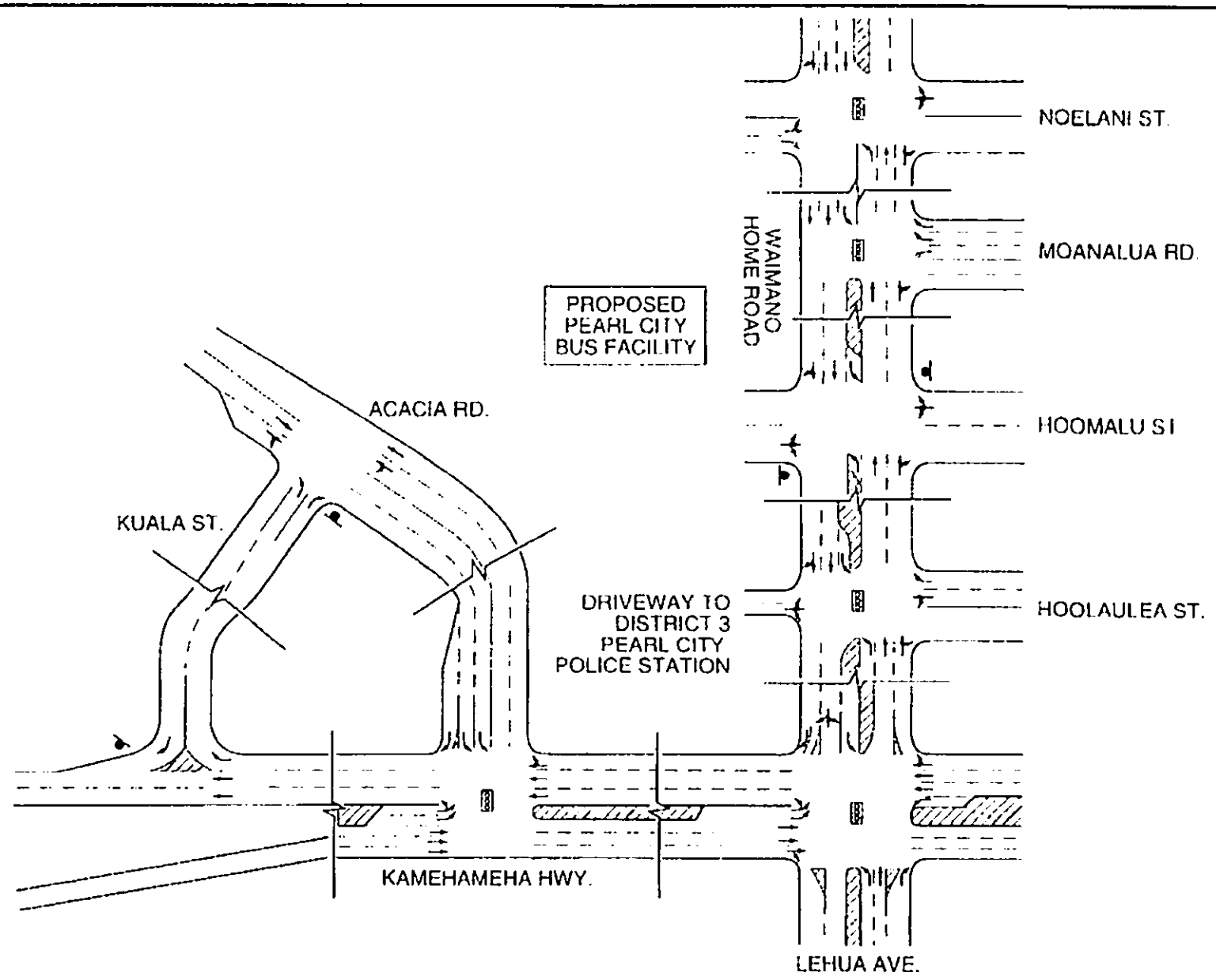
3.7.1 EXISTING ROADWAYS

Interstate H-1, Farrington Highway, Kamehameha Highway, and Moanalua Road provide regional and sub-regional access to the former Manana Storage Area. The location of these highways and streets are shown on Figures 3-11.

- The **H-1 Freeway** runs in an east-west direction *makai* of Kamehameha Highway and the PCBF site. Farrington Highway, Kamehameha Highway, and Interstates H-1 and H-2 interconnect at the Waiawa Interchange, approximately one mile west of the project area. The Waiau Interchange is the nearest H-1 interchange to the east of the project site, providing a connection between the freeway and Moanalua Road.
- **Farrington Highway** is a 4-lane divided major arterial roadway that carries traffic between the Waianae Coast and the Waiawa Interchange.
- In the vicinity of the project site, **Kamehameha Highway** is a six-lane, divided major arterial roadway with signalized intersections at Waimano Home Road and Acacia Road.
- In the vicinity of the Manana Storage Area, **Moanalua Road** is a 4-lane undivided arterial roadway. It currently terminates at a signalized intersection at Waimano Home Road.

Waimano Home Road/Lehua Avenue, Hoomalu Street, Hoolaulea Street, Acacia Road, and Kuala Street accommodate local circulation and access needs.

- **Waimano Home Road** is a four-lane, undivided collector road providing north-south (*mauka-makai*) access between the Pearl City Highlands residential area and Kamehameha Highway. It has signalized intersections at Kamehameha Highway, Hoolaulea Street, and Moanalua Road. Median left-turn lanes are provided throughout the segment between Kamehameha Highway and Moanalua Road. Waimano Home Road becomes Lehua Avenue *makai* of Kamehameha Highway; Lehua Avenue provides access and circulation for the Pearl City Peninsula.
- **Hoolaulea** and **Hoomalu Streets** are residential collector roads that provide access to Waimano Home Road and Moanalua Road. The Hoolaulea Street/Waimano Home Road intersection is signalized. The Hoomalu Street/Waimano Home Road intersection is an unsignalized, 4-legged intersection with stop-sign control on the Hoomalu Street approaches. The Moanalua Road intersections of both roadways are signalized.
- **Acacia Road** is a four-lane collector roadway from Kamehameha Highway to its intersection with Kuala Street. It is reduced to two lanes west of Kuala Street. Acacia Road provides access to the Pearl Highlands Center, the Pearl City Post Office, the Manana Naval Quarters, and the Century Park Plaza Condominiums. Its T-intersection with Kamehameha Highway is signalized.



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SOURCE:
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June 1998

LEGEND:

- Stop Sign
- Traffic Signal
- Break in Roadway Presentation

NOT TO SCALE

FIGURE 3-11:

Important Roadways in the Vicinity of the Manana Storage Area

Pearl City Bus Facility
Environmental Assessment

CORRECTION

3.7 ROADWAYS AND TRAFFIC

3.7.1 EXISTING ROADWAYS

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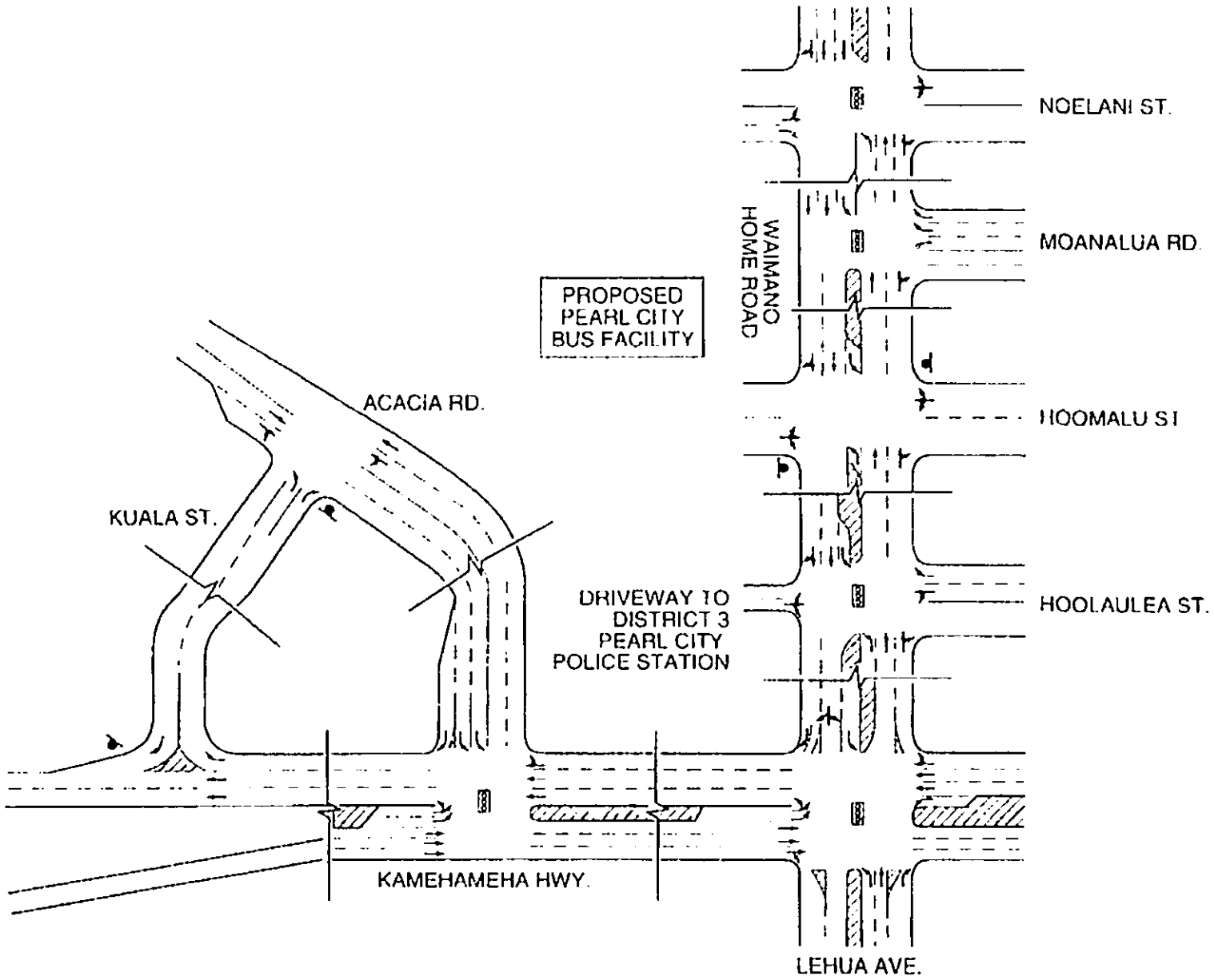

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PREPARED BY:
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Pacific Data Digitizing

SOURCE:
SSFM Engineers, Inc. / Parsons Brinckerhoff
June 1998

LEGEND:

- Stop Sign
- Traffic Signal
- Break in Roadway Presentation

NOT TO SCALE

FIGURE 3-11:

Important Roadways in the Vicinity of the Manana Storage Area

Pearl City Bus Facility
Environmental Assessment

Kuala Street is a two-way, two-lane connector road that links Kamehameha Highway and Acacia Road. It also provides access to the Pearl Highlands Center and the Century Park Plaza Condominiums. Its intersections with both Kamehameha Highway and Acacia Road are stop-controlled. No left-turns are allowed at the Kamehameha Highway intersection.

3.7.2 EXISTING PUBLIC TRANSIT

The Manana Storage Area is served by the bus routes shown in Table 3-5.

Table 3-5 Existing Bus Routes Serving Manana-Pearl City Area

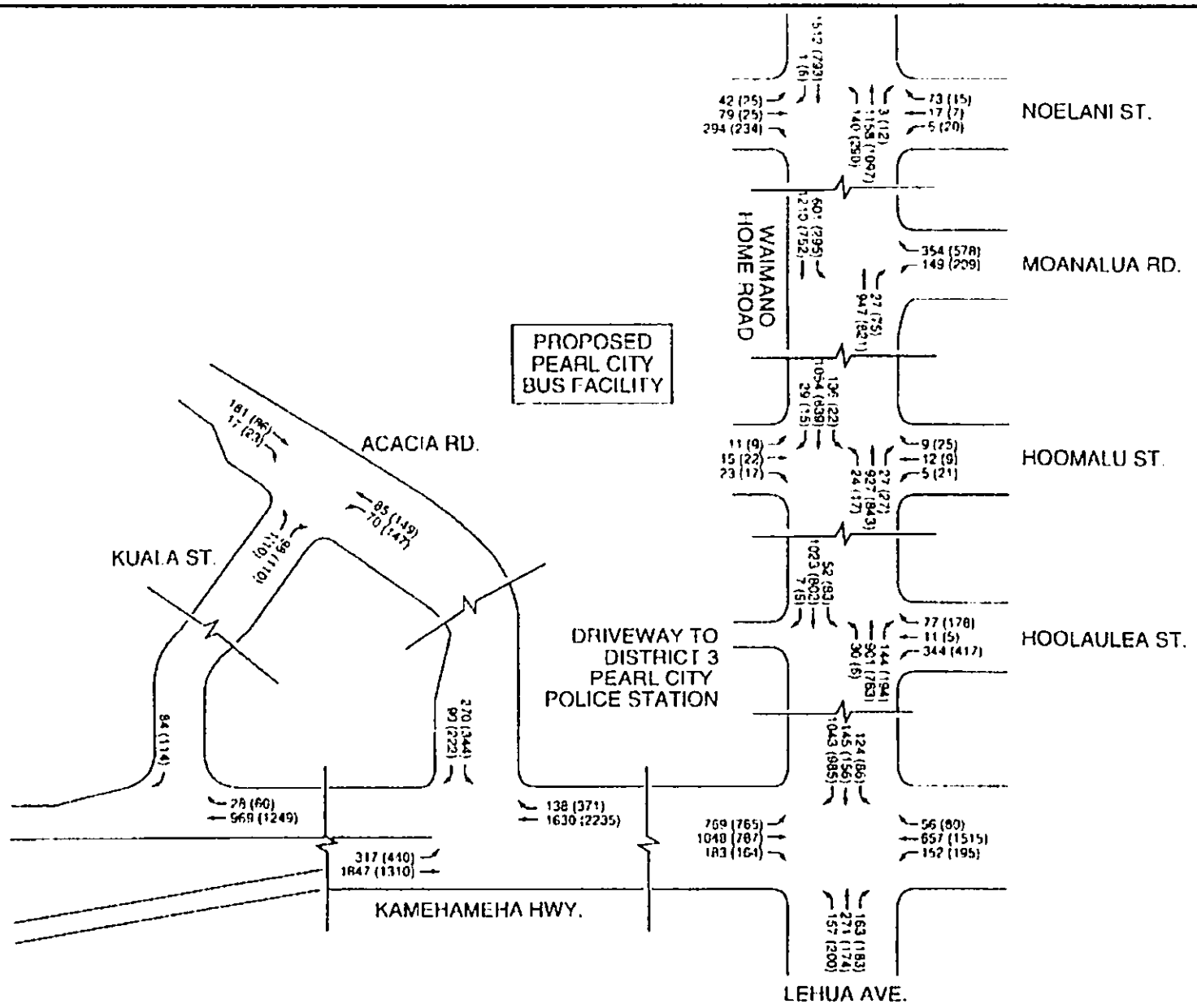
No.	Name	Type/Area of Service
47	Waikiki-Honolulu-Waipahu	Local service on Kamehameha Highway
48	Honolulu-Waikele-Ewa Mill	Local service on Kamehameha Highway
49	Honolulu-Ewa Beach	Local service on Kamehameha Highway
50	Honolulu-Village Park-Makakilo	Local service on Kamehameha Highway
52/55	Wahiawa/Kaneohe Circle Island	Local service on Kamehameha Highway
53	Honolulu-Pacific Palisades	Service on Waimano Home Road
54	Honolulu-Pearl City	Service on Waimano Home Road
62	Wahiawa/Wahiawa Heights	Local service on Kamehameha Highway
73	Leeward Community College/West Oahu College	Service on Waimano Home Road
90	Pearl City Express	Service on Waimano Home Road
94	Express Bus on Kamehameha Hwy	No stops in area

Source: SSFM Engineers, Inc./Parsons Brinckerhoff (June 1998). *Pearl City Bus Facility Complex: Analysis of Existing and Future Traffic Conditions.*

3.7.3 EXISTING TRAFFIC VOLUMES AND INTERSECTION PERFORMANCE

Traffic counts were taken at selected study area[4] intersections on March 18 and 19, 1998. The highest traffic volumes in the morning occurred between 7:00 a.m. and 8:00 a.m. The busiest 60-minute period in the afternoon occurred between 4:00 p.m. and 5:00 p.m. Peak-hour traffic and turning movements at these intersections are shown in Figure 3-12.

[4] For the purpose of the traffic impact analysis, the term "study area" refers to the area bounded by Kamehameha Highway on the south, Moanalua Road on the north, Waimano Home Road on the east, and Kuala Street on the west.



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SOURCE:
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June 1998

LEGEND:

(###) - AM (PM) Peak Hour Volumes

AM Peak Hour - 7:00-8:00 AM

PM Peak Hour - 4:00-5:00 PM

Break in Roadway Presentation

NOT TO SCALE

FIGURE 3-12:

Existing Peak Hour Traffic Volumes

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility Fig 3-12 Existing Peak Hour Traffic Volumes 8-6-98

Methodologies contained in the *1994 Highway Capacity Manual* were used to evaluate intersection operations at selected intersections in the vicinity of the proposed PCBF. This approach uses the concept of "level of service" (LOS) as an indicator of how well an intersection is able to accommodate a particular number of vehicles. (The rating system is on a scale of "A" to "F", with "A" being the best. LOS E is commonly considered acceptable during the peak hours of traffic flow in urban areas.) LOSs for signalized and unsignalized intersections are defined generally in terms of average user delays. Table 3-6 provides brief descriptions of each level of service for unsignalized and signalized intersections.

The results of the intersection analysis are summarized in Table 3-7. They indicate the following about traffic conditions on the roadways surrounding the PCBF.

- The signalized intersection of **Acacia Road and Kamehameha Highway** operates at an acceptable LOS D during the morning peak hour. However, congestion at the Waimano Home Road/Kamehameha Highway intersection produces queues that extend back to Acacia Road and affect movements there. U-turns from eastbound on Kamehameha Highway to westbound on Kamehameha Highway constitute a high percentage (65%) of the total movements at this intersection during the morning peak hour. During the afternoon peak hour, the overall LOS at this intersection is E. Ewa-bound Kamehameha Highway traffic is congested, and the vehicle queues in the through-lanes sometimes extend from Acacia Road to Waimano Home Road. Eastbound-to-westbound U-turns constitute approximately half the movements during the afternoon peak hour, a slightly lower percentage than in the morning. Moreover, they tend to be oriented more toward Sam's Club than toward the H-1 Freeway.
- The intersection of **Waimano Home Road and Kamehameha Highway** is congested during both the morning and afternoon peak hours. The traffic signal at the intersection must share green time between the high volume of through-traffic on Kamehameha Highway and vehicles on Waimano Home Road. Long queues accumulate eastbound on Kamehameha Highway during the morning peak hour. The situation is worst in the eastbound left lane; this is because the left-turn storage lane is too short to accommodate all the vehicles wishing to turn left onto Waimano Home Road. The resulting queue during the morning peak hour extends back into the through-lane on Kamehameha Highway, reducing its capacity. The southbound (*makai*-bound) curb lane on Waimano Home Road queues from Kamehameha Highway back to the Pearl City Library. Some of the curb lane congestion is caused by vehicles turning into the Pearl City Elementary School. During the afternoon peak hour, Kamehameha Highway is most congested at this intersection in the westbound direction. Long queues form in the curb lane during that period, often backing up to Puu Momi Street east of the Pearl City Shopping Center. The *makai*-bound curb lane on Waimano Home Road is also congested in the afternoon; much of this is due to the limits on red-cycle right turns associated with the heavy volume of U-turn movements made by vehicles traveling on Kamehameha Highway.

Table 3-6. Definitions of Level-of-Service (LOS) for Traffic Analyses.

UNSIGNALIZED INTERSECTIONS	
LOS A	Little or no delay
LOS B	Short traffic delays.
LOS C	Average traffic delays.
LOS D	Long traffic delays.
LOS E	Very long traffic delays.
LOS F	Demand volume exceeds capacity, resulting in extreme delay with queuing that may cause severe congestion and affect movements at other intersections.
SIGNALIZED INTERSECTIONS	
LOS A	Delay of less than 5 seconds per vehicle. This occurs when traffic progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all.
LOS B	Delays in the range of 5.1 to 15.0 seconds per vehicle. This generally occurs with good progression and/or short signal cycle lengths. More vehicles stop than in LOS A, causing higher delays.
LOS C	Delays in the range of 15.1 to 25.0 seconds per vehicle. These higher delays may result from fair progression and/or cycle lengths. Individual "cycle failures" (i.e., green light cycles when not all the waiting cars are able to get through the intersection during a single cycle) may begin to appear. Many vehicles still pass through the intersection without stopping.
LOS D	Delays in the range of 25.1 to 40.0 seconds per vehicle. Congestion becomes more noticeable at this level of service. Longer delays may result from a combination of unfavorable congestion, long cycle lengths, or high vehicle-to-capacity rations. Many vehicles stop at the intersection before passing through. Individual cycle failures are noticeable.
LOS E	Delays in the range of 40.1 to 60.0 seconds per vehicle. This is considered the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high vehicle-to-capacity ratios.
LOS F	Average delay exceeds 60.0 seconds per vehicle. This is considered unacceptable to most drivers. This level of service typically occurs when the number of vehicles arriving at the intersection exceeds its capacity (i.e., when the vehicle-to-capacity ratio is greater than 1.0). Poor progression and long cycle length may also be major contributors.

Source: SSFM Engineers, Inc./Parsons Brinckerhoff (June 12, 1998). *Pearl City Bus Facility Complex: Analysis of Existing and Future Traffic Conditions.*

Table 3-7. Existing Level-of-Service (LOS) at Selected Intersections.

Intersection	*A.M. Peak Hour 7:00 a.m.-8:00 a.m.*		*P.M. Peak Hour 4:00 p.m.-5:00 p.m.*	
	LOS	*Delay (sec/veh)*	*LOS*	*Delay (sec/veh)*
Acacia Road/Kamehameha Highway*	**D**	**26.1**	**E**	**52.4**
SB Left Turn	D	34.6	D	38.7
SB Right Turn	A	0.0	D	30.6
EB Left Turn	D	34.5	D	38.1
EB Through	D	35.9	A	3.2
WB Through/Right	C	16.0	F	84.0
Waimano Home Road/Kamehameha Highway*	**E**	**51.4**	**F**	**86.3**
NB Left	E	42.8	F	65.2
NB Through	E	58.1	E	53.2
NB Right	D	37.5	A	0.0
SB Left	D	37.8	D	38.3
SB Left/Through/Right	F	84.6	F	87.0
SB Right	C	23.4	F	86.8
EB Left	F	121.0	F	121.0
EB Through/Right	D	33.8	C	21.9
WB Left	E	57.1	F	79.3
WB Through/Right	E	43.8	F	127.9
Waimano Home Road/Hoolaulea Street*	**B**	**13.7**	**B**	**12.3**
NB Left	B	8.5	A	4.8
NB Through/Right	B	9.3	B	6.9
SB Left	C	19.5	E	46.1
SB Through/Right	B	8.4	B	6.5
WB Left/Through	E	41.9	D	28.0
WB Right	B	10.9	B	13.2
Waimano Home Road/Moanalua Road*	**E**	**49.5**	**B**	**13.0**
NB Through/Right	B	9.2	B	8.8
SB Left	F	227.0	C	20.4
SB Through	A	4.5	A	3.4
WB Left	D	31.1	D	34.3
WB Right	D	28.1	D	30.8
Kuala Street/Acacia Road**	**A**	**3.3**	**A**	**3.5**
NB Approach	A	0.0	A	0.2
EB Approach	A	4.2	A	3.6
WB Approach	A	4.6	A	4.9
Kuala Street/Kamehameha Highway**	**A**	**0.4**	**A**	**0.6**
SB Approach	B	5.3	B	6.9
Waimano Home Road/Hoomalu Street**	**A**	**1.5**	**A**	**1.4**
NB Approach	A	0.3	A	0.1
SB Approach	A	1.4	A	0.2
EB Approach	C	13.3	C	13.3
WB Approach	D	30.0	D	30.0

NB = northbound SB = southbound EB = eastbound WB = westbound **Bold Type** shows overall intersection LOS.
Source: SSFM, Inc./Parsons Brinckerhoff (June 1998), Tables 1 and 2. *= Signalized **= Unsignalized

- The signalized intersection of **Waimano Home Road and Hoolaulea Street** operates at an overall LOS B during both the morning and afternoon peak periods. The highest volume traffic movements are *mauka*- and *makai*-bound through movements on Waimano Home Road. In addition, left-turn movements from Hoolaulea Street onto Waimano Home Road *makai*-bound experience long delays. Vehicles that cut through the residential area in order to avoid the Moanalua Road/Waimano Home Road intersection appear to make up a substantial proportion of the total number making this movement. In the morning, much of this "cut-through" traffic seems to be related to school and Leeward Community College/West Oahu College trips. In the afternoon, the short-cut is used more by vehicles traveling to and from the Pearl Highlands Center/Sam's Club area.
- The signalized intersection of **Waimano Home Road and Moanalua Road** is congested primarily during the morning peak period. Traffic is heavy during the afternoon peak period, but the intersection operates at an acceptable level of service. In the morning, heavy queuing occurs in the left turn lanes from Waimano Home Road *makai*-bound onto Moanalua Road eastbound. Part of the problem at this intersection is the fact that the Moanalua Road and Noelani Street intersections with Waimano Home Road are so close together that the signal timing must be coordinated between the two, resulting in less-than-optimal phasing for this intersection.
- The unsignalized intersection of **Kuala Street and Acacia Road** operates well during both the morning and afternoon peak hours. Field observations indicate that drivers using the westbound approach on Acacia Road behave as though there were separate through- and left-turn lanes, even though the pavement is not striped for that. Consequently, the westbound approach operates better than it otherwise would.
- The unsignalized intersection of **Kuala Street and Kamehameha Highway** operates very well. Movements are restricted to right-in and right-out, and delays are minimal.
- The westbound and eastbound approaches to the intersection of **Waimano Home Road and Hoomalu Street** have low peak-hour traffic volumes (fewer than 30 vehicles per hour). However, because through-traffic on Waimano Home Road is heavy, vehicles using this unsignalized intersection experience substantial delays. Through-traffic and vehicles turning onto Hoomalu Street from Waimano Home Road experience little delay during the peak hours.

In summary, traffic in the vicinity of the proposed PCBF is already heavy during the morning and afternoon peak traffic hours.

3.8 PUBLIC SERVICES AND FACILITIES

A number of public services are provided by facilities located near the Manana Storage Area (see Figure 3-13). These facilities include the following:

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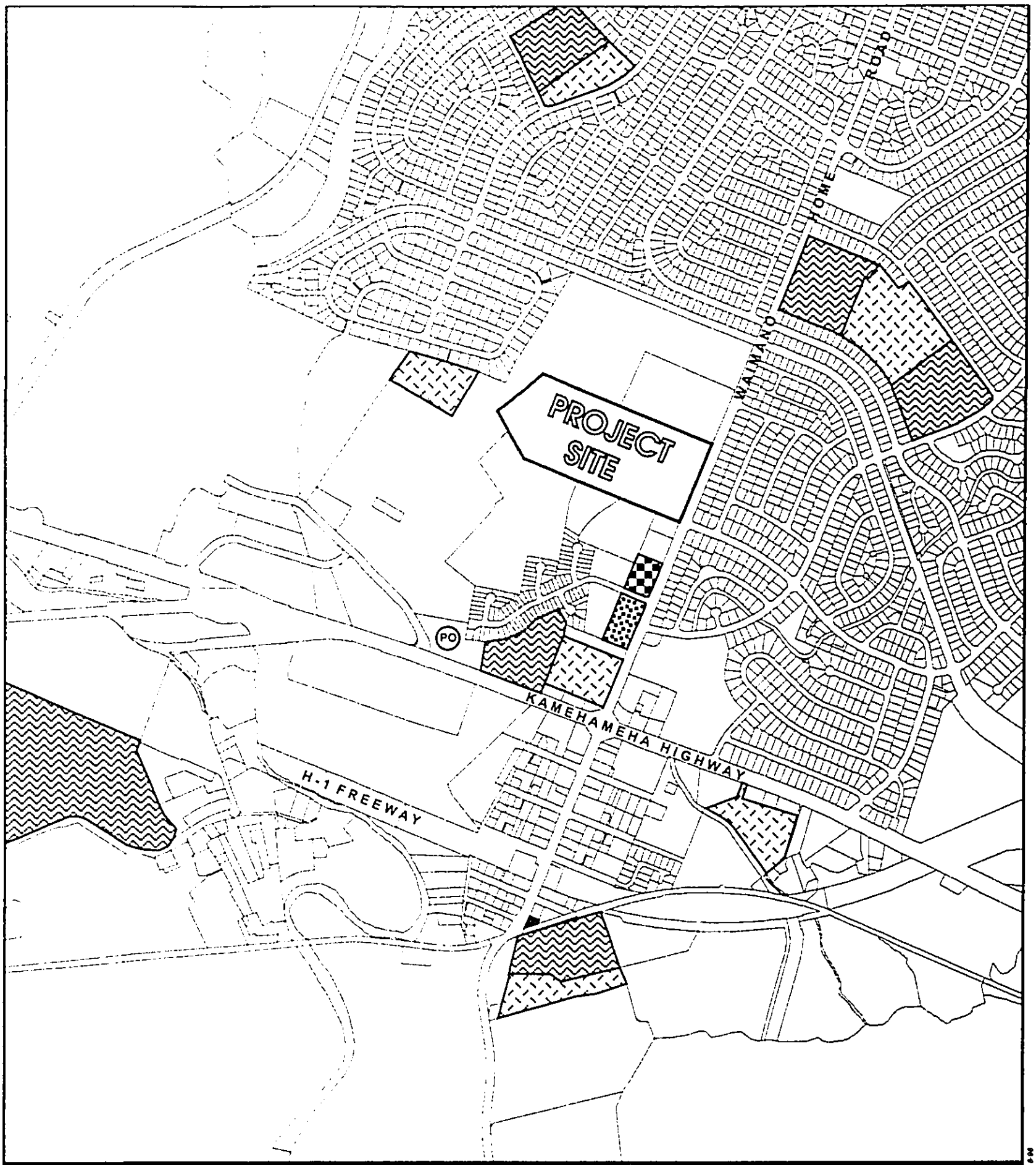

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SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
C & C of Honolulu, DLU,June 5, 1998.

LEGEND:

- Project Site
- Fire Dept.
- Library
- Parks & Recreation Centers
- Police Department
- Schools & Colleges
- Post Office (PO)

0 2000 Feet

N

FIGURE 3-13:

Location of Nearby Public Facilities

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility, Fig 3-13 Location of Nearby Public Facilities, 8-9-98

- **Recreational Facilities.** Manana Kai Park is located approximately 300 feet *Ewa* (west) of the PCBF site. It will be separated from the PCBF by the proposed Spine Road and by the commercial development planned along the *Ewa* side of that roadway near the PCBF site. Manana Neighborhood Park is situated *mauka* (north) of the Manana Kai Park adjacent to Manana Elementary School; it is about 1,500 feet from the proposed PCBF. The Pearl City District Park is located along Hoomaemae Street approximately 0.4 mile northeast of the PCBF site. Pacheco Neighborhood Park is located on the northwest corner of Kamehameha Highway and Waimano Home Road; its nearest point is approximately 0.4 mile from the PCBF site.
- **Libraries.** The Pearl City Regional Library is situated on Waimano Home Road a few hundred feet *makai* of the Manana Storage Area boundary.
- **Schools.** Several public schools are located within approximately one mile of the project site. Pearl City Highlands Elementary School is situated on Waimano Home Road just *mauka* of its intersection with Moanalua Road. Pearl City Elementary School is located *makai* of the Manana property along Kamehameha Highway. Manana Elementary School is approximately one mile northwest of the site. Lehua Elementary School is located makai of the H-1 Freeway, a little less than 1 mile from the project site. The nearest intermediate school, Pearl City Highlands Intermediate School, is situated *mauka* of Moanalua Road to the east of Pearl City Highlands Elementary School. Pearl City High School is located over 1.5 miles from the project site.
- **Colleges.** Leeward Community College, part of the University of Hawaii system, is approximately one mile southwest of the proposed bus facility, just *makai* of the H-1 Freeway. West Oahu College is collocated with Leeward Community College.
- **Hospitals and Clinics.** Two acute-care hospitals serve the area. One is the Kapiolani Hospital at Pali Momi, which is located along Moanalua Road in Aiea approximately 3 miles east of the Manana Storage Area property. The other is the St. Francis Medical Center. It is located at the intersection of Farrington Highway and Fort Weaver Road, about 4 miles southwest of the Manana Storage Area property.
- **Fire Stations.** Two fire stations are located within a mile of the PCBF. The Pearl City Station is situated *makai* of the Manana Storage Area off Lehua Avenue. The Waiau Fire Station is located at the intersection of Kaahumanu Street and Komo Mai Drive east of the proposed PCBF site.
- **Police Stations.** The Pearl City Police Station is located along Waimano Home Road immediately *makai* of the Pearl City Library.

3.9 INFRASTRUCTURE

3.9.1 STORM DRAINAGE SYSTEM

Stormwater from the Manana Storage Area flows into the City storm drainage system which transports flow to the Waiau and Waiawa Streams via lined open channels and underground conduits. This system is described above in Section 3.3.4.1.

3.9.2 WATER SUPPLY

The Manana Storage Area site is located in the Board of Water Supply (BWS) 285 service area. Up until July 1998, the Navy was providing water from its own private system for the users located in the overall Manana Storage Area. The BWS has installed a temporary FM master meter and is currently providing water to the area. The City expects to install a permanent water system as described in Chapter 4 as part of its infrastructure development effort for the overall Manana Storage Area.

The existing BWS system serving the surrounding area has a total storage capacity of 3.5 million gallons (mg). It is comprised of the Pearl City Reservoir (1.5 mg), the Waiau Reservoir (1.0 mg), and the Newtown Reservoir (1.0 mg). Water sources include the Pearl City Shaft and a number of wells (see Section 3.3.4.2. for related discussion). Water mains are currently located along Waimano Home Road, Moanalua Road, Kamehameha Highway, Acacia Road, and the cane haul road that bounds the *mauka* side of the Manana parcel (Community Planning, Inc., December 1995; September 1997).

3.9.3 WASTEWATER

Currently, the Manana Storage Area is serviced by a Navy-owned sewer main that connects to the City's Department of Environmental Services system *makai* of the Pearl City Junction parcel. The existing eight-inch sewer line passes through the Kauhale Manana Subdivision, crosses Kamehameha Highway where it increases in diameter to ten inches. This line eventually connects to the City's Pearl City Wastewater Pump Station. Wastewater is sent from there to the Honouliuli Wastewater Treatment Plant.

3.9.4 ELECTRICAL AND TELECOMMUNICATION SYSTEMS

The project site is currently served by an existing Hawaiian Electric Company (HECO) 11.5 kV (kilovolt) overhead line that runs along Waimano Home Road. It enters the site near the intersection of Waimano Home Road and Hoomalu Street. Electrical usage is metered (measured) only at this location, not at the individual buildings (R. Ho & Associates, April 1998). This metered line runs overhead throughout the project site. In addition, there are both underground and overhead 46kV lines along Kamehameha Highway and an overhead line running through the Pearl Highlands property.

GTE Hawaiian Telephone (HTCo) has existing underground telecommunication lines along both Kamehameha Highway and Waimano Home Road. The subdivision *Ewa* (west) of the

Manana Storage Area is served by overhead and underground HTCo lines installed along the existing cane haul road *mauka* of the project site.

Oceanic Cable Company (CATV) has existing overhead lines along Acacia Road, Waimano Home Road, and Kamehameha Highway.

CHAPTER 4

POTENTIAL ENVIRONMENTAL CONSEQUENCES AND MITIGATION

Chapter 4 identifies the types of impacts expected to result from construction and operation of the proposed bus facility and, to the extent possible, quantifies those impacts. This chapter is based on the conceptual design described in Section 2.5 (the "Preferred Alternative") and the overview of existing conditions contained in Chapter 3. Proposed mitigation measures are included where appropriate. The potential effects associated with the "No Action" alternative are explored as well.

4.1 EFFECTS ON LAND USE AND DEVELOPMENT

4.1.1 PREFERRED ALTERNATIVE

The City already owns the 21-acre project site, as well as the other land in the Manana Storage Area. Consequently, no land acquisition is needed.

The City plans to demolish the existing structures on the site as part of the proposed action. This will entail the removal of warehouses 19-22, 26-29, and 35-37.[1] The City's agreements with the existing non-City tenants are on a month-to-month basis. They are required to vacate the warehouses one month after receiving written notification from the City. City agencies are subject to the Administration's decisions and will move whenever necessary. Information on the existing users is summarized below.

Name of Organization	*Warehouse No.*	*Term*	*Lease Start Date*
Victory-Ohana Prison Fellowship	27	2 year	February 1, 1998
Eckard Brandes, Inc.	30 (half)	2 year	August 15, 1997
Project Renewal	26 & 28	2 year	Not awarded yet
Angel Network Charities, Inc.	36	2 year	April 1, 1998
Adams Computer Institute	37 (half)	2 year	May 1, 1998
Honolulu Police Department	19	N/A	N/A
Dept. of Transportation Services	20 & 29	N/A	N/A
Building Department	21	N/A	N/A

At present, only DTS' TheHandi-Van facilities have an assured permanent home (at the City's Halawa bus facility). The others must find alternate facilities by the time construction

[1] Warehouses 19, 21, and 22 extend beyond the boundary of the PCBF. DTS is coordinating its activities with the Department of Design and Construction and the Honolulu BWS to insure compatibility of the demolition plans for the separate structures.

begins. TheHandi-Van operation must also find temporary quarters from which to operate until the existing bus operations move from Halawa to the PCBF.

Several aspects of the proposed facility would affect the surrounding community, and particularly those neighbors immediately adjacent to the project site. Potential impacts associated with traffic, noise, air quality, and visual changes (including those related to facility lighting) are discussed in detail in subsequent sections of this chapter. The most basic and fundamental changes would occur as a result of replacing the old warehouses with modern bus maintenance facilities operating 24 hours a day.

4.1.2 NO ACTION ALTERNATIVE

The No Action alternative would result in no immediate changes in land use or the community. The City would eventually put the project site to an alternate urban use. The existing tenants would be required to relocate at some point in the future. In the meantime, the existing warehouses would remain underutilized.

4.2 TOPOGRAPHIC CHANGES

4.2.1 PREFERRED ALTERNATIVE

As noted in Chapter 3, the original topography of the project site was first modified while the area was used for sugarcane cultivation. It was graded to its existing configuration at the time the U.S. Navy constructed the existing warehouses on the property. Relatively minor changes in topography are needed to replace the existing warehouses with the proposed bus facilities. These changes will be in accordance with the Preliminary Drainage Master Plan for the Manana Storage Area redevelopment (Community Planning, Inc., December 1997). A drainage divide will be created along a north-south line just east of the Maintenance and Division Stores Building. The ground will slope gently away from the divide to the southeast and southwest. The maximum grade change between the existing and proposed conditions is approximately four feet. Retaining walls will be constructed along most of the *mauka* (northern) property line. A similar structure may be constructed along a portion of the *makai* (southern) property line on either side of the drainage divide. Approximately 40,000 cubic yards of excess material will be trucked from the site for disposal elsewhere. Depending upon the grading plans developed for the other sites within the Manana Storage Area, it may be possible to use the excess material on them. Some material would be imported to the site for use in constructing roadway subgrades, foundations, and other features.

4.2.2 NO ACTION ALTERNATIVE

The No Action Alternative would not immediately affect the topography of the site. However, it should be noted that plans for the construction of the proposed Spine Road along the *Ewa* (western) side of the PCBF site assume that the bus facility will be constructed as planned. If it is not, grade changes that will be made for road construction may create grade differences along this boundary that effectively cut off access to the site from this side. In view of the City's commitment to use its Manana Storage Area property fully, it is likely that the site will eventually be graded much as it would be if the PCBF were constructed.

4.3 SOILS IMPACTS

4.3.1 PREFERRED ALTERNATIVE

The soils on the project site are already highly disturbed. Much of the site is covered with asphaltic concrete paving or concrete building foundations. They do not have any agricultural potential. Consequently, the only potential soil-related effect of the proposed action is a temporary increase in erosion during the construction period. As discussed in the "construction impacts" section of this chapter, the contractor will minimize this using accepted best management practices.

4.3.2 NO ACTION ALTERNATIVE

The No Action Alternative will not immediately affect soils. However, in view of the fact that the site would eventually be put to alternate urban use, the No Action Alternative would simply delay the grading.

4.4 HYDROLOGIC IMPACTS

4.4.1 PREFERRED ALTERNATIVE'S EFFECT ON SURFACE WATER AND FLOODING

As noted in Chapter 3, there are no surface water bodies or wetlands on the PCBF site. Consequently, construction of the proposed facilities will not directly affect these resources. The site is outside identified flood hazard areas. The effects that development of the PCBF and the remainder of the Manana Storage Area property would have on runoff, streamflow, and water quality are discussed below.

4.4.1.1 Drainage Patterns and Runoff Volumes

The PCBF is one part of the master planned redevelopment of the Manana Storage Area. A new drainage system will be installed as part of the overall redevelopment. Because storm runoff from the PCBF will flow into this new system, the following discussion addresses changes associated with redevelopment of the entire Manana Storage Area, not just that specific to the PCBF. The conceptual drainage map showing runoff directions is shown in Figure 4-1.

Based on the current master plan for the Manana Storage Area, Community Planning, Inc. (December 1997: 3-4), calculated that the 109-acre property would generate approximately 340 cubic feet per second (cfs) of storm runoff following its redevelopment. It estimated that about 18 percent of that (62 cfs) would flow to Waiau Stream; the remainder (278 cfs) would flow into Waiawa Stream.[2] The total runoff is approximately 9 cfs less than the existing runoff from the area of 350 cfs. The amount draining into the Waiau Basin would decrease by about 29 cfs; the amount draining into Waiawa Stream would increase by about 20 cfs.

[2] Community Planning, Inc. (December 1997) made these estimates using the rational method outlined in the City & County of Honolulu *Storm Drainage Standards* dated May 1988. The estimates are for recurrence intervals of 10 or 50 years depending upon the basin size. The calculations are contained in Section V of Community Planning, Inc.'s report.

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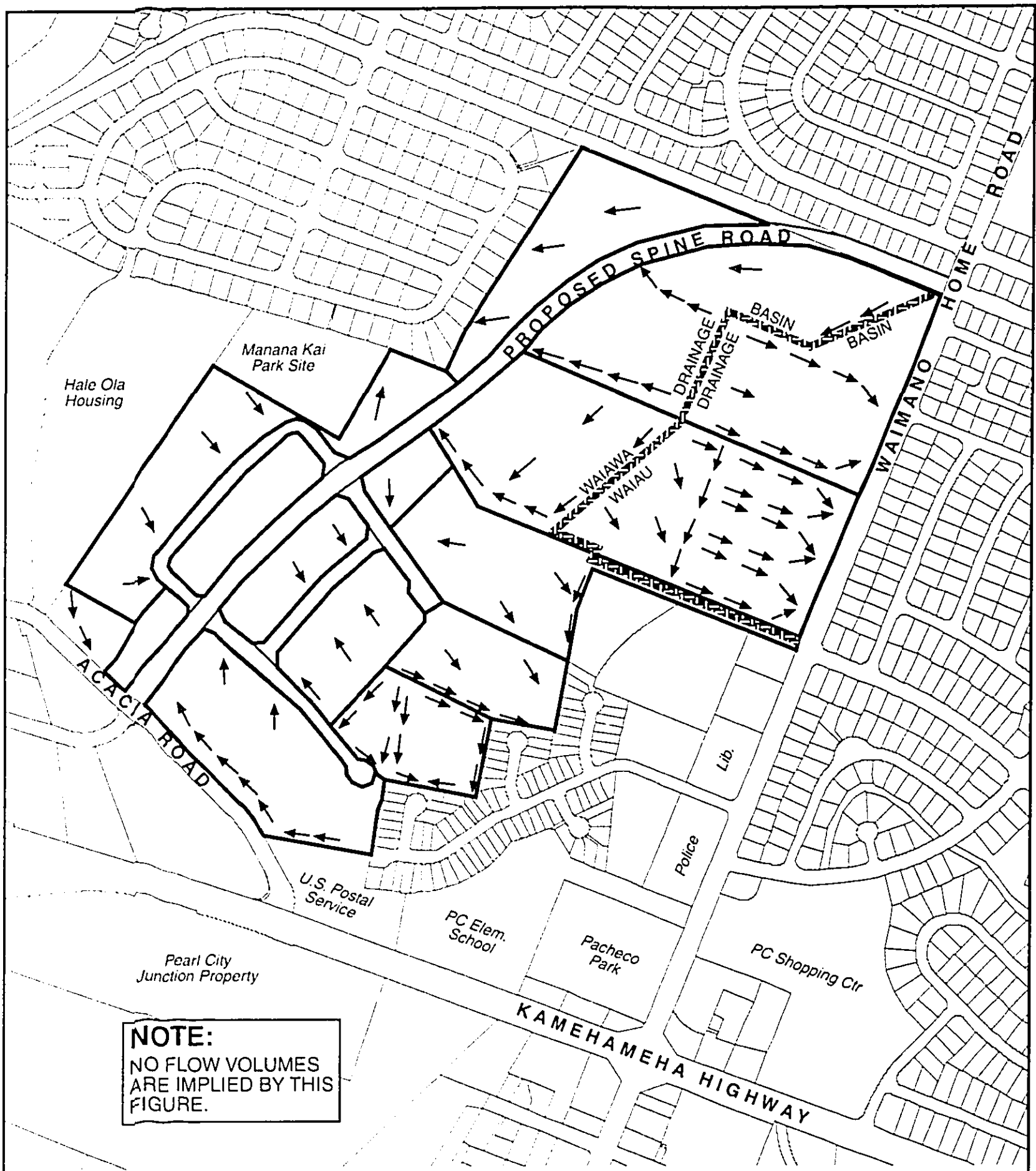


PREPARED FOR:
SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
Community Planning Inc., Jan. 6, 1998
C & C of Honolulu, DLU, June 5, 1998

LEGEND:

- Drainage Direction
- Property Boundary
- Waiawa/Waiau Drainage Basin Boy

NOT TO SCALE

N

FIGURE 4-1

Runoff Map for the Redeveloped Manana Storage Area Property

Pearl City Bus Facility
Environmental Assessment

This change is shown in tabular form below:

Scenario	Stormwater Runoff from Manana Storage Area by Stream Drainage Basin		
	Waiau Stream	Waiawa Stream	Total
Existing Conditions	91 cfs	258 cfs	349 cfs
After Redevelopment	62 cfs	278 cfs	340 cfs
Net Change	*-29 cfs*	*+20 cfs*	*-9 cfs*

Community Planning, Inc., concluded that the small change in runoff would not have a substantial effect on the size of the area subject to flooding. The same drainage study evaluated the ability of existing and proposed storm drainage structures to accommodate the forecast runoff volumes. Based on the estimates summarized in Table 4-1, it concluded that the storm drainage system would be adequate.

Table 4-1 Change in Discharge at Selected Points

		Tributary Area (in acres)		Forecast Runoff (in cfs)	
Drainage Basin	**Drainage Feature**	**Existing**	**Proposed**	**Existing**	**Proposed**
Waiawa Stream Drainage Basin	12"x 9" Kuala St. Box Culvert	305	345	1,762	1,905
	12"x9" Kuala St. Box Drain	314	345	1,810	1,905
	Double 30" Kamehameha Hwy. Culverts	15.9	0.92	50.1	3.1
	36" Culvert Across Kamehameha Hwy.	10.71	10.71	33.7	33.7[3]
	48" Kamehameha Hwy. Culvert	12.18	7.5	38.4	31.7
Waiau Stream Drainage Basin	42" Pearl City Shopping Center Drain line	14.01	16.44	44.2	47.8[4]
	48" Pearl Harbor View Lots Drain line	14.89	6.40	46.9	21.2

Source: Community Planning, Inc. (December 1997)

4.4.1.2 Surface Water Quality

Operation of the PCBF will involve buses and other vehicles that contain sizable amounts of petroleum products. Brake systems, catalytic converters, and other vehicle components also

[3] This assumes that a supplemental 18" pipe drainage system would be installed within the Pearl City Post Office site. This pipe would be connected to existing grate inlet #3. It would accommodate 7.0 cfs from 2.1 acres of the redevelopment area.

[4] The existing drain system can only accommodate 40.8 cfs. Consequently, the outflow from the park adjacent to the PCBF site will be limited to 12.9 cfs, approximately 7 cfs less than the 19.8 cfs that it is expected to generate. The 7 cfs difference will need to be retained within the park site.

have the potential to affect water quality adversely if allowed to escape into the environment. Similarly, maintenance and repair activities entail the use and handling of potentially polluting materials and chemicals. These include metals, petroleum products, air-conditioning refrigerants, paints, and solvents.

The design of the proposed facility provides for potential contaminants to be stored and used in enclosed areas. Spill containment will be provided for all areas where substantial amounts of chemicals are handled. Water from the bus wash facility will be collected, treated, and recycled. When dirty washwater is occasionally purged from the system, it will be discharged to the sanitary sewer.

Stormwater runoff from the parking areas will be passed through oil-water separators. Some petroleum products will remain, however, and find their way into the storm drainage system, eventually reaching Pearl Harbor. This already occurs to a limited extent as a result of vehicle use and storage on the areas around the existing warehouses. The intensity of vehicle use of the area will increase substantially over present levels if the PCBF is constructed, however, resulting in greater concentrations of petroleum products in surface runoff. DTS expects that the oil-water separators provided by the proposed design will remove enough pollutants from the stormwater to maintain adequate water quality.

4.4.2 PREFERRED ALTERNATIVE'S IMPACTS ON GROUNDWATER

4.4.2.1 Groundwater Recharge Volume

Construction and operation of the PCBF will not have a substantial effect on the rate of groundwater recharge. There are two principal reasons for this. First, much of the site is already covered with buildings, asphaltic concrete paving, and other impermeable surfaces. Consequently, there is little opportunity for rainfall to infiltrate into the ground. Second, the site is located in an area that has moderate rainfall and relatively high amounts of sunshine. Hence, nearly all of the rainfall that does fall and infiltrate into the ground is lost to evaporation before it can recharge the aquifer. Little change is expected as a result of the proposed PCBF.

4.4.2.2 Groundwater Quality

Operation of the PCBF will involve on-site storage and use of petroleum products and other chemicals. If not properly stored and used, these have the potential to contaminate the soil and, eventually, the groundwater. Groundwater contamination is of particular concern in view of the site's proximity to existing and planned potable water wells.

The proposed PCBF is being designed to insure that such contamination does not occur. Plans for the facility provide spill containment for potential contaminants. The Stormwater Pollution Control Plan and Spill Prevention and Control Plan that are required for the facility will formalize training and operational procedures that promote its proper operation and maintenance. Refueling areas will be inspected and cleaned daily. Bus service areas will be equipped with oil-water separators, spill prevention measures, and clean-up kits.

4.4.3 NO ACTION ALTERNATIVE

Over the short term, the No Action Alternative would continue use of the PCBF as-is. The existing warehouses and parking areas would continue to be used by short-term lessees. Surface runoff volumes and quality would remain unchanged. The number of vehicles would be less than if the PCBF were constructed, and consequently, there would be less petroleum and other chemicals present and used on the site. At the same time, the existing bare areas (which are sources of erosion that can lead to sedimentation in receiving waters) would remain rather than being grassed or covered with impermeable surfaces.

Over the long-term, alternate urban uses would be developed on the site. These are unlikely to result in lower runoff volumes or less than the already minimal effect on groundwater recharge. To the extent that such alternate uses involve fewer petroleum products, chemicals, and other potential contaminants on the property, the risk of contamination could be lessened relative to the "with-project" condition.

4.5 NOISE IMPACTS

4.5.1 NOISE STANDARDS AND GUIDELINES

Local and federal agencies have established regulations, goals, and guidelines that can be used to assess environmental noise impacts and to relate land use compatibility to varying levels of environmental noise. These are summarized below. The regulations are legally enforceable, whereas the goals and guidelines are not. Together, these form the basis for the impact evaluation contained in Section 4.5.2. Appendix A describes the common acoustical terminology used.

4.5.1.1 State Department of Health (DOH), HAR §11-46, Community Noise Control

Hawaii Administrative Rules (HAR) §11-46 defines three classes of zoning districts and specifies corresponding maximum permissible sound levels due to stationary noise sources. Air-conditioning units, exhaust systems, generators, compressors, pumps, etc., and equipment related to agricultural, construction, and industrial activities are examples of noise sources covered by this regulation. These maximum permissible noise levels are enforced for any location at or beyond the property line and may not be exceeded for more than 10% of the time during any 20-minute period. The specified noise limits that apply are a function of the zoning and time of day as shown in Figure 4-2. HAR §11-46 also specifies the following with respect to mixed zoning districts:

> *"For mixed zoning districts, the primary land use designation shall be used to determine the applicable zoning district class and the maximum permissible sound level."*

4.5.1.2 State Department of Health, HAR §11-42, Vehicular Noise Control for Oahu

HAR §11-42 specifies noise level limits for vehicles operating on traffic ways on the Island of Oahu. The regulations specify the following limits in dBA (decibels A-weighted; see Appendix A) for "heavy vehicles" (Table 4-2). These are defined as vehicles which have a

manufacturer's gross vehicular weight rating of 10,000 pounds or greater. The City's buses fall into this category.

Table 4-2. HAR §11-42 Vehicular Noise Limits for Heavy Vehicles

		Measurement Distance		
Posted Speed Limit	Time periods When Applicable	20 feet	25 feet	50 feet
35 mph or less	Daytime 6:00 a.m. - 6:00 p.m.	92 dBA	90 dBA	84 dBA
	Evening 6:00 p.m. - 10:00 p.m.	92 dBA	90 dBA	84 dBA
	Night, Holiday, Sunday	81 dBA	79 dBA	73 dBA
> 35 mph	All	92 dBA	90 dBA	84 dBA
Truck Routes	All	96 dBA	94 dBA	88 dBA

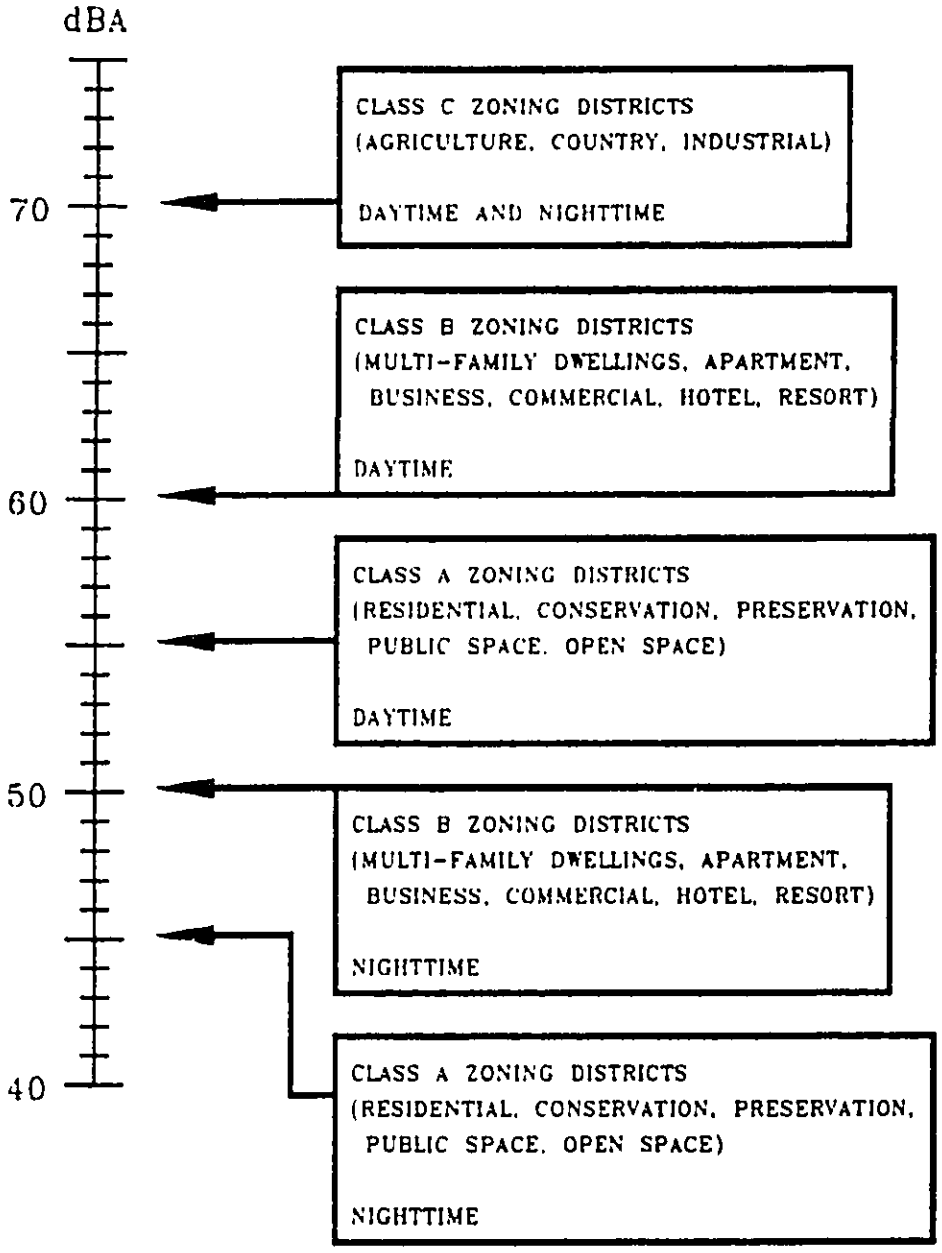
Source: D.L. Adams Associates, Ltd.

4.5.1.3 City and County of Honolulu Land Use Ordinance

Section 3.100 of the City's Land Use Ordinance (LUO) specifies maximum allowable noise levels. The LUO criteria differ from those of the State DOH in that they use octave-band sound levels instead of A-weighted levels.

Octave Band Frequency (in Hertz)	Sound Pressure Level (Decibels)
31.5	79
63	79
125	74
250	66
500	59
1,000	53
2,000	47
4,000	41
8,000	39

Except in Intensive Industrial (I-2) and Waterfront Industrial (I-3) districts (neither of which are present in the vicinity of the proposed PCBF), the noise limits must be met at the property line of the parcel on which the noise is being generated. In addition, the regulations stipulate



NOTE: SOUND LEVELS INDICATED BY ZONING DISTRICT ARE THE "MAXIMUM PERMISSIBLE" SOUND LEVELS DUE TO EXCESSIVE NOISE SOURCES SUCH AS STATIONARY MECHANICAL EQUIPMENT AND EQUIPMENT RELATED TO AGRICULTURAL, CONSTRUCTION AND INDUSTRIAL ACTIVITIES THAT SHALL NOT BE EXCEEDED FOR MORE THAN 10% OF THE TIME WITHIN ANY 20-MINUTE PERIOD DURING THE TIME PERIOD SHOWN (DAYTIME: 7:00 A.M. TO 10:00 P.M., NIGHTTIME: 10:00 P.M. TO 7:00 A.M.)

PREPARED FOR:
SSFM Engineers, Inc

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
D. L. Adams Assoc., Ltd., June 1998.

FIGURE 4-2:

Maximum Permissible Sound Levels for Various Zoning Districts

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility, Fig 4-2 Max Sound Levels, 7-10-98

that "*...where such districts permit residences, apartments or hotels, the maximum sound pressure levels at or beyond the lot boundary shall be reduced seven decibels from the levels indicated* [in the table] *for hours between 8 a.m. and 6 p.m. and shall be reduced 10 decibels between 6 p.m. and 8 a.m.*"

4.5.1.4 Federal Highway Administration Design Goals

The Federal Highway Administration (FHWA) has established non-regulatory design goals for traffic noise exposure.[5] The FHWA defines four land use categories and assigns corresponding maximum hourly equivalent sound levels, L_{eq}. For example, "Category B" (defined as picnic and recreation areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals) has a corresponding maximum exterior L_{eq} of 67 dBA and a maximum interior L_{eq} of 52 dBA. These figures are viewed as design goals, and all projects that are developed to meet these limits are deemed in conformance with the FHWA noise guidance.

4.5.1.5 State Department of Transportation, Highways Division Guidelines

The State Department of Transportation, Highways Division (June 1977) has adopted the FHWA's design goals for traffic noise exposure. According to the policy, a traffic noise impact occurs when the predicted traffic noise levels "approach" or exceed FHWA's design goals or when the predicted traffic noise levels "substantially exceed the existing noise levels." The policy also states that "approach" means at least 1 dB less than FHWA's design goals and "substantially exceed the existing noise levels" means an increase of at least 15 dB.

4.5.1.6 U.S. Department of Housing and Urban Development Guidelines

The U.S. Department of Housing and Urban Development (HUD) has established "Site Acceptability Standards" for interior and exterior noise for housing (Title 24, CFR, Part 51, 44 FR 40860, July 12, 1979; Amended by 49 FR 880, January 6, 1984). These standards, which are not regulatory, are based on day-night equivalent sound levels (Ldn) and identify the need for noise abatement, either at the site property line or in the building construction.

HUD Site Acceptability Criteria rank sites as "Acceptable", "Normally Unacceptable", or "Unacceptable". "Acceptable" sites are those where exterior noise levels do not exceed a Ldn of 65 dBA. Housing on "Acceptable" sites does not require additional noise attenuation other than that provided in customary building techniques. "Normally Unacceptable" sites are those where the Ldn is above 65 dBA, but does not exceed 75 dBA. Housing on "Normally Unacceptable" sites requires some means of noise abatement, either at the property line or in the building construction, to ensure the interior noise levels are acceptable. "Unacceptable" sites are those where the Ldn is 75 dBA or higher. The term "unacceptable" does not necessarily mean that housing cannot be built on these sites, but rather that more sophisticated sound attenuation would likely be needed.

For existing structures, HUD's policy states:

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[5] These goals, as well as the noise-level guidance discussed in Sections 4.5.1.5, 4.1.5.6, and 4.1.5.7, are not regulatory limits. However, they provide the most reasonable means of evaluating the potential effects of project-related noise and the need (if any) for mitigation.

"Noise exposure by itself will not result in the denial of HUD support for the resale and purchase of otherwise acceptable existing buildings. However, environmental noise is a market-ability factor which HUD will consider in determining the amount of insurance or other assistance that may be given."

4.5.1.7 U.S. Environmental Protection Agency Goals

The U.S. Environmental Protection Agency (EPA) (April 1977) has identified a range of yearly day-night equivalent sound levels (Ldn) sufficient to protect public health and welfare from the effects of environmental noise. Its immediate goal is to reduce exterior environmental noise to a Ldn not exceeding 65 dBA. The EPA has a long-term goal of further reducing exterior environmental noise to a Ldn not exceeding 55 dBA. The EPA states that these goals are not intended as regulations, as it has no authority to regulate noise levels. Instead, it states that they are intended to be viewed as levels below which the general population will not be at risk from any of the identified effects of noise.

4.5.2 POTENTIAL NOISE IMPACT DUE TO THE PREFERRED ALTERNATIVE AND NOISE MITIGATION

4.5.2.1 Preferred Alternative Facility Operations Noise

Noise associated with the operations of the proposed bus facility could affect existing nearby residential areas. The major concern is the noise generated during the late evening and early-morning hours (10:00 p.m. to 6:00 a.m.) when the neighborhood activities and roadway traffic are light and most people are sleeping.

Based on the functions and hours of operation programmed for the facility (as summarized in Table 4-3), idling sounds from bus engines, sporadic sounds from tools, sounds associated with the servicing functions of brake inspection, refueling, and washing, and sounds from bus movements within the bus facility are expected during this noise-sensitive period. However, based on the current conceptual layout of the facility as shown in Figure 2-1 and noise measurements of operations at the existing Middle Street Bus Facility obtained on May 13, 1998, between 6:00 p.m. and 7:00 p.m., it is expected that noise from the bus movements within the facility during the early morning hours would probably be the primary source of noise that might produce complaints from nearby residences.

Table 4-3. Programmed Functions and Hours of Operation

Function	Hours of Operation	Peak Hours of Operation
Maintenance Division	24 hours	6:30 a.m. to 3:00 p.m.
Service Division	6:00 p.m. to 2:00 a.m.	6:00 p.m. to 2:00 a.m.
Stores Division	6:30 a.m. to 10:30 p.m.	6:30 a.m. to 3:00 p.m.
Paint & Body Shop	6:30 a.m. to 10:30 p.m.	6:30 a.m. to 3:00 p.m.
Bus Pull-Outs	3:30 a.m. to 7:30 p.m.	4:00 a.m. to 6:30 a.m. 2:00 p.m. to 4:30 p.m.
Bus Pull-Ins	6:00 a.m. to 1:45 a.m.	6:00 a.m. to 9:30 a.m. 5:00 p.m. to 8:00 p.m.

Source: Parsons Brinckerhoff, personal communication.

Noise from bus movements within the facility can be categorized into two basic types: (1) buses accelerating from a stop, which typically causes noise levels between 78 and 81 dBA at a 50-foot distance; and (2) buses in a non-accelerating pass-by mode, which typically produces noise levels of 72 to 75 dBA at 50 feet. DTS is incorporating the following kinds of measures in the facility design and operational plan to control noise emissions and insure compliance with the State DOH and City and County LUO noise limits discussed in Sections 4.5.1.1 and 4.5.1.3.

- It is providing for construction of a noise barrier (wall) along the bus facility property lines to block the line-of-sight between the noise source and the existing, nearby residential areas. These will be installed along the *mauka* and *makai* perimeters of the site and between the Transportation Building and the bus operating areas in the interior of the site.
- It will insure that all buses operate properly and are in compliance with State DOH's vehicular noise standards.
- It will place administrative restriction on the use of horns and will limit vehicle operating speed within the facility.
- It will limit noise from outdoor stationary equipment such as air conditioning units, pumps, generators, and exhaust fans as needed to comply with regulatory limits.

4.5.2.2 Project Generated Traffic Noise

Existing noise-sensitive areas that could be impacted by traffic generated by the bus facility include residential areas along Moanalua Road and near the proposed Spine Road. Traffic noise level changes forecasted as a result of the proposed PCBF were calculated for peak bus travel hours. For Moanalua Road, these are expected to be 7:00 a.m. to 8:00 a.m. and 5:00 p.m. to 6:00 p.m. For the Spine Road, the peak bus travel hours are expected to be 5:00 a.m. to 6:00 a.m. and 5:00 p.m. to 6:00 p.m.

The FHWA Traffic Noise Prediction Model (FHWA, 1978) and predicted traffic volumes (Parsons Brinckerhoff Quade & Douglas, 1998) were used to calculate traffic noise level *increases* attributable to buses. Those calculated increases are:

	Increase in Sound Level Attributable to Buses	
Roadway	**Morning Peak Period**	**Evening Peak Period**
Moanalua Road	from 0.9 dB to 1.1 dB	from 1.2 dB to 1.4 dB
Spine Road	from 9.4 dB to 10.0 dB	from 2.7 dB to 3.0 dB

Source: D.L. Adams Associates, Ltd. (June 1998)

Moanalua Road. The traffic noise level increases due to the project along Moanalua Road are less than two dB. In general, a three dB change is the smallest change that most people can detect. The predicted increases along Moanalua Road would not violate regulatory limits. Moreover, they are not deemed significant based on the threshold levels described in Section

4.5.1.5. However, some of the existing residences along this roadway may be exposed to future traffic noise levels greater than Hawaii DOT's recommended limit of 67 dBA for residential areas. This is true with or without the PCBF.

The DOT's noise policy is applicable only to Type I projects[6], so noise abatement measures are not legally mandated for the PCBF. Nevertheless, based on the existing noise measurements, it appears that prohibiting buses from using Moanalua Road after 10:00 p.m. is advisable as a means of limiting noise complaints.

Spine Road. Project-related traffic noise is predicted to be substantially higher in areas adjacent to the proposed Spine Road, particularly in the early morning (e.g., 5:00 a.m. to 6:00 a.m. when the increase attributable to buses could approach 10 dB.[7] This increase would not result in cumulative traffic noise levels above the 67 dBA Federal Highway Administration Design Goal (see Section 4.5.1.4). Neither would it contribute to a noise increase in excess of the 15 dB threshold specified in the State Department of Transportation, Highways Division Guidelines (see Section 4.5.1.5). Nonetheless, the increase may be noticeable to residents who are exposed to it.

Hoomalu Street Driveway. Training and administration staff and bus operators would access the proposed PCBF from Waimano Home Road via a driveway opposite Hoomalu Street. Additional traffic noise generated by employee trips during their morning and evening peak periods (4:00 a.m. to 5:00 a.m.) and (3:00 p.m. to 4:00 p.m.) is calculated as increases of 2.1 dB and 1 dB, respectively. Thus, project-generated traffic noise is not expected to significantly impact existing uses along Waimano Home Road.[8]

4.5.3 NO ACTION ALTERNATIVE

The No Action Alternative would not affect noise generated on the site or by project-related traffic. However, over the long term, redevelopment of the site is likely to occur. Operational noise from alternate urban uses of the site is likely to be lower during noise-sensitive hours than it would be from the proposed bus facilities. Depending upon the kinds of uses that are eventually developed on the 21-acre parcel, traffic noise from the No Action Alternative could be less than, equal to, or greater than that generated by the proposed PCBF.

4.6 AIR QUALITY IMPACTS

Since its primary association with air quality is its inherent attraction for mobile sources, i.e., buses and other vehicles, the proposed PCBF can be considered an "indirect source" of air pollution as defined in the federal Clean Air Act. The proposed facility would also have emissions from stationary sources. The latter include engine emissions released from elevated stacks during vehicle maintenance, volatile organic compounds (VOC) emitted

[6] A Type I project is a "proposed Federal or Federal-aid highway project for the construction of a highway on a new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through traffic lanes".

[7] An increase of 10 dB represents an approximate doubling of the perceived sound level.

[8] The scenario of completely eliminating PCBF-related bus travel on Moanalua Road was also evaluated. This did not change modeled bus noise levels along the proposed Spine Road (increases of 9.4 to 10 dB during morning peak hour and 2.6 to 3 dB in the evening peak hour), but it eliminated all PCBF-related bus noise along Moanalua Road.

during paint booth operations, VOC's from fuel storage and handling, and emissions from emergency generators.[9] The remainder of this section discusses the effects that these emissions would have on air quality.

4.6.1 MOBILE SOURCE IMPACTS OF THE PREFERRED ALTERNATIVE

4.6.1.1 Mobile Source Activity

This analysis of mobile source impacts uses the traffic forecasts presented in Section 4.7. It focuses on the four intersections with the greatest potential for air pollution impacts due to their traffic volumes, level of service, and other factors. These intersections are:

- Moanalua Road at Waimano Home Road
- Waimano Home Road at Kamehameha Highway
- Acacia Road at Kamehameha Highway
- Kuala Street at Acacia Road

4.6.1.2 Emission Factors

Automotive emission factors for carbon monoxide (CO) were generated for calendar years 1998 and 2020 using the Mobile Source Emissions Model (MOBILE-5B) (U.S. Environmental Protection Agency, September 14, 1996). To localize the emission factors as much as possible, the analysis used the March 1992 age distribution for registered vehicles in the City & County of Honolulu and for the distribution of vehicle miles traveled. (City & County of Honolulu, March 1992).

4.6.1.3 Inputs for Peak Hours Modeling

Due to the nature of the proposed PCBF and the present state-of-the-art in air quality modeling, the impact analysis focused on concentrations of CO, a non-reactive pollutant, during the busiest traffic hours. Carbon monoxide is normally selected for modeling because it has a relatively long half-life (about one month) in the atmosphere (Seinfeld, 1975), and it comprises the largest fraction of automotive emissions. The following inputs were used to estimate near-intersection carbon monoxide concentrations:

- Traffic volumes, intersection designs, and signal timing information developed as part of the traffic impact study (see Section 4.7).
- One year of Honolulu meteorological data pre-processed with EPA's PCRAMMET program (U.S. Environmental Protection Agency, April 1993).
- A revised version of EPA's guideline model CAL3QHC (U. S. Environmental Protection Agency, November 1992, September 1995).
- A background CO concentration of 0.1 milligrams per cubic meter (mg/m^3).

[9] Finally, construction-related emissions will be generated onsite due to vehicular movement, grading, and general dust generating as well as offsite due to concrete and asphalt batching. These impacts are discussed in Section 4.13 of this EA.

- An array of 40 receptor sites at a distance of 10 meters from the street edge and spaced at 10 meter intervals.

4.6.1.4 Results: 1-Hour Concentrations

Figures 4-3, 4-4, 4-5, and 4-6 show the results of the modeling. Each figure depicts maximum estimated CO concentrations in milligrams per cubic meter (mg/m^3) for three scenarios: (1) existing (1998), (2) 2020 with the PCBF, and (3) 2020 without the PCBF.

The modeling indicates that the federal 1-hour CO standard is currently being met at all four intersections and will continue to be met with or without the proposed project. The results with regard to compliance with the more stringent State 1-hour CO standard are mixed. The standard (see Table 3-3) is met at the Moanalua Road and Kuala Street intersections (Figures 4-3 and 4-6) both now and in the future. At the Kamehameha Highway/Waimano Home Road intersection (Figure 4-4), the modeling suggests that the standard may currently be exceeded on a few days out of the year during the a.m. peak hour. However, as a result of the roadway improvements and traffic management measures that the traffic study assumed would be made in the future, concentrations drop back down to about the level of the standard by the 2020 forecast year. The modeling results indicate that afternoon CO concentrations at this location are below the limit now and will remain so in the future.

The afternoon CO levels at the Kamehameha Highway/Acacia Road intersection (Figure 4-5) are above the standard at present but are forecast to decrease to approximately the level of the State standard in the future. The existing morning values were just beneath the standard; they are predicted to rise to it by 2020 with or without the project.

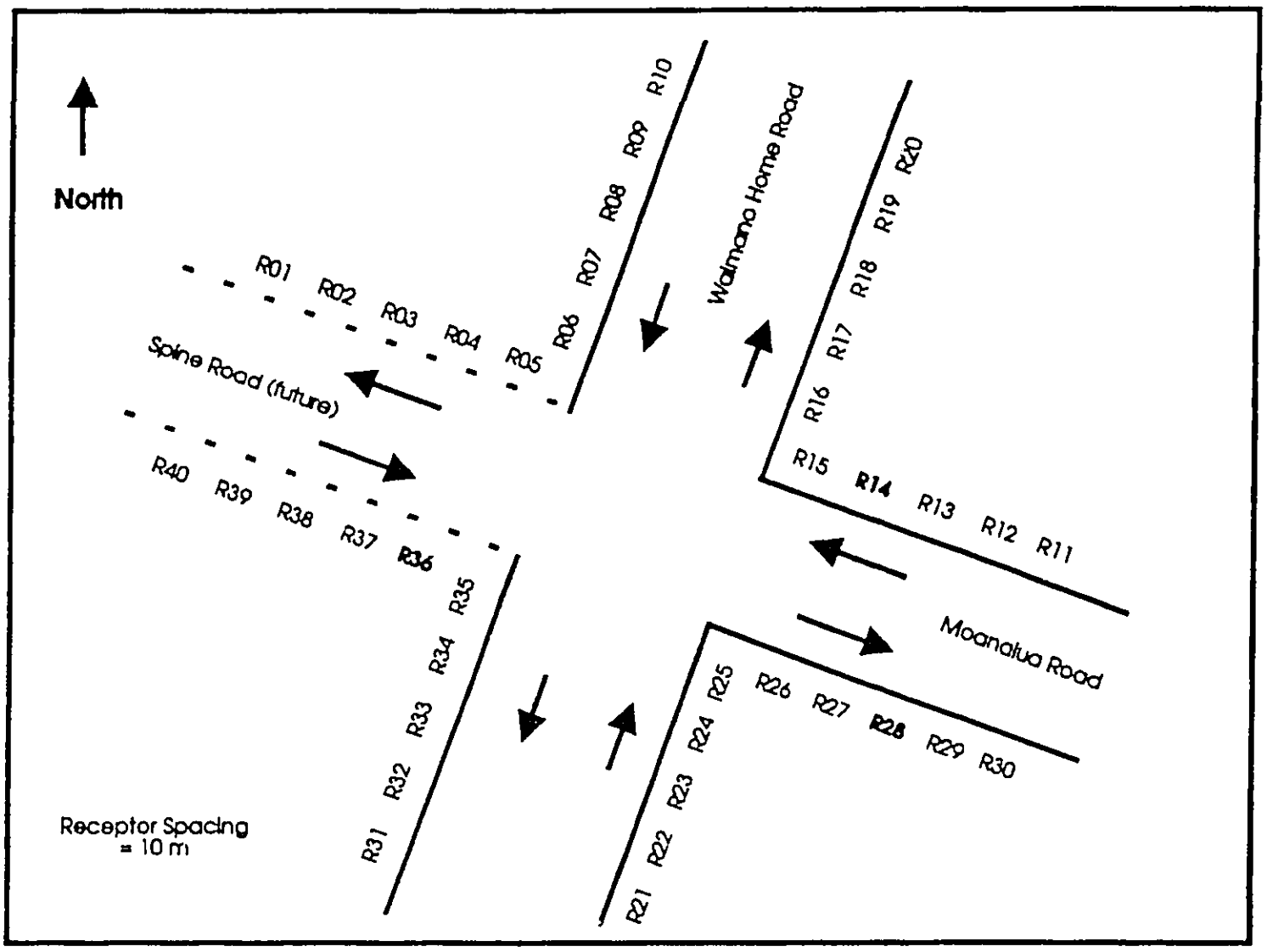
4.6.1.5 Results: 8-Hour Concentrations

Estimates of 8-hour CO concentrations were derived by applying a "persistence" factor to the maximum 1-hour concentrations described above. This "persistence" factor accounts for the fact that the worst-case 1-hour meteorology and traffic volumes do not persist for 8 hours. EPA recommends calculation of a persistence factor based on actual 1-hour and 8-hour CO measurements. A local persistence factor was computed from Department of Health data for a recent project in the Honolulu area (Morrow, 27 June 1995). That factor was then used to estimate 8-hour concentrations by applying it to the higher of the a.m. or the p.m. peak hour concentrations at each intersection.

The results, also presented in Figures 4-3, 4-4, 4-5 and 4-6, indicate current compliance with the federal and State standards at all the intersections except Kamehameha Highway at Waimano Home Road, where there appears to be a potential for exceedance. The modeling indicates that CO concentrations at all intersections will comply with both the State and federal standard in the 2020 forecast year both with and without the proposed project.

Figure 4-3

ESTIMATES OF MAXIMUM 1- AND 8-HOUR CARBON MONOXIDE CONCENTRATIONS
Moanalua Road at Waimano Home Road
Peak Traffic Hours
1998 and 2020

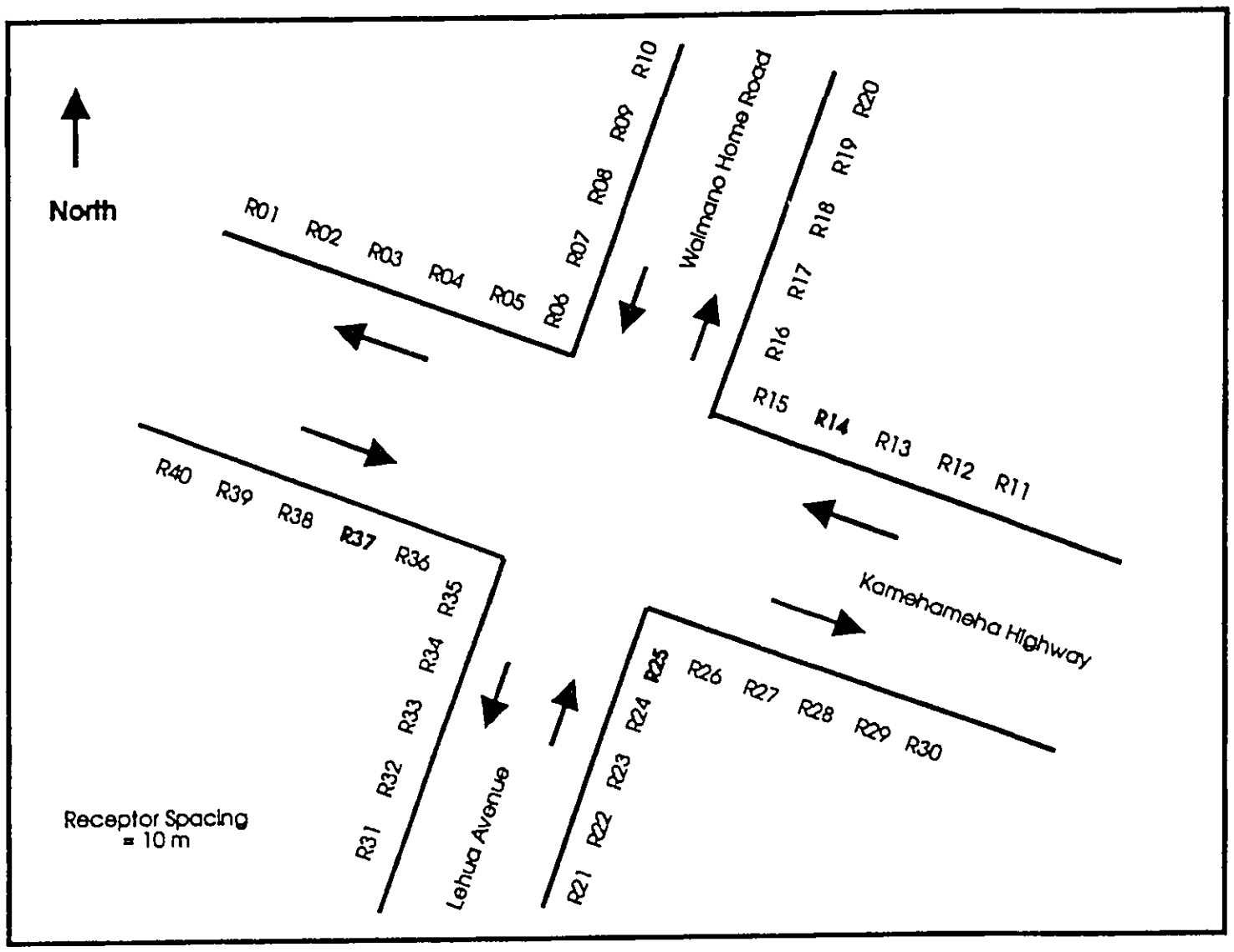


Estimated Maximum Concentrations
(mg/m^3)

Period	1998	2020 w/o project	2020 w/project	Receptors
A.M.	9.0	9.6	9.6	R28, R36
P.M.	6.0	5.0	5.0	R14
8-Hr	4.2	4.5	4.5	R28, R36

Figure 4-4

ESTIMATES OF MAXIMUM 1- AND 8-HOUR CARBON MONOXIDE CONCENTRATIONS
Kamehameha Highway at Waimano Home Road
Peak Traffic Hours
1998 and 2020

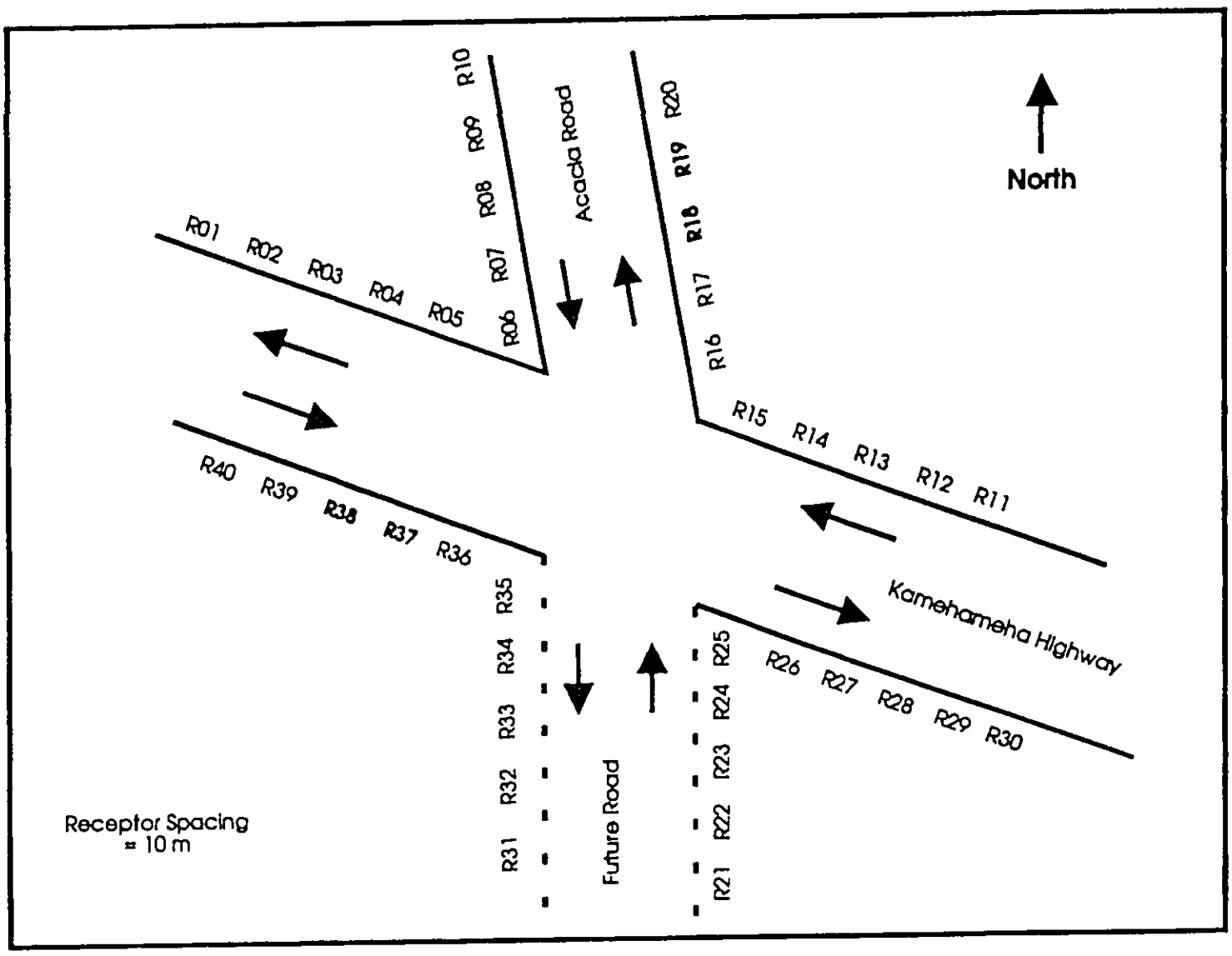


Estimated Maximum Concentrations
(mg/m^3)

Period	1998	2020 w/o project	2020 w/project	Receptors
A.M.	15.2	10.5	10.5	R25
P.M.	6.5	4.9	4.9	R14, R37
8-Hr	7.1	4.9	4.9	R25

Figure 4-5

ESTIMATES OF MAXIMUM 1- AND 8-HOUR CARBON MONOXIDE CONCENTRATIONS
Kamehameha Highway at Acacia Road
Peak Traffic Hours
1998 and 2020

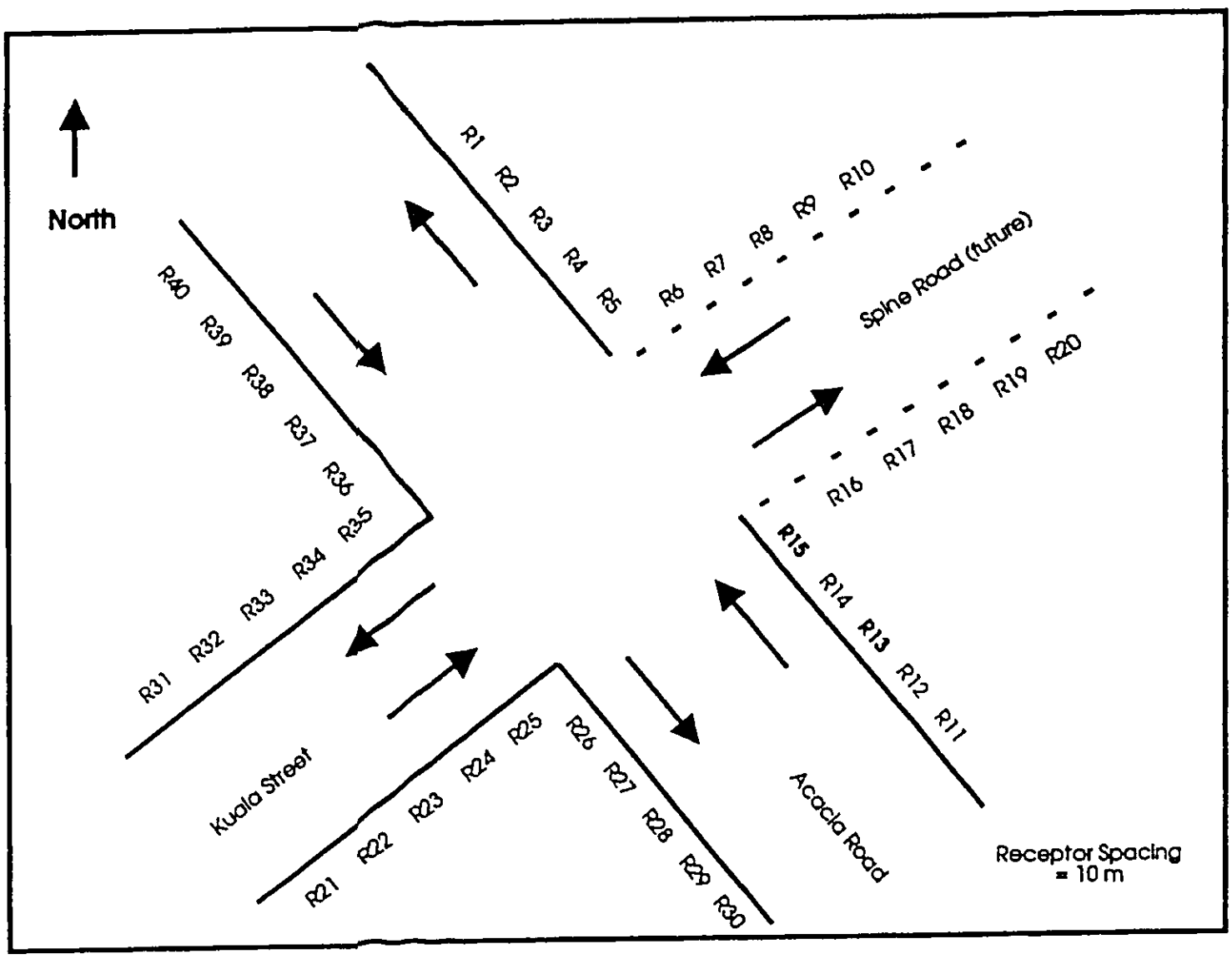


Estimated Maximum Concentrations
(mg/m^3)

Period	1998	2020 w/o project	2020 w/project	Receptors
A.M.	9.0	10.0	10.0	R37, R38
P.M.	11.7	10.0	10.3	R18, R19
8-Hr	4.2	4.7	4.7	R37, R38

Figure 4-6

ESTIMATES OF MAXIMUM 1- AND 8-HOUR CARBON MONOXIDE CONCENTRATIONS
Acacia Road at Kuala Street
Peak Traffic Hours
1998 and 2020



Estimated Maximum Concentrations
(mg/m^3)

Period	1998	2020 w/o project	2020 w/project	Receptors
A.M.	2.2	8.7	8.8	R13
P.M.	1.3	6.5	6.8	R13, R15
8-Hr	1.0	4.1	4.1	R13

4.6.2 ASSUMPTIONS AND DATA USED TO EVALUATE ONSITE STATIONARY SOURCES

4.6.2.1 Assumptions and Models Used to Assess Bus Repair Operations

Some bus repair work involves running engines inside the Maintenance Building. Areas where this is done will be equipped with connectors, hoses, hoods, and ductwork that collect the exhaust gases and carry them to vents/stacks on the roof of the building, where they are released to the atmosphere. These exhaust stack emissions are stationary sources of air pollution and subject to State air quality regulations (HAR §11-60.1, Air Pollution Control).

The effect of these emissions on ambient air quality was evaluated for this report using the "worst-case" of buses running simultaneously in every bay equipped with an exhaust collection system. Idle emission rates for CO, NOx, VOC and PM_{10} were derived from EPA's MOBILE-5B and PART5 models (U. S. Environmental Protection Agency, (14 September 1996; February 1995). SO_2 emissions were estimated based on diesel engine rates (U.S. Environmental Protection Agency, October 1996) adjusted for the lower sulfur content of mobile source fuel. Stacks for these exhaust collection systems were assumed to be three feet above the height of the roof ridge of the Maintenance Building and to emit vertically.

4.6.2.2 Assumptions and Models Used to Assess Fuel Storage

Diesel fuel will be stored in four 12,000-gallon underground storage tanks. Annual emissions due to storage and working losses were computed using EPA's TANKS model (U.S. Environmental Protection Agency, September 1997).

4.6.2.3 Assumptions and Models Used to Assess Boiler Operation

Two gas-fired boilers (rated at 399,000 and 199,000 BTU/hr heat input) will be installed in the Maintenance and Transportation Buildings, respectively. These will be used to provide hot water for showers. Year-round operation and EPA emission factors were used to estimate emissions from these sources (U.S. Environmental Protection Agency, October 1996). Stacks for these boilers were assumed to be three feet above the height of the roof ridge of their respective buildings and emitting vertically.

4.6.2.4 Assumptions and Models Used to Assess Emergency Generator Operation

Three emergency diesel generators are planned for the PCBF:

- 75-kW in the Maintenance Building,
- 30-kW in the Transportation Building, and
- 75-kW in the Service Building.

Emissions from these generators were estimated using EPA emission factors and the EPA "potential to emit" guidance for emergency generators. This guidance allows the assumption of 500 operating hours per year instead of the normally required 8,760. This is clearly realistic since such generators normally only operate for periodic testing and for actual power outages. Stacks for these generators were assumed to be three feet above the height of the roof ridge of their respective buildings and to be exhausting in a vertical direction.

4.6.2.5 Assumptions and Models Used to Assess Paint Booth Operations

The paint booth at the proposed facility will be equipped with an integrated volatile organic compounds (VOC) collection system. The system would exhaust from a roof stack. Historical data from the existing bus paint facilities were used to determine the specific products that would be used at the PCBF. This information was then used to estimate their content of hazardous air pollutants (HAP's) regulated by the federal Clean Air Act. The "worst-case" assumption was made that 100% of the volatile HAP's present would be emitted from the paint booth stack.

4.6.3 CUMULATIVE IMPACTS OF ONSITE STATIONARY SOURCES

4.6.3.1 Total Emissions and Regulatory Requirements

Tables 4-4 and 4-5 summarize the emission estimates developed using the factors described in Section 4.6.2. They show that the quantities of both criteria pollutants (i.e., those for which ambient air quality standards exist) and hazardous air pollutants are quite small. These emissions do not trigger extensive permitting requirements pursuant to State regulations. Nevertheless, regulatory clearance from the State Department of Health will still be needed before the City constructs or operates these sources.

4.6.3.2 Cumulative Effects on Ambient Air Quality

The ambient air quality impacts of the onsite stationary sources were estimated using the ISC3 model (U.S. Environmental Protection Agency, September 1993). For the purposes of this screening analysis, bus maintenance, generator operations and boiler operations were assumed to occur 24 hours per day, seven days per week, all year long. Since the activities generating the emissions will be much more limited than this, these assumptions represent an extreme "worst-case" analysis. The results summarized in Table 4-6 show that the new sources will have minimal effect on local air quality.

4.6.4 NO ACTION ALTERNATIVE

4.6.4.1 Traffic-Related Emissions

As discussed in Section 4.7 of this report, several of the roadways near the PCBF are already congested. This congestion concentrates vehicles and tends to lead to higher concentrations of CO and other automotive pollutants. Roadway and operational improvements associated with the overall redevelopment of the Manana Storage Area will improve intersection functioning, and the addition of the Spine Road will provide a major new *mauka-makai* (north-south) arterial. Since these improvements are expected be made whether or not the PCBF is constructed on the site and since the PCBF is a relatively small contributor to peak hour traffic, air quality without it will be similar to that forecast with it.

Table 4-4. Estimates of Annual Emissions of Criteria Air Pollutants

Source	Emissions (tons/year)				
	CO	NOx	SO_2	VOC	PM
Bus Maintenance	6.85	2.54	1.41	0.88	0.08
Emergency generators	0.40	1.87	0.12	0.15	0.13
Boilers	0.05	0.40	0.04	0.01	0.01
Fuel storage tanks	---	---	---	0.05	---
TOTAL:	7.30	4.18	1.57	1.09	0.22

Source: Morrow, June 1998: Table 5.

Table 4-5. Estimates of Annual Emissions of Regulated Hazardous Air Pollutants from Paint Booth Operations

Pollutant	CAS No.	Emissions (Tons/year)
Ethyl benzene	100-41-4	0.059
Methyl ethyl ketone	78-93-3	0.069
Methyl isobutyl ketone	108-10-1	0.028
Toluene	108-88-3	0.082
Xylene	1330-20-7	0.107

Source: Morrow, June 1998: Table 6.

Table 4-6. Estimates of Maximum Air Quality Impact of New Stationary Sources

Pollutant	Averaging Period	Concentration ($\mu g/m^3$)		
		New Sources	Background	Total
CO	1-hr	0.96	4.6	5.6
	8-hr	0.35	2.1	2.5
SO_2	3-hr	0.12	73	73
	24-hr	0.04	18	18
	Annual	0.01	3	3.0
NO_2	Annual	0.06	2	2.1
PM_{10}	24-hr	0.02	26	26
	Annual	0.01	14	14

Source: Morrow, June 1998: Table 7.

As discussed throughout this document, the 21-acre site is unlikely to remain in its present use if the PCBF were not constructed. Instead, alternate urban uses would almost certainly be found for it. None of the likely candidates would generate less traffic during the peak traffic hours than would the PCBF; almost all would generate more. Consequently, over the long term the No Action alternative is likely to result in higher vehicle emissions than would the proposed project.

4.6.4.2 Stationary Sources

Because of the nature of bus maintenance activities, bus facilities tend to have stationary emission sources that are absent from most other types of uses. Thus, emissions from it would be greater than those from the existing warehouse activities. Whether or not they would be lesser or greater than emissions from the uses that would eventually be constructed on the site if the plans for the PCBF were not implemented cannot be determined until detailed plans for those alternatives are developed. However, the fact that the air quality analysis showed that the PCBF would not release substantial amounts of any types of air pollutants, it is unlikely that air quality impacts would be less with those alternate uses.

4.7 TRAFFIC IMPACTS

4.7.1 FORECAST FUTURE TRAFFIC CONDITIONS

Future traffic near the PCBF was forecasted, and intersection operations were evaluated, for two different future (calendar year 2020) scenarios. The first assumed that the proposed facility was operational. The second assumed that it was not. Traffic forecasts for both scenarios included regional traffic growth and future traffic generated by anticipated development of other portions of the City's Manana Storage Area and Pearl City Junction parcels.

4.7.1.1 Assumed Future Roadways and Public Transit Patterns

The traffic impact analysis assumed that most of the roadways described in Chapter 3 would remain unchanged unless otherwise noted. In addition to these existing roadways, the future scenario assumed that the Spine Road that is proposed as the primary collector road for the Manana Storage Area would be constructed as now planned. This four-lane roadway will begin at the Waimano Home Road/Moanalua Road intersection and traverse the Manana Storage Area in a generally north-south direction. It will intersect Acacia Road at Kuala Street.

The *Oahu Regional Transportation Plan* (ORTP) forecasts substantial increases in population and employment in Leeward and Central Oahu, especially on the Ewa plain. It assumes that the bus fleet will be expanded to accommodate the increase, possibly to as many as 715 buses by 2020. An additional bus facility would need to be constructed to accommodate this possible future growth. The additional capacity and the availability of a rapid transit system could change the configuration of the existing bus routes. However, it is likely that the proposed PCBF will continue to serve existing Leeward and Central Oahu routes. Because of this, it was assumed that bus travel patterns to and from the proposed PCBF would follow existing routes through the Year 2020 forecast horizon for the project.

Subsequent to the analysis of forecast future traffic conditions contained herein, the Department of Transportation Services conducted a number of informational briefings and a public hearing for the local community. The community, as represented by those attending the informational briefings, expressed its concern with the proposal to eliminate left turn movements onto Noelani Street from Waimano Home Road while traveling in the northbound direction.

This proposal was included as an assumption when preparing the forecast future traffic conditions described in this document for two reasons: 1) it was a recommendation contained in the Environmental Impact Statement (EIS) prepared for the master plan developed by the Pearl City Planning Task Force; and 2) the consultants concluded that restricting left turns onto Noelani Street from Waimano Home Road resulted in better operating efficiency (i.e. level-of-service) for two intersections (Waimano Home Road and Noelani Street and Waimano Home Road and the proposed Spine Road). The traffic analysis presented in this document assumed that an alternate route (via the proposed "Connector" road) would be provided to grant access into the Manana Community for those residents that typically travel northbound on Waimano Home Road and turn left onto Noelani Street.

Because of the community's concern, the City agreed to analyze other possible intersection configurations involving Noelani Street and Waimano Home Road that would allow the above mentioned intersections to operate at acceptable levels-of-service. The City decided that since this issue was not directly connected to the PCBF, alternate intersection configurations would be studied as part of the City's Spine Road project currently under environmental review. Therefore, the traffic analysis described herein continues to reflect the imposition of the turning restriction onto Noelani Street as is recommended in the master plan for the area and the previously prepared EIS.

4.7.1.2 Year 2020 Traffic Volumes without the Proposed Project

The baseline against which the proposed project's traffic impacts must be measured is the conditions likely to occur without it. To provide this baseline, Parsons Brinckerhoff (June 1998) forecast likely traffic volumes assuming that the bus facility is not constructed on the PCBF site. These forecast "without project" volumes are shown in Figure 4-7.

The background traffic volume estimates consist of two components. The first is overall ambient traffic growth caused by regional changes in population and the level of business activity. The second is major development slated to occur in the areas that contribute traffic directly to the roadways being analyzed.

- **Overall Ambient Traffic Growth.** The study area consists of mature residential neighborhoods and commercial development. The ORTP study did not indicate major traffic growth on the roadways in the study area. For the purpose of this analysis, the background traffic was assumed to increase at an average annual rate of 0.6 percent, or approximately 14 per cent through the year 2020.
- **Major New Development within the Study Area.** The City is in the process of developing detailed plans to implement the overall master plan for the Manana Storage

Area that was adopted in 1996. The "Spine Road" that is part of that plan will provide access to individual parcels within the overall redevelopment area.[10] It will enhance roadway circulation within the study area, reducing traffic on Waimano Home Road and Kamehameha Highway.[11] The number of trips that would be generated by this planned development was estimated using factors contained in *Trip Generation, 6th Edition* (Institute of Transportation Engineers, 1997). These trips were directionally distributed and assigned to the roadway network based on analysis of recent traffic pattern data from field observations, input from the traffic analysis currently being conducted on behalf of the City & County of Honolulu Department of Design and Construction for the Spine Road, and other travel demand models.

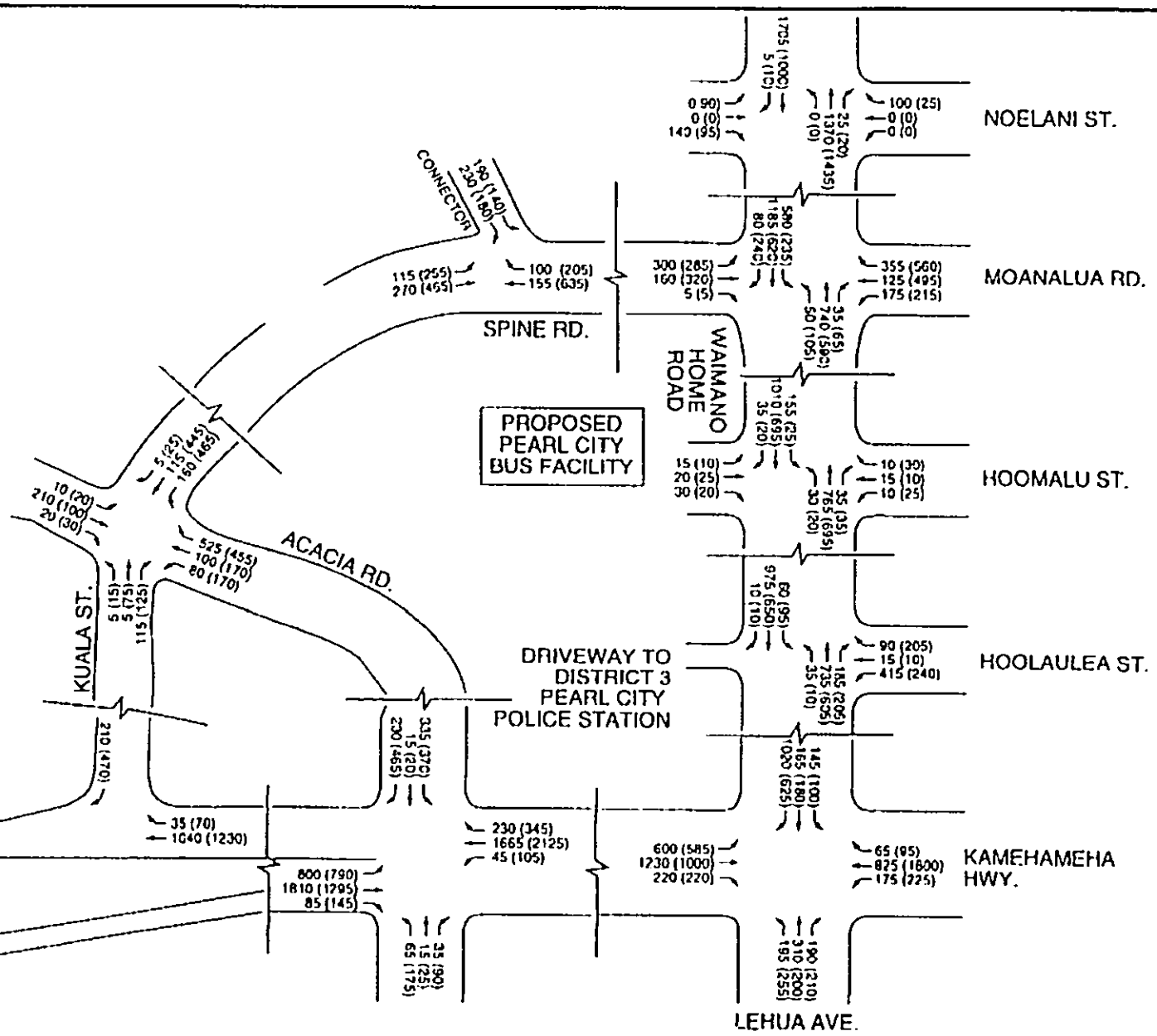
4.7.1.3 Traffic Generation by the Proposed PCBF

Table 4-7 shows the number of vehicle-trips the proposed bus facility is expected to generate during the morning and afternoon peak hours.[12] These trips are of two major types. The first consists of buses moving in and out of the facility on their way to and from their daily routes. The second is composed of cars and trucks driven by employees entering and leaving the facility. Trips made by vendors and others were assumed to be made during off-peak hours.

[10] The "Spine Road" concept includes a roadway connection between it and the existing Manana Subdivision located north of the Manana Storage Area.

[11] The potential effects of this roadway were addressed in the Chapter 343 Environmental Impact Statement that was prepared for the overall redevelopment plan. The City & County of Honolulu is currently conducting additional traffic analyses and preparing further environmental documentation to support its application for Federal funding of the Spine Road. The traffic analysis presented in this report has been coordinated with that analysis, and the findings of the two studies are consistent with one another.

[12] The "peak hours" depicted in the tables and figures (7:00 a.m. to 8:00 a.m. and 4:00 p.m. to 5:00 p.m.) are the hours during which the total traffic on the surrounding streets is greatest and the potential for congestion is at its peak. They are not the times when the project would generate the highest number of vehicle-trips.



PREPARED FOR:
SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
SSFM Engineers, Inc. / Parsons Brinckerhoff
June 1998

LEGEND:

(###) - AM (PM) Peak Hour Volumes
AM Peak Hour - 7:00-8:00 AM
PM Peak Hour - 4:00-5:00 PM
Break in Roadway Presentation

NOT TO SCALE

FIGURE 4-7:

Year 2020 Peak Hour Traffic Volumes: No Action Scenario

Pearl City Bus Facility
Environmental Assessment

Table 4-7. Peak Hour Vehicle-Trips Generated by the Pearl City Bus Facility

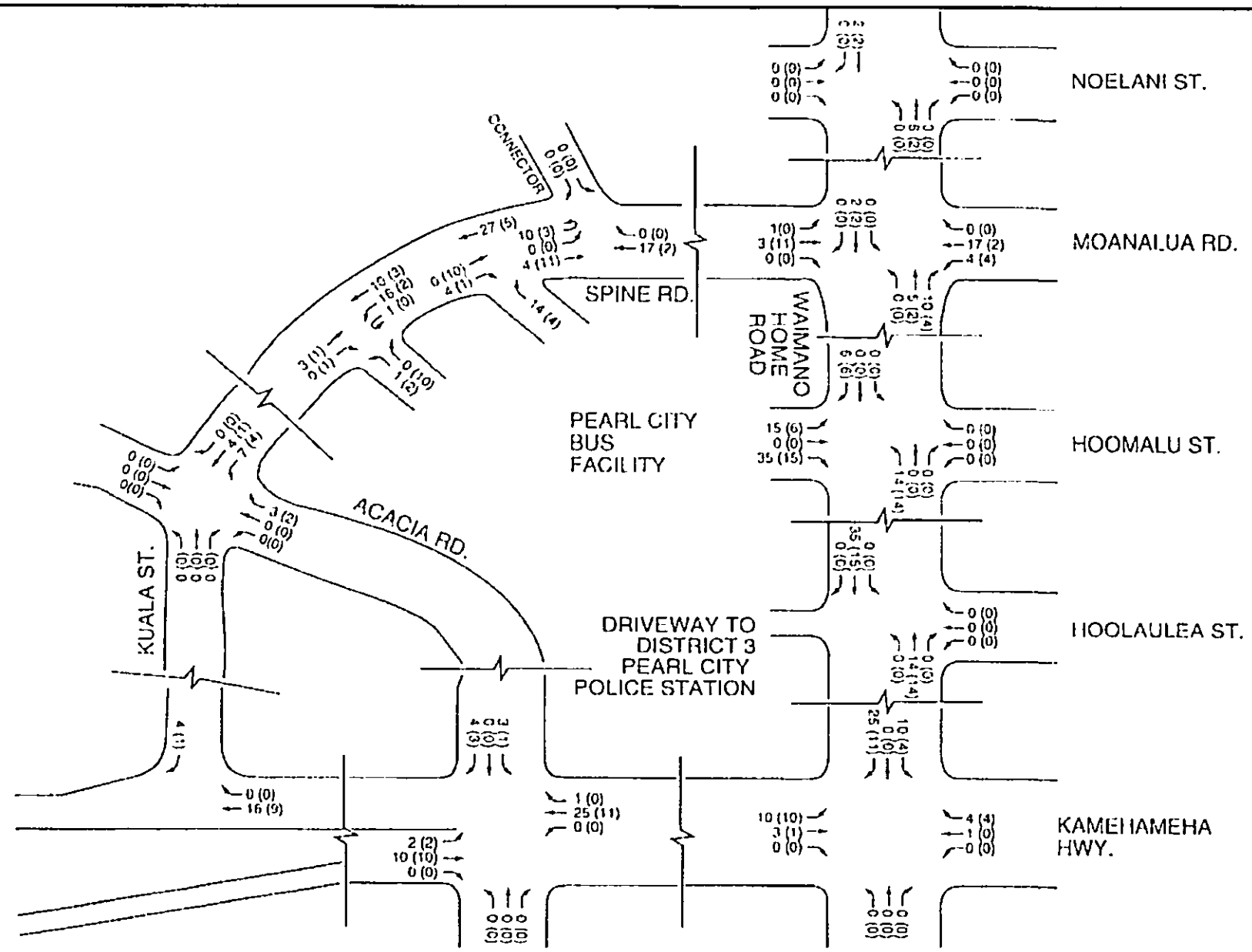
Type of Trip	*A.M. Peak Hour (7:00 a.m. to 8:00 a.m.)*			*P.M. Peak Hour (4:00 p.m. to 5:00 p.m.)*		
	In	**Out**	**Total**	**In**	**Out**	**Total**
Bus Pullouts & Returns	16	1	17	3	12	15
Transportation Div. Bus Drivers	0	50	50	21	1	22
Transportation Div. Admin. Staff	21	0	21	0	21	21
Maintenance Staff	4	13	17	2	4	6
TOTAL	41	64	105	26	38	64

Source: City & County of Honolulu, Department of Transportation Services, Public Transit Division, and Oahu Transit Services, Inc. as reported by SSFM Engineers, Inc/Parsons Brinckerhoff, June 1998, Table 3. *Pearl City Bus Facility Complex: Analysis of Existing and Future Traffic Conditions.*

Figure 4-8 shows the total anticipated peak-hour traffic that would be contributed by all vehicles associated with the PCBF. Figure 4-9 presents a similar diagram that shows only the bus traffic associated with proposed facility.[13] The routings assume that all buses entering or leaving the facility earlier than 7:00 a.m. will do so via Kamehameha Highway, Acacia Road, and the Spine Road in accordance with DTS' commitment to the community. The analysis assumes that 16 buses during the morning peak hour and 12 buses during the afternoon peak hour would use Moanalua Road to reach the facility. The remainder would reach the facility via the Kamehameha Highway-Acacia Road-Spine Road route during these periods.

An alternate scenario in which no buses are allowed to use Moanalua Road when arriving or departing the facility was also evaluated. Results of the analysis indicated that placing this restriction on the operation of the proposed facility would not improve the level of service at area intersections.

[13] These forecasts assume that approximately 30 to 50 of the vehicles used on the Express Bus routes will be parked at the Alapai Street terminus between their morning and afternoon runs.



PREPARED FOR:
SSFM Engineers, Inc.

PREPARED BY:
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Pacific Data Digitizing

SOURCE:
SSFM Engineers, Inc. / Parsons Brinckerhoff
June 1998

LEGEND:

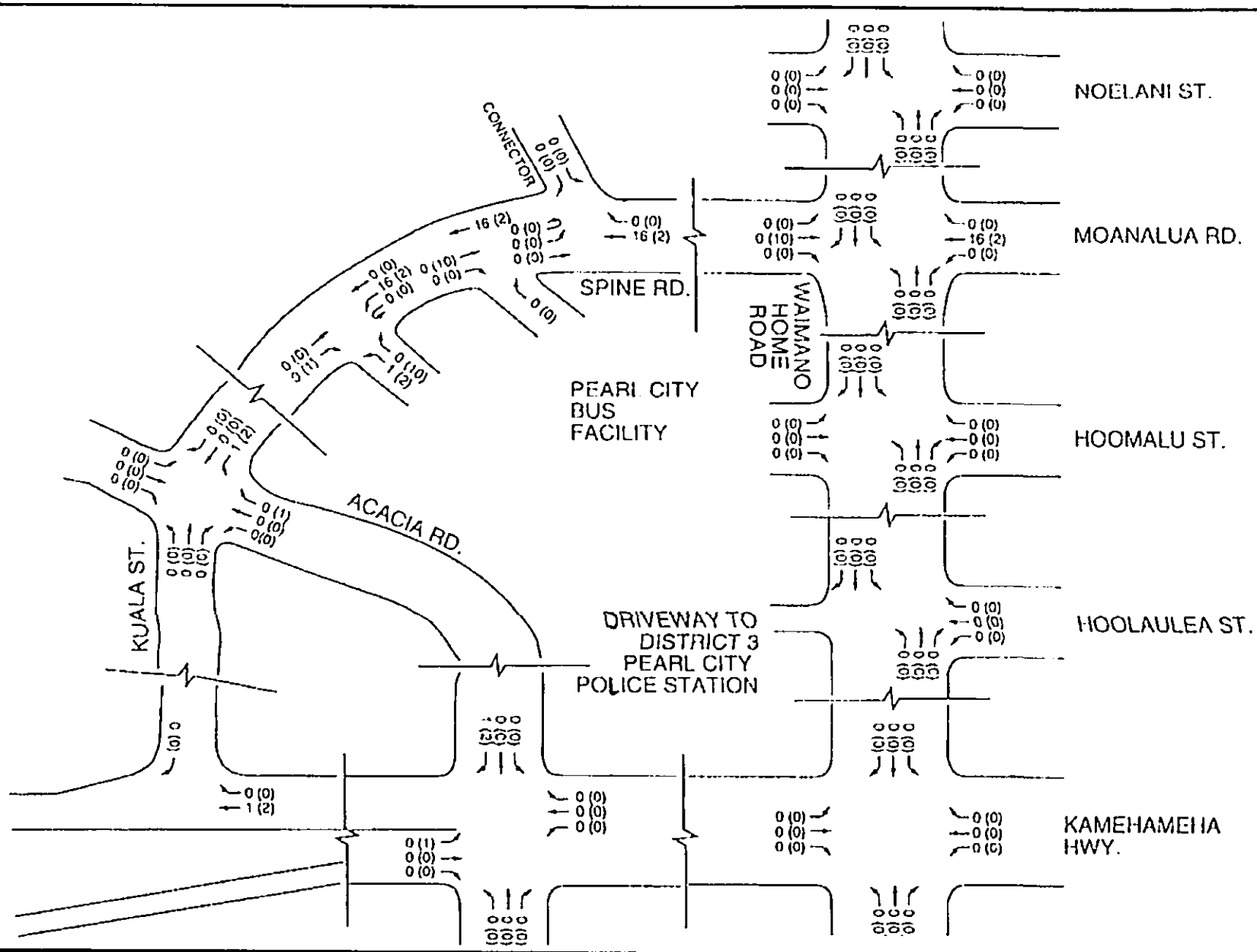
(###) - AM (PM) Peak Hour Volumes
AM Peak Hour - 7:00-8:00 AM
PM Peak Hour - 4:00-5:00 PM
Break in Roadway Presentation

NOT TO SCALE

FIGURE 4-8:

Total Peak Hour Traffic Volumes Associated with the Bus Facility (Year 2020)

Pearl City Bus Facility
Environmental Assessment



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PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
SSFM Engineers, Inc. / Parsons Brinckerhoff
June 1998

LEGEND:

(###) - AM (PM) Peak Hour Volumes
AM Peak Hour - 7:00-8:00 AM
PM Peak Hour - 4:00-5:00 PM
Break in Roadway Presentation

NOT TO SCALE

FIGURE 4-9:

Peak Hour Traffic Volumes Buses Only (Year 2020)

Pearl City Bus Facility
Environmental Assessment

- Because of the nature of the bus facility operation, its peak hours (i.e., the hours during which it generates the most trips) are not the same as the peak hours of the surrounding streets. Most employees and most buses will arrive and depart during off-peak periods.
- A comparison of Figures 4-8 and 4-9 shows that the buses moving to and from the PCBF will be traveling in the opposite direction from the primary traffic flow during these peak traffic hours.

4.7.1.4 Forecast Year 2020 Traffic Volumes with the PCBF

Figure 4-10 illustrates anticipated traffic on the roadways surrounding the PCBF site in the year 2020 if the project is constructed and operated as planned. It represents the summation of forecast volumes from regional traffic growth, from the facility itself, and from other new uses within the Manana Storage Area and the nearby Pearl City Junction Development.

4.7.2 IMPACT OF THE PREFERRED ALTERNATIVE ON KEY INTERSECTIONS

Intersection operational analyses were conducted for the key intersections surrounding the proposed PCBF. These analyses utilized methodologies documented in the *1994 Highway Capacity Manual*, the same methodologies used to prepare the evaluation of existing conditions presented in Chapter 3 of this report.[14]

Table 4-8 compares anticipated peak-hour Level of Service (LOS) at these intersections for three conditions:

- Existing — these are the service levels reported in Section 3.7.
- Year 2020 Without the PCBF — these are the service levels that would result given the projected peak hour "Without Project" traffic volumes shown in Figure 4-7.
- Year 2020 With the PCBF — these are the intersection LOSs that would result given the projected peak hour "With Project" traffic volumes shown in Figure 4-10.

All of the Year 2020 intersection LOSs summarized in Table 4-8 have two inherent assumptions. First, they assume that the proposed Spine Road will be completed. Second, they assume that off-site intersection improvements will be made at key intersections as part of the Manana Storage Area redevelopment and area-wide traffic improvement programs. While those improvements will not eliminate the traffic congestion that now occurs at certain intersections in the vicinity of the PCBF site, they are expected to improve operations incrementally. If they are not made, the LOSs might differ from those shown in Table 4-8.

The analyses show that projected Year 2020 overall peak hour LOS at the intersections surrounding the project site are the same with or without the PCBF. There are only small differences in delay times for specific traffic movements. This finding is consistent with the fact that the proposed facility would generate relatively few trips during the busiest times on the adjacent roadways. Additionally, the vehicle-trips that would be generated by the PCBF during these periods are primarily in the off-peak direction.

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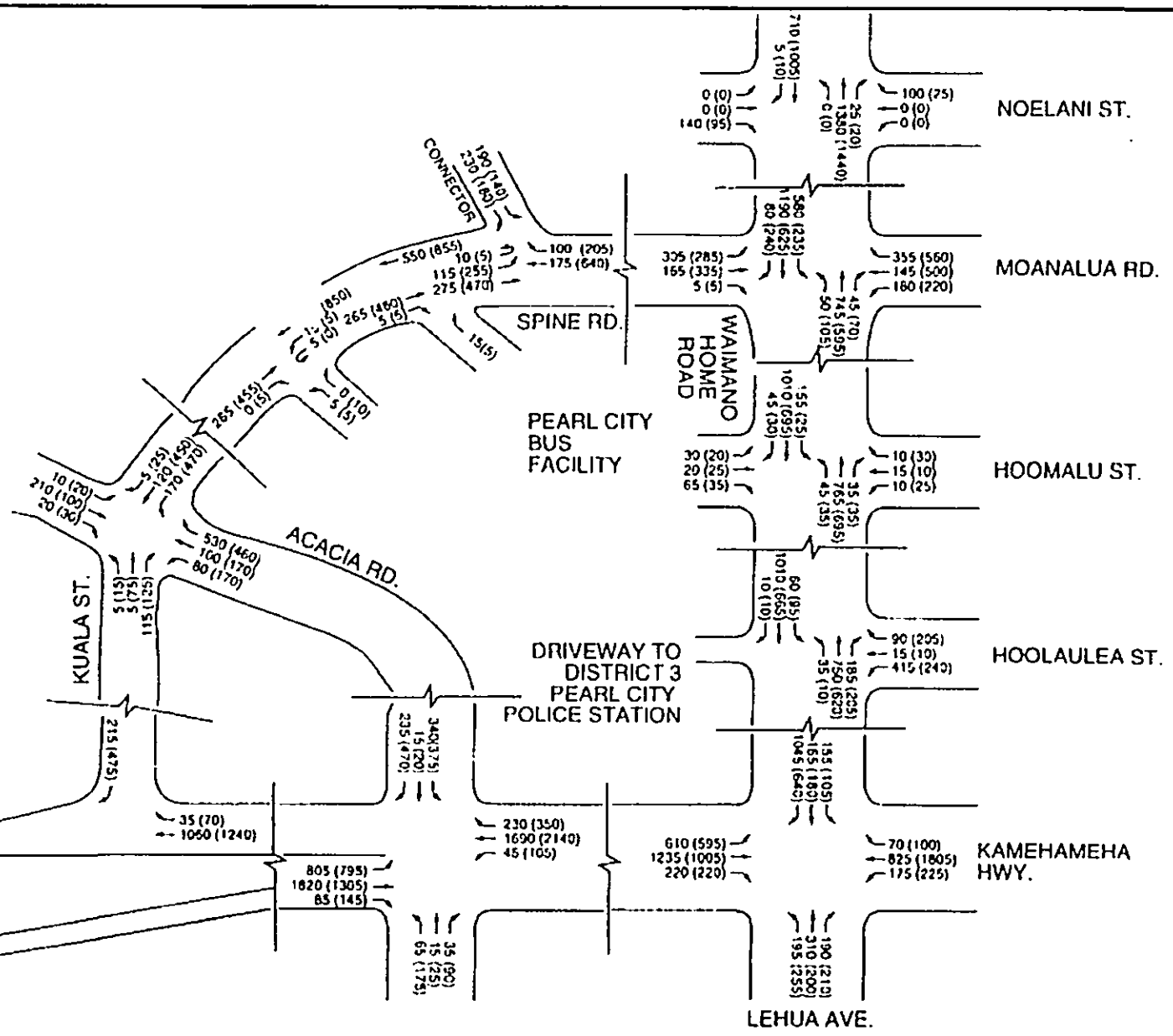
[14] See Section 3.7 of this report for a discussion of the terms and definitions that are used.



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SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
SSFM Engineers, Inc. / Parsons Brinckerhoff
June 1998

LEGEND:

(###) - AM (PM) Peak Hour Volumes
AM Peak Hour - 7:00-8:00 AM
PM Peak Hour - 4:00-5:00 PM
Break in Roadway Presentation

NOT TO SCALE

FIGURE 4-10:

Year 2020 Peak Hour Traffic Volumes Build Scenario

Pearl City Bus Facility
Environmental Assessment

Table 4-8. Comparison of Existing and Forecast Year 2020 Intersection Service Levels.[15]

	A.M. Peak Hour (7:00 a.m. to 8:00 a.m.)			*P.M. Peak Hour (4:00 p.m. to 5:00 p.m.)*		
	Existing	*Year 2020 w/o PCBF*	*Year 2020 with PCBF*	*Existing*	*Year 2020 w/o PCBF*	*Year 2020 with PCBF*
Signalized Intersections						
Kamehameha/Acacia	D	C	C	E	D	D
Kamehameha/Waimano Home Road	E	D	D	F	E	E
Waimano Home Road/Hoolaulea	B	B	B	B	B	B
Acacia/Kuala/Spine Road	A	B	B	A	C	C
Moanalua Road/Waimano Home Road	E	D	D	B	D	D
Unsignalized Intersections						
Waimano Home Road/Hoomalu	A	A	A	A	A	A
Kamehameha Hwy/Kuala	A	A	A	A	B	B

Note: Acacia/Kuala/Spine Road Intersection operates as unsignalized intersection in existing condition.

Source: SSFM Engineers, Inc./Parsons Brinckerhoff, Inc. *Pearl City Bus Facility Complex: Analysis of Existing and Future Traffic Conditions* (June 1998: 40, Table 4).

[15] These LOS estimates assume the existence of roadways and roadway improvements that are planned as part of the overall redevelopment of the Manana Storage Area.

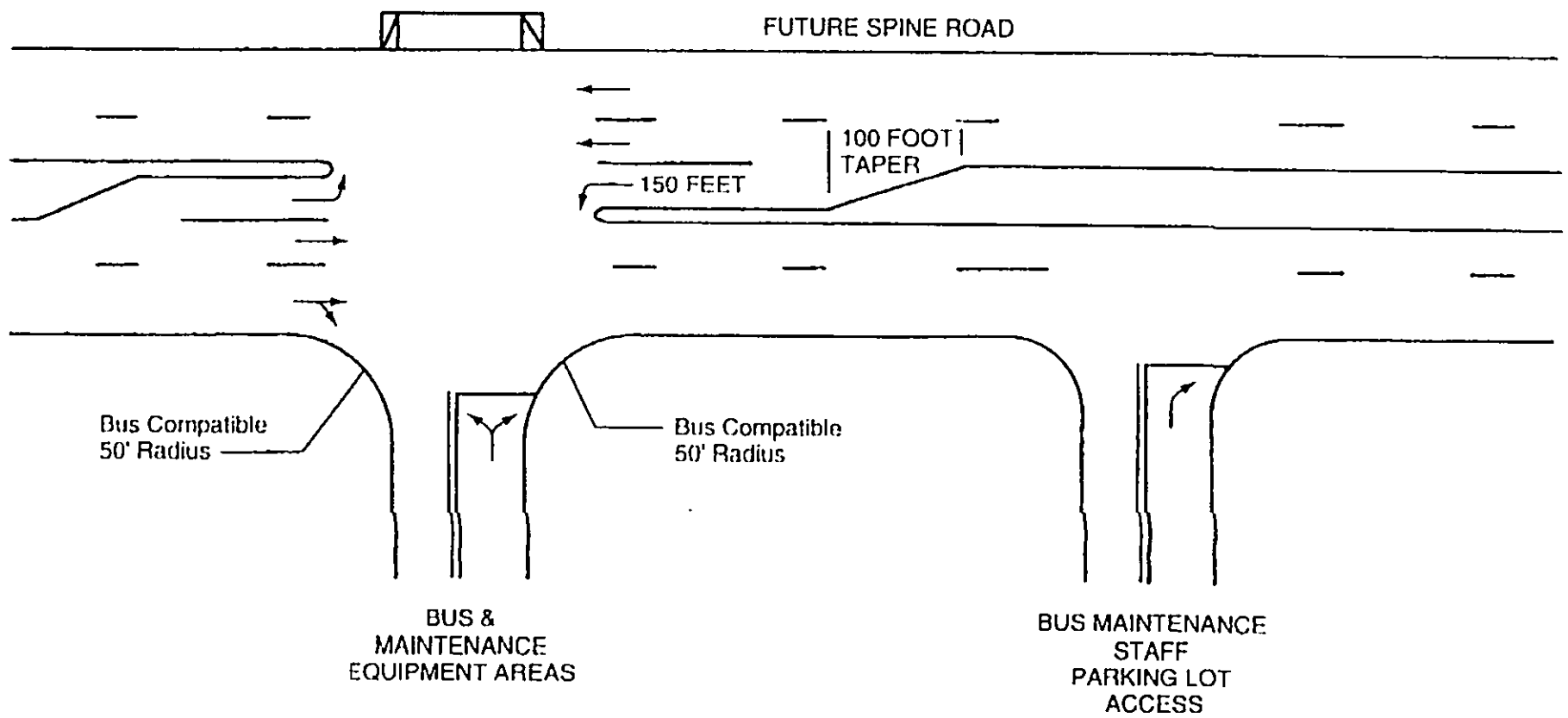
4.7.3 PLANNED PCBF-RELATED INTERSECTION IMPROVEMENTS

The *Pearl City Bus Facility Complex: Analysis of Existing and Future Traffic Conditions* report (SSFM Engineers, Inc./Parsons Brinckerhoff, Inc., June 1998) recommends several intersection improvements be made to accommodate the direct access onto the project site. Two of these are onto the proposed Spine Road; the other is onto Waimano Home Road at the existing Board of Water Supply driveway opposite Hoomalu Street. The proposed PCBF would use the BWS driveway for access to the Transportation Building complex located along Waimano Home Road. The traffic impact analysis identified the following specific conceptual design characteristics for the three access points to the PCBF, and the LOS estimates given above assume that the access points will be constructed accordingly.[16]

- ***Makai* Access onto Spine Road.** Plans for the proposed Spine Road include an opening in the raised median directly opposite the *makai* (southern) PCBF access driveway. This driveway would serve the bus and equipment maintenance facilities. As illustrated by the conceptual design shown in Figure 4-11, the Spine Road would have a *makai*-bound (southbound) left-turn lane (150-feet long with a 100-foot taper) to accommodate buses turning into the facility. The left-turn lane would also allow staff travelling *makai*-bound (southbound) on the Spine Road to make a U-turn to the northbound direction safely to access the *mauka* (northern) PCBF access driveway described below. Curb return radii for the southern access driveway would be at least 50 feet to accommodate bus turning needs.
- ***Mauka* Access onto Spine Road.** The *mauka* (northern) access driveway to the PCBF (also shown in Figure 4-11) would serve the bus maintenance staff parking areas of the project. Trucks or buses would not use this access driveway. Because there will be no opening in the raised median of the Spine Road at this location, traffic movements at this driveway would be limited to right-in/right-out only.
- **Waimano Home Road/Hoomalu Street Access.** Cars would access the parking lot for the Transportation Building via the existing Board of Water Supply driveway opposite Hoomalu Street (see Figure 4-12). Present plans call for primary access to the BWS parcel to be via the Spine Road once that roadway is completed. However, the BWS would maintain the ability to use the existing driveway in an emergency. The existing homes in the Manana Uka subdivision and the Weinberg Pearl City complex would continue to use the existing BWS driveway. Conceptual plans call for the driveway to be widened and improved to allow channelization at the intersection. No traffic signals would be installed at this location. Instead, traffic would continue to be controlled by Stop-signs on the Hoomalu Street and BWS driveway approaches to the intersection.

[16] As previously mentioned, the LOS estimates presented in Table 4-8 assume that the State and City will implement a number of roadway improvements and traffic management techniques in conjunction with redevelopment of the Manana Storage Area and/or as part of regional highway improvement programs. These improvements, which are not linked to the PCBF, involve actions at the Kamehameha Highway/Waimano Home Road, Kamehameha Highway/Acacia Road, Moanalua Road/Waimano Home Road/Future Spine Road, and Waimano Home Road/Pearl City Elementary School intersections.

COMMERCIAL & MEDICAL DEVELOPMENT



PROPOSED PEARL CITY BUS FACILITY

PREPARED FOR:
SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
SSFM Engineers, Inc. / Parsons Brinckerhoff
June 1998

LEGEND:

NOT TO SCALE

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FIGURE 4-11:

Conceptual Design for Spine Road/ PCBF Driveway Intersections

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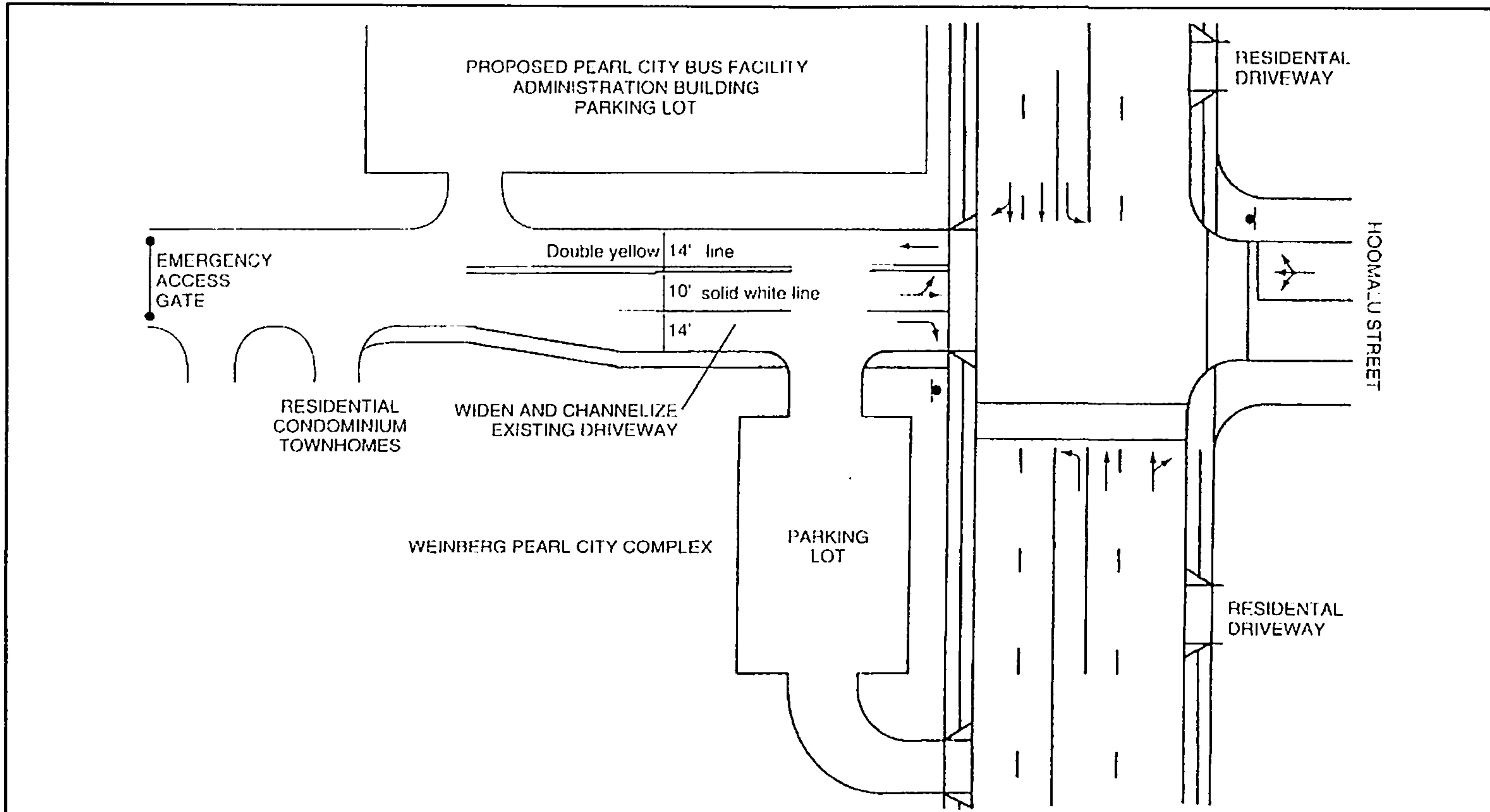
Pearl City Bus Facility Fig 4-11 PCBF Driveway Spine Road Intersections 7-10-98



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PREPARED BY:
Planning Solutions, Inc.
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SOURCE:
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June 1998

LEGEND:

Stop Sign

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N

FIGURE 4-12:

Waimano Home Road / Hoomalu Street Intersection Modifications

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Environmental Assessment

4.7.4 SAFETY AND SECURITY

The PCBF layout and design incorporate features that promote safety and security in and around its facilities. The features presently included in the conceptual plan are summarized below.

- PCBF driveways are being designed with wide curb return radii to allow buses to perform simple maneuvers without intruding into other travel lanes.
- No bus passenger loading will occur at, or immediately adjacent to, the PCBF.
- Pedestrian crosswalks will be located strategically at all PCBF driveway intersections with the proposed Spine Road and Waimano Home Road. They will be designed to provide safe pedestrian crossings.
- PCBF bus and passenger vehicle driveways onto the proposed Spine Road are designed so that they may be signalized when conditions warrant.
- The PCBF staff passenger vehicle driveway onto Waimano Home Road (across from Hoomalu Street) will be widened and channelized to provide left-turn/through and exclusive right-turn lanes.
- On-site bus traffic and personal automobile traffic will follow separate on-site circulation patterns to limit the interaction between these two types of vehicles.
- The PCBF parking areas for buses are separate from the walkways used by PCBF staff and bus operators, thereby promoting on-site pedestrian safety.
- The on-site lighting that is incorporated in the design provide sufficient illumination to maintain pedestrian and bus driver safety.

4.7.5 NO ACTION ALTERNATIVE

Several of the roadways near the PCBF are already congested. Roadway and operational improvements associated with the overall redevelopment of the Manana Storage Area will improve intersection functioning, and the addition of the Spine Road will provide a major new *mauka-makai* (north-south) arterial. At the same time, regional traffic growth and traffic associated with redevelopment of the Manana Storage Area property will increase the number of vehicle-trips on area roadways. The PCBF generates relatively few vehicle-trips during the periods that traffic is busiest on the surrounding roadways. The most probable alternate uses of the property are likely to have trip-generation profiles closer to that of the other uses that contribute traffic to the streets and roads. Substitution of such uses for the proposed bus facility would tend to worsen traffic congestion relative to the proposed project.

4.8 BIOLOGICAL RESOURCES

4.8.1 PREFERRED ALTERNATIVE

Site grubbing, grading, paving, and construction associated with the preferred alternative would result in the removal of the majority of vegetation that currently exists on the project site, including several large, mature trees. The vegetation, however, is not rare or federally protected and does not represent a rare or important community. Vegetative buffers would be installed along Waimano Home Road and the proposed Spine Road; bushes would be planted on the *makai* (southern) site boundary. In addition, landscaping in the parking lots and around the administration building would provide shade and minimize the visibility of paved surfaces. The proposed landscaping would actually be an improvement over the existing vegetation.

Many of the fauna currently using the project site would be permanently displaced. However, these do not include any federally listed or otherwise rare species. The U.S. Fish and Wildlife Service has stated in the *Manana and Pearl City Junction Development Final EIS* that the property does not provide significant habitat for fish and wildlife resources.

4.8.2 NO ACTION ALTERNATIVE

The No Action Alternative would not directly affect flora or fauna in the area. However, since the site would eventually be redeveloped for other urban uses, there is unlikely to be a measurable difference between the "with-project" and No Action Alternatives.[17] The exception to this generalization would occur if the property were developed as a park.

4.9 HISTORIC AND ARCHAEOLOGICAL RESOURCES

4.9.1 PREFERRED ALTERNATIVE

The proposed bus facility is not expected to have any impact on historic or archaeological resources. Past site activities, particularly sugar cane cultivation and military activities are believed to have destroyed or removed any historic sites that may have existed. The State Historic Preservation Officer has concurred with a determination of "no effect" (March 25, 1996 letter reproduced in the *Manana and Pearl City Junction Development Final EIS*). Nevertheless, in the event that archaeological or historical resources are discovered in the course of site development, the State Historic Preservation Division will be contacted immediately and consultation begun in accordance with applicable regulations.

4.9.2 NO ACTION ALTERNATIVE

Like the Preferred Alternative, the No Action Alternative would not affect historic or archaeological resources.

[17] The exception to this generalization would occur if the property were developed as a park. In that instance, wildlife habitat and the number and variety of floral species would probably increase.

4.10 EFFECTS ON VIEWS AND SCENIC AND AESTHETIC RESOURCES

4.10.1 IMPORTANT VIEWPOINTS

Critical views of the completed facility would be from three general areas. The first is Waimano Home Road (particularly from vehicles at stop signs at the Hoomalu Street and Wahinani Street intersections). The second is from residences, institutional structures, and driveways directly *makai* (south) of the project. The third is from pedestrians and vehicles using the proposed Spine Road. A view study conducted during the preparation of this assessment evaluated the visual impacts of the proposed facility from these critical locations. Figures 4-13 and 4-14 show conceptual building elevations.

The Manana Storage Area frontage on Waimano Home Road is about 1,500 feet long. The PCBF site accounts for approximately 600 feet (40 percent) of the total. The PCBF's frontage on the proposed Spine Road would be slightly less than its frontage on Waimano Home Road. Moreover, because the Spine Road would have a much longer frontage with the Manana Storage Area, the PCBF represents a smaller percentage of the frontage of that road. Traffic forecasts reported in Section 4.7 show that, from the standpoint of the number of people who will see the proposed bus facility, the two roadways are the most important locations from which the proposed facilities will be seen. Waimano Home Road, which is expected to carry about twice as much traffic as the Spine Road in the Year 2020, is the more important of the two in this regard.

The park that the City plans to develop along the *mauka* side of the PCBF will also afford people the opportunity to look into the property. However, it is being developed concurrently with the bus facility, and so appropriate visual screening can be incorporated into the park design.

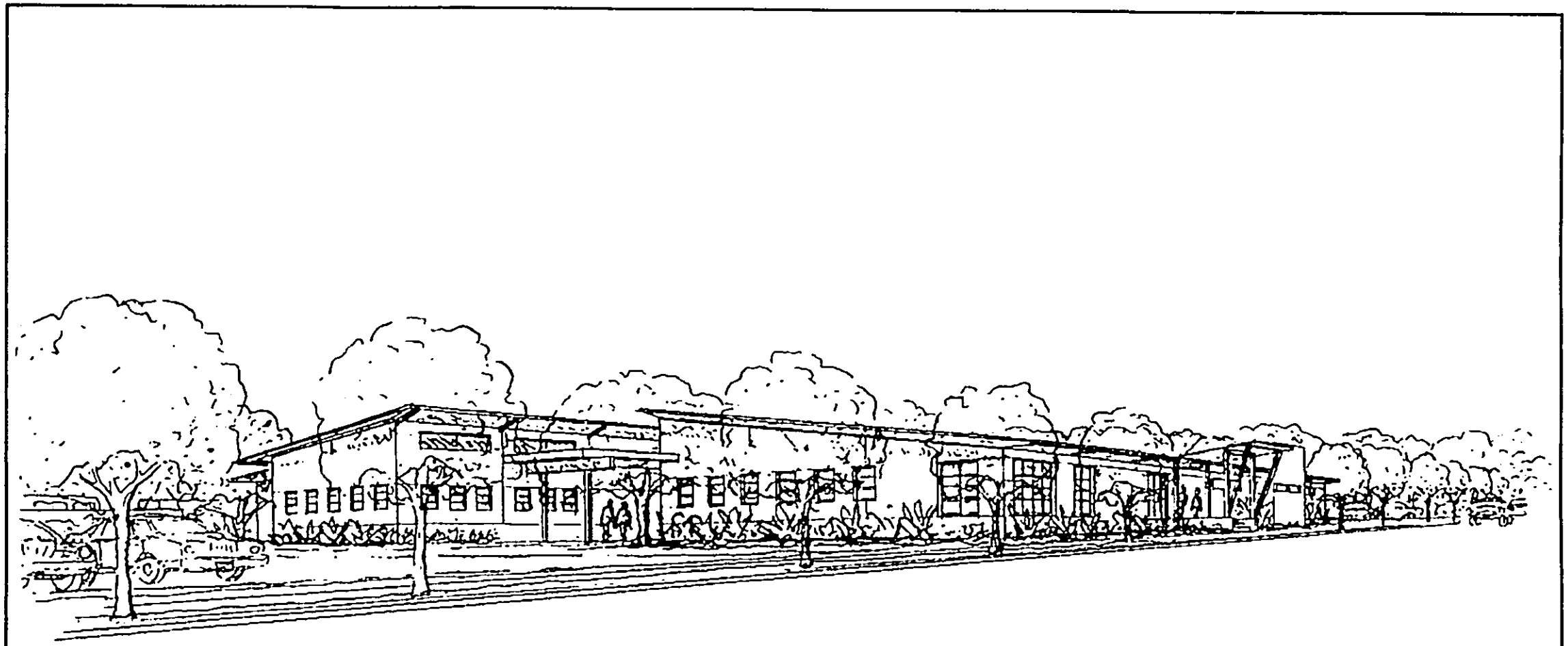
The proposed expansion of the existing BWS baseyard is adjacent to much of the *makai* side of the property. Because of the nature of the activities that will take place there, views from it are not a major concern. Existing residential uses abut the southeastern portion of the property. These uses are more sensitive to appearances, but the noise barrier that is planned along the property line in this area will preclude direct views into the bus facility.

4.10.2 VISUAL IMPACTS OF THE PREFERRED ALTERNATIVE

4.10.2.1 Effect on Views from Waimano Home Road

When the PCBF is constructed, views from Waimano Home Road would be modified as follows:

- The existing warehouses along the eastern side of the property would be demolished and replaced with three single-story facilities (Transportation Administration, Fitness Center, and Training Facility). Only the Transportation Administration building would front directly on Waimano Home Road. The other two buildings would be located behind it. Private vehicle parking lots, landscaped in accordance with the Land Use Ordinance, would surround the buildings on three sides.



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SSFM Engineers, Inc.

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
Urban Works, June 1998.

NOT TO SCALE

FIGURE 4-13:

Rendering of PCBF Viewed from Hoomalu Street at Waimano Home Road

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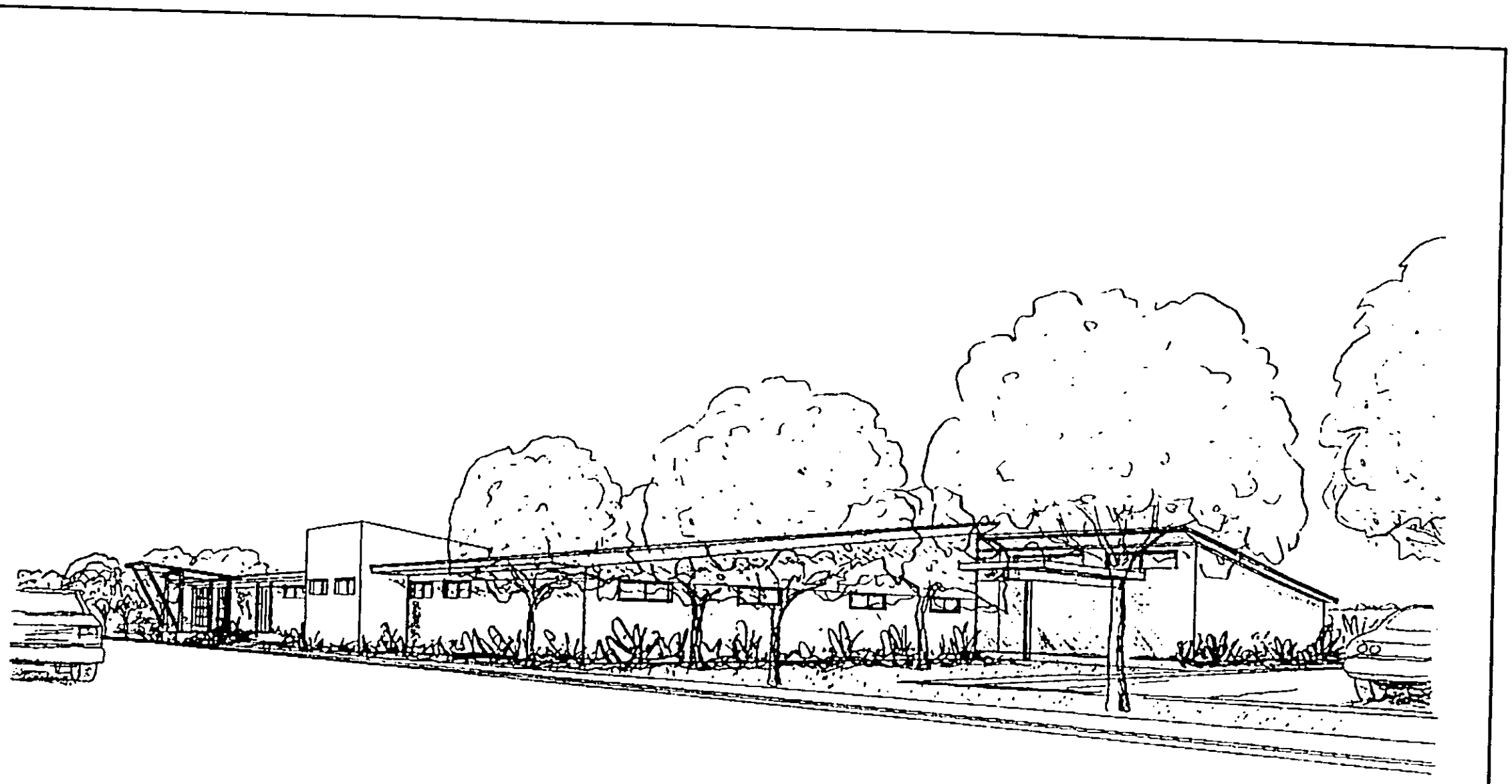

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SOURCE:
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FIGURE 4-14:

Rendering of PCBF Viewed from Waimano Home Road near Wahinani Street

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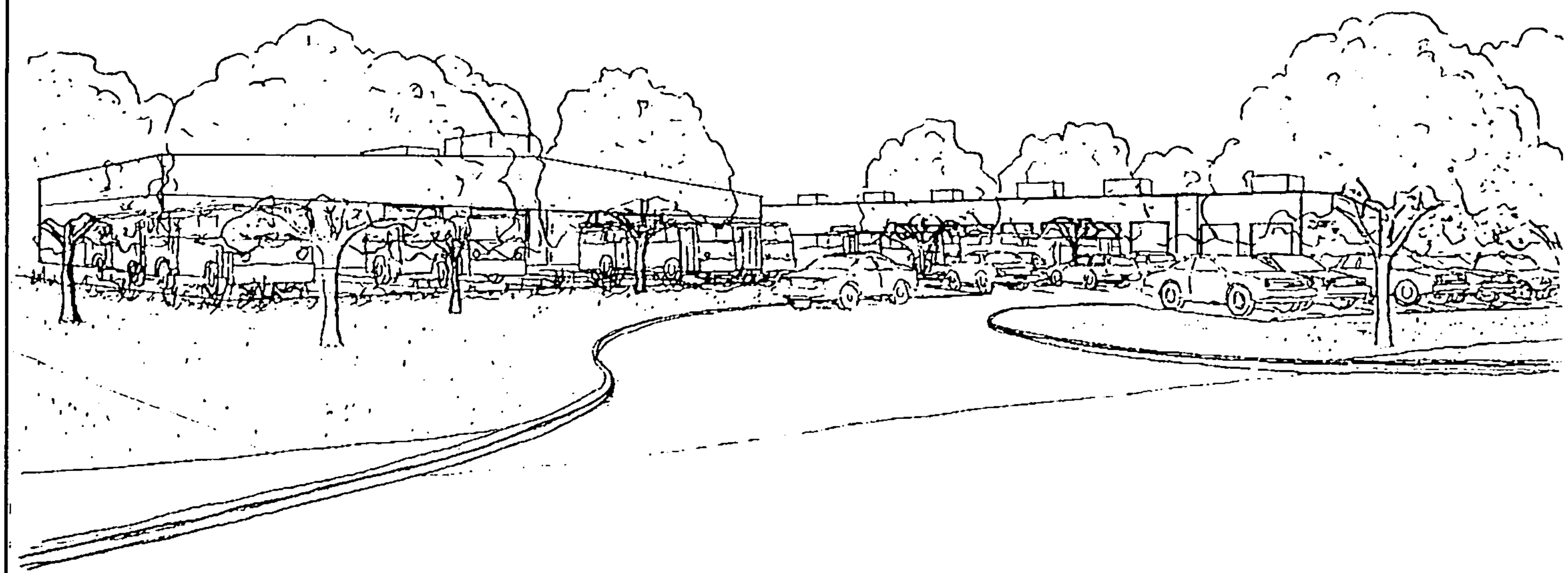
- As a consequence of these changes, occupants of vehicles traveling in either direction on Waimano Home Road would see a single modern, landscaped building immediately adjacent to the road rather than the three existing dilapidated warehouses. The building would have a sloped roof ranging and would be no more than 30 feet above ground elevation.
- Landscaped parking lots would abut either side of the Transportation Administration Building.
- The viewer would be able to see the other two low-profile structures located behind the Transportation Administration facility from certain vantage points along Waimano Home Road. Because most of the people who pass this point will be in moving vehicles, their glimpse of the other two partially hidden structures will be brief.
- Present plans call for an acoustical wall to be installed behind the Training and Fitness Facilities. This wall would block the line-of-sight from Waimano Home Road to the bus parking area located behind the Administration, Fitness and Training facilities.
- Overhead electrical poles shown in the existing views (Figures 3-8, 3-9 and 3-10) would be removed when the underground infrastructure for the Manana Storage Area is installed. Views towards Manana Storage Area from along Waimano Home Road would also be improved once the proposed park is constructed adjacent to the PCBF. Renderings of the proposed PCBF are shown in Figures 4-13, 4-14, and 4-15.

4.10.2.2 Effect on Views from the Spine Road

If the present plan is implemented, the view into the bus facility from the Spine Road would be that of a landscaped entry into a parking area (see Figure 4-15). Industrial type structures (bus maintenance buildings) would be located behind an area with automobile and limited bus parking. Bus parking would be located between the Maintenance Building and the Transportation Building in the inner-most portion of the parcel (see Figure 2-1). This layout is intended to lessen the project's impact on views from the proposed Spine Road.

The proposed PCBF would include exterior lighting for safety and security reasons. Street lighting already exists along the sidewalk of Waimano Home Road; lighting would be installed along the Spine Road when it is constructed. The lighting system has not been designed in sufficient detail to allow its effects to be addressed in detail. However, the principal areas of concern are the existing residential areas near the project. These are expected to be partially shielded by noise barriers, and so on-site lighting can be designed to avoid intruding on neighboring properties.



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PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
Urban Works, June 1998.

NOT TO SCALE

FIGURE 4-15:

Rendering of PCBF Viewed from Proposed Spine Road

Pearl City Bus Facility
Environmental Assessment

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4.10.3 NO ACTION ALTERNATIVE

The No Action Alternative would leave the existing structures in place over the short term. With time, and in the absence of viable economic uses for them, the already aging buildings would deteriorate further. Over the long term, the appearance of the area (and, therefore, the ultimate effect of the No Action Alternative) will depend upon the use to which the PCBF site is ultimately put.

4.11 PUBLIC SERVICES AND FACILITIES

4.11.1 PREFERRED ALTERNATIVE

For reasons discussed below, the proposed bus facility would have no significant long-term impact on existing public services and facilities.

4.11.1.1 Recreational Facilities

Manana Kai Park, which is located approximately 300 feet west of the PCBF site, is the nearest existing recreational facility. It will be separated from the PCBF by the proposed Spine Road and by the commercial development planned along the western side of that roadway. Once commercial structures are constructed on the parcel, they will block the direct line-of-sight between the Park and the PCBF. In the interim, razing the existing warehouses on the *Ewa* side of the Spine Road (which will occur during its construction) will make it possible to see the new bus facilities from the Park. Noise levels within the Park will be consistent with applicable land use compatibility guidelines.

Manana Neighborhood Park is situated north of Manana Kai Park adjacent to Manana Elementary School. It is about 1,500 feet from the proposed PCBF. Construction and operation of the PCBF will not significantly affect the park.

The Pearl City District Park is located along Hoomaemae Street approximately 0.4 mile northeast of the PCBF site. On-site operational noise will not be audible at the park. Some vehicular traffic associated with the PCBF will pass close to the Pearl City District Park. However, the volumes are small and somewhat removed. They constitute a very small portion of the total vehicle traffic on that segment of Moanalua Road that is nearest to the park.

The PCBF is approximately 0.4 mile from Pacheco Playground, which is located on the northwestern corner of the intersection of Kamehameha Highway and Waimano Home Road. This Park is too far from the PCBF site to be affected by on-site noise or other emissions. Intervening buildings block the direct line-of-sight between the two.

4.11.1.2 Libraries

The Pearl City Regional Library is situated on Waimano Home Road a few hundred feet south of the Manana Storage Area boundary. The proposed project will slightly increase vehicular traffic on the roadways used to access the Library. It is only a small part of the changes that are forecast to occur as a result of the overall redevelopment of the Manana Storage Area, however. Moreover, in view of the fact that the overall level of service on

Waimano Home Road would remain unchanged, the proposed project would not significantly affect this facility.

4.11.1.3 Educational Facilities and Services

As described in Chapter 3, several public schools are located within one mile of the project site. These include Pearl City Highlands Elementary School, Pearl City Elementary School, Manana Elementary School, Lehua Elementary School and Pearl City Highlands Intermediate School. Leeward Community College/West Oahu College is also approximately one mile from the site. None of these facilities is close enough to be directly affected by the proposed PCBF. Traffic associated with the proposed project will have an effect on roadways used by vehicles taking faculty and students to and from some of the facilities. However, PCBF-related trips will not significantly alter traffic volumes.

4.11.1.4 Medical Service

The two acute-care hospitals in the general area (Kapiolani Medical Center at Pali Momi and St. Francis West Medical Center near Farrington Highway and Fort Weaver Road) are too far to be directly affected by construction and operation of the proposed facilities. They are sufficiently close to facilitate access to them in case of a medical emergency at the PCBF.

4.11.1.5 Fire Protection

The Pearl City and Waiau Fire Stations are located close enough to the proposed facility to provide adequate fire protective services in case of an on-site emergency. The PCBF design includes fire suppressant systems designed in accordance with applicable regulations.

4.11.1.6 Police Protection

The PCBF site is close to the Pearl City Police Station on Waimano Home Road. Police have ready access to the site from either Waimano Home Road or from the proposed Spine Road in case of an emergency. Although the development of the PCBF alone may not require the addition of another police beat, the Honolulu Police Department has indicated that a new beat may be required when the entire Manana Storage Area is redeveloped as proposed. The Police Department has stated that they will monitor the development of the entire area to determine if and when a new police beat is needed.

4.11.2 NO ACTION ALTERNATIVE

The No Action Alternative would have no direct impact on public services or facilities. Alternative uses that would probably be developed on the site in the event the PCBF is not constructed are likely to place equal or greater demands on the facilities and services described above.

4.12 INFRASTRUCTURE

4.12.1 STORM DRAINAGE

4.12.1.1 Preferred Alternative

The effect that the proposed project would have on storm drainage patterns and runoff is integrated with the discussion of hydrologic impacts presented in Section 4.4.1.

4.12.1.2 No Action Alternative

The No Action Alternative would not have any immediate direct effect on storm drainage in the area. However, the overall stormwater drainage plan for the Manana Storage Area would have to be reevaluated and adjusted to reflect no change to the project site. In view of the grade changes that are anticipated as a result of construction of the proposed Spine Road along the western side of the PCBF, some revision to the existing site drainage patterns would probably be required. Over the long term, re-use of the property would require improvements to the storm drainage facilities roughly comparable to those needed for the PCBF.

4.12.2 WATER SUPPLY

4.12.2.1 Anticipated Water Use by the Preferred Alternative

Community Planning, Inc. (September 1997) prepared the water master plan for the City's planned redevelopment of the former Navy lands in Manana and Pearl City. The report estimates water use by the proposed PCBF will average 4,000 gallons per acre per day. Maximum daily demand and peak-hour demands are estimated at 1.5 and 3.0 times this, respectively. Based on these use rates and the 21-acre project area, water use is forecast as follows:

Time Period	Water Use (*gallons*)	
	PCBF	Total Manana and Pearl City Junction[18]
Average Day	84,000	447,908
Peak Day	126,000	671,713
Peak Hour	10,500	1,343,426

[18] Community Planning, Inc.'s analysis (page 6) also addressed water use within the Pearl City Junction parcel, which the City is also redeveloping. These estimates include water used at that location.

4.12.2.2 Ability to Accommodate the Proposed Project

In 1996, the existing average day water demand from the BWS' 285-foot system (from which the PCBF and other users of the Manana Storage Area would draw) was 2.29 million gallons per day (mgd). Community Planning, Inc. (September 1997) estimated maximum daily demand and peak-hour demand of 3.44 mgd and 6.87 mgd (286,000 gallons per hour). The analysis of future system adequacy was based on these base use rates.

Community Planning, Inc. (September 1997) analyzed the ability of existing and proposed water facilities to accommodate the redevelopment of the Manana Storage Area, including water used by the proposed PCBF. The analysis assumed that a new 12" water line would be installed within the right-of-way of the proposed Spine Road and that new development within the Manana Storage Area would draw water from it. Community Planning, Inc.'s analysis[19] of the size of the pipe network and reservoirs needed provided for:

- The maximum daily flow plus fire flow with a residual pressure of 20 pounds per square inch (psi) at the critical hydrant.
- Peak-hour flow with a minimum pressure of 40 psi.
- Friction factors ("C") of 100 for 6" pipe, 110 for 8" and 12" pipe, 120 for 16" and 20" pipe, and 130 for 24" pipe and larger.
- Six feet per second maximum velocity in main without fire flow.
- Maximum static pressures not-to-exceed 125 psi.
- Reservoir capacity capable of meeting the maximum day consumption starting from full and with no water added during the day.
- Reservoir capacity capable of meeting the maximum day rate plus fire flow for the duration of a fire (assuming reservoir is 75% full at the start of the fire, with credit for incoming flow from all but the largest pump).

Community Planning, Inc.'s, analysis concluded:

> *"In both the existing and proposed conditions, the maximum day demand plus fire flow analysis indicated the water systems are adequate for the indicated fire flows. However, for the existing peak-hour demand analysis, the minimum residual pressure of 40 psi was not met in the residential subdivisions west and north of the mauka project site.... For the peak hour flow analysis of the proposed developments, pressures lower than 40 psi occurred at nodes 6, 85, 88, 99, 101, and 103-114.... Generally, with the water line improvements for the proposed development the pressures improved in the residential subdivisions around the project site. Thus, although there are areas still deficient in pressure requirements, the deficiencies were present in the existing conditions and are improved by the proposed development[20]."*

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[19] Community Planning, Inc., used the KYPIPE water distribution program for the analysis.

[20] The reservoir analysis concluded that reservoir criteria No. 1, i.e., the ability to meet the maximum daily demand without any inflow, is controlling and that 0.61 million gallons of storage is needed to meet the needs of the entire redevelopment.

4.12.2.3 No Action Alternative

The Manana Storage Area is presently served by a water system operated and maintained by the Navy. The Navy will continue to perform this function only until the City completes its redevelopment planning and installs the infrastructure needed to support the new land uses. Consequently, under current agreements it would not be possible to provide potable water to the 21-acre PCBF site after Spine Road is constructed and other portions of the Manana Storage Area began to draw their water from the new system.

4.12.3 WASTEWATER

4.12.3.1 Wastewater Volume

Community Planning, Inc. (December 1997) estimates that the proposed bus facility will generate an average of approximately 16,000 gallons per day (0.016 MGD) of sanitary wastewater. This estimate reflects the fact that the vehicle wash facilities within the PCBF will have recirculating washwater systems, thus minimizing discharge to the City's wastewater collection system.

4.12.3.2 Affected Wastewater Facilities

The Manana Storage Area is located in the service area of the Pearl City Sewage Pump Station (SPS). Two existing City-owned wastewater lines carry wastewater from the areas surrounding the PCBF site to the Pearl City SPS. One sewer main is located in Waimano Home Road; it increases from a diameter of 15" adjacent to the PCBF to 42" in diameter before entering the Pearl City SPS.

The other municipal sewer line is the Waiawa Stream Trunk Sewer. It collects wastewater from subdivisions to the north and west of the Manana Storage Area property, crosses Kamehameha Highway into the Pearl City Junction and University of Hawaii Agricultural Experimental Station properties before connecting to the Waimano Home Road sewer line.

The third sewer trunk line in the area is the Navy sewer line that serves the Manana Storage Area site and the U.S. Post Office site. It passes through the Kauhale Manana Subdivision and the Post Office site, crosses Kamehameha Highway to the Pearl City Junction parcel, then connects to the Waiawa Stream Trunk Sewer in the University of Hawaii Agricultural Experimental Station.

4.12.3.3 Ability of the Wastewater System to Accommodate the PCBF

Community Planning, Inc. (December 1997: 2) estimated that the uses proposed for the Manana Storage Area property would generate an average of 0.60 MGD of sanitary wastewater. The PCBF's 0.016 MGD would account for about 2.7% of this total. The wastewater from the PCBF site would be discharged into the 12"-diameter sewer line that is planned within the right-of-way of the Spine Road. Hydraulic calculations show that this line will have sufficient capacity to accommodate this and other flows that would result from the planned development. The City Department of Wastewater Management (July 9, 1997) confirmed that the existing and planned collection system and the Pearl City SPS have sufficient capacity to accommodate the forecast wastewater flow.

4.12.3.4 No Action Alternative

The infrastructure redevelopment plans that the City has prepared for the Manana Storage Area assume that the PCBF will be integrated into an overall wastewater collection system for the entire property. Over the short term, no action on the PCBF site would make it difficult to continue to provide service to the property. Over the long term, it is likely that the property would be put to an alternate use. Wastewater from this alternate use is likely to be equal to, or greater than, the wastewater volumes that would be generated by the proposed PCBF.

4.12.4 ELECTRICAL AND COMMUNICATION SYSTEMS

4.12.4.1 Electrical System Demand by the PCBF and Other Planned Redevelopment

The City has prepared an electrical/communication/CATV (cable TV) master plan for redevelopment of the entire Manana Storage Area (Ho & Associates, Inc., April 7, 1998). The electrical master plan forecasts total electrical demand of approximately 11,000 kilowatts (kW) for the entire Manana Storage Area redevelopment. It estimates that the PCBF will account for approximately 1,260 kW of that. The PCBF forecast is based on a rate of 60 kW/acre.

4.12.4.2 Electrical Improvements Needed to Support the PCBF and Redevelopment

Because of the forecast demand, a new substation must be constructed (Ho & Associates Inc., April 7, 1998). According to the Hawaiian Electric Company (October 14, 1997), "*...construction of this substation will depend on the load schedule after the year 2000 (i.e. developments other than the Bus Yard, BWS, DTS, and DPR developments).*" This assumes that the PCBF and other City and County developments on the property (BWS, DPR, and DTS) will be constructed prior to other load generating uses in the redevelopment area. If this is not the case then the substation could be required before developing those specific projects.

The new substation would be located near Acacia Road off the Spine Road. It would be served by two 46 kV circuits, 1 underground and 1 overhead. The substation would convert the 46 kV power delivered by the regional transmission system to the 12 kV power used in the local distribution system. Before completion of this substation, those projects in the redevelopment area will be served from two existing 11.5 kV circuits originating from the Waimano substation. After construction of the new substation, the existing pad mounted transformers would be modified and reconnected to the new 12 kV distribution system. A pad-mounted switch would also be required to support the demand from redevelopment of the area. The location of this switch and related easements has yet to be determined. The Hawaiian Electric Company has sufficient existing generating capacity to accommodate the needs of the new uses.

4.12.4.3 Communication/CATV System Improvements

The existing telephone system will be extended from three existing service locations. The extensions would be underground except for those near the existing cane haul road, which would be overhead. The PCBF would connect to the underground service provided along

Spine Road at a manhole located at its western-most corner. In addition, GTE Hawaiian Tel (HTCo) will require two 8-foot by 8-foot easements for cross-connect equipment to service the redevelopment area. Although plans are preliminary, none of the easements resides on the PCBF property.

CATV improvements for the entire Manana Storage area include extending overhead cable from Waimano Home Road and Acacia Road throughout the project through a system of underground conduits and pullboxes. Preliminary conceptual design indicates that a 6-foot by 5-foot easement will be required for CATV power supply equipment. However, this easement will not be on the PCBF site.

4.12.4.4 Adequacy of Existing and Planned Electrical and Telecommunication Systems

The electrical modifications required to support the redevelopment of the PCBF cannot be separated from the modifications needed to redevelop the other property within the Manana Storage Area. Ho & Associates (April 7, 1998) concluded that if the PCBF is constructed on the present schedule, there appears to be adequate capacity in the existing electrical system without the construction of a substation. However, the new substation will be required before all of the remaining parcels on the 109-acre site can be developed.

Impacts related to needed telecommunication and CATV systems improvements (which would be done as part of the overall Manana Storage Area redevelopment) include such things as the granting of two easements for cross-connect telephone equipment, granting of an easement for CATV power supply equipment, and installation of a conduit system in the project redevelopment area for the telephone system and the CATV system.

4.12.4.5 No Action Alternative

Over the short term, under the No Action alternative, electrical energy use on the site would remain at its present level, and the existing uses would continue to be served by the lines along Waimano Home Road. Over the long term, the site would be redeveloped for other uses, and electrical energy consumption would change accordingly. Depending upon the nature of the alternate use, total consumption is likely to equal or exceed that needed for the proposed PCBF.

Under the No Action scenario, existing communication/CATV service to the PCBF site would remain unchanged over the short term. However, redevelopment of the site will eventually lead the City to make improvements similar to those needed for the PCBF.

4.13 CONSTRUCTION IMPACTS

4.13.1 CONSTRUCTION IMPACTS OF THE PREFERRED ALTERNATIVE

Construction activities at the PCBF site and at other sites adjacent or near to the PCBF site that may be under construction at the same time as the PCBF will result in temporary impacts to nearby areas. These impacts include:

- fugitive dust;
- emissions from heavy equipment;

- noise from heavy equipment operations and construction activities; and
- increase in construction related traffic to and from the site and its vicinity.

Quantifying the intensity and duration of the impacts experienced by nearby residential areas and roadways will depend on the schedule of construction activities for the entire redevelopment site and the extent to which they overlap in smaller areas of it.

Temporary construction impacts associated solely with construction of the first phase of the PCBF are expected to last 21 months (SFFM Engineers, Inc., *et al.*, January 20, 1998).

4.13.2 MITIGATION MEASURES FOR CONSTRUCTION IMPACTS

Development of the project will involve excavation, grading and the construction of infrastructure and buildings. The various construction phases of the project may generate significant amounts of noise, which may affect nearby residential areas. The actual noise levels produced will be a function of the methods employed during each stage of the construction process.

To the extent possible, the Department of Design and Construction will coordinate the PCBF construction activities with other overlapping or coinciding construction projects that may be ongoing in the Manana Storage Area in order to minimize impacts to the surrounding community.

Typical ranges of construction equipment noise are shown in Figure 4-16. Earth moving equipment, e.g., bulldozers and diesel-powered trucks, will probably be the loudest equipment that is used during construction (assuming that pile driving will not be required).

In cases where construction noise exceeds, or is expected to exceed, the State DOH's "maximum permissible" property line noise levels, a permit must be obtained from the State DOH to allow the operation of vehicles, construction equipment, power tools, etc., which emit noise levels in excess of "maximum permissible" levels. Specific permit restrictions for construction activities are:

- *No permit shall allow any construction activities which emit noise in excess of the maximum permissible sound levels...before 7:00 a.m. and after 6:00 p.m. of the same day, Monday through Friday.*
- *No permit shall allow any construction activities which emit noise in excess of the maximum permissible sound levels...before 9:00 a.m. and after 6:00 p.m. on Saturday.*
- *No permit shall allow any construction activities which emit noise in excess of the maximum permissible sound levels on Sundays and on holidays.*

In addition, construction equipment and on-site vehicles or devices whose operations involve the exhausting of gas or air, excluding pile hammers and pneumatic hand tools weighing less than 15 pounds, must be equipped with mufflers, and construction vehicles using trafficways must satisfy the State DOH's vehicular noise requirements.

Blasting is not expected to be needed to construct the proposed facility. However, if it were required, it could be accomplished by using numerous small charges detonated with small

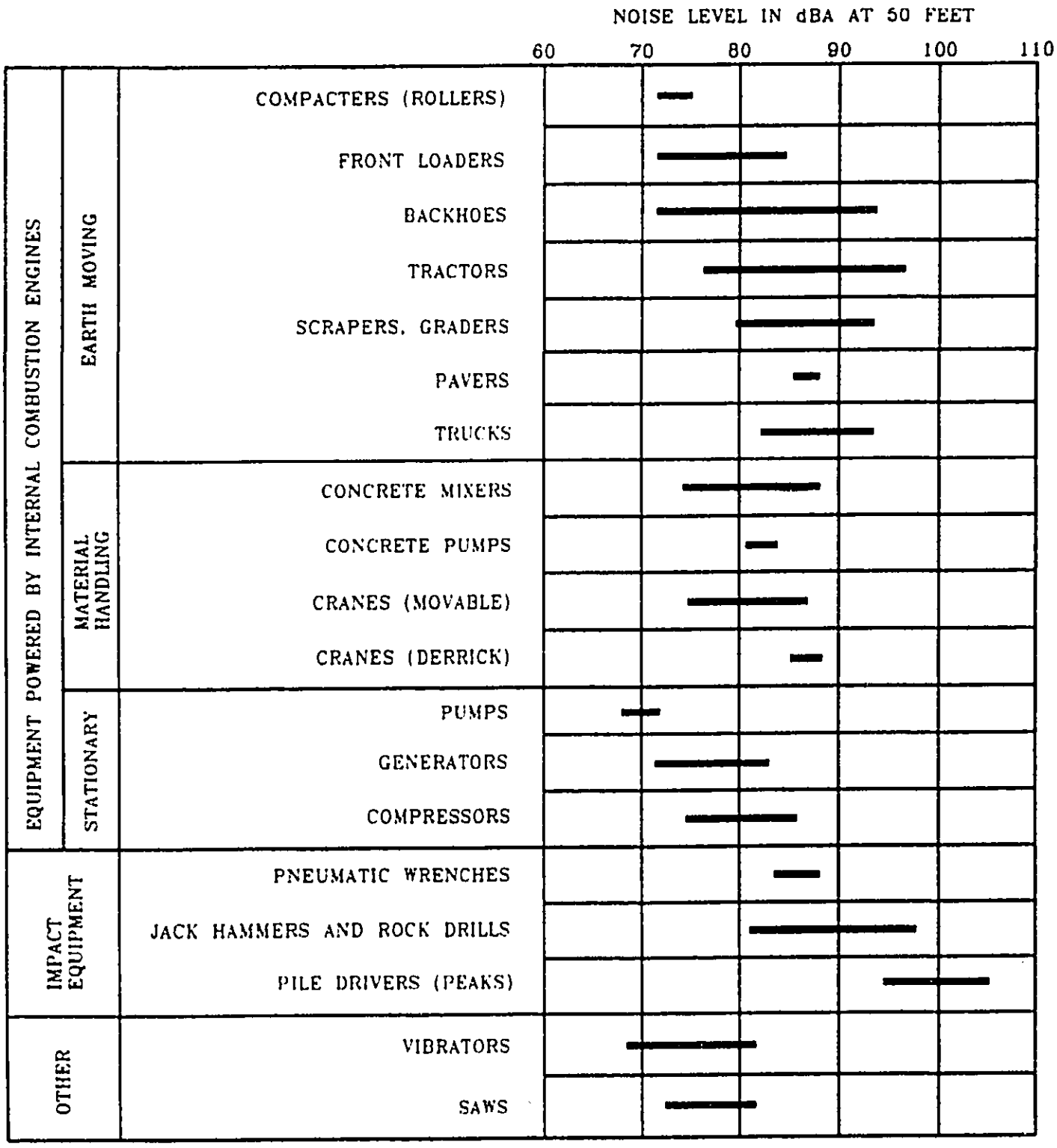
time delays. Blast mats can also be used to assist in directing the explosive energy into the rock, controlling flying debris, and muffling the noise. Thus, with the appropriate blast design techniques, the noise from blasting can be controlled to within acceptable limits at the closest noise sensitive locations.

Construction vehicle activity may increase automotive pollutant concentrations along the existing streets as well as on the project site itself. Most of the non-signalized intersections in the area are currently operating at good levels of service (LOS), i.e., "A" to "C" during the peak hours and at higher levels during off-peak hours and thus should be able to accommodate the temporary construction-related traffic. The larger intersections, however, are experiencing LOS as low as "F" during peak hours and would be further exacerbated by additional construction-related traffic.

The site preparation and earth moving will create particulate emissions as will construction of the buildings. Construction vehicle movement on unpaved on-site areas will also generate particulate emissions. Based on EPA studies, fugitive dust emissions from the PCBF site are estimated to be on the order of 86 tons per month (Morrow, June 1998). This estimated emission rate was added to the maximum 24-hour concentration reported at the State DOH's Pearl City monitoring site, and then compared with State and federal 24-hour standards. The result indicated a worst-case concentration of 38.2 mg/m^3, a level well below standards. Dust control measures will be required of the PCBF contractor. This generally involves use of dust screens to protect potentially affected properties and daily water sprinkling to limit the levels of fugitive dust that might escape.

In addition to the onsite impacts attributable to construction activity, there will also be offsite air quality impacts due to the operation of concrete and asphalt batching plants needed for construction. Such plants routinely emit particulate matter and other gaseous pollutants. It is too early, however, to identify the specific facilities that will be providing these materials and thus the discussion of air quality impacts is necessarily generic. The batch plants, which will be producing the concrete for foundations, curbing, etc. and the asphalt for roadways, must be permitted by the Department of Health Clean Air Branch pursuant to state regulations. In order to obtain these permits, they must demonstrate their ability to comply with both emission and ambient air quality standards. Under the recently promulgated federal Title V operating permit requirements, now incorporated in Hawaii's rules, air pollution sources must regularly attest to their compliance with all applicable requirements.

Temporary visual impacts during construction would be associated with the movement of heavy vehicles and other equipment, site preparation work (*e.g.*, tree cutting and retaining wall construction), and other construction activities (such as installation of utilities, landscape planting, etc.). Much of this activity, however, will be shielded from view by dust barriers installed at the perimeter of the site.



NOTE: BASED ON LIMITED AVAILABLE DATA SAMPLES

PREPARED FOR:
SSFM Engineers, Inc

PREPARED BY:
Planning Solutions, Inc.
Pacific Data Digitizing

SOURCE:
D L Adams Assoc., Ltd., June 1998.

FIGURE 4-16:

Typical Sound Pressure Levels from Construction Equipment

Pearl City Bus Facility
Environmental Assessment

Pearl City Bus Facility; Fig 4-16 Typical Sound Pressure Levels, 7-1-98

Asbestos and lead paint are believed to be present in some of the structures that would be demolished to make way for the PCBF. These materials would be removed and disposed in accordance with all applicable laws and regulations.

4.13.3 NO ACTION ALTERNATIVE

If the PCBF was not constructed, there would be no immediate construction impacts. Redevelopment of surrounding properties would occur as planned, however. This would make construction work on the supporting infrastructure for the Manana Storage Area more difficult and expensive than if the PCBF were included. It also means that the PCBF would be developed after urban uses are already established on the 21-acre site. This would tend to increase the likelihood that the construction will have detrimental effects when it does occur.

CHAPTER 5

CONFORMANCE WITH APPLICABLE LAND USE POLICIES AND PLANS

5.1 CHAPTER 205, HRS - LAND USE LAW

Chapter 205, Hawaii Revised Statutes (HRS), establishes the State Land Use Commission (LUC) and gives this body the authority to designate all lands in the State as Urban, Rural, Agricultural, or Conservation District lands. The Counties make land use decisions within the Urban Districts in accordance with their respective County general plans, development plans, and zoning ordinances.

The project site is located within the State Urban District. Proposed development of the PCBF is consistent with uses allowed in the State Urban District and will not require any action by the Land Use Commission.

5.2 HAWAII STATE PLAN

The Hawaii State Plan is intended to guide the long-range development of the State of Hawaii by:

- Identifying goals, objectives and policies for the State and its residents;
- Establishing a basis for determining priorities and allocation of resources; and
- Providing a unifying vision to enable coordination between the various counties' plans, programs, policies, projects and regulatory activities to assist them in developing their county plans programs and projects and the State's long-range development objectives.

The Plan has three parts: Part I-Overall Theme, Goals, Objectives and Policies; Part II-Planning, Coordination and Implementation; and Part III - Priority Guidelines.

The *Manana and Pearl City Junction Development Final Environmental Impact Statement* examined how the master plan proposed for the redevelopment of Manana Storage Area (which included a 17-acre mass transit facility) supported applicable objectives and policies of the State Plan. It concluded that the redevelopment did not counteract objectives and polices associated with population growth and land resources, economy, physical environment including land-based, shoreline and marine resources, scenic natural beauty and historic resources, and land, air and water quality, facility systems including solid and liquid wastes and energy/telecommunications. The report noted however, that retaining portions of the redevelopment area for use by public facilities would prevent the City from receiving the benefits associated with tax revenues that might have been generated with the private development of those areas now slated for public facilities.

5.3 STATE FUNCTIONAL PLANS

The State also issues twelve functional plans that serve as implementation guides supporting the State Plan. These functional plans are intended to provide guidance on functional implementation to the various County General Plans and Development Plans. According to *the Manana and Pearl City Junction Development Final Environmental Impact Statement,* the proposed redevelopment plan was consistent with the objectives in the State's functional Plans.

5.4 STATE MODEL ENERGY CODE

The Department of Business, Economic Development, and Tourism maintains the State's Model Energy Code, Energy Efficient Standard for Buildings. This plan's goal is to reduce Hawaii's consumption of oil, reduce the amount of fossil fuel being utilized and ultimately effect significant savings in utility costs throughout the State. The designers of the PCBF have followed the applicable standards in preparing their design.

5.5 CITY AND COUNTY OF HONOLULU GENERAL PLAN

The *Oahu General Plan* is a comprehensive statement of objectives and policies which sets forth the long-range goals of the City's residents and the strategies to achieve them. General Plan Goals and Policies relevant to the proposed bus facility are discussed below.

***Population, Objective B** - To Plan for future Population Growth; and*

***Population, Objective C** - To establish a pattern of population distribution that will allow the people of Oahu to live and work in harmony.*

Discussion: The PCBF would support efficient transit operations in Ewa and Central Oahu, potentially increasing transit ridership and decreasing the number of vehicles on the roadways. This could reduce traffic congestion on Oahu's roadways and would support the goal of directing population growth into the Ewa region.

The PCBF project will integrate with the established land uses surrounding the Manana Storage Area through careful layout of the facility and design of its individual structures as well as possible implementation of operational constraints. Examples of mitigation measures include placement of structures, constraints on lighting, noise attenuation devices, landscaping etc. Examples of operational constraints include limiting the number of buses allowed to use Moanalua Road during certain times and restricting on-site noise generating activities.

***Population Objective C, Policy 4:** Seek a year 2010 distribution of Oahu's residential population which would be in accord with 45.1 to 49.8 percent of Year 2010 island wide population growth.*

Construction and operation of the PCBF would not directly affect residential growth in the Primary Urban Center (PUC) or in the immediate neighborhood. However, it would increase

the efficiency with which the City can provide transit services to the growing Ewa and Central Oahu regions.

Population, Objective B, Policy 1: *- Allocate the money and resources of the City and County in order to meet the needs of Oahu's anticipated future population*

Allocation of City funds in support of the PCBF supports the anticipated future population growth in the Ewa region by providing bus support facilities closer to the areas it serves, thereby increasing operational efficiency of the system. Use of the proposed site for a public facility permanently would permanently remove 21 acres from the property tax base. This would, however, be true for any other site selected for a bus maintenance facility and the Manana property offers the advantage of already being owned by the City.

Economic Activity, Objective A *- To promote employment opportunities that will enable all the people of Oahu to attain a decent standard of living.*

Discussion: The proposed project would provide both temporary employment opportunities of varying skill levels during the construction period and permanent employment during operation of the facility.

Natural Environment, Objective A *- To protect and preserve the natural environment of Oahu. Natural Environment.*

Natural Environment Objective B *- To preserve and enhance the natural monuments and scenic views of Oahu for the benefit of both residents and visitors.*

Natural Environment, Objective B, Policy 2: *Protect Oahu's scenic views especially those seen from highly developed and heavily traveled areas.*

Discussion: The site of the proposed bus facility is in an existing urban area, far from important natural resources. The subject property has been previously disturbed by military activities and currently accommodates 11 dilapidated military warehouses, or portions thereof. These are in various states of disrepair, have little to no landscaping, and are surrounded by chain-link fencing. The area is no longer a pristine natural environment that can be preserved.

There are no scenic views towards natural monuments or naturally scenic views from the PCBF site. Some views toward Pearl Harbor now obstructed by the existing warehouses will be reestablished because of the corridor that will be opened along the proposed Spine Road.

The proposed PCBF site is adjacent to the heavily traveled Waimano Home Road. Construction of a carefully laid out and adequately landscaped facility will improve views from Waimano Home Road towards the site.

The overall re-development (commercial/industrial) planned for the Manana Storage Area is consistent with the significant amount of commercial development in the immediate area.

Transportation and Utilities, Objective A *- Create a transportation system which will enable people and goods to move safely, efficiently, and at a reasonable cost; serve all people*

including the poor, the elderly, and the physically handicapped, and offer a variety of attractive and convenient modes of travel.

Discussion: The proposed bus facility is consistent with all applicable objectives and policies in the Transportation and Utilities section of the General Plan. It specifically addresses the issue of the above Objective by furthering the following policies.

Transportation and Utilities, Objective A, Policy 2: *Provide transportation services to people living within the Ewa, Central Oahu and Pearl City-Hawaii Kai corridors primarily through a mass transit system....*

Transportation and Utilities, Objective A, Policy 7: *Promote the use of public transportation as a means of moving people quickly and efficiently, of conserving energy, and of guiding urban development.*

Discussion: The PCBF will provide the facilities needed to maintain the City's bus fleet. Increasing the number of buses and assigning more buses to demand areas such as Ewa, Central Oahu, and Pearl City will provide better mass-transit service to residents in those areas. In addition, it will move a portion of the fleet closer to the areas that it serves thereby conserving energy.

Transportation and Utilities, Objective A, Policy 4: *Improve transportation facilities and services in the Ewa corridor...to meet the needs of Ewa communities.*

Discussion: The PCBF will provide improved mass transit facilities near the Ewa corridor.

Transportation and Utilities, Objective C, Policy 4: *Evaluate the social, economic, and environmental impact of additions to the transportation and utility systems before they are constructed.*

Discussion: The *Manana and Pearl City Junction Development Final Environmental Impact Statement* and this environmental assessment of the proposed bus facility is intended to evaluate the social, economic and environmental impacts of the proposed PCBF.

5.6 PRIMARY URBAN CENTER DEVELOPMENT PLAN

There are four elements to each of Oahu's Development Plans (DP). They are: (1) Common Provisions that apply to all Development Plan areas, (2) Special Provisions which are unique to each Development Plan Area, (3) Land Use Map(s) which define the land uses applicable to each Development Plan area consistent with General Plan objectives and policies; and (4) Facilities Maps that identify planned public and private facilities and associated infrastructure. A discussion regarding consistency between the overall redevelopment of Manana Storage Area (including a 17-acre mass transit facility) and the Special Provisions for the Primary Urban Center Development Plan can be found in the *Manana and Pearl City Junction Development Final Environmental Impact Statement.* No inconsistencies between the PUC Development Plan Special Provisions and the proposed redevelopment were noted

in this document. The additional 4 acres now devoted to the PCBF does not alter the conclusions found in the *Final EIS*.

As depicted on Figure 3-2, the subject property is presently designated "Military" on the Primary Urban Center (PUC) Development Plan Land Use Map. The actual land use of this parcel while under Military control was "Industrial".

During the 1996 Annual Review of the PUC Development Plan Land Use Map, the City asked to amend the land use designation of the Manana Storage Area and the Pearl City Junction parcel from "Military" to "Commercial-Industrial Emphasis Mixed Use". This land use designation is the most appropriate for the types of uses proposed for these parcels. On December 17, 1997, the City Council adopted Ordinance 97-68 changing the land use designation as requested only for the Pearl City Junction parcel. Consequently, the PUC Land Use designation for the Manana Storage Area remains "Military" and the proposal to change it to "Commercial Industrial Emphasis Mixed Use" is still under consideration by the Council.

On June 14, 1996, the City Council approved Ordinance 96-36. The Ordinance amended the PUC Development Plan Public Facility Map by placing appropriate symbols for public facilities that the Manana Storage Area Master Plan recommended be developed on the 109-acre property. This amendment provided for the removal of government building symbols, the addition of the PCBF at its original 17-acre size, the addition of the proposed park at its original 8-acre size, and for some of the other uses that were included in the Pearl City Task Force's Preferred Master Plan for the former Manana Storage Area.

The City adjusted its proposed plan for the Manana Storage Area because of conceptual engineering studies. This, in turn, resulted in changes to the proposed public facility site sizes. The City Department of Public Works applied for an amendment to the PUC Development Plan Public Facilities Map to reflect these adjustments as well as add corporation base yards. The City Council enacted Ordinance 98-34 on June 9, 1998. It granted the following changes:

- An increase in the size of the proposed PCBF from 17 acres to 21 acres.
- An increase in the size of the proposed Pearl City Neighborhood Park from 8 acres to 14 acres.
- An increase in the area allocated to the Honolulu Board of Water Supply for expansion of its previously approved corporation base yard from 2 acres to approximately 7.5 acres.
- The addition of two new publicly funded corporation yard (CY) symbols (site determined/within 6 years) representing two City 4.5-acre corporation yards. One of these would be for the Department of Parks & Recreation Services; the other would be for the Department of Transportation Services.

5.7 LAND USE ORDINANCE

Presently, the Manana parcel is zoned F-I Federal (Figure 3-4). This designation was given before July 29, 1994, when the City acquired title to the property. Section 5.10(c) of the City Land Use Ordinance (LUO) states that the purpose of the F-1 District is to "... *identify areas in military or government use and to permit the full range of military or federal government activities.*" Section 5.10(d) of the LUO states that "*should lands be removed from either the state-designated conservation district or from federal jurisdiction, all uses, structures and developments standards shall be as specified for the P-2 general preservation district.*"

Under the recent City reorganization, the newly created Department of Design and Construction will be charged with oversight of the Manana redevelopment, including subdivision. No zoning change will be necessary, as public uses and structures are permitted uses in all zoning districts.

5.8 ENVIRONMENTAL IMPACT STATEMENTS (CHAPTER 343, HRS)

The State of Hawaii's Environmental Impact Statement Law, Chapter 343, HRS, lists eight conditions which trigger the environmental review process and compliance with Chapter 343, HRS. For the current project, the applicable circumstances are the use of City lands and the use of City funds. According to the Department of Health Rules governing Chapter 343, HRS, if "significant environmental effects" are identified by an Environmental Assessment (EA), preparation of an Environmental Impact Statement is required. Based on the information available, the City determined that the preparation of an EIS is not required for this project.

5.9 NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (NEPA)

Chapter 343, HRS also states that when an action is subject to the National Environmental Policy Act of 1969 (Public Law 91-190, as amended by Public Law 94-52 and Public Law 94-83; 42 U.S.C. §§ 4321-4347) the project's proponent must notify and work in cooperation with the responsible federal agency to produce a single document that complies with all applicable state and federal environmental laws. The Council on Environmental Quality (CEQ) set forth the requirements of NEPA in 40 CFR Part 1500. In addition, the Federal Transit Administration's environmental impact regulations are at 23 CFR Part 771.

The City Department of Transportation Services (DTS) intends to apply for federal assistance from the Federal Transit Administration (FTA). If the FTA approves the application, these funds would be used for detailed design and construction of the proposed PCBF. A requirement for the receipt of federal assistance is that an environmental document satisfying NEPA requirements be prepared and accepted by the appropriate governing authorities. In this situation, both DTS and FTA operate as joint lead agencies in preparing this environmental document. For the purposes of NEPA, the FTA Regional Administrator (Region IX) is the accepting authority.

5.10 HAWAII COASTAL ZONE MANAGEMENT PROGRAM

The objectives of the Hawaii Coastal Zone Management (CZM) Program are set forth in Chapter 205A, Hawaii Revised Statutes. The objectives of the program are intended to promote the protection and maintenance of valuable coastal resources. All lands in Hawaii are classified as valuable coastal resources. The Office of Planning administers the CZM program. Federal funding assistance of a local project is considered a federal action under the Coastal Zone Management Act (CZMA). CZMA mandates that all federal actions be consistent with applicable state CZM programs. The pertinent CZM objectives are discussed below.

Recreational Resources

Objective: Provide coastal recreational opportunities accessible to the public.

Discussion: Construction of the proposed bus facility would not directly affect recreational resources or access to them. However, the enhanced public transportation that it would support may indirectly promote increased use of recreational resources.

Historic Resources

Objective: Protect, preserve, and where desirable, restore those natural and man made historic and pre-historic resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

Discussion: The project site has been extensively disturbed and no known historical or cultural resources remain. The State Historic Preservation Officer concurred that the City's proposed redevelopment of the Manana area would have "no effect" on these resources.

Scenic and Open Space Resources

Objective: Protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.

Discussion: The proposed project is located in an area that is not currently an open space. Once constructed the proposed PCBF would replace existing deteriorating warehouses with a landscaped bus maintenance and depot facility. Redevelopment of the Manana Storage Area would establish view corridors via Spine road towards Pearl Harbor where none presently exist.

Beach Protection

Objective: Protect beaches for public use and recreation

Discussion: The proposed project site is nearly 5,000 feet from the shoreline. Use of best management practices during construction and operation of the proposed facility would mitigate any possible impact to near-shore ecosystems resulting from surface runoff through existing stormwater systems.

Economic Uses

Objective: Provide public or private facilities and improvements important to the State's economy in suitable locations.

Discussion. The City and County of Honolulu already owns the property. The proposed PCBF is a necessary component of the city's mass transit system and will be consistent with the overall redevelopment plan for the Manana Storage Area. The DTS selected the site following an extensive, open public planning process that considered alternative uses for the property.

Coastal Hazards

Objective: Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion and subsidence.

Discussion: The project site is not subject to flooding from streams, storm waves, or tsunami, and its development will not increase the hazards from these sources in other areas. There is no history of subsidence in the area. Construction and operation of the facility would comply with federal, state, and county erosion control requirements.

Managing Development

Objective: Improve the development review process, communication and public participation in the management of coastal resources and hazards.

Discussion: The proposed project has been part of a comprehensive master planning process that included extensive public participation and involvement. The EIS for the redevelopment was disseminated to federal, state, and local agencies, as well as the public and interested groups and individuals. The City has kept the community apprised of updates and revisions to the redevelopment plan. This environmental assessment updates the previous work and provides additional analyses based on more fully developed conceptual plans for the PCBF. DTS will hold an additional public hearing after publication of the Draft EA. This meeting will allow further comments and public input into the planning process, as will the mandated processing requirements of this additional environmental documentation.

5.11 OTHER REGULATORY CONTROLS OR PERMITS

The proposed PCBF will require numerous permits related primarily to the construction of the facility. Section 6.8 of this EA lists these.

CHAPTER 6

CHAPTER 343 AND NEPA EVALUATIONS

6.1 INTRODUCTION

The City and County of Honolulu Department of Transportation Services (DTS) plans to use both City and federal funds to construct the proposed PCBF. Consequently, it must comply with both federal and State environmental impact regulations. Both sets of regulations require evaluations of the significance of the environmental effects of potential actions. The results of these evaluations determine whether a Finding of No Significant Impact (FONSI) is issued or an environmental impact statement (EIS) is prepared.

The National Environmental Policy Act (NEPA) and other federal laws, regulations and executive orders govern the content and processing requirements for federal environmental assessments. The Federal Transit Administration (FTA) is the agency that would approve a grant for federal funding for the design and construction of the PCBF. Hence, the pertinent federal rules include the FTA's NEPA regulations at 23 Code of Federal Regulations (CFR) Part 771, the Council on Environmental Quality's NEPA regulations at 40 CFR Part 1508, and Executive Order 12898 pertaining to environmental justice.

Chapter 343, Hawaii Revised Statutes (HRS), the State of Hawaii EIS Law, and the implementing rules set forth in Title 11 Chapter 200 Hawaii Administrative Rules (HAR) govern the preparation of State environmental impact documentation. As noted in Chapter 1 of this environmental assessment, the Chapter 343 requirements for the overall redevelopment of the Manana Storage Area (which included a 17-acre public transit facility) were fulfilled through the publication of the *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)* in May 1996. This document addresses the potential impacts of the proposed facility in greater detail than was possible at that time.

State and/or federal regulations require the consideration of a number of special issues in determining whether or not a FONSI is warranted. These issues, which do not fall neatly into any other impact categories, include such things as the benefits of short-term versus long-term uses, the nature of significant unavoidable impacts, considerations of environmental justice, and unresolved issues.

The remainder of this chapter is divided into seven major sections:

- **Section 6.2** reviews the Chapter 343 HRS significance criteria described in Title 11 Chapter 200 HAR as they pertain to the proposed bus facility to determine if significant impacts are expected to result from the project.
- **Section 6.3** evaluates the PCBF with respect to NEPA significance criteria listed at 40 CFR 1508.27(b).
- **Section 6.4** examines environmental justice issues.

- **Sections 6.5 through 6.7** evaluate short-term versus long-term benefits, significant unavoidable impacts, and unresolved issues, respectively.
- **Section 6.8** lists permits and approvals that will be needed for the PCBF.

6.2 EVALUATION BASED ON CHAPTER 343 HRS SIGNIFICANCE CRITERIA

HAR §11-200-11.2 establishes procedures for determining if an environmental impact statement (EIS) should be prepared for actions that may have a significant effect on the environment. HAR §11-200-12 lists the following criteria to be used in making such a determination:

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

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

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

(5) *Substantially affects public health;*

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

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

(8) *Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;*

(9) *Substantially affects a rare, threatened, or endangered species, or its habitat;*

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

(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;*

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

(13) *Requires substantial energy consumption.*

DTS evaluated the potential effects of constructing and operating the proposed PCBF using these criteria. The findings with respect to each criterion are summarized below.

6.2.1 IRREVOCABLE LOSS OR DESTRUCTION OF VALUABLE RESOURCES

The proposed project would be constructed on a parcel that has already been substantially altered by cultivation and military activities. It does not involve the loss or destruction of any valuable cultural or natural resources because none exist. Years of agricultural, military, and industrial use of the site have severely disturbed the surface and subsurface of the area

through grading, plowing, paving and building. The proposed project would not destroy any valuable natural or cultural resources.

6.2.2 CURTAILS BENEFICIAL USES

The PCBF site presently contains old warehouses that are being used on a temporary basis under short-term agreements. The tenants understood the limited tenure of their occupancy at the time they moved into the spaces. In view of this, construction and operation of the PCBF would not significantly curtail beneficial uses of the site. On the contrary, the continued presence of the old military warehouses severely constrains the types of beneficial uses now possible. The bus facility will enhance the benefits the Oahu residents derive from the property by increasing the intensity of use and providing a critical public service. The proposed project is anticipated to improve bus service to the growing West Oahu area by siting the facility closer to these areas. Enhanced efficiency is expected.

6.2.3 CONFLICTS WITH LONG-TERM ENVIRONMENTAL POLICIES OR GOALS

The Planning Department determined that the full redevelopment of the Manana parcel was consistent with Chapter 344 HRS (see the *Manana and Pearl City Junction Development Final Environmental Impact Statement*). The bus facility is an integral part of the redevelopment plans, and its potential effects were addressed conceptually during the planning and environmental documentation for the redevelopment.

6.2.4 SUBSTANTIALLY AFFECTS ECONOMIC OR SOCIAL WELFARE

The proposed facility is intended to provide continuing and more efficient bus service on Oahu. DTS will undertake a number of mitigation measures to ensure compatibility with surrounding land uses (see Chapter 4). The proposed PCBF will not result in significant impacts to the economic or social welfare of the community.

6.2.5 PUBLIC HEALTH EFFECTS

The proposed project will not have a significant adverse effect on air quality. The proposed facilities are being designed to prevent petroleum products, as well as other chemicals used to service and maintain the buses and other vehicles using the facility, from significantly impacting stormwater runoff quality. The facility will develop and implement a stormwater pollution control plan to insure that pollution control measures are maintained and updated as necessary. Oil-water separators and other pollution control devices will be installed on drains to the sanitary sewer system and on stormwater drains serving large parking areas. Operational noise impacts will be mitigated to less-than-significant levels through construction of noise attenuation walls where needed. Construction-related impacts, such as noise and fugitive dust will be minimized through the use of best management practices, including restricted working hours, muffling of certain equipment, and daily watering of the construction site. Pedestrian and passenger vehicle safety has also been considered in the bus facility design. The bus pull-out/pull-in intersection will be signalized, when warranted, crosswalks will be installed at the intersection, and buses and passenger vehicles will be segregated on site.

6.2.6 PRODUCES SUBSTANTIAL SECONDARY IMPACTS

The proposed project will not produce significant secondary impacts. It is not designed to foster population growth or to promote economic development. Some secondary impacts associated with the proposed project, such as improved efficiency and potentially increased use of public transportation are beneficial, not adverse impacts.

6.2.7 SUBSTANTIALLY DEGRADES ENVIRONMENTAL QUALITY

The proposed project will not have significant long-term environmental effects. The site is already industrial in nature. Noise from bus operations (primarily during the nighttime), which would otherwise have the potential to adversely affect neighboring properties, will be mitigated as necessary through the use of noise attenuation walls and operational constraints, such as prohibitions against horns and speed limits. Similarly, impacts associated with construction will be minimized through the use of best management practices and other controls.

6.2.8 CUMULATIVE EFFECTS OR COMMITMENT TO A LARGER ACTION

Construction and operation of the proposed bus facility is not a commitment to a larger action. The facility has been designed for approximately 250 buses and cannot readily accommodate more. Moreover, the City has committed to area residences that it would not exceed this number. The proposed project is not intended to facilitate substantial population growth and is primarily a replacement of the existing facility at Halawa. The cumulative effects of redeveloping the entire Manana Storage Area (of which the PCBF is a part) were addressed in the 1996 *Manana and Pearl City Junction Development FEIS.*

6.2.9 AFFECTS A RARE, THREATENED, OR ENDANGERED SPECIES

No rare, threatened, or endangered species are known to be present on or near the project site. The site does not contain any critical habitat. Therefore, the proposed project will have no effect on these resources.

6.2.10 AFFECTS AIR OR WATER QUALITY OR AMBIENT NOISE LEVELS

Construction and operation of the proposed facility will not have a measurable effect on air or water quality. Noise levels are expected to increase, primarily because of bus movements on-site. Adverse impacts will be reduced to less-than-significant levels through the installation of noise attenuation walls as necessary. Construction noise will be temporary, and complying with State Department of Health noise regulations will mitigate its effects.

6.2.11 ENVIRONMENTALLY SENSITIVE AREAS

There are no environmentally sensitive areas or resources near the proposed project.

6.2.12 AFFECTS SCENIC VISTAS AND VIEWPLANES

The existing project area does not provide any scenic vistas. The proposed project has more open space (in the form of vehicle parking areas) than is now present, and the heights of the proposed buildings are generally similar to those of the existing warehouses. Consequently, views from *mauka* of the property are expected to improve relative to existing conditions.

6.2.13 REQUIRES SUBSTANTIAL ENERGY CONSUMPTION

Basing buses at the proposed PCBF rather than solely at existing facilities will decrease the number of bus-miles traveled relative to current conditions. This would decrease average per bus fuel consumption.

6.2.14 CHAPTER 343 HRS DETERMINATION

In accordance with Chapter 343, Hawaii Revised Statutes and the significance criteria described above, DTS had made a preliminary determination that the proposed bus facility will have no significant impact on water quality, air quality, existing utilities, noise, archaeological sites, wildlife habitat, or other natural or man-made resources. The City intends to mitigate all potential impacts to the extent practicable. Since no new information became known during public review of the Draft Environmental Assessment that caused DTS to change its preliminary determination, DTS intends to issue a Finding of No Significant Impact for the proposed action.

6.3 NEPA SIGNIFICANCE DETERMINATION

The primary federal environmental impact law is the National Environmental Policy Act of 1969, as amended (NEPA). The Council on Environmental Quality (CEQ) set forth the requirements of NEPA in 40 CFR Part 1500. In addition, each federal agency promulgates regulations implementing NEPA and the CEQ regulations. FTA's regulations are at 23 CFR Part 771. Although not specifically defined as such, the federal significance criteria are described at 40 CFR 1508.27(b)(1) through (10).

Section 1508.27 requires that the significance of a proposed project's potential effects be judged relative to both its "context" and "intensity". "Context" means the analysis must consider the surroundings within which the action will occur and its scale relative to other factors. In the case of a site-specific action such as the proposed PCBF, the local area is generally the most important area to consider. "Intensity" refers to the severity of the impact. The regulations call for the following factors to be considered in evaluating the intensity of an effect:

(1) Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial;

(2) The degree to which the proposed action affects public health or safety;

(3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas;

(4) The degree to which the effects on the quality of the human environment are likely to be highly controversial;

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks;

(6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration;

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts;

(8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause the loss or destruction of significant scientific, cultural, or historical resources;

(9) The degree to which the action may adversely affect an endangered or threatened species, or its habitat that has been determined to be critical under the Endangered Species Act of 1973; and

(10) Whether the action threatens a violation of federal, state or local law or requirements imposed for protection of the environment.

DTS has evaluated the proposed action relative to each of these "significance" factors. Its conclusions relative to each are discussed below. FTA will review the City's Final EA and make a determination of significance for the purposes of NEPA.

6.3.1 BENEFICIAL VERSUS ADVERSE IMPACTS

As described in Chapters 2 and 4, the proposed PCBF is anticipated to result in both beneficial and adverse impacts. However, none of the adverse impacts is expected to be significant, provided the proposed mitigation measures are implemented (see Chapter 4).

6.3.2 PUBLIC HEALTH AND SAFETY

DTS has designed the proposed bus facility with a number of safeguards to ensure that public safety is not compromised. Bus parking and circulation lanes inside the facility are separated from areas to which passenger vehicles have access, thereby minimizing the potential for accidents. The bus access intersection on the Spine Road will be signalized as warranted and crosswalks will be constructed. Results of the air quality impact analysis conducted for the proposed facility show that it would not have a significant adverse effect on public health. The noise impact analysis indicated a need for noise barriers in order to reduce noise levels to acceptable levels. DTS' plans provide for construction of these.

6.3.3 UNIQUE ENVIRONMENT

As discussed in Section 6.2.11, the proposed project area does not constitute nor contain any environmentally sensitive areas. Nor is it in close proximity to any significant resources. No historic or cultural resources, wetlands, or ecologically critical have been identified on the Manana Storage Area property or nearby; no wild and scenic rivers are in the vicinity. The nearest park, Manana Kai Park, is about 300 feet from the PCBF western boundary. When the City's redevelopment plan for the Manana Storage Area is implemented, the Spine Road and a proposed commercial area will separate the PCBF from the Manana Kai Park.

6.3.4 PRESENCE OF CONTROVERSIAL ISSUES

The local community has taken an active interest in development of the PCBF as well as the entire redevelopment of the Manana parcel. Public involvement has been integral to the development planning process. Nevertheless, the community continues to express concerns

regarding certain aspects of the proposed facility, such as noise and traffic. These issues are described in this document, as are the mitigation measures intended to minimize impacts.

6.3.5 UNCERTAINTY AND UNKNOWN RISKS

The proposed PCBF is not a new or unique type of facility. Similar bus facilities are located elsewhere on Oahu, in many communities on the Mainland, and in foreign countries. Therefore, the potential impacts associated with construction and operation of PCBF are known with a good degree of certainty and can be mitigated to minimize both short- and long-term effects.

6.3.6 PRECEDENT SETTING

The proposed project is not anticipated to establish any precedents. A large number of similar facilities already exist, including two on the island of Oahu. In addition, the proposed PCBF is part of a comprehensive redevelopment plan for the entire Manana Storage Area parcel.

6.3.7 CUMULATIVE IMPACTS

The proposed PCBF is part of the more extensive Manana and Pearl City Junction redevelopment. The potential effects of the overall redevelopment were addressed in the 1996 *Manana and Pearl City Junction Development FEIS*. As discussed in Section 6.2.8 of this report, the facility has been designed for approximately 250 buses; it cannot easily accommodate more. No additional buses or other facilities are planned for the PCBF site. The proposed project is not intended to facilitate substantial population or business growth.

6.3.8 IMPACTS TO HISTORICAL AND CULTURAL RESOURCES

Studies have indicated that no historical or cultural resources are present on the project site. Should any be discovered during the construction period, the contractor will contact the State Historic Preservation Office to determine the proper procedure to deal with them.

6.3.9 ENDANGERED OR THREATENED SPECIES

No rare, threatened or endangered species of flora or fauna are known to be present on or near the project site. The site does not contain any critical habitat. Therefore, the proposed project will have no effect on these resources.

6.3.10 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Plans for the proposed bus facility comply with federal, State, and local environmental laws and regulations.

6.4 ENVIRONMENTAL JUSTICE

The objective of the federal government's environmental justice policy is to ensure that federal agencies' programs, policies and activities do not exclude participation, do not deny benefits, or subject persons to discrimination because of their race, national origin or income. Another primary goal is to ensure that all citizens are protected from disproportionate exposure to environmental hazards.

The spirit of environmental justice has been an integral part of the Manana and Pearl City Junction master plan planning process. Local community groups were involved early through the establishment of the Pearl City Planning Task Force (PCPTF) which developed the conceptual master plan that was addressed in the City's Manana and Pearl City Junction Development EIS. The PCPTF and its component groups continue to be active participants in the evolving development, including the proposed bus facility addressed in this document. Participation in the planning process by all stakeholders has been encouraged, and no person or group has been knowingly excluded.

During the original planning period of January through August 1995, the PCPTF met nine times and held four community meetings. Meeting times and dates were publicized through paid advertisements in the local area newspaper, *The Leeward Current*, the *Ka Leo Lalo* newsletter, community banners, press advisories, and canvassing efforts by the PCPTF and the staff of the City Department of Housing and Community Development. Meetings continue to be held at approximately one to two month intervals.

The PCPTF and other groups, particularly the Neighborhood Board, have requested that the redevelopment include a number of community benefits and mitigation measures. These are being considered in the design of the PCBF and other proposed projects in the area. For example, the Waimano Home Road and Spine Road boundaries of the property will be landscaped. Sound abatement walls will be installed as necessary. Operational controls, such as restricting bus use on Moanalua Road, reducing speeds within the facility, and best management practices will minimize impacts to the community.

The majority of properties surrounding the former Manana Storage Area are single family homes. Exceptions include the Hale Ola low-density apartments directly west of the site, and low-density townhomes makai of the PCBF site. Interviews were conducted to determine the presence of low-income and/or minority populations in the neighborhood. Those located near the project site are[1]:

- Hale O' Hauoli, a 100-unit complex for the elderly at 950 Luehu Street, makai of the project site (U.S. Department of Housing and Urban Development)
- Duplex home for persons with disabilities, 1296 Hooli Circle (U.S. Department of Housing and Urban Development)
- Weinberg Pearl City Complex, a two-story complex for persons with mental disabilities, Waimano Home Road (Harry and Jeanette Weinberg Foundation)
- Manana Gardens, low-income rentals, 929 through 959 Luehu Street (U.S. Department of Housing and Urban Development-associated)

Although the Hale Ola complex was HUD-insured, and originally planned for low-cost rentals, it is now a market-priced condominium project, with no income limits or criteria.

[1] The environmental consultants interviewed members of the Pearl City Neighborhood Board (J. Souza and A. Fukushima, personal communication), the U.S. Department of Housing and Urban Development (M. Flores and R. Dixon, personal communication), the Hawaii Housing Authority (C. Fong, personal communication), the City Planning Department (T. Hata, personal communication), and the City Department of Housing and Community Development (R. Sakai, personal communication).

Implementation of appropriate mitigation measures and operational controls is intended to minimize the potential impacts of the PCBF to less than significant levels. Therefore, the proposed bus facility is not expected to have a substantial environmental, human health, or economic effect on surrounding populations. Therefore, neither these low income and/or minority residents nor their middle class neighbors are anticipated to experience any significant adverse impacts because of the proposed PCBF. The PCBF is not expected to discriminate in any way against a particular group or groups.

The proposed PCBF is expected to increase transit efficiency to West and Central Oahu. This could potentially benefit Native Hawaiian and low-income communities in Nanakuli, Waianae, Makaha, and other areas of Leeward Oahu. These improvements will not be at the expense of service to other under-represented groups.

Finally, the proposed PCBF is not anticipated to result in any significant environmental hazard exposures, in the project vicinity or elsewhere. No minority or low-income populations would be adversely affected.

6.5 RELATIONSHIP BETWEEN SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

As discussed in previous sections of this document, the existing warehouses on the PCBF site were present when the City acquired the property from the Navy. All but one of the warehouses are currently being used. City agencies occupy space in four warehouses and six are leased (four non-profit organizations and one for-profit company). While these temporary uses are beneficial to the City agencies and lessees and provide a small income to the City, they are not, in general, the uses for which the City purchased the property. Moreover, they do not represent an economically viable long-term use of the property. Rather, they are interim arrangements that are appropriate until the redevelopment plans can be implemented.

The native soils have been substantially disturbed through previous use of the site. Soil loss because of wind and water erosion probably occurred during agricultural use of the property. Furthermore, the Navy likely imported coarse-grained fill material for use as road and foundation base-course that is unsuited for agricultural use. It would be virtually impossible to return the property to the state it was in before it came under sugar cane cultivation. In view of this, "long-term productivity" is most appropriately viewed within the context of productive urban uses such as the proposed transit facilities. The proposed bus maintenance facility is an important part of the transportation infrastructure of the Island. Mass transit has been shown to be environmentally and economically preferable to over-dependence on private automobiles.

Construction of the bus maintenance facility will involve construction activities that generate noise, dust, and traffic. While these have the potential to affect nearby areas adversely, the effects will be temporary.

6.6 SIGNIFICANT UNAVOIDABLE IMPACTS

No significant unavoidable impacts are expected from the construction or operation of the proposed PCBF. Where adverse impacts are anticipated, mitigation measures would be implemented to ensure that the effects are less than significant.

6.7 SUMMARY OF UNRESOLVED ISSUES

Because the proposed facility is the result of a long-term public planning process that has involved all known stakeholders, most issues have been resolved. Those that remain include the following:

- Funding limitations may prevent DTS from constructing all of the proposed facilities under a single contract. Consequently, some functions may have to be housed temporarily in alternate spaces on the project site or in existing facilities elsewhere on Oahu. The exact manner in which this will be accomplished and its timing have not been determined.
- This document is based on DTS' conceptual master plan for the proposed facilities. That plan incorporates certain assumptions about the facility's final design and mitigation measures. Details regarding proposed noise abatement measures, bus operational constraints (on-site and access), retaining walls for grading purposes, landscaping, and fencing will be determined before the start of construction of the PCBF.

6.8 PERMITS AND APPROVALS NEEDED

(1) Primary Urban Center Development Plan Land Use Map Amendment

(2) Subdivision

(3) Demolition Permit

(4) Grubbing and grading permit

(5) Building permit

(6) Coastal Zone Management federal consistency determination

(7) NPDES Industrial Facility Stormwater permit

(8) NPDES Construction Stormwater permit

(9) State DOH construction noise permit

(10) Conditional use permit

(11) State DOH air quality permit

(12) Waivers for public uses and structures - waivers from limits imposed by zoning including, but not limited to, height and lot coverage

(13) Industrial Wastewater Discharge Permit

CHAPTER 7
PARTIES CONSULTED

7.1 PARTIES CONSULTED DURING PREPARATION OF THE *MANANA AND PEARL CITY JUNCTION DEVELOPMENT EIS*

Preparation of the *Manana and Pearl City Junction Development EIS* (May 1996) involved extensive consultation (See Section 1.1.1). Table 7-1 lists the parties contacted, whether they responded, and if their response contained any specific reference to the bus facility as presented in the previous document. The responses which were specific to the PCBF have been considered in the preparation of this document.

The preferred master plan, which this Environmental Assessment (EA) used in its analysis, was developed by a 24-member community-based task force (Pearl City Planning Task Force) established for the specific purpose of developing land use recommendations for the Manana and Pearl City Junction Properties. The task force is comprised of representatives of the Pearl City Neighborhood Board, several local community associations, city personnel and a number of non-voting elected officials. It is still active in reviewing the details of the individual developments that are part of its recommended master plan for the area.

7.2 ADDITIONAL PUBLIC INVOLVEMENT OPPORTUNITIES

As related in Section 7.1 the preferred master plan for the Manana Storage Area was initially developed by the Pearl City Planning Task Force. The implementation of this master plan requires amendments to the Primary Urban Center Development Plan (DP) Public Infrastructure Map. The amendments are discussed in Section 5.6 of this EA. This amendment process provides the public with numerous opportunities to provide input regarding the master at public hearings and City Council meetings. The preferred master plan that is used in the analysis presented in this EA is the result of this public input.

7.3 ADDITIONAL CONSULTATION DURING PREPARATION OF THIS ENVIRONMENTAL ASSESSMENT (EA)

The City has continued to consult with the Pearl City Planning Task Force, the Pearl City Neighborhood Board, other community organizations and government agencies during the ongoing planning for redevelopment of the Manana Storage Area.

During the preparation of the EA, the Department of Transportation Services (DTS) has made numerous presentations to the community. The most recent meetings include:

- 07/29/98 Informational Briefing to the Manana Community Association regarding the Pearl City Bus Facility and Manana Spine Road Projects.
- 08/04/98 Informational Briefing to the Pearl City Planning Task Force regarding the Pearl City Bus Facility and Manana Spine Road Projects.

- 08/10/98 An Open House and formal Public Hearing[1] regarding the Pearl City Bus Facility. A Public Hearing Report memorializing this event is available at DTS. Fifty-two individuals signed in for this hearing. Nine persons presented formal testimony. The testimony is summarized below:
    - Majority of those testifying expressed concern regarding the proposed modifications to the intersection of Noelani Street with Waimano Home Road. The removal of the existing traffic signal was specifically cited as a concern, primarily because of safety issues.
    - One individual expressed concern that bus exhaust would adversely affect nearby residential areas.
    - On person expressed concern regarding high noise levels associated with the proposed facility, while two others stated that they thought that noise from operation of the facility would not be a problem.
    - Two persons discussed routing of the buses to and from the facility and the potential traffic impacts of the buses.
    - One person expressed concern over the existing traffic congestion at the Kamehameha Highway/Waimano Home Road intersection and asked why intersection improvements could not be made immediately.

In addition to the above more recent events, DTS has participated in meetings with the following community groups:

- 02/13/98 Pearl City Planning Task Force;
- 04/23/98 Pearl City Neighborhood Board; and
- 06/29/98 Manana Community Association.

The DTS also contacted a number of agencies that had previously made substantive comments during the preparation of the EIS discussed above. DTS' letters to these agencies indicated that it proposed to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage Area and provided a project description similar to that contained in Chapter 2 of this EA. The letters went on to identify the issues raised by each agency in comments to the previous EIS. The letters concluded by asking the agencies to identify any additional issues they believed should be addressed. Agencies consulted in this fashion are shown in Table 7-2. Copies of related correspondence are in Appendix C.

[1] Notice of this meeting was included in the letter transmitting the draft environmental assessment to those on the mailing list shown in Table 7-3. Announcement of this meeting was also placed in the Honolulu Advertiser on July 23, 1998. A copy of this announcement is included in Appendix B of this document

7.4 CIRCULATION AND PUBLICATION OF THE DRAFT ENVIRONMENTAL ASSESSMENT (DEA)

The DEA was mailed to 69 agencies, organizations, individuals and elected officials (see Table 7-3). This table indicates who received a DEA and whether or not a written comment letter was received from them by DTS. Copies of these written comments and DTS' responses to them are included in Appendix C.

The transmittal letter included in DEA mailing also apprised the recipient of the details of the then upcoming public hearing (see Section 7.3). A legal notice informing the public of the availability of the DEA and the upcoming public meeting was also placed in the Honolulu Advertiser on July 23, 1998 (see Appendix B). In addition, a notice of availability of the DEA was published in The Environmental Notice[2] on July 23, 1998. The notice announced the availability of the DEA and included the public comment deadline as mandated by law. It also included a brief summary of the project, contact names and numbers for additional information; the name of the approving agency, and the tax map key for the proposed project.

[2] The Environmental is a semi-monthly bulletin of the Office of Environmental Quality Control. The bulletin is mailed to interested individuals, organizations, agencies, developers, and elected officials.

Table 7-1. Parties Consulted During Preparation of the *Manana and Pearl City Junction Development Final Environmental Impact Statement*[3]

Federal Agencies	
U.S. Department of Agriculture, Natural Resources Conservation Service	❐
U.S. Army Corps of Engineers, Pacific Ocean Division	❐
U.S. Department of the Interior, Fish & Wildlife Service	✓
U.S. Department of the Interior, National Park Service	
U.S. Department of the Interior, U.S. Geological Survey	❐
U.S. Department of Commerce, National Marine Fisheries Service	
U.S. Department of Transportation, Federal Aviation Administration	
U.S. Department of the Navy, Facilities Engineering	❐
U.S. Department of the Navy, Commander	❐
State Agencies	
Department of Accounting & General Services	❐
Department of Agriculture	
Department of Business, Economic Development, and Tourism	❐
Department of Defense	❐
Department of Education	❐
Department of Hawaiian Home Lands	❐
Department of Land & Natural Resources	❐
Department of Land & Natural Resources, Historic Preservation Division	❐
Department of Health, Environmental Management Division	✓
Department of Transportation	✓
Office of Planning	❐
Office of Hawaiian Affairs	
University of Hawaii, Water Resources Research Center	❐
University of Hawaii, Environmental Center	❐
Housing Finance and Development Corporation	❐
State Energy Office	❐
Office of Environmental Quality Control	❐
State Land Use Commission	❐

❐= Comments Received ✓= Comments Received Specifically Mention Bus Facility

[3] Please note that this table includes City agency names that were in use when the *Manana and Pearl City Junction Development Environmental Impact Statement* was published.

Table 7-1 Parties Consulted During Preparation of the *Manana and Pearl City Junction Development Final Environmental Impact Statement* (continued).

City & County of Honolulu Agencies	
Department of Land Utilization	❐
Planning Department	❐
Building Department	❐
Department of Housing and Community Development	
Department of Transportation Services	❐
Department of Parks and Recreation	❐
Department of Public Works	
Board of Water Supply	❐
Honolulu Public Transit Authority	❐
Honolulu Fire Department	❐
Honolulu Police Department	
Department of Wastewater Management	❐
Department of Finance	
Other Parties Consulted	
U.S. Congressmember Neil Abercrombie	
State Senator David Ige	
State Senator Cal Kawamoto	✓
State Representative Mark K. Takai	
State Representative Roy Takumi	
State Representative Noboru Yonamine	
Councilmember Mufi Hannemann	
Oahu Metropolitan Planning Organization	
Hawaiian Electric Company	❐
Pearl City Neighborhood Board	✓
Pearl City Community Association	❐
Manana Community Association	
American Lung Association	
Monroe Friedlander Management, Inc.	❐
Pearl Highlands Center Associates	
Sherry Aquino	✓

❐= Comments Received ✓= Comments Received Specifically Mention Bus Facility

Source: *Manana and Pearl City Junction Development FEIS.*

Table 7-2. Agencies Contacted in Writing during Preparation of Draft Environmental Assessment

Name of Agency	Status
U.S. Army Corps of Engineers	❐
Office of Planning, Hawaii State Department of Business, Economic Development & Tourism	✓
Hawaii State Department of Education	✓
Leeward District Superintendent, Hawaii State Department of Education	❐
Hawaii State Department of Health, Environmental Health Administration	❐
Highways Administrator, Hawaii State Department of Transportation	❐
State Librarian	❐
Hawaii State Department of Land and Natural Resources, Historic Preservation Division	✓
U.S. Fish and Wildlife Service, U.S. Department of the Interior	❐

❐= Consultation letter sent by DTS ✓= Response received to Consultation letter sent

Table 7-3. Distribution List for the Pearl City Bus Facility Draft Environmental Assessment.

Federal Agencies	
Department of the Interior, Fish and Wildlife Services	✓
Environmental Protection Agency	
Naval Base Pearl Harbor	✓
Naval Facilities Engineering Command, Pacific Division	
National Marine Fisheries Service, Pacific Area Office	
National Park Service, Pacific Island Support Office	
U.S. Army Corps of Engineers	✓
U.S. Department of Transportation, Federal Highway Administration	
U.S. Department of Transportation, Federal Transit Administration Region IX	
State Agencies	
Department of Business, Economic Development, and Tourism	✓
Department of Education, Superintendent of Education	✓
Department of Education, Leeward District Superintendent	
Department of Land & Natural Resources, Land Management Division	
Department of Land & Natural Resources, Historic Preservation Division	✓
Department of Health, Deputy Director for Environmental Health	
Department of Transportation	✓
Office of Planning	
Office of Hawaiian Affairs	✓
University of Hawaii Environmental Center	
Pearl City Regional Library	
State Librarian	✓
Office of Environmental Quality Control	✓

✓= Comment Letter Received Regarding Draft Environmental Assessment

Table 7-3 Distribution List for the Pearl City Bus Facility Draft Environmental Assessment (continued).

City & County of Honolulu Agencies	
Department of Budget and Fiscal Services	
Department of Community Services	✓
Department of Design and Construction	
Department of Environmental Services	✓
Department of Facility Maintenance	✓
Department of Transportation Services	
Department of Parks and Recreation Services	
Planning Department	✓
Department of Planning and Permitting	✓
Board of Water Supply	✓
Honolulu Fire Department	✓
Honolulu Police Department	✓
Municipal Reference and Records Center	
Other Parties Consulted	
U.S. Congressmember Neil Abercrombie	
State Senator David Ige	
State Senator Cal Kawamoto	
State Representative Mark K. Takai	
State Representative Roy Takumi	
State Representative Noboru Yonamine	
Councilmember Mufi Hannemann	
Councilmember Steve Holmes	
Councilmember Duke Bainum	
Councilmember Jon Yoshimura	
Councilmember John DeSoto	
Councilmember Rene Mansho	
Councilmember John Henry Felix	
Councilmember Andy Mirikitani	
Councilmember Donna Mercado Kim	
Aiea and Pearl City Business Association	
Oahu Metropolitan Planning Organization	
Hale Ola Association	
GTE Hawaiian Telephone	
Hawaiian Electric Company	

✓= Comment Letter Received Regarding Draft Environmental Assessment

Table 7-3 Distribution List for the Pearl City Bus Facility Draft Environmental Assessment (continued).

Other Parties Consulted (continued)	
The Gas Company	✓
Oceanic CableVision	
Pearl City Neighborhood Board	
Pearl City Community Association	
Manana Community Association	
Momilani Community Association	
American Lung Association	
Newtown Estates Community Association	
Pacific Palisades Community Association	
Pearl Highlands Center Associates	
Sierra Club Hawaii Chapter	
Transportation Commission	
Wailuna Recreation Association	
Sherry Aquino	

✓= Comment Letter Received Regarding Draft Environmental Assessment

CHAPTER 8
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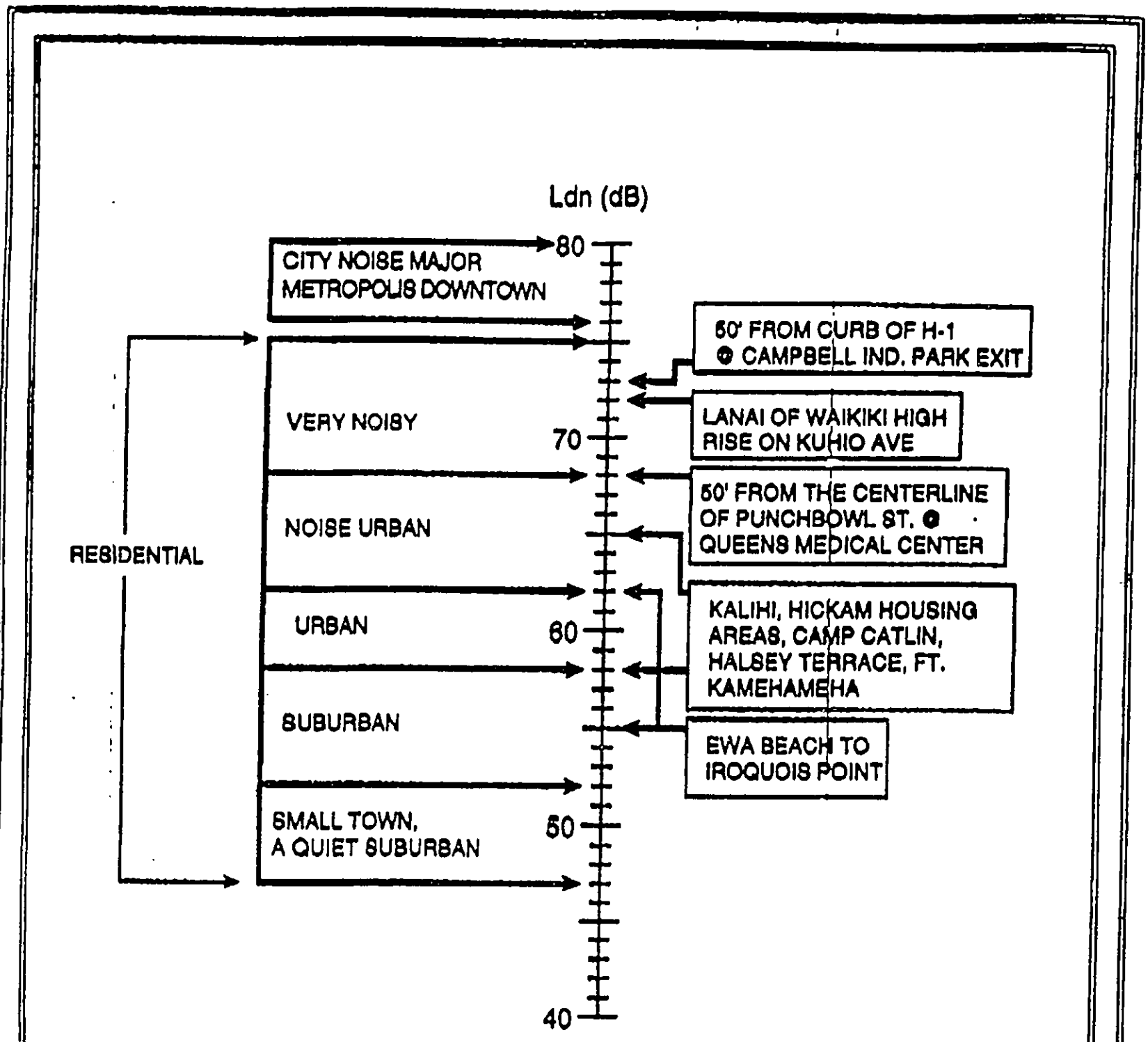
APPENDIX A
ACOUSTICAL TERMINOLOGY

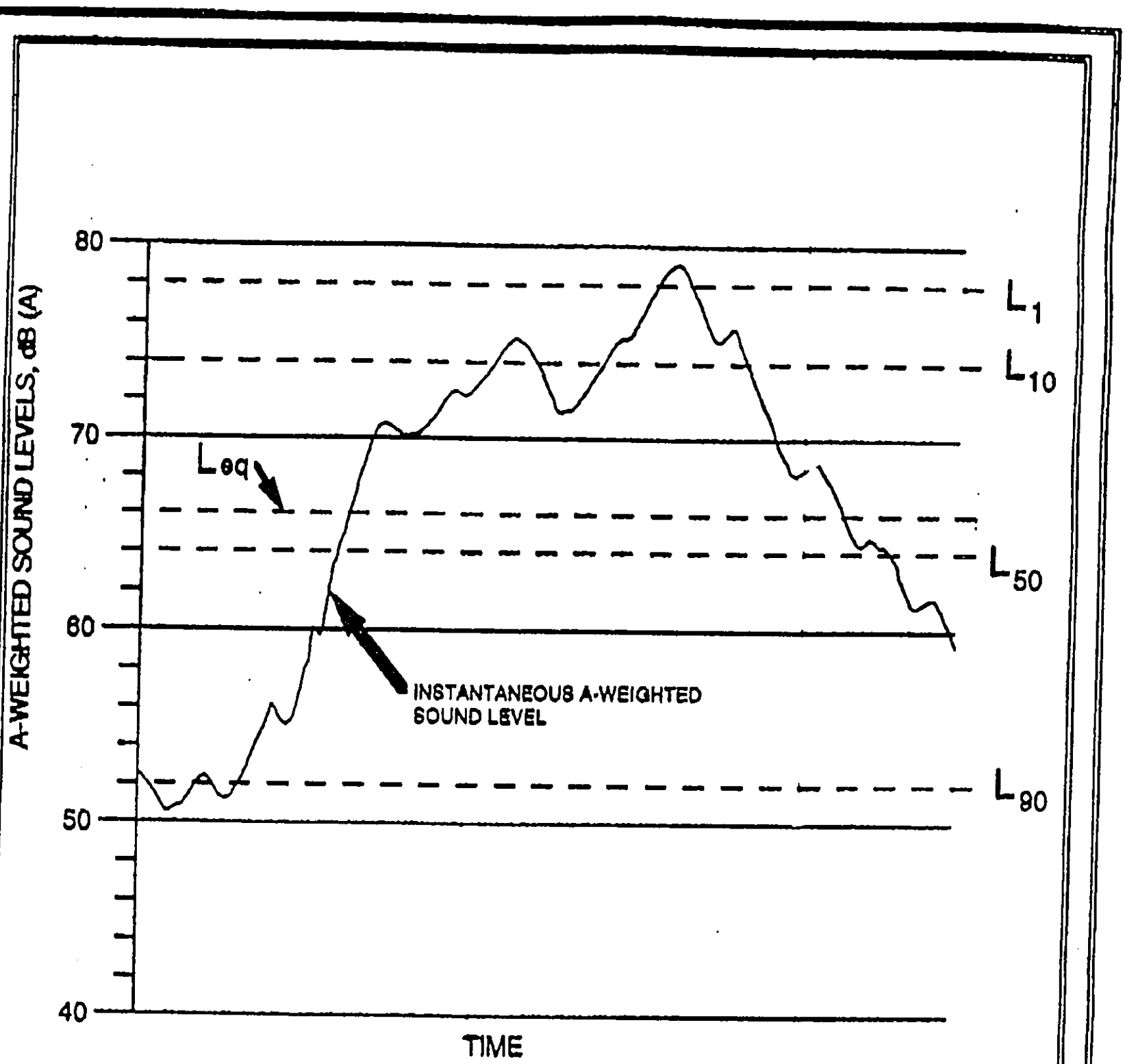


D. L. ADAMS ASSOCIATES, LTD.
and
DARBY & ASSOCIATES
ACOUSTICAL CONSULTANTS

FIGURE A-3

QUALITATIVE DESCRIPTION OF THE DAY-NIGHT EQUIVALENT SOUND LEVELS (Ldn) AND EXAMPLE Ldn's AT SELECTED LOCATIONS ON OAHU

0000 0019 2269



D. L. ADAMS ASSOCIATES, LTD.
DARBY & ASSOCIATES
ACOUSTICAL CONSULTANTS

FIGURE A-2

COMPARISON OF AN INSTANTANEOUS SOUND LEVEL AND THE CORRESPONDING STATISTICAL SOUND LEVELS

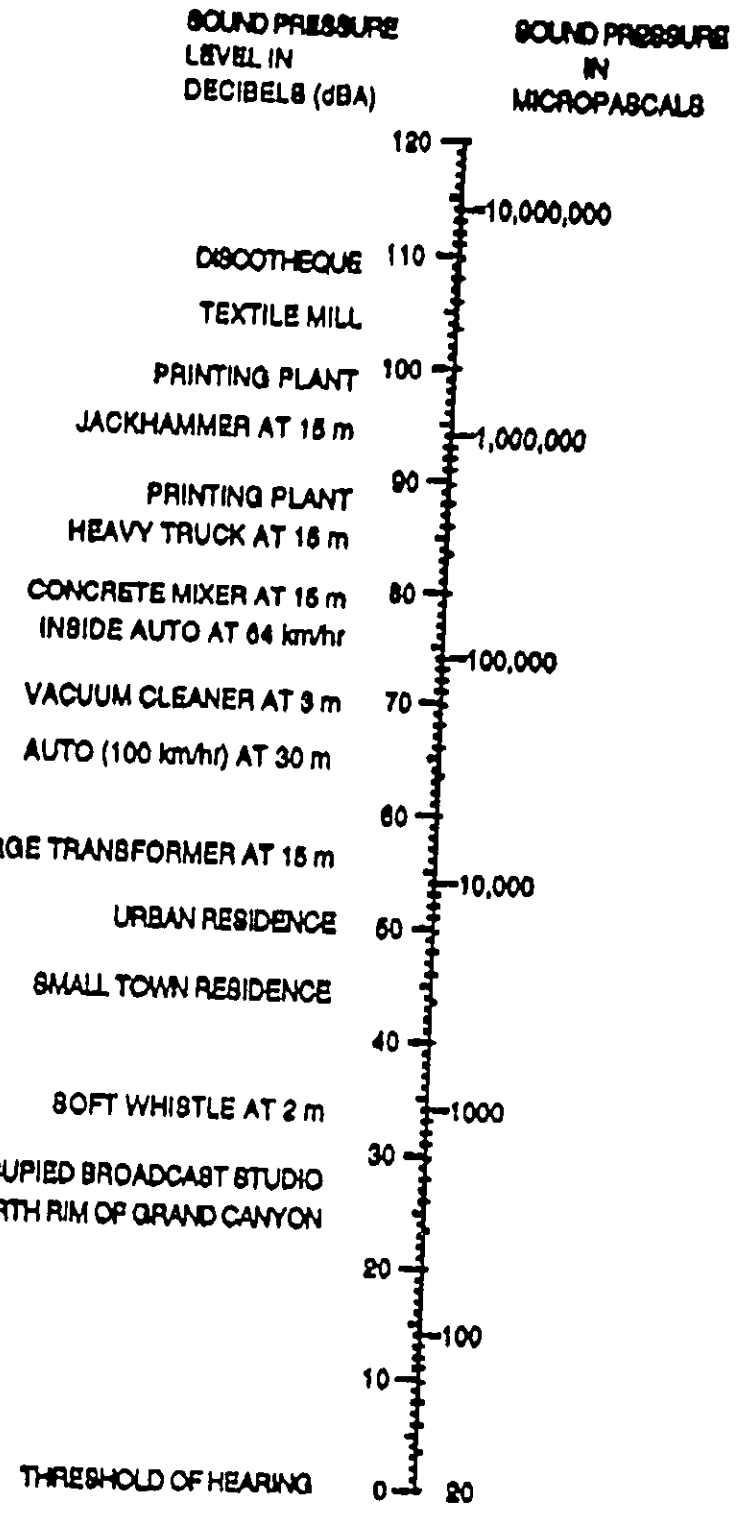


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FIGURE A-1

THE RELATION BETWEEN SOUND PRESSURE, P, AND SOUND PRESSURE LEVEL, SPL. ALSO SHOWN ARE TYPICAL VALUES OF A-WEIGHTED SOUND LEVELS OF VARIOUS NOISE SOURCES.

Appendix A
Acoustical Terminology (Continued)

Statistical Sound Levels

The sound levels of long-term noise producing activities, such as traffic movement, aircraft operations, etc., can vary considerably with time. In order to obtain a single number rating of such a noise source, a statistically-based method of expressing sound or noise levels developed. It is known as the Exceedence Level, L_n. The Exceedence Level, L_n, represents the sound level which is exceeded for n% of the measurement time period. For example, L_{10} = 60 dBA indicates that for the duration at the measurement period, the sound level exceeded 60 dBA 10% of the time. Commonly used Exceedence Levels include L_1, L_{10}, L_{50}, and L_{90}, which are widely used to assess community and environmental noise. Figure A-2 illustrates the relationship between selected statistical noise levels.

Equivalent Sound Level

The Equivalent Sound Level, L_{eq}, represents a constant level of sound having the same total acoustic energy as that contained in the actual time-varying sound being measured over a specific time period. L_{eq} is commonly used to describe community noise, traffic noise, and hearing damage potential. It has units of dBA and is illustrated in Figure A-2.

Day-Night Equivalent Sound Level

The Day-Night Equivalent Sound Level, L_{dn}, is the Equivalent Sound Level, L_{eq}, measured over a 24-hour period. However, a 10 dB penalty is added to the noise levels recorded between 10 pm and 7 am to account for people's higher sensitivity to noise at night when the background noise level is typically lower. The L_{dn} is a commonly used noise descriptor in assessing land use compatibility, and is widely used by federal and local agencies and standards organizations. Qualitative descriptions, as well as local examples of L_{dn}, are shown in Figure A-3.

APPENDIX A

ACOUSTICAL TERMINOLOGY

Sound Pressure Level

Sound or noise consists of minute fluctuations in atmospheric pressure capable of evoking the sense of hearing. It is measured in terms of decibels (dB) using precision instruments known as sound level meters. Noise is defined as "unwanted" sound.

Technically, sound pressure level (SPL) is defined as:

$$SPL = 20 \log (P/Pref) \text{ dB}$$

where P is the sound pressure fluctuation (above or below atmospheric pressure) and Pref is the reference pressure, 20 micropascals, which is approximately the lowest sound pressure that can be detected by the human ear. For example, if P is 20 micropascals, then SPL = 0 dB, or if P is 200 micropascals, then SPL = 20 dB. The relation between sound pressure in micropascals and sound pressure level in decibels (dB) is shown in Figure A-1.

The sound pressure level that results from a combination of noise sources is not the arithmetic sum of the individual sound levels, but rather the logarithmic sum. For example, two sound levels of 50 dB produce a combined level of 53 dB, not 100 dB; two sound levels of 40 and 50 dB produce a combined level of 50.4 dB.

Human sensitivity to changes in sound pressure level is highly individualized. Sensitivity to sound depends on frequency content, time of occurrence, duration, and psychological factors such as emotions and expectations. However, in general, a change of 1 or 2 dB in the level of a sound is difficult for most people to detect. A 3 dB change is commonly taken as the smallest perceptible change and a 5 dB change corresponds to a noticeable change in loudness. A 10 dB increase or decrease in sound level corresponds to an approximate doubling or halving of loudness, respectively.

A-Weighted Sound Level

The human ear is more sensitive to sound in the frequency range of 250 Hertz (Hz) and higher, than in frequencies below 250 Hz. Due to this type of frequency response, a frequency weighting system, was developed to emulate the frequency response of the human ear. This system expresses sound levels in units of A-weighted decibels (dBA). A-weighted sound levels de-emphasizes the low frequency portion of the spectrum of a signal. The A-weighted level of a sound is a good measure of the loudness of that sound. Different sounds having the same A-weighted sound level are perceived as being about equally loud. Typical values of the A-weighted sound level of various noise sources are shown in Figure A-1.

APPENDIX B

LEGAL NOTICE REGARDING AVAILABILITY OF THE DRAFT EA

0000 0019 2274

NOTICE OF AVAILABILITY OF DRAFT ENVIRONMENTAL ASSESSMENT (EA) AND PUBLIC HEARING FOR THE PROPOSED PEARL CITY BUS FACILITY

I. NOTICE OF AVAILABILITY: Pursuant to Hawaii Revised Statutes Chapter 343 and the National Environmental Policy Act, the City and County of Honolulu, Department of Transportation Services (DTS) has prepared a draft Environmental Assessment (EA) for the proposed Pearl City Bus Facility described below. Copies of the draft EA are available for public inspection at the Pearl City Regional Library and the Department of Transportation Services (Mr. Paul Steffens, 711 Kapiolani Boulevard, Suite 275, Honolulu, Hawaii 96813, telephone (808) 523-4138).

II. DESCRIPTION OF THE PROPOSED ACTION: The City is proposing to construct and operate a new transit facility on 21 acres of land at the former Manana Storage Area in Pearl City. The Pearl City Bus Facility (PCBF) is intended to be used to store, maintain and service a maximum of 250 buses. The proposed facility is needed to enable the City to improve service and efficiency to growing Central and West Oahu neighborhoods and to provide for buses being relocated from the existing Halawa Bus Facility. The project would involve demolition of eleven existing World War II-era warehouses presently occupying the site. The majority of the site would be paved area for bus parking. Proposed structures include a one-story Transportation Building along Waimano Home Road, service and wash structures near the mauka border of the property adjacent to the proposed Pearl City Neighborhood Park, a Maintenance Building, and a Paint and Body Shop. The latter would service the City's entire mass transit fleet. In addition, a Central Training facility and Fitness Center would be provided for use by all City transit staff. Buses and maintenance personnel would access the PCBF via the proposed Spine Road. Administration staff and bus operators in their personal vehicles would enter and exit the facility using an existing driveway off Waimano Home Road across from Hoomalu Street. The Spine Road is being constructed as part of the City's overall redevelopment plan for the Manana Storage Area. The PCBF would operate 24 hours a day. The majority of maintenance and repair work would occur between 6:30 a.m. and 3:00 p.m. Daily servicing, generally from 6:00 p.m. to 2:00 a.m., would occur far from existing residential areas. Acoustic barriers would be constructed as needed. They would serve to mitigate noise from facility operations and night time light impacts. The facility layout, building design, landscaping and the use of buffers of trees along Waimano Home Road and the proposed Spine Road would minimize potential aesthetic impacts.

III. PUBLIC HEARING: DTS has scheduled a public hearing on Monday, August 10, 1998, at 7:30 p.m. in the Pearl City Elementary School Cafeteria; 1090 Waimano Home Rd., to provide the community and all interested persons an opportunity to present comments on the draft EA, the potential impacts of the project, and the "Program of Projects" proposed for Federal funding. An "open-house" will precede the hearing from 6:30 - 7:15 p.m. to provide information on the proposed Pearl City Bus Facility.

A. FUNDING INFORMATION
Section 5309 of 49 USC provides discretionary Federal assistance administered by the Federal Transit Administration, U.S. Department of Transportation (FTA). As the applicant for these funds, the City and County of Honolulu is required to develop, publish, and afford an opportunity for a public hearing on a program of transit projects proposed for funding under Section 5309. The program will then be submitted to the FTA as part of a grant application. This notice is intended to provide an opportunity to examine the draft EA and the program contents, and to submit comments on the proposed project in writing, or orally at the public hearing.

B. PROPOSED PROGRAM OF PROJECTS
It is estimated that the cost to construct the first phase of the proposed Pearl City Bus Facility described in Paragraph II above is approximately $23,400,000. DTS has prepared a draft application to fund eighty per cent of $17,292,500 in construction costs using Federal urbanized area formula apportionment funds pursuant to 49 USC Section 5307. The application will be forwarded to the FTA after it is authorized by the Honolulu City Council. The Section 5309 funds proposed to supplement the Section 5307 funds are detailed in the following proposed "Program of Projects and Budget":

PROPOSED "PROGRAM OF PROJECTS AND BUDGETS"

Urbanized Area: Honolulu
Designated Recipient: City and County of Honolulu
Grantee: City and County of Honolulu
Program Numbers: HI-03-00XX

Allocation for 1998:	$4,885,981
Carryover Funds:	0
Transfer Funds:	0
Total Funds Available:	$4,885,981

PROJECT DESCRIPTION	LOCAL (20%)	FEDERAL (80%)	TOTAL COST
Construction of Pearl City Bus Facility and related construction activities	$1,221,495	$4,885,981	$6,107,476
TOTAL PROGRAMMED	$1,221,495	$4,885,981	$6,107,476

IV. All interested persons are invited to express their views on the draft EA and the proposed "Program of Projects" either orally or in writing. Persons wishing to speak at the hearing should sign up at the hearing site during the open-house, prior to the start of the hearing. Speakers will be limited to a three-minute presentation and are requested to submit two (2) copies of their statement. Any person with special needs wishing to attend the hearing should contact Ms. Kathy Dadey (see below) no later than seven calendar days prior to the meeting date. Persons unable to attend the hearing may submit written comments to Ms. Dadey. Your name, organization or business firm (if applicable), address, and telephone number should also be included. The comment period ends August 24, 1998. Written comments must be received by 4:30 p.m., August 24, 1998 or post-marked by that date.

V. A final Environmental Assessment and a final "Program of Projects" for Section 5309 funds will be developed based on the comments received in response to this notice, and will be available for inspection at the Department of Transportation Services at a later date after the public hearing.

VI. Written comments and/or questions regarding the proposed project should be addressed to Ms. Kathy Dadey, Planning Solutions, 1210 Auahi Street, Suite 221, Honolulu, Hawaii 96814, telephone (808) 593-1288; facsimile (808) 593-1956.

Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu

July 23, 1998

(A-49224)

APPENDIX C
AGENCY CONSULTATION LETTERS
AND
COMMENT/RESPONSE LETTERS ON THE DRAFT EA

AGENCY CONSULTATION LETTERS

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523-4529 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

JUL 1 1998

June 29, 1998

Mr. George Young
Chief, Operations Branch
U. S. Army Corps of Engineers
Honolulu Engineer District
Building 230
Fort Shafter, Hawaii 96858

Dear Mr. Young:

Subject: Pearl City Bus Facility

The City and County of Honolulu (City) proposes to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage area. The facility was addressed in a conceptual fashion in the May 1996 *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)*. The FEIS was prepared to fulfill the requirements of Chapter 343, Hawaii Revised Statutes (HRS). One of the unresolved issues discussed in the FEIS was the timing of the proposed public facilities. The FEIS stated that the proposed bus facility would undergo the environmental review process when funding and program requirements are determined.

The City Department of Transportation Services is preparing an Environmental Assessment (EA) for the proposed bus facility that would fulfill the requirements of the National Environmental Policy Act of 1969, as amended, and HRS Chapter 343. As part of this effort, we are coordinating with pertinent agencies to ensure that important issues and concerns are addressed in the EA. A project description (attached) is provided for your information.

Your agency's response to the above referenced EIS included a letter which determined, based on a site visit to the Pearl City Junction parcel makai of the proposed project site, across Kamehameha Highway, that construction activities would not impact waters of the U. S., including wetlands (letter attached). The nearby Manana Storage area was not evaluated but is similar in nature to the Pearl City Junction area, both having been extensively disturbed by cultivation and military development. A recent visit to the proposed

project area on the Manana property made by our consultants did not reveal any evidence of waters of the U. S., including wetlands on the site. We are, however, seeking a formal determination from the Corps confirming this assessment.

Additional issues or concerns related to the proposed bus facility may be submitted via facsimile at 523-4730, or mailed to:

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Mr. Pierson Koike

It is anticipated that the draft EA will be released for public review in about a month. Therefore, we ask that your comments be provided as soon as possible. Should you have any questions, please call Mr. Koike at 523-4714.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Attachments

DEPARTMENT OF THE ARMY
U S ARMY ENGINEER DISTRICT, HONOLULU
FT SHAFTER, HAWAII 96858-5440

December 11, 1995

REPLY TO ATTENTION OF
Operations Branch

Subject: Manana/Pearl City Junction Environmental Assessment.
File Number NP96-038 (formerly PO96-026)

Mr. Roland D. Libby, JR.
Director
Department of Housing and
  Community Development
City and County of Honolulu
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Libby:

A site visit was conducted at the Pearl City Junction property on December 1, 1995, by Corps personnel. It was determined that the proposed construction activities at the site will not impact waters of the United States, including wetlands.

If you have any further questions, please contact Mr. Alan Everson of the Regulatory Section at 438-9258, extension 11. File number NP96-038 has been assigned to this project, please reference this number in future correspondence.

Sincerely,

Kathleen A. Dadey
Environmental Engineer

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523 4529 • FAX (808) 523 4730

JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI, JR
DEPUTY DIRECTOR

JUL 1 1998

June 29, 1998

Mr. Douglas Tom
Director
Coastal Zone Management Program Office
Office of Planning
235 South Beretania Street, 6th Floor
Honolulu, Hawaii 96813

Dear Mr. Tom:

Subject: Pearl City Bus Facility

The City and County of Honolulu (City) proposes to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage area. The facility was addressed in a conceptual fashion in the May 1996 *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)*. The FEIS was prepared to fulfill the requirements of Chapter 343, Hawaii Revised Statutes (HRS). One of the unresolved issues discussed in the FEIS was the timing of the proposed public facilities. The FEIS stated that the proposed bus facility would undergo the environmental review process when funding and program requirements are determined.

The City Department of Transportation Services is preparing an Environmental Assessment (EA) for the proposed bus facility that would fulfill the requirements of the National Environmental Policy Act of 1969, as amended, and HRS Chapter 343. As part of this effort, we are coordinating with pertinent agencies to ensure that important issues and concerns are addressed in the EA. A project description (attached) is provided for your information.

The Office of State Planning's response to the earlier EIS indicated that there were no comments at that time (letter attached). Because we are expecting to receive federal funding for the project, we will be requesting a Coastal Zone Management consistency review at a later date.

Please submit any concerns you may now have related to the proposed bus facility via facsimile transmission at 523-4730 or by mailing them to:

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Mr. Pierson Koike

It is anticipated that the draft EA will be released for public review in about a month. Therefore, we ask that your comments be provided as soon as possible. Should you have any questions, please call Mr. Koike at 523-4714.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Attachments

OFFICE OF STATE PLANNING
P.O. Box 3540
Honolulu, Hawaii 96811-3540

Ref. No. P-[illegible]

February 12, 1996

The Honorable Cheryl Soon
Chief Planning Officer
Planning Department
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Ms. Soon

Subject: Draft Environmental Impact Statement
Manana and Pearl City Junction Development
Tax Map Keys: 9-7-24:16 por., 9-7-24:41, 9-7-23:01

We have reviewed the subject document and do not have any comments to offer at this time.

Thank you for the opportunity to further review this project.

Sincerely,

Gregory G.Y. Pai, Ph.D.
Director

cc: Department of Housing and Community Development
PKF Hawaii
Office of Environmental Quality Control

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU
[illegible]

March 19, 1996

Gregory G.Y. Pai, Ph.D.
Director
State of Hawaii
Office of State Planning
P.O. Box 3540
Honolulu, Hawaii 96811-3540

Dear Dr. Pai:

Subject: Manana/Pearl City Junction (PCJ)
Draft Environmental Impact Statement

Thank you for your letter dated February 12, 1996, in response to our January 1996 Draft Environmental Impact Statement (DEIS) on the above properties. We note that the Office of State Planning has no comments to offer at this time. Your letter will be reproduced in the Final EIS.

Please write or call Ray Sakai, Project Officer, at 527-5321 or 523-4264 if you have any questions or have additional comments to share later.

We will continue to keep you informed of any significant changes occurring in the project and look forward to your future review of our forthcoming Final Environmental Impact Statement.

Thank you once again for your cooperation in this matter.

Sincerely,

ROLAND D. LIBBY, JR.
Director

cc: Cheryl Soon, Chief Planning Officer
Robin Yoshimura, PKF-Hawaii ✓
David Hulse, PBR Hawaii
Gail Kaito, DHCD Planning Division

DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING
235 South Beretania Street, 6th Flr., Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

BENJAMIN J. CAYETANO
GOVERNOR
SEIJI NAYA
DIRECTOR
BRADLEY J. MOSSMAN
DEPUTY DIRECTOR
RICK EGGED
DIRECTOR, OFFICE OF PLANNING

Tel: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-7577

July 17, 1998

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Mr. Pierson Koike

Dear Ms. Soon:

Subject: Hawaii Coastal Zone Management (CZM) Program Review for the Proposed Pearl City Bus Facility Pre-Environmental Assessment Consultation

Your proposal to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage area, Pearl City, has been reviewed by our CZM Program as requested. While we do not have any objections to the project, there are aspects of the project we feel should be addressed in the environmental assessment.

1. Spill containment procedures should be established and equipment kept on site to deal with any spills of the fluids proposed to be stored in the service area which include above ground tanks of motor oil, automatic transmission fluid, and coolant.

2. Although vehicle wash water will be reclaimed, wash down of paved surfaces directly into storm drains should not occur. The oil-water separators proposed adjacent to parking areas should be maintained on a regularly scheduled basis.

3. The ground surfaces of maintenance and service areas should be kept as clean as possible from vehicle fluids because storm water runoff is proposed to flow away from the center of the site to off-site drainage systems. These measures will keep polluted runoff to a minimum.

4. According to the proposal, Coastal Zone Management consistency review will be requested at a later date because Federal funding will be received for the project. Therefore, it would be beneficial for review purposes to place the CZM consistency assessment within the environmental assessment as a separate section or appendix.

CZM consistency approval is not an endorsement of the project nor does it convey approval with any other regulations administered by any State or County agency. Thank you for your cooperation in complying with Hawaii's CZM Program. If you have any questions, please call John Nakagawa of our CZM Program at 587-2878.

Sincerely,

Rick Egged
Director
Office of Planning

cc: U.S. National Marine Fisheries Service, Pacific Area Office
U.S. Fish and Wildlife Service, Pacific Islands Ecoregion
Department of Health, Clean Water Branch
Department of Land & Natural Resources,
Planning & Technical Services Branch
Department of Land Utilization, City & County of Honolulu

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

JUL 1 1998

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE (808) 523-4529 • FAX (808) 523-4730

JEREMY HARRIS
Mayor

CHERYL D. SOON
Director

JOSEPH M. MAGALDI, JR.
Deputy Director

June 29, 1998

Herman Aizawa, Ph.D.
Superintendent of Education
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

Dear Dr. Aizawa:

Subject: Pearl City Bus Facility

The City and County of Honolulu (City) proposes to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage area. The facility was addressed in a conceptual fashion in the May 1996 *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)*. The FEIS was prepared to fulfill the requirements of Chapter 343, Hawaii Revised Statutes (HRS). One of the unresolved issues discussed in the FEIS was the timing of the proposed public facilities. The FEIS stated that the proposed bus facility would undergo the environmental review process when funding and program requirements are determined.

The City Department of Transportation Services is preparing an Environmental Assessment (EA) for the proposed bus facility that would fulfill the requirements of the National Environmental Policy Act of 1969, as amended, and HRS Chapter 343. As part of this effort, we are coordinating with pertinent agencies to ensure that important issues and concerns are addressed in the EA. A project description (attached) is provided for your information.

Your agency's response to the earlier EIS expressed concern over traffic, dust and noise associated with construction activities (letter attached).

We will be addressing the above comments in the EA for the proposed bus facility. Additional issues or concerns related to the proposed bus facility may be submitted via facsimile transmission at 523-4730, or mailed to:

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Mr. Pierson Koike

It is anticipated that the draft EA will be released for public review in about a month. Therefore, we ask that your comments be provided as soon as possible. Should you have any questions, please call Mr. Koike at 523-4714.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Attachments

Benjamin J. Cayetano

[redacted]

STATE OF HAWAII
DEPARTMENT OF EDUCATION

November 8, 1995

95 NOV 14 P4:36

DEPT OF HOUSING & COMM DEVELOPMENT

Mr. Ray Sakai, Project Officer
Department of Housing
and Community Development
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Sakai:

SUBJECT: Environmental Assessment
Manana and Pearl City Junction Development
TMK: 9-7-24: 06 por; 9-7-24: 41; 9-7-23: 01

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

1. Both Pearl City Highlands Elementary and Pearl City Elementary Schools are located close to the proposed development and may be impacted by noise, dust, and traffic during construction. The Department of Education (DOE) requests that appropriate mitigating measures be implemented to minimize negative impacts on the schools.

2. If dust and noise problems are beyond the standards set by the Department of Health, the department will require the developer to install air-conditioning at no cost to the DOE for the classrooms being impacted by this development.

Should there be any questions, please call the Facilities Branch at 733-4862.

Sincerely,

Herman M. Aizawa, Ph.D.
Superintendent

HMA:hy

cc: A. Suga
A. Maeda

BENJAMIN J. CAYETANO
GOVERNOR

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

Alfred K. Suga
Interim Superintendent

OFFICE OF THE SUPERINTENDENT

July 17, 1998

'98 JUL 24 A9:21

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Mr. Pierson Koike

Dear Ms. Soon:

Subject: Pearl City Bus Facility Environmental Assessment

The Department of Education has no additional comment on the subject project.

Thank you for the opportunity to respond.

Sincerely,

Alfred K. Suga
Interim Superintendent

AKS:hy

cc: OBS
W. Staszkow, LDO

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523-4529 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

JUL 1 1998

June 29, 1998

Mr. Wendell Staszkow
Leeward District Superintendent
Department of Education
94-299 Farrington Highway
Honolulu, Hawaii 96797

Dear Mr. Staszkow:

Subject: Pearl City Bus Facility

The City and County of Honolulu (City) proposes to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage area. The facility was addressed in a conceptual fashion in the May 1996 *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)*. The FEIS was prepared to fulfill the requirements of Chapter 343, Hawaii Revised Statutes (HRS). One of the unresolved issues discussed in the FEIS was the timing of the proposed public facilities. The FEIS stated that the proposed bus facility would undergo the environmental review process when funding and program requirements are determined.

The City Department of Transportation Services is preparing an Environmental Assessment (EA) for the proposed bus facility that would fulfill the requirements of the National Environmental Policy Act of 1969, as amended, and HRS Chapter 343. As part of this effort, we are coordinating with pertinent agencies to ensure that important issues and concerns are addressed in the EA. A project description (attached) is provided for your information.

Your agency's response to the earlier EIS expressed concern over traffic, dust and noise associated with construction activities (letter attached).

We will be addressing the above comments in the EA for the proposed bus facility. Additional issues or concerns related to the proposed bus facility may be submitted via facsimile transmission at 523-4730, or mailed to:

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Mr. Pierson Koike

It is anticipated that the draft EA will be released for public review in about a month. Therefore, we ask that your comments be provided as soon as possible. Should you have any questions, please call Mr. Koike at 523-4714.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Attachments

Benjamin J. Cayetano

[redacted]

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

OFFICE OF THE SUPERINTENDENT

November 6, 1995

95 NOV 14 P4:36

DEPT OF HOUSING & COMM DEVELOPMENT

Mr. Ray Sakai, Project Officer
Department of Housing
and Community Development
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Sakai:

SUBJECT: Environmental Assessment
Manana and Pearl City Junction Development
TMK: 9-7-24: 06 por; 9-7-24: 41; 9-7-23: 01

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

1. Both Pearl City Highlands Elementary and Pearl City Elementary Schools are located close to the proposed development and may be impacted by noise, dust, and traffic during construction. The Department of Education (DOE) requests that appropriate mitigating measures be implemented to minimize negative impacts on the schools.

2. If dust and noise problems are beyond the standards set by the Department of Health, the department will require the developer to install air-conditioning at no cost to the DOE for the classrooms being impacted by this development.

Should there be any questions, please call the Facilities Branch at 733-4862.

Sincerely,

Herman H. Aizawa, Ph.D.
Superintendent

HHA:hy

cc: A. Suga
A. Maeda

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523-4525 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

JUL 1 1998

June 29, 1998

Bruce Anderson, Ph.D.
Deputy Director for Environmental Health
Department of Health
919 Ala Moana Boulevard
Room 300
Honolulu, Hawaii 96814

Dear Dr. Anderson:

Subject: Pearl City Bus Facility

The City and County of Honolulu (City) proposes to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage area. The facility was addressed in a conceptual fashion in the May 1996 *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)*. The FEIS was prepared to fulfill the requirements of Chapter 343, Hawaii Revised Statutes (HRS). One of the unresolved issues discussed in the FEIS was the timing of the proposed public facilities. The FEIS stated that the proposed bus facility would undergo the environmental review process when funding and program requirements are determined.

The City Department of Transportation Services is preparing an Environmental Assessment (EA) for the proposed bus facility that would fulfill the requirements of the National Environmental Policy Act of 1969, as amended, and HRS Chapter 343. As part of this effort, we are coordinating with pertinent agencies to ensure that important issues and concerns are addressed in the EA. A project description (attached) is provided for your information.

Based on comments received on the above referenced EIS (letter attached), sections/branches of your Department identified several concerns regarding the proposed development. They are: 1) Soil Contamination (HEER Office); 2) Compliance with Underground Storage Tank standards and regulations (UST Section); 3) Fugitive emissions from demolition, dust control, and proper control of asbestos and lead-based paint (Clean Air Branch); and 4) Potential noise issues (Noise, Radiation and Indoor Air Quality Branch).

We will be addressing the above comments in the EA for the proposed bus facility. Additional issues or concerns related to the proposed bus facility may be submitted via facsimile transmission at 523-4730, or mailed to:

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Mr. Pierson Koike

It is anticipated that the draft EA will be released for public review in about a month. Therefore, we ask that your comments be provided as soon as possible. Should you have any questions, please call Mr. Koike at 523-4714.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Attachments

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

January 31, 1996

95-211/epo

96 FEB -5 A10:09

Mr. Randy Wong
Housing Development Administrator
Department of Housing and Community Development
City and County of Honolulu
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Wong:

Subject: Environmental Assessment (EA)
Manana and Pearl City Junction Development
Pearl City, Oahu
TMK: 9-7-24: por. 6 & 41; 9-7-23: 01

Thank you for allowing the Department of Health (DOH) to review and comment on the subject project. We have the following comments to offer:

Hazard Evaluation & Emergency Response (HEER)

The chemically-contaminated soil at the Pearl City Junction site has been removed and cleaned to the satisfaction of the DOH and the U.S. Environmental Protection Agency (EPA), Region IX office. However, the soil in parts of the Manana area is heavily contaminated with chemicals. The EA does not satisfactorily address this important issue. The Draft Environmental Impact Statement (DEIS) should address this issue in detail, including the status of any cleanup efforts or proposed mitigating measures. No construction should commence on this land until cleanup has been cleared by the DOH and the EPA.

If you have any questions on this matter, please contact Mr. Leslie Au of the HEER office at 586-4249.

Hazardous Waste

If the proposed development involves the installation and/or removal of underground storage tanks (USTs), these USTs may be regulated in accordance with the technical standards and

financial responsibility regulations of 40 CFR Part 280. These regulations include requirements for:

1. Design, construction, installation, and notification;
2. General operating requirements;
3. Release detection;
4. Release reporting, investigation, and confirmation;
5. Release response and corrective action;
6. Changes-in-service and closure; and
7. Financial responsibility.

Owners of newly installed USTs must notify our UST Section of the existence of such USTs within 30 days of installation. The installation of UST systems containing flammable and combustible liquids is also subject to regulation by the County Fire Departments. In this case, the Honolulu County Fire Department should be contacted regarding county requirements that govern UST systems.

The Underground Storage Tank Section has developed a detailed Technical Guidance Manual for Underground Storage Tank Closure and Release Response (August 1992) to assist responsible parties and their consultants and contractors in complying with the federal UST closure requirements and release response requirements as found in Title 40 Part 280 of the Code of Federal Regulations.

If you have any questions on this matter, please call Roxanne Kwan of our Underground Storage Tank Section at 586-4226.

Solid Waste

The DEIS should address the possibility of a recycling and material processing and reuse facility in this area. An excellent opportunity exists for utilizing the existing building makai of the H-1 freeway for this purpose. There is a great need for appropriately zoned land for a recycling facility in this area of Oahu.

This document contains very little discussion of solid waste generation and management as a result of the development. It should address the opportunity to use City and County land to meet waste reduction and recycling goals formally established by

ordinance and statute. Allocation of the existing structures and land makai of H-1 for this purpose would increase the volume of material recycled in Hawaii, increase the landfill capacity, and reduce the need to purchase or condemn other lands in the future.

Should you have any questions on this matter, please contact Ms. Carrie McCabe of the Office of Solid Waste Management (OSWM) at 586-4249.

Clean Air Branch (CAB)

Mixed Zoning Issues and Concerns:

In support of the proposed development project, there would be a need to expand or improve existing infrastructure facilities to include access and circulation roadways, bike and pedestrian roadways, drainage, water and waste water systems. One proposed use would be for light industrial activities to be incorporated into the master plan. This would allow residential areas to be situated in close proximity to activities classified as light industrial. Without knowing the type of light industrial activities that would be allowed in these areas, neighboring residential and commercial establishments may be impacted by paint emissions, smoke, soot, and odors from food establishments and other similar emissions that are found in light industrial areas.

The DOH has a concern that certain activities designated as light industrial may not be compatible with the surrounding business and residential establishments. Therefore, efforts should be made to clearly define light industrial activities and locate potential troublesome activities in areas with adequate buffers provided.

The removal of lead-based paint and polychlorinated biphenyl items found on the two project sites should be conducted in accordance with the appropriate Federal Regulations of the U.S. Environmental Protection Agency.

Demolition Involving Asbestos:

As a project that entails demolition and renovation activity, the Federal Register, 40 CFR Part 61, National Emission Standard for Hazardous Air Pollutants (NESHAP), Asbestos NESHAP Revision; Final Rule, November 20, 1990, would require inspection of all affected areas prior to demolition to determine whether asbestos is present.

Under the NESHAP's regulation, the contractor would be required to file with the DOH, Clean Air Branch an Asbestos Demolition/Renovation notification 10 working days prior to demolition of each building or the disturbance of regulated asbestos-containing material. All regulated quantities and types of asbestos-containing materials would be subject to emission controls, proper collection, containerizing, and disposal at a permitted landfill.

The State of Hawaii, Department of Commerce and Consumer Affairs requires that any contractor that disturbs friable asbestos-containing material must obtain an asbestos abatement license.

The State of Hawaii, Department of Labor and Industrial Relations, Occupational Safety and Health Division, requires other additional measures to protect employee working with asbestos.

If you have any questions regarding asbestos removal, please contact Mr. Reuben L. Bilan of the CAB's Abestos Office at 586-4200.

Control of Fugitive Dust and Potential Nuisance Odors:

Due to the nature of the project, there is a significant potential for fugitive dust to be generated during the demolition and removal of debris, the construction and the landscaping activities for this project. The close proximity to occupants working and residing in the area may compound dust problems. Therefore, implementation of adequate dust control measures during all phases of the project is warranted. Construction activities must comply with the provisions of Chapter §11-60.1, Hawaii Administrative Rules, section §11-60.1-33 on Fugitive Dust.

The contractor should provide adequate means to control dust from road areas and during the various phases of construction activities. These means include, but are not limited to:

1. planning the different phases of construction, focusing on minimizing the amount of dust-generating materials and activities, centralizing material transfer points and onsite vehicular traffic routes, and locating potentially dusty equipment in areas of the least impact;

2. providing an adequate water source at site prior to startup of construction activities;

3. landscaping and rapid covering of bare areas, including slopes, starting from the initial grading phase;

4. control of dust from shoulders, project entrances, and access roads; and

5. providing adequate dust control measures during weekends, after hours, and prior to daily startup of construction activities.

If you have any questions regarding fugitive dust or mixed zoning issues, please contact Mr. Timothy Carvalho of the CAB at 586-4200.

Noise Concerns

The DOH also has concerns regarding the proposed project due to potential noise impacts resulting from the integration of light industrial/business park, commercial, the Bus/Handi-van facility, family entertainment center, community park, and residential uses.

1. Although the provisions of landscape buffers are proposed, light industrial/business park land uses next to residential areas may still result in potential noise problems. Noise associated with light industrial activities, such as deliveries, refuse collection, vehicular back-up alarms, etc. may result in negative impacts to the surrounding residences. Mitigative measures toward minimizing these impacts should be implemented within any planned mixed use community.

2. Noise from increased vehicular traffic associated with the Bus/Handi-van facility and the commercial retail/offices may also have a negative impact on the surrounding residential community. The use of heavy vehicles near the residential areas should be minimized to reduce noise impacts and must comply with Chapter 11-42, Hawaii Administrative Rules, "Vehicular Noise Control for Oahu."

3. Noise from recreational activities from the family entertainment center and the new Hanana Kai neighborhood park, such as people shouting, yelling or screaming, and sound production and reproduction devices may impact surrounding residences in terms of annoyances.

Should there be any questions on this matter, please contact Jerry Haruno, Environmental Health Program Manager, Noise, Radiation & Indoor Air Quality Branch at 586-4701.

Water Pollution

A National Pollutant Discharge Elimination System (NPDES) permit is required for any discharge to waters of the State including the following:

1. Storm water discharges relating to construction activities for projects equal to or greater than five acres;

2. Storm water discharges from industrial activities;

3. Construction dewatering activities;

4. Cooling water discharges less than one million gallons;

5. Hydrotesting water.

Any person wishing to be covered by the NPDES permit for any of the above activities should file a Notice of Intent with the Department's Clean Water Branch at least 90 days prior to commencement of any discharge to waters of the State.

Any questions regarding this matter should be directed to Mr. Denis Lau of the Clean Water Branch (CWB) at 586-4309.

Sincerely,

Lawrence Miike
Director of Health

c: CAB
CWB
HEER
HWB
NR
OSWM

0000 0019 2291

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523-4529 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI JR
DEPUTY DIRECTOR

JUL 1 1998

June 29, 1998

Mr. Kazu Hayashida, Director
State Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Attention: Mr. Pericles Manthos
Highways Administrator

Dear Mr. Hayashida:

Subject: Pearl City Bus Facility

The City and County of Honolulu (City) proposes to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage area. The facility was addressed in a conceptual fashion in the May 1996 *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)*. The FEIS was prepared to fulfill the requirements of Chapter 343, Hawaii Revised Statutes (HRS). One of the unresolved issues discussed in the FEIS was the timing of the proposed public facilities. The FEIS stated that the proposed bus facility would undergo the environmental review process when funding and program requirements are determined.

The City Department of Transportation Services is preparing an Environmental Assessment (EA) for the proposed bus facility that would fulfill the requirements of the National Environmental Policy Act of 1969, as amended, and HRS Chapter 343. As part of this effort, we are coordinating with pertinent agencies to ensure that important issues and concerns are addressed in the EA. A project description (attached) is provided for your information.

Please submit any concerns you may have related to the proposed bus facility via facsimile transmission at 523-4730 or by mailing them to:

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Mr. Pierson Koike

It is anticipated that the draft EA will be released for public review in about a month. Therefore, we ask that your comments be provided as soon as possible. Should you have any questions, please call Mr. Koike at 523-4714.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Attachments

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

JUL 1 1998

June 29, 1998

Mr. Bart Kane
State Librarian
465 South King Street B-1
Honolulu, Hawaii 96813

Dear Mr. Kane:

Subject: Pearl City Bus Facility

The City and County of Honolulu (City) proposes to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage area. The facility was addressed in a conceptual fashion in the May 1996 *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)*. The FEIS was prepared to fulfill the requirements of Chapter 343, Hawaii Revised Statutes (HRS). One of the unresolved issues discussed in the FEIS was the timing of the proposed public facilities. The FEIS stated that the proposed bus facility would undergo the "environmental review process" when funding and program requirements are determined.

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Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Mr. Pierson Koike

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Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Attachments

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523 4529 • FAX (808) 523 4730

JUL 1 1998

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALOI JR.
DEPUTY DIRECTOR

June 29, 1998

Don Hibbard, Ph.D.
State Historic Preservation Officer
Department of Land and Natural Resources
33 South King Street
6th Floor
Honolulu, Hawaii 96813

Dear Dr. Hibbard:

Subject: Pearl City Bus Facility

The City and County of Honolulu (City) proposes to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage area. The facility was addressed in a conceptual fashion in the May 1996 *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)*. The FEIS was prepared to fulfill the requirements of Chapter 343, Hawaii Revised Statutes (HRS). One of the unresolved issues discussed in the FEIS was the timing of the proposed public facilities. The FEIS stated that the proposed bus facility would undergo the environmental review process when funding and program requirements are determined.

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Your agency's response to the earlier EIS reiterated your determination that the proposed Manana and Pearl City Junction re-development would have *"no effect"* on historic resources (letter attached).

Please submit any concerns you may have related to the proposed bus facility via facsimile transmission at 523-4730, or mailed them to:

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Mr. Pierson Koike

It is anticipated that the draft EA will be released for public review in about a month. Therefore, we ask that your comments be provided as soon as possible. Should you have any questions, please call Mr. Koike at 523-4714.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Attachments

0000 0019 2294

STATE OF HAWAII

DEPARTMENT OF LAND AND NATURAL RESOURCES

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

March 25, 1996

'96 APR -2 A12 54

LOG NO 16486
DOC NO 9603TD20

Mr Randy Wong
Housing Development Administrator
Department of Housing and Community Development
City and County of Honolulu
650 South King Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr Wong

SUBJECT: Draft Environmental Impact Statement (DEIS), Manana and Pearl City Junction Development
Manana, 'Ewa, O'ahu
TMK: 9-7-24:06 por; 9-7-24:41; 9-7-23:1

Thank you for the opportunity to review this DEIS. The DEIS reproduces our earlier "no effect" determination (LOG NO 15813) for re-development of these parcels. We have no further comments

Aloha,

DON HIBBARD, Administrator
State Historic Preservation Division

TD smf

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU

April 8, 1996

Mr. Don Hibbard, Administrator
State Department of Land
and Natural Resources
State Historic Preservation Division
33 South King Street, 6th Floor
Honolulu, Hawaii 96813

Dear Mr. Hibbard:

Subject: Manana/Pearl City Junction (PCJ)
Draft Environmental Impact Statement (DEIS)

Thank you for your letter dated March 25, 1996, sent in response to our January 1996 DEIS on the above properties. We note that the State Historic Preservation Division has no comments to offer at this time. Your letter will be reproduced in the final EIS.

Please write or call Ray Sakai, Project Officer, at 527-5321 or 523-4264 if you have any questions or have additional comments to share later.

We will continue to keep you informed of any significant changes occurring in the project and look forward to your future review of our forthcoming final EIS.

Thank you once again for your cooperation in this matter.

Sincerely,

ROLAND D. LIBBY, JR.
Director

cc: Cheryl Soon, Chief Planning Officer
Robin Yoshimura, PKF-Hawaii
David Hulse, PBR Hawaii
Gail Kaito, DHCD Planning Division

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

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

July 13, 1998

Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

LOG NO: 21860
DOC NO: 9807EJ09

Dear Ms. Soon:

SUBJECT: Chapter 6E-8 Historic Preservation Review -- Pearl City Bus Facility at Former Manana Storage Area
Manana, 'Ewa, O'ahu
TMK: 9-7-24: Por. 6, 41; 9-7-23:1

Thank you for the opportunity to provide comment during the preparation of an Environmental Assessment for the proposed bus facility. Our office commented earlier on the draft EIS for the Manana and Pearl City Junction Development for the development of this area. Our earlier comments stated that a review of our records shows that there are no known historic sites at these project parcels and that it is unlikely that subsurface historic sites are present because the area was previously graded and developed for the former Manana Storage area (logs 15813/16486). We still believe that this project will have "no effect" on historic sites.

This is our concurrence letter under Chapter 6E-8, Hawaii Revised Statutes.

If you have any questions please call Sara Collins at 587-0013 or Elaine Jourdane at 587-0034.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

EJ:je

RECEIVED
98 JUL 20 A 8:45

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523-4529 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

JUL 1 1998

June 29, 1998

Mr. Brooks Harper
Pacific Islands Administrator
Department of the Interior
Fish and Wildlife Services
P. O. Box 50156
Honolulu, Hawaii 96850

Dear Mr. Harper:

Subject: Pearl City Bus Facility

The City and County of Honolulu (City) proposes to construct a bus maintenance and storage facility on 21 acres of land in the former Manana Storage area. The facility was addressed in a conceptual fashion in the May 1996 *Manana and Pearl City Junction Development Final Environmental Impact Statement (FEIS)*. The FEIS was prepared to fulfill the requirements of Chapter 343, Hawaii Revised Statutes (HRS). One of the unresolved issues discussed in the FEIS was the timing of the proposed public facilities. The FEIS stated that the proposed bus facility would undergo the environmental review process when funding and program requirements are determined.

The City Department of Transportation Services is preparing an Environmental Assessment (EA) for the proposed bus facility that would fulfill the requirements of the National Environmental Policy Act of 1969, as amended, and HRS Chapter 343. As part of this effort, we are coordinating with pertinent agencies to ensure that important issues and concerns are addressed in the EA. A project description (attached) is provided for your information.

Your agency's response to the earlier EIS indicated that the project site, like the rest of the Manana property, has been extensively disturbed and is not expected to provide significant habitat for fish and wildlife resources (letter attached). While we do not believe any changes have occurred in the past two years which would alter this determination, we would appreciate a final confirmation of this determination from your office.

Please submit any concerns you may have related to the proposed bus facility via facsimile transmission at 523-4730, or mailed to:

> Ms. Cheryl D. Soon
> Director
> Department of Transportation Services
> City and County of Honolulu
> 711 Kapiolani Boulevard, Suite 1200
> Honolulu, Hawaii 96813
>
> Attention: Mr. Pierson Koike

It is anticipated that the draft EA will be released for public review in about a month. Therefore, we ask that your comments be provided as soon as possible. Should you have any questions, please call Mr. Koike at 523-4714.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

Attachments

United States Department of the Interior

FISH AND WILDLIFE SERVICE
PACIFIC ISLANDS ECOREGION
300 ALA MOANA BOULEVARD, ROOM 3108
BOX 50088
HONOLULU, HAWAII 96850
PHONE: (808) 541-3441 FAX: (808) 541-3470

In Reply Refer To: CAW

APR - 8 1996

Ms Cheryl Soon
City and County of Honolulu
Planning Department
650 South King Street, 8th Floor
Honolulu, Hawaii 96813

Re: Review of the Draft Environmental Impact Statement for the proposed Manana and Pearl City Development, Oahu, Hawaii

Dear Ms Soon

The U S Fish and Wildlife Service (Service) has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed Manana and Pearl City Development, Oahu, Hawaii. The DEIS was prepared in support of the proposed zoning change of 122-acres of land in Pearl City, Oahu. The reclassification of 122-acres from the Urban District to Primary Urban Center would allow for the development as outlined in the master plan included in the DEIS. The project area includes lands owned and/or controlled by The City and County of Honolulu in accordance with a Memorandum of Understanding with the U S Navy, which transfered ownership of the property from the U.S. Navy to the City over a phased three year period. The Service offers the following comments for your consideration.

The Service has reviewed the information provided in the DEIS, which describes a site that has been previously disturbed and does not provide significant habitat for fish and wildlife resources. Based on this information, the Service does not anticipate significant adverse impacts to fish and wildlife resources to result from the Manana and Pearl City Junction Development. The Service appreciates

the opportunity to comment. If you have questions regarding these comments, please contact Fish and Wildlife Biologist Christine Willis at 808/541-3441.

Sincerely,

Brooks Harper
Field Supervisor
Ecological Services

cc: DLNR, Honolulu
CWB, Honolulu

COMMENT/RESPONSE LETTERS ON THE DRAFT EA

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

In Reply Refer To: AAP

AUG 11 1998

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Attention: Pierson Koike

Re: July 1998 Draft Environmental Assessment for the Pearl City Bus Facility, Pearl City , Oahu, Hawaii

Dear Ms. Soon:

The U S. Fish and Wildlife Service (Service) has reviewed the draft Environmental Assessment (EA) for the proposed Pearl City Bus Facility (PCBF). The project sponsor is the City and County of Honolulu Department of Transportation Services (DTS). The Service offers the following comments for your consideration.

The proposed project includes construction of a bus maintenance and storage facility on 21 acres of land in the former Manana Storage Area, Oahu, Hawaii. The facility will accommodate 250 buses on-site, a paint and body shop, training facility, fitness center, and maintenance and repair capabilities for service and non-revenue support vehicles. Because of funding constraints, project development will occur in phases. The paint and body shop, training and fitness center, and other minor improvements will be developed following construction of the bus maintenance and storage facility

The draft EA adequately describes the existing resources and habitats at the proposed project site. The affected area has been previously disturbed and lacks significant fish and wildlife resources. Accordingly, no significant adverse impacts to fish and wildlife resources are expected to result from the proposed construction and operation of the PCBF. Therefore, the Service has no objections to the proposed project and will not object to the DTS' determination of a Finding of No Significant Impact for the proposed project

We appreciate the opportunity to comment on the proposed project. If you have any questions regarding these comments, please contact Fish and Wildlife Biologist Arlene Pangelinan by telephone at 808/541-3441 or by facsimile transmission at 808/541-3470.

Sincerely,

for Robert P. Smith
Pacific Islands Manager

cc: CZMP, Hawaii
Kathy Dadey, Planning Solutions

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523 4928 • FAX (808) 523 4730

JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

August 28, 1998

Mr. Robert Smith
Pacific Islands Manager
United States Department of the Interior
Fish and Wildlife Service
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

Dear Mr. Smith:

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your August 11, 1998, letter concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

We are pleased that your Office has no objections to the proposed project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

DEPARTMENT OF THE NAVY
COMMANDER
NAVAL BASE PEARL HARBOR
517 RUSSELL AVENUE
PEARL HARBOR, HAWAII 96860-5020

IN REPLY REFER TO

5090P.1F0B
Ser N40(23)/ 4666
August 27, 1998

Ms. Kathleen Dadey
Planning Solutions
1210 Auahi Street, Suite 221
Honolulu, HI 96814

Dear Ms. Dadey:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (EA) FOR PEARL CITY BUS FACILITY

Thank you for providing the Draft EA for us to review and comment upon. The Navy has no comment to offer at this time and appreciates the opportunity to participate in your review process.

The Navy's point of contact is Mr. Clyde Yokota at 474-0292.

Sincerely,

C. K. Yokota

C. K. YOKOTA
Environmental Program Manager
By direction of
Commander, Naval Base
Pearl Harbor

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523 4529 • FAX (808) 523 4730

JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

September 1, 1998

Mr. C. K. Yokota
Environmental Program Manager
Department of the Navy
Naval Base Pearl Harbor
517 Russell Avenue
Pearl Harbor, Hawaii 96860-5020

Dear Mr. Yokota:

Subject: **Pearl City Bus Facility Draft Environmental Assessment**

Thank you for your August 27, 1998, letter (5090P.1FOB Ser N40(23)/4666) concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

We are pleased that your office has no objections to the proposed project.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions Inc

DEPARTMENT OF THE ARMY
U. S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF

July 30, 1998

Civil Works Branch

Ms. Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Pearl City Bus Facility, Oahu (NP96-038). We do not have any additional comments to offer beyond those previously provided in our letter dated December 11, 1995.

Sincerely,

Paul Mizue, P.E.
Chief, Civil Works Branch

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE (808) 523-4525 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 28, 1998

Mr. Paul Mizue, P.E.
Chief, Civil Works Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Dear Mr. Mizue:

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your July 30, 1998, letter concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

Your letter stated that your office had no further comments beyond those contained in a previous letter issued by your office on December 11, 1995. Based on our review of that letter, which confirms that the construction of this facility "*would not impact to waters of the United States, including wetlands*", we are pleased that you have no further questions about the project.

Sincerely,

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

DEPARTMENT OF THE ARMY
U S ARMY ENGINEER DISTRICT, HONOLULU
FT SHAFTER, HAWAII 96858-5440

REPLY TO ATTENTION OF

August 20, 1998

Operations Branch

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Blvd., Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Thank you for the opportunity to review the proposed Pearl City Bus Facility project. The project will be located at the former Manana Storage Area, Pearl City, Oahu. Based on the information provided, the project will not impact waters of the U.S. and will not require a Department of the Army permit.

If you have any further questions, please contact Mr. Alan Everson of my staff at 438-9258, extension 11 and refer to File No. 980000250.

Sincerely,

George P. Young, P.E.
Chief, Operations Branch

98 AUG 27 P1:48

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE (808) 523-4525 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

September 1, 1998

Mr. George P. Young, P.E
Chief, Operations Branch
Department of the Army
U.S. Army Engineer District, Honolulu
Fort Shafter, Hawaii 96858-5440

Dear Mr. Young.

Subject: **Pearl City Bus Facility Draft Environmental Assessment**

Thank you for your August 20, 1998, letter concerning the *Draft Environmental Assessment* for our proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

We also appreciate your confirming that the project will not impact waters of the United States and will not require a Department of the Army permit.

Sincerely,

CHERYL D SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions Inc

BENJAMIN J CAYETANO
GOVERNOR
SEIJI F NAYA
DIRECTOR
BRADLEY J MOSSMAN
DEPUTY DIRECTOR
RICK EGGED
DIRECTOR, OFFICE OF PLANNING

DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING
235 South Beretania Street, 6th Flr., Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Tel: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-7624

August 4, 1998

Ms. Cheryl D. Soon
Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

RECEIVED
98 AUG 12 A9:23

Dear Ms. Soon:

Subject: Draft Environmental Assessment for the Pearl City Bus Facility, Pearl City, Oahu, Hawaii

We have reviewed the Draft Environmental Assessment (DEA) for the Pearl City Bus Facility, Pearl City, Oahu, Hawaii. The document addresses our comments submitted for the Pre-draft Environmental Assessment. It includes an assessment of the project's consistency with the Coastal Zone Management (CZM) objectives and policies, Chapter 205A, Hawaii Revised Statutes. In addition, while it also includes an assessment of the project's potential impact on surface water and groundwater and mitigation measures to control the impacts, we recommend that an adequate monitoring system be established to ensure the effectiveness of the mitigation measures.

If there are any questions, please contact Steve Olive of our CZM Program at 587-2877.

Sincerely,

Rick Egged
Director
Office of Planning

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE (808) 523-4529 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 28, 1998

Mr. Rick Egged, Director
Office of Planning
Department of Business, Economic, Development & Tourism
State of Hawaii
P.O. Box 2359
Honolulu, HI 96804

Dear Mr. Egged:

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your August 4, 1998, letter concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

Your letter recommended that an adequate monitoring program be established at the facility to ensure the effectiveness of the proposed mitigation measures designed to address the potential impact to surface water and groundwater. Our Department makes a determined effort to insure that our facilities are maintained and operated in accordance with all applicable environmental laws and regulations.

We will be seeking Department of Health permits for the PCBF. Our existing bus facilities at Kalihi-Palama (Middle Street) and Halawa (which are similar to the PCBF and operate under similar DOH permits) have implemented a monitoring program for that purpose. We anticipate that similar monitoring will be a condition of any permit we receive for the PCBF. This will also be implemented once the PCBF is operational.

We are pleased that your Department has no objections to the proposed project

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

BENJAMIN J CAYETANO
GOVERNOR

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

[redacted]
Alfred K. Suga
Interim Superintendent

OFFICE OF THE SUPERINTENDENT

July 31, 1998

Ms. Kathleen Dadey
Planning Solutions
1210 Auahi Street, Suite 221
Honolulu, Hawaii 96814

Dear Ms. Dadey:

Subject: Pearl City Bus Facility
Draft Environmental Assessment

The Department of Education has no comment on the proposed facility.

Thank you for the opportunity to respond.

Sincerely,

Alfred K. Suga
Interim Superintendent

AKS:hy

cc: OBS
W. Staszkow, I.DO

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EMPLOYER

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE (808) 523-4525 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

September 9, 1998

Mr. Alfred Suga
Interim Superintendent
Department of Education
State of Hawaii
P O. Box 2360
Honolulu, Hawaii 96804

Dear Mr Suga

Subject: **Pearl City Bus Facility Draft Environmental Assessment**

Thank you for your July 31, 1998, letter concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document

We are pleased that you have no comments to offer at this time.

Sincerely,

CHERYL D SOON
Director

cc: Office of Environmental Quality Control
✓Mr Perry White, Planning Solutions, Inc

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

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

DEPUTY
ORSEAT CONOMA 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

July 31, 1998

Cheryl D. Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

LOG NO: 21989
DOC NO; 9807EJ42

Dear Ms. Soon:

SUBJECT: Chapter 6E-8 Historic Preservation Review -- Draft Environmental EA: Pearl City Bus Facility at Former Manana Storage Area
Manana, 'Ewa, O'ahu
TMK: 9-7-24: Por. 6, 41; 9-7-23:1

Thank you for the opportunity to provide comment on the DEA for the proposed bus facility. We commented earlier to your office during preparation of the DEA, and on the draft EIS for the Manana and Pearl City Junction Development for the development of this area. As stated earlier, a review of our records shows that there are no known historic sites at these project parcels and that it is unlikely that subsurface historic sites are present because the area was previously graded and developed for the former Manana Storage area (logs 21800/15813/16486). We still believe that this project will have "no effect" on historic sites.

As an added note to our previous correspondence, the buildings that are currently on the parcels were built as temporary structures and are covered under the Programmatic Memorandum of Agreement among the U. S. Department of Defense, the Advisory Council on Historic Preservation and the National Conference of State Historic Preservation Officers. Since proper documentation of similar buildings has already been carried out by the Department of Defense, demolition of these temporary WWII structures will have "no effect" on historic resources.

This is our concurrence letter under Chapter 6E-8, Hawaii Revised Statutes.

If you have any questions please call Elaine Jourdane at 587-0014.

Aloha,

Don Hibbard, Administrator
State Historic Preservation Division

EJ:je

cc: Dr. Kathleen Dadey, Planning Solutions, 1210 Auahi Street, Suite 221, Honolulu, HI 96814

JEREMY HARRIS
MAYOR

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523 4529 • FAX (808) 523 4730

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

August 28, 1998

Mr. Don Hibbard, Administrator
Department of Land and Natural Resources
State Historic Preservation Division
33 South King Street, 6th Floor
Honolulu, Hawaii 96813

Dear Mr. Hibbard:

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your July 31, 1998, letter (Log No: 21989, Doc No: 9807EJ42) concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

We are pleased that you concur with our preliminary finding that the project will have "no effect" on historic sites.

Sincerely,

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

BENJAMIN J CAYETANO
GOVERNOR

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

August 26, 1998

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K MINAAI
GLENN M OKIMOTO

IN REPLY REFER TO
STP 8.8755

Ms. Cheryl Soon
Director
Department of Transportation Services
City and County of Honolulu
Pacific Park Plaza, Suite 1200
711 Kapiolani Boulevard
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Pearl City Bus Facility - Draft Environmental Assessment (DEA)

Thank you for your transmittal requesting our review of the subject DEA.

Full build out of the proposed bus facility along with other existing activities and projects proposed for the Manana Property will have an adverse impact on our highway facilities in the area.

The traffic assessment should be revised to reflect the full build out of the Manana Property and its impact on Kamehameha Highway. We are concerned that the congestion problems will get worse unless necessary mitigation measures can be identified and implemented. The analysis should include, in particular, recommendations for the intersections of Waimano Home Road/ Kamehameha Highway, Acacia Road/Kamehameha Highway and Kuala Street/Kamehameha Highway.

We will reserve further comment until we have had the opportunity to review the revised TA.

Very truly yours,

KAZU HAYASHIDA
Director of Transportation

RECEIVED
98 AUG31 A8:59

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE (808) 523-4529 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

PT-R/98-5209

September 1, 1998

Mr Kazu Hayashida, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Hayashida:

Subject: **Pearl City Bus Facility Draft Environmental Assessment**

Thank you for your August 26, 1998, letter concerning the *Draft Environmental Assessment* (DEA) for our proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

A thorough traffic analysis was conducted as part of the Pearl City Bus Facility planning efforts. It evaluated future traffic conditions that included the full build-out of the Manana Storage Area The year 2020 was used as the future analysis year, and intersection operations at key intersections surrounding the Manana Storage Area were evaluated without and with the proposed Pearl City Bus Facility.

Table 3-7 in the DEA documents the existing intersection levels of service (LOS) during peak traffic hours. This table includes those intersections mentioned in your letter: Waimano Home Road/Kamehameha Highway, Acacia Road/Kamehameha Highway and Kuala Street/Kamehameha Highway.

Table 4-8 in the DEA summarizes the future Year 2020 peak hour intersection LOS at key intersections, including those mentioned in your letter As shown, there is no significant difference in intersection LOS between scenarios without and with the Pearl City Bus Facility The proposed facility generates the majority of its traffic during time periods that do not coincide with peak traffic hours on Kamehameha Highway. The traffic generated during the peak hours tend to be oriented in the off-peak directions of travel Therefore, it was found that the Pearl City Bus Facility would have relatively minor traffic impacts on the intersections surrounding the Manana Storage Area.

Although the proposed bus facility is not expected to have an adverse traffic impact on the intersections surrounding the Manana Storage Area, the traffic analysis identified several problem areas and recommended measures to improve intersection operations in those areas These are summarized in Section 4.7 3 of the DEA

We have also included a copy of the detailed traffic assessment *(Pearl City Bus Facility Complex, Analysis of Existing and Future Traffic Conditions)* from which the material in the Environmental Assessment was drawn. We hope that you find this useful in your review of the project

We would also like to inform you that a related Environmental Assessment for the development of the proposed Spine Road is currently being prepared and will be sent to you for review. This EA will also discuss traffic impacts, although the recommendations are consistent with those that were used in the Pearl City Bus Facility EA.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

PHONE (808) 594-1868

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPIOLANI BOULEVARD, SUITE 500
HONOLULU, HAWAII 96813

FAX (808) 594-1865

August 17, 1998

Planning Solutions
1210 Auahi Street, Suite 221
Honolulu, Hawai'i 96814
Attention: Ms. Kathleen Dadey

EIS No 202

Re: Pearl City Bus Facility – Review of Draft Environmental Assessment
Manana-Pearl City, O'ahu, TMK: 9-7-24:41

Dear Ms. Dadey:

Thank you for the opportunity to review the Draft Environmental Assessment (DEA) for the Pearl City Bus Facility.

The Office of Hawaiian Affairs (OHA) is concerned that the DEA fails to address the possibility that native Hawaiian gathering rights may exist on the property. We understand that this is a new area of information, however, the recent Hawaii Supreme Court decision makes it clear that the existence of native rights must be addressed. We strongly urge the preparers to seek expert opinion among the Hawaiian community. Some individuals whom you may want to contact are as follows:

(1) Lilikala Kame'eleihiwa, (973-0989)
(2) Daviana McGregor, (956-7068)
(3) Linda Kawai'ono Delaney, (941-4946)

Should you have any questions concerning our comments, please contact Colin Kippen, Land and Natural Resources Division Officer or Lynn Lee, EIS Planner, at 594-1936.

Sincerely,

Randall Ogata
Administrator

pp Colin Kippen
Land and Natural Resources Division Officer

cc: Board of Trustees

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE (808) 523-4928 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALOGI JR.
DEPUTY DIRECTOR

September 4, 1998

Mr. Colin Kippen
Land and Natural Resources Division Officer
Office of Hawaiian Affairs
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Kippen:

Subject: **Pearl City Bus Facility Draft Environmental Assessment**

Thank you for your August 17, 1998, letter concerning the *Draft Environmental Assessment* (DEA) for the City & County of Honolulu Department of Transportation Services' proposed Pearl City Bus Facility (PCBF) project. We appreciate the time that you, Ms. Lynn Lee, and other Office of Hawaiian Affairs staff members spent reviewing the document. In addition, it was very helpful to be able to discuss the issues with you over the telephone on August 25, 1998.

Your letter expresses concern that the DEA may not have fully addressed the possibility that native Hawaiian gathering rights may exist on the property. Section 3.5 of the DEA notes that Land Court Awards indicate that the Manana area was at one time cultivated for dryland crops, such as yams and sweet potatoes. However, it goes on to document the fact that by the end of the 19th century, the land had been purchased by the Honolulu Plantation and was used for sugarcane cultivation. Sugarcane cultivation continued for nearly a half-century, during which time the area was repeatedly cleared and replanted. This removed all vegetation and other habitat that might once have been used by native Hawaiians. The U S military assumed control of the Manana Storage Area property and other land around Pearl Harbor during World War II and maintained control until the City acquired the property in the early 1990s Immediately after acquiring the property, the Navy cleared it of plantings, graded it, and constructed the existing warehouses and other facilities on it.

In view of the foregoing, there does not appear to be any potential for native Hawaiian gathering rights existing on the subject property This conclusion is supported by the information contained in the archaeological and historical investigation performed by Scientific Consultant Services, Inc and included as a part of a previous Environmental Impact Statement for Manana and Pearl City

Junction Development (May 1996). In addition, no correspondence was received from any individual or group claiming the potential existence of these rights during the preparation of the Environmental Impact Statement for Manana and Pearl City Junction Development (May 1996) or as a result of the circulation of the PCBF DEA.

The following statement will be added at the end of Section 3.5 in the Final Environmental Assessment to clarify our conclusions concerning the important point you have raised: *In view of the foregoing, no native Hawaiian gathering rights are believed to be exercised on the PCBF site and are therefore, not expected to be an issue.*

If you have any questions or would like to discuss this further, please call Ms. Esme Corbett-Suzuki of Planning Solutions at 593-1288 or Paul Steffens of my staff at 523-4138.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

VIRGINIA G LOVELL
STATE LIBRARIAN

STATE OF HAWAII
DEPARTMENT OF EDUCATION
HAWAII STATE PUBLIC LIBRARY SYSTEM
465 SOUTH KING STREET B-1
HONOLULU HAWAII 96813

OFFICE OF THE STATE LIBRARIAN

August 18, 1998

Ms. Cheryl D Soon, Director
Dept. of Transportation Services
City & County of Honolulu
Pacific Park Plaza
711 Kapiolani Blvd., Suite 1200
Honolulu, HI 96813

Dear Ms. Soon:

Thank you for allowing the Hawaii State Public Library System to review the draft Environmental Assessment for the proposed Pearl City Bus Facility project (letter of July 23, 1998) and the project description (letter of June 29, 1998)

The library system does not have any comments at this time.

If I can be of further assistance, please feel free to contact me at 586-3713.

Sincerely,

John R. Penebacker
Special Assistant to the
State Librarian

AUG 27 2 12

AN AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY EM

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
PHONE (808) 523-4939 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

August 28, 1998

Mr. John R. Penebacker
Special Assistant to the State Librarian
Department of Education
Hawaii State Public Library System
465 South King Street, B-1
Honolulu, Hawaii 96813

Mr. Penebacker:

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your August 18, 1998, letter concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

We are pleased that you have no further comments or questions regarding this project.

Sincerely,

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

BENJAMIN J. CAYETANO
GOVERNOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

GARY GILL
DIRECTOR

98 AUG 25 P12:27

August 24, 1998

Ms. Cheryl Soon, Director
Department of Transportation Services
City and County of Honolulu
711 Kapiolani Boulevard, Suite 1200
Honolulu, Hawaii 96813

Dear Ms. Soon:

Subject: Draft EA for the Pearl City Bus Facility, Oahu

Thank you for the opportunity to review and comment on the subject document. We have the following comments.

1. Please show on a map the locations of noise sensitive areas such as residential neighborhoods, hospitals and schools and provide map contours that illustrate project noise levels (consider both stationary and vehicular noise sources). Describe mitigation measures that will be employed to reduce noise levels to acceptable conditions.

2. Noise attenuation walls are proposed between noise sources and nearby noise sensitive areas. Please show on a map the proposed locations of these noise barriers. Please illustrate the visual impacts of the proposed structures. We recommend constructing and painting the walls with materials and colors that blend with the surroundings. We also recommend landscaping with native Hawaiian plants to reduce the visual impacts.

3. Please list the latest technology available to reduce noise generated from large vehicles and describe how these measures will be used to minimize noise from buses using this facility.

4. Project excavation will exceed the amount of fill needed by 40,000 cubic yards of soil. Please disclose where the excess material will be disposed. Will the materials be tested for contamination before disposal?

5. Fumes from the proposed paint and body shop may impact adjacent neighbors. Please describe the potential adverse effects and list mitigation measures to minimize the impacts.

6. Please consult with nearby groups (including the neighborhood board) and individuals who may be affected by the proposed project. Document the consultation in the final environmental assessment.

7. We recommend that the City design, construct, and operate the new bus facility in a manner that would:

   - Promote mass transportation, bicycling, and pedestrian access
   - Use renewable energy sources, employ natural light and ventilation, and reduce energy consumption
   - Use non-potable water for irrigation and minimize water usage
   - Use recycled and non-toxic materials during construction, promote recycling activities during operations, and reduce waste
   - Preserve and promote the cultivation of native Hawaiian plants

   Please list any specific measures that the City will implement to achieve the above goals.

Should you have any questions please call Jeyan Thirugnanam at 586-4185.

Sincerely,

Gary Gill
Director

c: Planning Solutions

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

September 4, 1998

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

Dear Mr. Gill:

Subject: **Pearl City Bus Facility Draft Environmental Assessment**

Thank you for your August 24, 1998, letter concerning the *Draft Environmental Assessment* (DEA) for our proposed Pearl City Bus Facility (PCBF) project. We appreciate the time you and your staff spent reviewing the document. Our responses to your comments are as follows:

1. The locations of noise-sensitive land uses (e g., residential areas) are shown in several figures in the Draft Environmental Assessment. These include Figure 1-3, 3-1, 3-2, and 3-4. Because noise varies so much over time, it is not possible to provide a single set of noise contours that characterizes noise from vehicular and stationary noise sources. The DEA provides a narrative discussion of potential noise impacts (see Section 4.5). Planned mitigation measures are described in Section 4.5.2.1. These include noise barriers, operational restrictions on facility operations, and a commitment to maintain and operate buses in accordance with the State Department of Health's vehicular noise standards (Hawaii Administrative Rules §11-42).

2. The locations of proposed noise attenuation walls are along the *mauka* and *makai* property boundaries and on the *Diamond Head* side of the project as shown on the attached figure. As shown by Figure 4-14, the wall behind the Transportation Building is just barely visible from Waimano Home Road There are no walls on the Spine Road side of the property. The walls on the *mauka* and *makai* sides of the property will be of typical concrete block construction The Department of Parks and Recreation will include landscape plantings in its design for the proposed Pearl City Neighborhood Park which will screen structures within the PCBF from park users.

3. Oahu Transit Services (OTS), the bus contractor, works diligently to reduce noise associated with its bus fleet and equipment. It has worked with the bus vendor engineers, experienced in such matters, to quiet the buses. Their analyses have identified radiator fans as the principal noise generating source. Their recommendations have been implemented and OTS continues to work with them to achieve the best possible results In addition, OTS is outfitting the fleet with a particular brand of brake pads which reduce noise normally associated with brake usage. They also set the fleets' annunciators at as low as level as possible where they can still be heard by the visually impaired An ongoing effort is made by OTS to review new technology and products that may enable it to reduce noise levels associated with its fleet without increasing fuel consumption.

4. Disposal of the excess fill from the project site will be the responsibility of the Contractor The City will not specify a disposal location, but will require that the Contractor comply with all applicable laws, ordinances, and regulations.

5. The effect that the proposed facility would have on air quality, including effects related to the emission of fumes from the proposed paint and body shop, is described in Section 6.3 of the DEA. As noted on page 4-21, the paint booth at the proposed facility will be equipped with an integrated volatile organic compounds (VOC) collection system The system would exhaust from a roof stack. Historical data from existing bus paint facilities were used to determine the specific products that would be used at PCBF. This information was then used to estimate the emissions of hazardous air pollutants (HAPs) regulated by the Federal Clean Air Act. The "worst-case" assumption was made that 100 percent of the volatile HAPs present would be emitted from the paint booth stack. Results of the analysis showed that the proposed controls would prevent the facility from having a significant adverse effect on air quality.

6. As discussed in Chapters 1, 2, 6, and 7 of the DEA, the overall redevelopment plan for the former Manana Storage Redevelopment Area is the result of an extensive public planning effort. This effort was documented in a previously prepared Environmental Impact Statement (*Manana and Pearl City Junction* Development *Final EIS*, May 1996) Subsequent to that effort, the Department of Transportation Services has made presentations to numerous community groups regarding this proposed project An informational "open-house" and formal public hearing for this project was conducted for the community on August 10, 1998. Amendments to Chapter 7 will be made in the final EA to document these meetings

7. Department of Transportation Services is committed to mass transit and for this reason, it is planning to accommodate an increased bus fleet by constructing this new facility Wherever possible, the design and construction of this facility will strive to achieve the goals identified

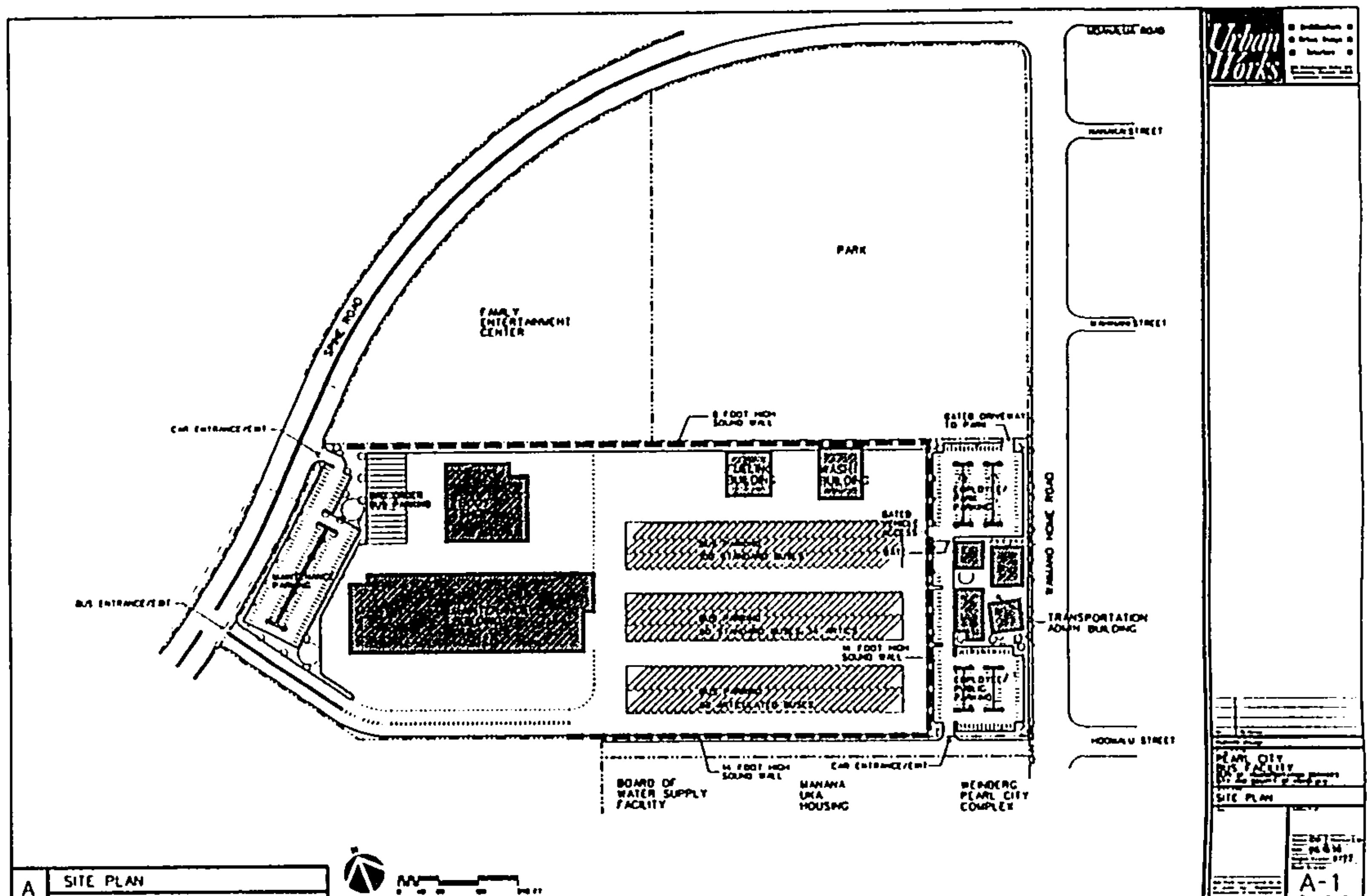
in your comment. Measures the City will take to achieve the goals include designing the buildings to comply with the model energy code and utilizing energy efficient fixtures and equipment, minimizing water usage by using recycled water for the bus wash, and promoting the use of recycled materials during construction when possible.

Sincerely,

CHERYL D. SOON
Director

Attachment

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc. ✓



DEPARTMENT OF COMMUNITY AND SOCIAL RESOURCES

CITY AND COUNTY OF HONOLULU

STANDARD FINANCE BUILDING

August 24, 1998

Ms. Kathleen Dadey
Planning Solutions
1210 Auahi Street, Suite 221
Honolulu, Hawaii 96814

Dear Ms. Dadey:

Subject: PEARL CITY BUS FACILITY
<u>REVIEW OF DRAFT ENVIRONMENTAL ASSESSMENT</u>

The Department of Community Services for the City and County of Honolulu has reviewed the draft Environmental Assessment for the proposed Pearl City Bus Facility and offers the following comments:

Currently, there are a number of nonprofit agencies providing a range of services for socially and economically challenged and/or disenfranchised adults and youth at Manana, Pearl City, Oahu. While these agencies are on limited short-term leases (*i.e.*, two or fewer years), we ask that due diligence as well as every precaution be exercised to mitigate any disruption to these programs should the construction of the proposed Pearl City Bus Facility occur prior to the lease term expiration of these service providers.

More importantly, as noted in the draft Environmental Assessment, the population of Central and West Oahu are rapidly increasing which has had an impact on traffic congestion. Therefore, the Department of Community Services would favor any accommodation that would improve upon our public mass transit system to alleviate this condition. We believe that the development of a bus facility closer to these areas of Oahu is a logical step in this direction and one that will increase customer service and usage.

If you have any questions or require further clarifications concerning our comments, please direct your inquiries to Mr. Ernie Martin of our department's Office of Special Projects at 527-6264.

Thank you for the opportunity to comment on this draft Environmental Assessment of the proposed Pearl City Bus Facility.

Sincerely,

ABELINA M. SHAW
Director

AMS:ds

c: Cheryl D. Soon, Director
Department of Transportation Services

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523 4938 • FAX (808) 523 4730

JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

August 28, 1998

Ms. Abelina M. Shaw, Director
Department of Community and Social Resources
City and County of Honolulu
Standard Finance Building
715 South King Street
Honolulu, Hawaii 96813

Dear Ms. Shaw:

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your August 24, 1998, letter concerning the *Draft Environmental Assessment* (EA) for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

We are aware of the limited short-term leases that have been granted to nonprofit agencies in the Manana Storage Redevelopment Area (See Section 4.1.1. of the Draft EA). To the extent possible, we will make every effort to minimize any disruption to these agencies should the construction of the Pearl City Bus Facility commence prior to the expiration of these short-term leases.

We are pleased that you support our efforts to alleviate traffic congestion in the rapidly expanding areas of Central and West Oahu by locating this facility near the areas it serves.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET
HONOLULU HI 96813

JEREMY HARRIS
Mayor

KENNETH E. SPRAGUE
Director

CHERYL K. OKUMA-SEPE, ESQ.
Deputy Director

ENV 98-160

August 28, 1998

MEMORANDUM

TO: MS. CHERYL SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: KENNETH E. SPRAGUE, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT (DEA)
PEARL CITY BUS FACILITY
TMK:9-7-24:41

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AUG 31 9:56

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

1. During construction, Best Management Practices (BMPs) should be employed to control and reduce discharge of pollutants.

2. Should the discharge of construction dewatering enter the City's drain system, a construction dewatering permit from the State Department of Health and the City Department of Environmental Services will be required.

3. Wherever possible, direct runoff from paved areas to planted areas.

4. The Refuse Collection and Disposal Division will continue to provide refuse collection service to the existing and new facilities.

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

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD, SUITE 1200 • HONOLULU, HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

September 4, 1998

MEMORANDUM

TO: KENNETH E. SPRAGUE, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL SERVICES

FROM: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

SUBJECT: **PEARL CITY BUS FACILITY DRAFT ENVIRONMENTAL ASSESSMENT**

Thank you for your August 28, 1998, letter regarding the Draft Environmental Assessment for the Pearl City Bus Facility (PCBF). We appreciate the time you and your staff spent reviewing the document.

We have reviewed your comments and offer the following responses:

1. The Department of Design and Construction, responsible for the design and construction of the PCBF, intends to require the contractor to adhere to Best Management Practices (to control and reduce discharge of pollutants) which will be developed in conjunction with the construction plans for the proposed project and submitted to the appropriate agencies for their review and approval.

2. Should any discharge be directed toward the City's drain system during construction activities, a construction dewatering permit will be obtained from the State Department of Health and the City Department of Environmental Services as you have requested in your comment. Furthermore, as indicated in Section 6.8 of the Final Environmental Assessment, an Industrial Wastewater Discharge Permit will also be obtained from the City.

3. The PCBF project intends to adhere to conditions imposed by the National Pollutant Discharge Elimination System Permit which is required to be obtained for the operation of this facility. Current plans call for runoff from the paved areas to be passed through oil-

water separators prior to being discharged into the municipal drainage system. This approach was selected to protect the underlying groundwater resource from any potential contamination. Therefore, the intent is to avoid directing runoff towards unpaved areas wherever possible in favor of passing it through the oil and water separators and ultimately discharging it through the municipal drainage system.

4. Thank you for indicating that your Department will provide refuse collection service to the proposed facility.

We are pleased that you have no objections to this project.

Cheryl D. Soon

CHERYL D. SOON

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
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JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

July 23, 1998

Dear Interested Party:

Subject: Pearl City Bus Facility - Review of Draft Environmental Assessment

The City and County of Honolulu Department of Transportation Services (DTS) is transmitting a copy of the draft Environmental Assessment (EA) for DTS' proposed Pearl City Bus Facility (PCBF) project. An announcement of its availability appears in the July 23, 1998, issue of *The Environmental Notice*, published by the State Office of Environmental Quality Control.

The prooposed bus facility would be built on 21 acres of land in the former Manana Storage Area in Pearl City, Oahu. The PCBF project would result in demolition of the existing World War II-era warehouses and construction of service, maintenance, and administration buildings.

Buses and maintenance personnel would access the PCBF via the proposed Spine Road that is being constructed as part of the City's overall redevelopment plan for the Manana Storage Area. Administration staff and bus operators in their personal vehicles would enter and exit the facility using an existing driveway off Waimano Home Road across from Hoomalu Street.

The majority of maintenance and repair work would occur between 6:30 a.m. and 3:00 p.m. Daily servicing, generally from 6:00 p.m. to 2:00 a.m., would occur far from existing residential areas. Acoustic barriers would be constructed as needed. They would serve to mitigate noise from facility operations and night time light impacts. The facility layout, building design, landscaping, and buffers of trees along Waimano Home Road and the proposed Spine Road would minimize potential aesthetic impacts.

Please review the draft EA and address your comments or questions to Planning Solutions, the project's environmental consultant. A public hearing has been scheduled on Monday, August 10, 1998, at 7:30 p.m. in the Pearl City Elementary School Cafeteria, 1090 Waimano Home Road, Pearl City, Hawaii, to provide the community and all interested persons an opportunity to present comments. An "open house" will precede the hearing from 6:30 p.m. to 7:15 p.m. to provide information on the project.

The comment period ends August 24, 1998. Written comments must be received by 4:30 p.m., August 24, 1998, or post-marked by that date. If you have any questions or would like additional information, please contact Ms. Kathleen Dadey at Planning Solutions, 1210 Auahi Street, Suite 221, Honolulu, Hawaii 96814, telephone (808) 593-1288; facsimile (808) 593-1956.

Sincerely,

CHERYL D. SOON
Director

August 4, 1998
We have no comments. If you have any questions, please call Laverne Higa at 527-6246.

Jonathan K. Shimada, PhD
Director and Chief Engineer

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523-4529 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

August 28, 1998

Mr. Jonathan K. Shimada, Ph.D.
Director and Chief Engineer
Department of Facility Maintenance
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Shimada:

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your August 4, 1998, response to the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

We are pleased that you have no questions about the project.

Sincerely,

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET 8TH FLOOR • HONOLULU HAWAII 96813-3017
PHONE (808) 523-4533 • FAX (808) 523-4950

JEREMY HARRIS
MAYOR

PATRICK T. ONISHI
CHIEF PLANNING OFFICER

DONA L. HANAIKE
DEPUTY CHIEF PLANNING OFFICER

GW 7/98-1460

August 12, 1998

Planning Solutions
1210 Auahi Street, Suite 221
Honolulu, Hawaii 96814

Attn: Ms. Kathleen Dadey

Dear Ms. Dadey:

RECEIVED
98 AUG 14 A 9:09

Draft Environmental Assessment for the Proposed
Pearl City Bus Facility, Pearl City, Oahu, Hawaii

We have reviewed the cited Draft Environmental Assessment (DEA). This project proposes to demolish a number of World War II-era warehouses and to establish a bus facility including construction of service, maintenance and administration buildings on 21 acres of land off Waimano Home Road in Pearl City.

As noted in Sections 5.5 and 5.6 of the DEA, the proposed project is consistent with the policies and objectives of the General Plan and with the provisions of the Development Plan for the Primary Urban Center, of which Pearl City is a part. Ordinance 96-36, approved by City Council on June 14, 1996, amended the Development Plan Public Facilities Map (DPPFM) by placing a Corporation Yard symbol on the 17 acre site originally proposed for this project. Ordinance 98-34, approved by Council on June 9, 1998, further amended the DPPFM to increase the size of the site to the currently proposed area of 21 acres. We have no objection to this project as set forth in the DEA.

We offer the following comments for your consideration during preparation of the Final Environmental Assessment (FEA) for this project.

1. Sec. 2.5.3 (pg. 2-7):
The FEA should describe what, if any, efforts will be taken to mitigate the potential visual and noise impacts posed by location of the Service and Wash structures along the mauka boundary of the property, i.e., the boundary between the PCBF and the proposed Pearl City Neighborhood Park.

2. Sec. 4.4.2.2 (pg. 4-6):
The FEA should explicitly address the potential for leaks from the proposed 50,000 gallon underground diesel storage tanks, the potential for groundwater impacts due to such leaks in light of the close proximity of a number of existing and proposed potable water wells, and proposed mitigation measures.

3. Sec. 4.7.1.3 and Table 4-7 (pg. 4-26):
While Section 4.7.1.3 refers to traffic generated by buses moving in and out of the facility and cars and trucks driven by "employees, vendors and others" the accompanying Table 4-7 does not account for any traffic due to vendors and others during the peak hours considered. If no traffic due to vendors and others was recorded during those peak hours, the FEA should explicitly state the same.

4. Sec. 4.11.1.1 (pg. 4-42):
In the FEA, this section should address potential impacts on the proposed Pearl City Neighborhood Park, which will be established on 14 acres immediately mauka of the PCBF.

5. Sec. 6.4, footnote (pg. 6-8):
In the FEA, the name of the Planning Department member interviewed should be changed from "T. Hatter" to "T. Hata".

Should you have any questions or concerns regarding this subject, please do not hesitate to contact Gordon Wood of the Planning Department staff at 527-6073.

Yours very truly,

PATRICK T. ONISHI
Chief Planning Officer

PTO:js

c: Cheryl D. Soon, Director, Department of Transportation Services

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
PACIFIC PARK PLAZA • 711 KAPIOLANI BOULEVARD SUITE 1200 • HONOLULU HAWAII 96813
PHONE (808) 523-4529 • FAX (808) 523-4730

JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI JR.
DEPUTY DIRECTOR

August 28, 1998

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

Dear Mr. Onishi:

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your August 12, 1998, letter (Reference: GW 7/98-1460) concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

Your letter offered the comments itemized below for our consideration. We have included our response or described the action we propose to take immediately below the relevant comment.

Comment. "*The FEA should describe what, if any, efforts will be taken to mitigate the potential visual and noise impacts posed by location of the Service and Wash structures along the mauka boundary of the property, i.e., the boundary between the PCBF and the proposed Pearl City Neighborhood Park.*"

We understand that the master plan for the area was developed through a community planning process. This plan calls for the co-location of the Pearl City Neighborhood Park and the Pearl City Bus Facility (PCBF) as they are currently proposed. During the design of the PCBF, the service and wash facilities were purposely placed along the *mauka* boundary of the PCBF as a means of mitigating its potential impacts on the community. This is because these PCBF facilities would be used principally during the evening hours when the park would typically experience a decrease in use. In addition, the noise from the cleaning and washing operations is relatively low and impeded in part by the construction of a noise barrier along the mauka boundary of the PCBF. Consequently, forecast noise levels, as mitigated by the noise barrier that is part of the proposed design, are compatible with the planned park use.

Based on our conceptual plans, the noise barrier along the *mauka* boundary of the PCBF will be about 8 feet high. The proposed service and wash facilities will be constructed on ground that is approximately 4 feet below the base of the noise barrier. Consequently, only the upper 8 feet or so of the two structures would be visible from the park. Landscape design for the park could include vegetation designed to screen the visible portion of the facilities if they are found objectionable. We are working closely with the Department of Parks and Recreation in designing the interface between the two facilities. It is our understanding that its planners believe the two are compatible.

Comment. *The FEA should explicitly address the potential for leaks from the proposed 50,000 gallon underground diesel storage tanks, the potential for groundwater impacts due to such leaks in view of the close proximity of a number of existing and proposed potable wells, and proposed mitigation measures.*

The approximately 50,000 gallons of diesel fuel would be stored in underground storage tanks, designed with double-walled construction and equipped with leak detection and spillage containment devices. The design, installation, and operation of the tanks will meet the State Department of Health and U.S. Environmental Protection Agency regulations and guidelines to protect against any major leaks and spills.

Comment. "*While Section 4.7.1.3 refers to traffic generated by buses moving in and out of the facility and cars and trucks driven by "employees, vendors, and others" the accompanying Table 4-7 does not account for traffic due to vendors and others during the peak hours considered. If no traffic due to vendors and others was recorded during those peak hours, the FEA should explicitly state the same*"

Table 4-7 does not include a line item for vendors and others because none were anticipated to arrive or leave during these rush hours. We will clarify this assumption by adding a footnote to the table in the final Environmental Assessment.

Comment. "*In the FEA, this section (4.11.1.1) should address potential impacts on the proposed Pearl City Neighborhood Park, which will be established on 14 acres immediately mauka of the PCBF.*"

As previously mentioned, both the PCBF and the planned Pearl City Neighborhood Park are elements of the Pearl City Planning Task Force's Preferred Conceptual Master Plan (see Figure 1-2 in the Draft EA) Both were placed on the Public Facilities Map earlier this year on the basis of recommendations from the Planning Department and with the approval of the City

Council. These actions indicate that those involved believe that the two can function well in their planned adjacent locations. As noted above, DTS personnel have and will continue to consult with representatives of the Department of Parks and Recreation. We believe that both the noise barrier and the proposed landscaping along the boundary between the proposed Park and the PCBF will provide adequate visual and acoustical barriers between the two facilities.

Comment. *In the FEA, the name of the Planning Department member interviewed should be changed from "T. Hatter" to "T. Hata".*

Thank you for calling this typographical error to our attention. Mr. Hata's name (which is correctly identified in the List of References in Chapter 8) will be spelled correctly in the Final EA.

Sincerely,

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

PLANNING DEPARTMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET 8TH FLOOR • HONOLULU, HAWAII 96813-3017
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JEREMY HARRIS
MAYOR

PATRICK T. ONISHI
CHIEF PLANNING OFFICER

DONA L. HANAIKE
DEPUTY CHIEF PLANNING OFFICER

GW 7/98-1460

August 12, 1998

Planning Solutions
1210 Auahi Street, Suite 221
Honolulu, Hawaii 96814

Attn: Ms. Kathleen Dadey

Dear Ms. Dadey:

RECEIVED
98 AUG 14 A9:09
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

Draft Environmental Assessment for the Proposed
Pearl City Bus Facility, Pearl City, Oahu, Hawaii

We have reviewed the cited Draft Environmental Assessment (DEA). This project proposes to demolish a number of World War II-era warehouses and to establish a bus facility including construction of service, maintenance and administration buildings on 21 acres of land off Waimano Home Road in Pearl City.

As noted in Sections 5.5 and 5.6 of the DEA, the proposed project is consistent with the policies and objectives of the General Plan and with the provisions of the Development Plan for the Primary Urban Center, of which Pearl City is a part. Ordinance 96-36, approved by City Council on June 14, 1996, amended the Development Plan Public Facilities Map (DPPFM) by placing a Corporation Yard symbol on the 17 acre site originally proposed for this project. Ordinance 98-34, approved by Council on June 9, 1998, further amended the DPPFM to increase the size of the site to the currently proposed area of 21 acres. We have no objection to this project as set forth in the DEA.

We offer the following comments for your consideration during preparation of the Final Environmental Assessment (FEA) for this project.

1. Sec. 2.5.3 (pg. 2-7):
   The FEA should describe what, if any, efforts will be taken to mitigate the potential visual and noise impacts posed by location of the Service and Wash structures along the mauka boundary of the property, i.e., the boundary between the PCBF and the proposed Pearl City Neighborhood Park.

2. Sec. 4.4.2.2 (pg. 4-6):
   The FEA should explicitly address the potential for leaks from the proposed 50,000 gallon underground diesel storage tanks, the potential for groundwater impacts due to such leaks in light of the close proximity of a number of existing and proposed potable water wells, and proposed mitigation measures.

3. Sec. 4.7.1.3 and Table 4-7 (pg. 4-26):
   While Section 4.7.1.3 refers to traffic generated by buses moving in and out of the facility and cars and trucks driven by "employees, vendors and others" the accompanying Table 4-7 does not account for any traffic due to vendors and others during the peak hours considered. If no traffic due to vendors and others was recorded during those peak hours, the FEA should explicitly state the same.

4. Sec. 4.11.1.1 (pg. 4-42):
   In the FEA, this section should address potential impacts on the proposed Pearl City Neighborhood Park, which will be established on 14 acres immediately mauka of the PCBF.

5. Sec. 6.4, footnote (pg. 6-8):
   In the FEA, the name of the Planning Department member interviewed should be changed from "T. Hatter" to "T. Hata".

Should you have any questions or concerns regarding this subject, please do not hesitate to contact Gordon Wood of the Planning Department staff at 527-6073.

Yours very truly,

PATRICK T. ONISHI
Chief Planning Officer

PTO:js

c: Cheryl D. Soon, Director, Department of Transportation Services

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
Phone (808) 523-4414 • Fax (808) 527-6743

JEREMY HARRIS
MAYOR

JAN NAOE SULLIVAN
DIRECTOR

LORETTA K.C. CHEE
DEPUTY DIRECTOR

98-05592(DT)
'98 EA Comments Zone 9

August 24, 1998

Ms. Kathleen Dadey
Planning Solutions
1210 Auahi Street, Suite 221
Honolulu, Hawaii 96814

Dear Ms. Dadey:

Draft Environmental Assessment (EA) For
The Pearl City Bus Facility
Tax Map Key: 9-7-24: por. 41

We have reviewed the Draft EA and have the following comments:

1. We confirm that the effective zoning of the project area is P-2 General Preservation District. The proposal is permitted under P-2 zoning as it is classified as a public use and structure. A maximum height of 25 feet is allowed with appropriate side and rear yard setbacks under P-2 zoning. As stated in the EA, the maintenance building will be between 32 and 40 feet high. The approximate heights of the transportation building and the paint and body shop should also be included in the final EA.

   A waiver for public uses and structures will be required for the maintenance building as it will exceed the 25-foot height limit allowed under P-2 zoning. A waiver is also required as the project area will exceed the maximum lot coverage of five (5) percent.

2. The municipal wastewater system is available and adequate to accommodate the proposed project. A Sewer Connection Application has been submitted and approved on August 26, 1997 by the Wastewater Branch. The applicant will also be required to submit an Industrial Wastewater Discharge Permit application, which will be reviewed by the Department of Environmental Services.

3. Traffic generated by large vehicles during the construction phase of the project should be closely monitored. It appears that the construction schedule for this project will coincide with that of the Board of Water Supply (BWS). The driveway across from Hoomalu Street may be the only access to the site for construction vehicles. The Department of Transportation Services and the BWS should coordinate construction vehicle operation in order to prevent the vehicles from obstructing traffic on Waimano Home Road.

4. When the driveway across Hoomalu Street is reconstructed, provisions for underground conduits for possible signalization should be considered.

Should you have any questions regarding this letter, please contact Ms. Dana Teramoto of our staff at 523-4648.

Very truly yours,

JAN NAOE SULLIVAN
Director of Planning
and Permitting

JNS:am

cc: Cheryl D. Soon, Department of
Transportation Services

q:\dt\9805592.djt

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

August 28, 1998

Ms Jan Naoe Sullivan
Director of Planning and Permitting
City and County of Honolulu
650 South King Street, 7th Floor
Honolulu, Hawaii 96814

Dear Ms. Sullivan:

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your August 24, 1998, letter concerning the *Draft Environmental Assessment* (EA) for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

Your Department states that a waiver from the maximum height limit imposed by the underlying zoning will be required for structures over 25 feet. Furthermore you indicate that a variance may be needed to address possible exceedance of maximum lot coverage limits. Since the proposed development does include structures that exceed the maximum allowable height limits and will most likely exceed the lot coverage limit we will amend Section 6.8 in the final EA to indicate that waivers will be required by adding the following item: *(12) Waivers for public uses and structures - waivers as required from the limits imposed by the underlying zoning district including, but not limited to, height and lot coverage.*

You also requested that the height of the transportation building and the paint and body shop be included in the Final EA. We note that the transportation building is described in Section 4.10.2.1 of the Draft EA as a single-story facility. We will amend *Section 2.5 Description of Proposed Facilities and Activities* in the final EA to include the approximate heights of the facilities you mention.

As you suggested, we will also amend *Section 6.8 Permits and Approvals* in the final EA to indicate that a Industrial Wastewater Discharge Permit will also be required.

We agree that close coordination between our Department and the Board of Water Supply will be required if the construction schedules coincide or overlap. We will amend *Section 4.13.2 Mitigation Measures of Construction Impacts* (first paragraph) as follows: "*To the extent possible, the Department of Transportation Services will coordinate its construction activities with other overlapping or coinciding construction projects that may be ongoing in the Manana Storage Redevelopment Area in order to minimize impacts on the surrounding community.*"

Thank you for your suggestion that underground conduits be installed for possible future signalization when the driveway across Hoomalu Street is reconstructed. We will consider this suggestion during the design phase of the project.

Thank you again for your efforts in reviewing the Draft Environmental Assessment.

Sincerely,

Cheryl D. Soon

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

BOARD OF WATER SUPPLY

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

August 26, 1998

Ms. Kathleen Dadey
Planning Solutions
1210 Auahi Street, Suite 221
Honolulu, Hawaii 96814

Dear Ms. Dadey:

Subject: Your Transmittal of July 23, 1998 of the Draft Environmental Assessment for the Pearl City Bus Facility, Pearl City, Oahu, TMK: 9-7-24: Por. 41

Thank you for the opportunity to review the document for the proposed bus facility.

We have the following comments to offer:

1. The water master plan for the overall Manana development was approved in November, 1997.

2. The overall demands for the Manana development are greater than 250,000 gallons per day. The developer will, therefore, be required to develop a source to serve the development. If developing a water source is not feasible, the developer must pay our Regional Source Charge which is based on proposed regional water sources in our six-year Capital Improvement Program. Our regional cost is presently $5.75 per gallon.

   The availability of water will be determined when the building permit applications are submitted for our review and approval. If water is made available, the applicant will be required to pay the Regional Source Charge and our Water System Facilities Charges for transmission and daily storage.

3. The document correctly states that the Board of Water Supply (BWS) will use the existing access road for emergency purposes only, once the Spine Road is constructed. The City should assume ownership and responsibility for maintenance of the road since it will be serving the BWS, the bus facility, and the adjoining residential and Weinberg complexes.

   As a prerequisite to dedication of the road to the City, the BWS is amenable to assuming the costs to improve and upgrade the road as proposed in the document in accordance with City standards. BWS will coordinate the roadway improvements with the Department of Transportation Services.

4. The document should indicate that the Manana site is now being served by the BWS with a temporary FM master meter. It is our understanding that the Navy's water service to the site has been terminated.

5. The entire bus parking, service, and wash areas' surface should be sealed asphalt concrete or constructed of concrete similar to the aprons in the maintenance and paint shop areas. This will help to minimize and prevent drips and leaks of fuels and lubricants from the large volume of buses from leaching into the groundwater aquifer. Although there appears to be adequate precautions in the actual storage and handling of such contaminants, it is imperative that the overall scheme be addressed due to our potable water sources downgradient of the facility.

6. The storage capacity for the area and spillway elevations of the reservoirs should be clarified. The BWS 285' system has a total storage capacity of 3.5 million gallons (mg) which includes 1.5 mg at Pearl City, 1.0 mg at Waiau, and 1.0 mg at Newtown.

7. The document should include the Waiawa Springs complex in the groundwater section which is a private source for irrigation and potable use. In addition, the BWS Pearl City Shaft has a "permitted use," not actual pumpage, of 1.32 mgd.

8. If a three-inch or larger water meter is required, the construction drawings showing the installation of the meter should be submitted for our review and approval.

9. BWS approved reduced pressure principle backflow prevention assemblies are required installations immediately after each water meter serving the project site.

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

Very truly yours,

CLIFFORD S. JAMILE
Manager and Chief Engineer

cc: Department of Transportation Services
Office of Environmental Quality Control

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D SOON
DIRECTOR

JOSEPH M MAGALDI JR
DEPUTY DIRECTOR

September 4, 1998

MEMORANDUM

TO CLIFFORD S JAMILE, MANAGER AND CHIEF ENGINEER
BOARD OF WATER SUPPLY

FROM CHERYL D SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

SUBJECT: **PEARL CITY BUS FACILITY DRAFT ENVIRONMENTAL ASSESSMENT**

Thank you for your August 26, 1998 letter regarding the *Draft Environmental Assessment* for the Pearl City Bus Facility. We appreciate the time you and your staff spent reviewing the document.

The remarks provided below are in response to your comments:

1. Thank you for confirming that the water master plan for Manana Storage redevelopment area was approved in November 1997.

2. The Regional Source Charge and the Water System Facilities Charge for transmission and daily storage will be applicable to the development of the Pearl City Bus Facility if an off-site source is not developed for the overall area.

3. The Department of Design and Construction is responsible for negotiating the ownership and the design of the roadway improvements for the Hoomalu Street driveway. We will forward this comment to the Department of Design and Construction in an effort to implement the above mentioned suggestions.

4. We will amend *Section 3.9.2 Water Supply* in the final EA to reflect your comment regarding water service to the area.

5. The surface of the entire bus parking, service, and wash areas will be sealed asphalt concrete to minimize any potential leaching into the groundwater aquifer as a result of unintended drips, leaks of fuel or oil in these areas.

6. Clarification regarding storage capacity for the area and spillway elevations of the reservoirs will be incorporated in *Section 3.9.2 Water Supply* in the Final EA

7. Your comments regarding the Waiawa Springs complex and the BWS Pearl City Shaft will be incorporated into the appropriate section of the Final EA

8. If a three-inch or larger water meter is required, the construction drawing showing the installation of the meter will be submitted for your review and approval

9. We acknowledge that BWS approved reduced pressure principle backflow prevention assemblies are required installations immediately after each water meter serving the project site.

Thank you again for your efforts in reviewing the Draft Environmental Assessment.

Cheryl D. Soon

CHERYL D. SOON

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.✓

FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
3375 KOAPAKA STREET SUITE H425
HONOLULU HAWAII 96819-1869

JEREMY HARRIS
MAYOR

ATTILIO K. LEONARDI
FIRE CHIEF

JOHN CLARK
DEPUTY FIRE CHIEF

August 4, 1998

TO: CHERYL SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: JOHN CLARK, ACTING FIRE CHIEF

SUBJECT: PEARL CITY BUS FACILITY - REVIEW OF DRAFT ENVIRONMENTAL ASSESSMENT
PEARL CITY, OAHU, HAWAII
HFD INTERNAL NO. OL 98-283

We received your correspondence of July 23, 1998, regarding the Draft Environmental Assessment for the Pearl City Bus Facility. Please provide a memorandum to my office with the necessary information regarding the off-site water supply, duration and spacing of the nearest fire hydrant specific to this proposed project so that we may be better able to evaluate the merits of the development.

Should you need additional information, please contact Battalion Chief Charles Wassman of our Fire Prevention Bureau at 831-7778.

JOHN CLARK
Acting Fire Chief

JC/CW:bh

RECEIVED
98 AUG 6 3:19

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI JR.
DEPUTY DIRECTOR

August 28, 1998

Mr. John Clark
Acting Fire Chief
Fire Department
City and County of Honolulu
3375 Koapaka Street, Suite H425
Honolulu, Hawaii 96819-1869

Dear Mr. Clark:

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your August 4, 1998, letter concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document.

We have provided the information requested regarding the off-site water supply, duration and spacing of the nearest fire hydrant to the proposed project in our memorandum dated August 26, 1998. We understand that you are satisfied with the information provided and have no further comments to offer on the above referenced document.

We are pleased that your department has no objections to the proposed project.

Sincerely,

CHERYL D. SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc.

POLICE DEPARTMENT

CITY AND COUNTY OF HONOLULU

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

JEREMY HARRIS
MAYOR

LEE D. DONOHUE
CHIEF

WILLIAM B. CLARK
MICHAEL CARVALHO
DEPUTY CHIEFS

OUR REFERENCE CS-DL

August 17, 1998

TO: CHERYL D. SOON, DIRECTOR
DEPARTMENT OF TRANSPORTATION SERVICES

FROM: LEE D. DONOHUE, CHIEF OF POLICE
HONOLULU POLICE DEPARTMENT

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT
PEARL CITY BUS FACILITY

Thank you for the opportunity to review and comment on the subject document.

We have no objection to the proposed project. However, while it is under construction and when it becomes operational, it will have an impact on the services provided by the Honolulu Police Department. We, therefore, have the following comments.

Principles of crime prevention through environmental design should be used as a guide in designing the proposed project to assist in minimizing opportunities for criminal activities and in turn calls for police service.

In spite of mitigation measures, noise and fugitive dust during the construction phase of any large project usually cause an increase in calls for police service.

We are hopeful that the major unresolved issues relative to noise abatement measures, bus operational constraints, etc. will be resolved in a way to minimize noise complaints. This will in turn require the response of police officers to the area.

With the completion of this proposed project along with the other facilities that are planned, there will be more area for the police officers assigned to the area to patrol.

In addition, the spine road and its branches will create more roadway for the officers of this district to patrol since our primary concern is for pedestrian and vehicular safety. More roadways generally mean more calls for police service.

These comments, relative to this particular project, may not require the creation of another police beat. However, coupled with other developments surrounding this area, a new beat and additional patrol officers may be required to adequately respond to calls for police services. We will closely monitor the situation before a determination is made.

If there are any questions, please call me at 529-3175 or Major Michael Brede of District 3 at 455-9055.

LEE D. DONOHUE
Chief of Police

By JAMES FEMIA
Assistant Chief
Administrative Bureau

cc: Major Michael Brede
District 3

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 28, 1998

Mr Lee D Donohue
Chief of Police
Honolulu Police Department
801 South Beretania Street
Honolulu, Hawaii 96813

Dear Chief Donohue

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your August 17, 1998, letter concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility (PCBF) project. We appreciate the time you and your staff spent reviewing the document.

Your letter recommends that the Pearl City Bus Facility be designed to promote principles of crime prevention We share your concern not only on general principle, but also because the City and County maintains a great deal of valuable equipment on site. Therefore, our design already incorporates fencing around the entire complex, boundary walls in certain areas, site lighting, and limited egress and ingress to the site. In addition, once operational, the facility operators will *contract for 24-hour private security guard service.*

We also share your concern regarding potential noise impact on the surrounding community as a result of the development of this project. For this reason, as indicated on page 4-12 of the *Draft Environmental Assessment* (DEA), the Department of Transportation Services is incorporating the following kinds of measures in the facility design and operational plan to control noise emissions and insure compliance with the Department of Health (DOH) and Land Use Ordinance (LUO) noise limits 1) Construct noise barriers along the *mauka* and *makai* perimeter of the PCBF site and between the Transportation Building and the bus operating area located in the interior portion of the site, 2) Insure that all buses operate properly and are in compliance with DOH's vehicular noise standards; 3) Administratively restrict the use of horns and vehicle operating speeds within the facility, 4) Limit noise from outdoor stationary equipment such as air conditioning units, pumps, generators, and exhaust fans as needed to comply with regulatory limits, and 5) Require the use of certain site exits during certain noise sensitive periods of the day. We believe these measures will minimize the number of PCBF-related noise complaints to which the Police Department will be asked to respond

Construction noise impacts associated with the development of the PCBF are difficult to isolate since construction associated with overall development of the Manana Storage Area will overlap with construction of the facility. However, as discussed in Section 4.13 of the DEA, these impacts will be mitigated by requiring all contractors to use appropriately muffled equipment and to comply with DOH rules and regulations governing construction

We acknowledge your comment regarding the potential impact of the redevelopment of the Manana Storage Area on the Pearl City District police staffing requirements. Your letter states that although the Pearl City Bus Facility in and of itself may not require another police beat, the redevelopment of the entire Manana Storage Area could result in the need for an additional police beat. Therefore, we will include the following text in the Final Environmental Assessment, Chapter 4, Police Protection section "*The PCBF site is close to the Pearl City Police Station on Waimano Home Road. Police have ready access to the site from either Waimano Home Road or from the proposed Spine Road in Case of an emergency. Although the development of the PCBF alone may not require the addition of another police beat, the Honolulu Police Department has indicated that a new beat may be required when the entire Manana Storage Area is redeveloped as proposed. The Department has stated that they will monitor the development of the entire area to determine if and when a new police beat is needed.*"

Thank you again for your comments on the Pearl City Bus Facility Draft Environmental Assessment.

Sincerely,

Cheryl D Soon

CHERYL D SOON
Director

cc: Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc

THE GAS COMPANY
Citizens Energy Services

August 20, 1998

Ms Kathleen Dadey
Planning Solutions
1210 Auahi Street, Suite 221
Honolulu, Hawaii 96814

Dear Ms Dadey

Subject Pearl City Bus Facility-Review of Draft Environmental Assessment
Plan Review and Comment

We refer to your letter dated July 23, 1998 Based on our review of the Draft Environmental Assessment, it has been determined that the area is currently clear of utility gas facilities

Thank you for the opportunity to review the Draft Environmental Assessment for the proposed improvements Should there be any questions, or if additional information is desired, please call me at 594-5574

Very truly yours,

Keith K. Yamamoto
Supervisor, Engineering

KKY:kn
98-209

cc Ms Cheryl D Soon, Department of Transportation Services

THE GAS COMPANY
515 Kamakee Street Honolulu, Hawaii 96814

DEPARTMENT OF TRANSPORTATION SERVICES
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JEREMY HARRIS
MAYOR

CHERYL D. SOON
DIRECTOR

JOSEPH M. MAGALDI, JR.
DEPUTY DIRECTOR

August 28, 1998

Mr Keith K Yamamoto
Supervisor, Engineering
The Gas Company
Citizens Energy Services
515 Kamakee Street
Honolulu, Hawaii 96814

Dear Mr. Yamamoto.

Subject: Pearl City Bus Facility Draft Environmental Assessment

Thank you for your August 10, 1998, letter concerning the *Draft Environmental Assessment* for this Department's proposed Pearl City Bus Facility project. We appreciate the time you and your staff spent reviewing the document We appreciate you confirming that the area proposed for development is clear of utility gas facilities

We are pleased that you have no further comments or questions regarding this project

Sincerely,

CHERYL D SOON
Director

cc Office of Environmental Quality Control
Mr. Perry White, Planning Solutions, Inc