BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of GENTRY DEVELOPMENT COMPANY, a Hawaii limited partnership To Amend the Agricultural Land Use District Boundary into the Urban Land Use District for Approximately 685 Acres at Honouliuli, Ewa, Oahu, State of Hawaii, Tax Map Key Nos.: 9-1-10: Portion of 2 and Portion of 7; 9-1-12: Portion of 1, Portion of 5 and 30	DOCKET NO. A88-627 GENTRY DEVELOPMENT COMPANY, a Hawaii limited partnership

FINDINGS OF FACT,
CONCLUSIONS OF LAW AND DECISION AND ORDER

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of GENTRY DEVELOPMENT COMPANY, a Hawaii limited partnership To Amend the Agricultural Land Use District Boundary into the Urban Land Use District for Approximately 685 Acres at Honouliuli, Ewa, Oahu, State of Hawaii, Tax Map Key Nos.: 9-1-10: Portion of 2 and Portion of 7; 9-1-12: Portion of 1, Portion of 5 and 30	DOCKET NO. A88-627 GENTRY DEVELOPMENT COMPANY, a Hawaii limited partnership

FINDINGS OF FACT,
CONCLUSIONS OF LAW AND DECISION AND ORDER

GENTRY DEVELOPMENT COMPANY, a Hawaii limited partnership ("Petitioner"), filed a Petition on August 29, 1988 (the "Petition"), pursuant to Chapter 205, Hawaii Revised Statutes, as amended ("HRS"), and the Hawaii Land Use Commission Rules, Title 15, Subchapter 3, Chapter 15, Hawaii Administration Rules, as amended (the "Commission Rules"), to amend the Land Use District Boundary to reclassify approximately 685 acres of land situate at Honouliuli, Ewa, Oahu, State of Hawaii, identified as Oahu Tax Map Key Nos.: 9-1-10: portion of 2 and portion of 7; and 9-1-12: portion of 1, portion of 5 and 30 (hereinafter the "Property"), from the Agricultural District to the Urban District to develop the Property together with an adjoining 331 acre parcel of land presently in the Urban Land Use District (hereinafter "Urban

Area") as an integrated 1,016-acre (collectively the "Project Area") residential community to be known as Ewa by Gentry (the "Project"). The Land Use Commission of the State of Hawaii (the "Commission"), having heard and examined the testimony, evidence and argument of counsel presented during the hearings and the parties proposed findings of fact, conclusions of law and decision and order and responses to proposed findings of fact, conclusions of law and decision and order, hereby makes the following findings of fact:

FINDINGS OF FACT

PROCEDURAL MATTERS

1. The Commission held hearings on the Petition on December 15 and 16, 1988, and January 10 and 11, 1989, pursuant to notice published in the Honolulu Star-Bulletin, a newspaper of general circulation, on November 7, 1988.

2. The Department of the Navy ("Intervenor") filed a petition to intervene on November 18, 1988, which was subsequently granted by the Commission by motion adopted on December 15, 1988.

3. Allan R. Kunimoto, Trustee for the Allan R. Kunimoto Revocable Trust, also filed a petition to intervene on November 22, 1988 but withdrew his petition to intervene on December 15, 1988.

4. The Commission allowed Charles Beamer to testify as a public witness on December 15, 1988.

5. The Commission received into evidence the written testimonies of Representative Paul T. Oshiro, Charles Beamer and Elizabeth Ann Stone on December 15, 1988.

DESCRIPTION OF PROPERTY

6. The Project Area, comprised of the Property and Urban Area, is located on the Ewa Plain about 20 miles west of Honolulu, directly northeast of Naval Air Station Barbers Point ("NASBP"). The Property is bordered to the north by an abandoned Oahu Railway and Land Company railroad right-of-way, on the south by Puuloa Road, on the east by the Naval Magazine Lualualei West Loch Branch and its associated explosive safety zone, and on the west by the Honouliuli Wastewater Treatment Plant ("HWWTP") and NASBP.

7. The older communities of Waipahu and Ewa Beach are located further to the northeast and southeast of the Property, respectively. Other communities in close proximity of the Property are Soda Creek subdivision (which is within in the Project Area), Fernandez Village, the City and County of Honolulu (City) Expandable Housing Project, Renton Village, and Tenney Village.

8. Access to the Project is provided by Fort Weaver Road, Farrington Highway and the H-1 Freeway.

9. The Project Area is identified by the following Tax Map Key Numbers:

Project Area	Oahu Tax Map Key Nos.	Approximate Area in Acres
Property	9-1-10: Portion of 2 and Portion of 7; 9-1-12: Portion of 1, Portion of 5 and 30	685
Urban Area	9-1-12: Portion of 1, 29	331

10. The Project Area, which consists of approximately 1,016 acres, is owned in fee simple by the Trustees under the Will and of the Estate of James Campbell, Deceased ("Campbell Estate") and Petitioner.

11. Campbell Estate has granted Thomas H. Gentry certain rights to develop the Project Area and other lands in the vicinity.

12. Thomas H. Gentry has assigned to Petitioner the rights to develop the portion of the Project Area, approximately 841 acres, owned by Campbell Estate, through an Assignment and Assumption of Agreements dated August 23, 1988, between Thomas H. Gentry and Petitioner.

13. Campbell Estate, by letter dated August 19, 1988, authorized Petitioner to submit the Petition to the Commission for reclassification of the Property owned by Campbell Estate.

14. The Project Area's topography is generally level and the average ground slopes are less than 1 percent.

15. The Project Area's elevation ranges from approximately 40 feet above mean sea level on its northwestern

boundary to approximately 20 feet above mean sea level on its southeastern boundary.

16. The Property is currently used for agriculture, including approximately 644 acres leased to Oahu Sugar Company, Limited ("OSCO"), for sugarcane production and approximately 41 acres leased to Living Designs, Inc., for a plant nursery operation.

17. The United State Department of Agriculture (USDA) Soil Conservation Service, Soil Survey of Island of Kauai, Oahu, Maui, Molokai, and Lanai, classifies the soils within the Property as Ewa silty clay loam (EmA); Mamala stony silty clay loam (MnC); Waipahu silty clay (WzA, WzC); Honouliuli clay (HxA, HxB); Waialua silty clay (Wka); and Coral outcrop (CR). Description of said soils are as follows:

The Ewa soils series consists of well-drained soils, and are used for sugarcane, truck crops, and pasture. The Ewa silty clay loam (EmA) has the following representative profile: the surface layer is dark reddish silty clay loam; the subsoil is dark reddish-brown and dark-red silty clay loam that has subangular blocky structure; and the substratum is coral limestone, sand or gravelly alluvium. The Ewa silty clay loam (EmA) is characterized by very slow runoff, and erosion hazard is no more than slight. The shrink-swell potential is moderate.

The Mamala soils series consists of shallow, well-drained soils, and are used for sugarcane, truck crops, orchards, and pasture. The Mamala stony silty loam (MnC) has the following representative profile: the surface layer is dark reddish-brown stony silty clay loam; the subsoil is dark reddish-brown silty clay loam; and the substratum is coral limestone, and consolidated calcareous sand. The Mamala stony silty clay loam (MnC) is characterized by moderate permeability, and very slow to medium runoff. The erosion hazard is light to moderate, and the shrink-swell potential is low.

The Waipahu soils series consists of well-drained soils on marine terraces, and are used for sugarcane, and homesites. The Waipahu silty clay (WzA, WzC) has the following representative profile: the surface layer is dark grayish-brown silty clay; the subsoil is dark-brown silty clay that has prismatic structure; and the substratum is clayey alluvium. The soil is slightly acid in the surface layer and subsoil. The Waipahu silty clay (WzA) is characterized by moderately slow permeability, and slow or very slow runoff. The erosion hazard is none to slight, and the shrink-swell potential is high. The Waipahu silty clay (WzC) is characterized by medium runoff. The erosion hazard is moderate, and the shrink-swell potential is high.

The Honouliuli soils series consists of well-drained soils on coastal plains, and are used for sugarcane, truck crops, orchards and pasture. The Honouliuli clay (HxA, HxB) soil is dark reddish-brown, very sticky and very plastic throughout, and is neutral to mildly alkaline. The Honouliuli clay (HxA) is characterized by moderately slow permeability. Runoff for Honouliuli clay (HxA, HxB) is slow. The erosion hazard ranges from no more than slight to slight, and the shrink-swell potential is high.

The Waialua soils series consists of moderately well-drained soils on alluvial fans, and are used for sugarcane, truck crops, orchards, and pasture. The Waialua silty clay (WkA) has the following representative profile: the surface layer is dark reddish-brown silty clay; the subsoil is dark reddish-brown and reddish-brown silty clay that has subangular blocky structure; and the substratum is dark reddish-brown, mottled silty clay. The soil is neutral in the surface layer and slightly acid in the subsoil. The Waialua silty clay (WkA) is characterized by moderate permeability, and slow runoff. The erosion hazard is no more than slight, and the shrink-swell potential is moderate.

The Coral outcrop (CR) consists of coral or cemented calcareous sand, and is used for military installations, quarries, and urban development.

18. The Land Study Bureau Detailed Land Classification for Oahu designates the overall productivity rating of lands within the Property as follows: "A" - 246 acres, "B" - 87 acres, "C" - 297 acres, "E" - 29 acres and Urban - 26 acres. Soils rated "A" have the highest productivity potential and those rated "E" have the lowest potential.

19. The State Department of Agriculture's Agricultural Lands of Importance to the State of Hawaii ("ALISH") classification system classifies approximately 386 acres of the Property as "Prime", approximately 265 acres as "Other Important", and approximately 34 acres as unclassified.

20. The Flood Insurance Rate Map prepared by the United States Federal Emergency Management Agency designates the entire Project Area as Flood Zone D; an unstudied area with possible flood hazards.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

21. Petitioner proposes to develop a single-family and multi-family residential community on the Project Area. The proposed uses includes a mix of single-family and multi-family dwellings, an 18-hole golf course, neighborhood commercial center, light industrial/business parks on two sites, an elementary school and two parks, and circulation improvements.

22. The Project will include the following land uses and dwelling unit mixes:

Land Use	Urban Area	West of Fort Weaver Road Property (por.)	East of Fort Weaver Rd. Property (portion)
Single-family	157 acres (1,270 units)	114 acres (850 units)	248 acres (1,930 units)
Multi-family	70 acres (1,270 units)	25 acres (400 units)	98 acres (1,830 units)
Commercial	8 acres	0 acres	0 acres
Industrial	0 acres	30 acres	0 acres
School	7 acres	0 acres	0 acres
Parks	8 acres	0 acres	18 acres
Golf Course	57 acres	123 acres	0 acres
Roadways	13 acres	5 acres	15 acres
Greenway*	11 acres	1 acre	8 acres
TOTALS	331 acres (2,540 units)	298 acres (1,250 units)	387 acres (3,760 units)
GRAND TOTALS		1,016 acres (7,550 units)	

*The greenway is the landscaped setback area between the residential units and Fort Weaver Road.

Residential Development

23. Petitioner proposes to develop approximately 2,780 single-family units on the Property. The single-family units will consist of two, three and four bedroom homes on lots having a minimum area of 3,000 square feet ("sf"), with larger lots planned near the proposed golf course. Petitioner proposes to sell all single-family houses and lots in fee

simple. Densities will range from approximately five to ten units per acre.

24. Petitioner proposes to develop approximately 2,230 multi-family units on the Property. The multi-family units will consist of low-rise condominiums at densities ranging from approximately 13 to 30 units per acre. Petitioner will offer multi-family units for sale in fee simple and may develop and operate various projects as rental apartments.

Commercial Development

25. Petitioner proposes to develop a neighborhood commercial center of approximately eight acres in the Urban Area at the northwestern corner of Geiger Road and Fort Weaver Road. This commercial center will be similar to other neighborhood commercial areas located in communities such as Hawaii Kai, Mililani and Waipio Gentry.

26. Petitioner anticipates that tenants may include the following types of establishments: automobile service stations, auto parts stores, book stores, convenience stores, supermarket, hair salons, clothing stores, ice cream parlors, laundromats, family and fast food restaurants, veterinary clinics, pet stores, garden supply shops, financial institutions, realty offices, physicians, dental and law offices.

Industrial Development

27. Petitioner proposes to develop two sites (containing approximately 10 acres and 20 acres, respectively)

within the Property for industrial development located at the Project's western side, adjacent to the HWWTP and NASBP's eastern gate.

28. Petitioner proposes the initial use of the 10-acre site for fabrication, storage of construction materials, and a project construction office by tenants directly involved in the Project's construction.

After Project completion, Petitioner proposes to develop the site for other industrial uses.

29. Petitioner proposes the industrial sites to serve as a buffer between the HWWTP and the Project's residential areas, as well as provide employment opportunities in the Property.

30. Petitioner anticipates that industrial tenants will include construction and housing support companies engaged in trades such as masonry, plumbing, electrical systems, glazing, painting, flooring, roofing; warehousing for nearby businesses; public storage facilities and automotive and repair shops.

Recreation and Open Space

31. Petitioner proposes to dedicate approximately 26 acres of land on the Project Area for the development of public parks.

32. Petitioner proposes to locate two parks in the Property (eight acres and twelve acres, respectively) east of

Fort Weaver Road and proposes to dedicate a third eight-acre park in the Urban Area, adjacent to the proposed elementary school site, west of Fort Weaver Road.

33. Petitioner will be responsible for site preparation of the parks in compliance with the City Department of Parks and Recreation standards. Petitioner will also cooperate with the City Department of Parks and Recreation and the State of Hawaii Department of Education ("DOE") to determine alternate park locations which will not be detrimental to Petitioner's overall land use plan.

34. Petitioner also proposes to develop a 180-acre, semi-private 18-hole golf course west of Fort Weaver Road. The golf course is planned as a major recreational feature of the Project and will include 70 acres of the proposed and existing Kaloi drainage system.

One hundred twenty-three acres of the proposed golf course are in the Property and the remaining 57 acres are in the Urban Area.

Circulation

35. Petitioner proposes that the Project's circulation system consist of arterials, major streets, collectors, local streets and cul-de-sacs. Fort Weaver Road, which bisects the Project, will serve as the major arterial connecting the Project to the surrounding region.

Development Schedule

36. Petitioner proposes to develop the Project's residential portion over a nine-year period and to develop lands within the Property over a seven-year period pursuant to the following schedule:

RESIDENTIAL DEVELOPMENT SCHEDULE
EWA GENTRY - 1988 THROUGH 1996
(IN NUMBER OF UNITS)

	Single-Family		Multi-Family		
Year	Urban Area	Property	Urban Area	Property	Total
1988	410	--	300	--	710
1989	340	--	440	--	780
1990	350	250	260	--	860
1991	170	590	270	--	1,030
1992	--	480	--	500	980
1993	--	600	--	310	910
1994	--	530	--	360	890
1995	--	170	--	600	770
1996	--	160	--	460	620
TOTAL	1,270	2,780	1,270	2,230	7,550

37. Petitioner proposes to develop the 10-acre and 20-acre industrial sites in 1989 and 1992, respectively.

38. Although Petitioner will not complete development of the Property within five years of final county zoning approval, Petitioner is requesting a boundary amendment for the entire Property because Petitioner must make major commitments regarding financing and must construct on-site and off-site infrastructure facilities for the entire Project during the initial five year period.

39. Petitioner estimates the preliminary infrastructure cost for the Project to be approximately $159.75 million. This cost estimate includes the following:

Water	$ 14.00 Million
Drainage	$ 19.85 Million
Major roadways	$ 26.30 Million
Landscaping, parks & miscellaneous	$ 6.80 Million
Intract site improvements	$ 92.80 Million
	$159.75 Million

PETITIONER'S FINANCIAL CAPABILITY TO UNDERTAKE THE PROPOSED DEVELOPMENT

40. Petitioner's general partner, Gentry Pacific, Ltd. and subsidiaries, as of December 31, 1987, had total assets of $67,419,760.00, total liabilities of $53,682,213.00 and total stockholder's equity of $67,419,760.00. Gentry Pacific, Ltd. and its affiliates and predecessor companies have been in the business of developing residential homes on Oahu since 1971.

41. Petitioner believes it has the financial and operational capability to develop the Project simultaneously with Petitioner's other ongoing projects, including Petitioner's projects in Central Oahu.

42. Bank of Hawaii and First Hawaiian Bank presently provide interim construction financing for the Soda Creek project and other projects developed by Petitioner and its affiliates. Bank of Hawaii and First Hawaiian Bank indicate interest in providing interim construction financing to Petitioner for development of the Project.

STATE AND COUNTY LAND PLANS AND PROGRAMS

43. The Property is currently designated in the State Land Use Agricultural District as reflected on the State Land Use District Boundary Map O-6, Ewa District.

44. The City's General Plan provides that a secondary urban center should be developed in the Ewa Development Area to contain approximately nine to ten percent of Oahu's population by the year 2005.

45. The City's Ewa Development Plan Land Use Map ("DP") designates the Property as Agriculture. Urban Areas are in Agriculture, Low Density Apartment, Residential and park designations.

46. Petitioner filed an application with the City's Department of General Planning ("DGP") in the 1988 Annual Review process to amend the DP to redesignate all lands within the Project Area to various urban designations.

47. The City's land use zones for the Property are: Restricted Agriculture (AG-1) and General Agriculture (AG-2), Urban Areas are in Restricted Agricultural (AG-1), Low Density Apartment (A-1), Residential (R-5) and General Preservation (P-2) designations.

48. The Project Area is located within the Coastal Zone Management Area but is not located within the City's Special Management Area as defined in Chapter 205A, HRS.

NEED FOR THE PROPOSED DEVELOPMENT

49. Petitioner's market consultant, John Child & Company, Inc. ("JCI"), prepared a market study for the Project and projects the need for the following three categories of housing units as follows:

(a) Group I Units - Units affordable to households with annual incomes between 80% - 120% of median household income on Oahu as defined by the United States Department of Housing and Urban Development ("HUD").

(b) Group II Units - Units affordable to households with annual incomes between 120% - 140% of median household income as defined by HUD.

(c) Group III Units - Units affordable to households with annual incomes over 140% of median household income.

50. JCI estimates that the annual demand for each housing category is as follows:

(a) Group I unit demand is projected to range from approximately 3,600 to 4,500 units per year for the island of Oahu. Approximately 75% of the Group I demand is projected or approximately 3,000 units, for the Ewa and Central Oahu districts.

(b) Group II and Group III unit demand in Ewa and Central Oahu is projected to average approximately 2,600 units per year.

(c) The total housing demand for Group I, II and III units in Ewa and Central Oahu is projected at 5,600 units per year through the year 2005.

51. JCI indicates that proposed additions to the Ewa and Central Oahu housing supply will range from approximately 2,200 to 4,300 units per year over the next 12 years.

52. Petitioner represents that it will implement an affordable housing program to comply with conditions imposed by the Commission.

Golf Course

53. JCI indicates that the proposed 18-hole golf course for the Project is one of sixteen proposed for development on Oahu over the next ten years. The study indicates, however, that golf course demand will continue to exceed available capacity as resident and visitor populations grow even if all proposed courses are developed.

Commercial/Industrial Areas

54. Decision Analysts Hawaii, Inc. ("DAH") in its market study evaluated the demand for commercial space and estimates that the Project will generate demand for approximately 184,600 square feet, or about 17 acres of commercial space at full buildout of the Project.

55. DAH estimates that demand for light industrial space on Oahu is 1 acre per 1,000 additional residents and visitors. DAH estimates that by the year 2000 demand for light

industrial space on the Ewa Plain will be approximately 37 acres, which exceeds the 30 acres proposed by Petitioner for the Project.

IMPACT ON RESOURCES OF THE AREA

Agricultural Resources

56. Approximately 644 acres of the Property is cultivated in sugarcane by OSCO under a lease from Campbell Estate which expires in 1995. Living Designs, Inc. operates a plant nursery on approximately 41 acres of the Property under leases from Campbell Estate for 25 acres and OSCO for 16 acres which expire in 1994 and 1995 respectively. Campbell Estate has the right to incrementally withdraw lands leased to OSCO for urbanization. Campbell Estate, in its leases to Living Designs, Inc., also has the right to withdraw the nursery area prior to the lease expiration dates, provided that the lessor locates comparable land and absorbs relocation costs and damage to plants.

57. DAH's report on the Project's impact on agriculture (the "Agriculture Report"), indicates that the Project, combined with other approved and proposed projects, will not adversely affect OSCO's economic viability and will not accelerate layoffs of sugar workers because employment reductions can occur through attrition.

58. The Agriculture Report indicates that OSCO could accommodate a major reduction in acreage and maintain economies

of scale and a compact, efficient plantation by (a) switching from a two mill to a single mill operation, or (b) retaining a two mill operation provided that urbanization proceeds gradually and crop yields can be increased rapidly to compensate for lost acreage.

59. The State Department of Agriculture questions whether OSCO can realistically continue to operate in the future if its total acreage is reduced to the point where there are few or no alternative fields available within which to relocate sugarcane cultivation in order to maintain a profitable volume of production for the sugarmill.

OSP points out that the urbanization of the 350 acres in the Property, coupled with the continued urbanization of other large parcels in Ewa currently under sugar cultivation, may adversely affect OSCO's economic viability and does adversely affect opportunities for other agricultural use of these lands. OSP recognizes that these adverse impacts may exist to agriculture in general and to sugar in particular. Increased public benefits--in the form of affordable housing opportunities--can override concerns about the potential loss of prime agricultural lands.

60. Petitioner represents that it will assist Living Designs, Inc. to relocate to a comparable replacement site should development of the nursery area occur prior to the lease expiration dates.

61. Development of the Project will eliminate the possibility of using these lands for diversified agriculture. However, Petitioner believes the Project's development will not adversely affect the growth of diversified agriculture in Hawaii.

Water Resources

62. The Project is located within the Ewa-Waianae District of the Board of Water Supply ("BWS") water system.

63. Existing BWS infrastructure in the area includes a 30-inch water main running along Farrington Highway between Waipahu and the Barbers Point 215-foot storage system and a 16-inch transmission main which branches off the 30-inch Farrington Highway main and runs the length of Fort Weaver Road to supply Honouliuli, Ewa Village and Ewa Beach.

64. Petitioner estimates that the Project will generate an average daily water demand of approximately 3.4 million gallons per day ("mgd") of potable water and 2.0 mgd of non-potable water.

65. Petitioner proposes to use non-potable water to irrigate the golf course, greenways, multi-family landscaped areas and the entry water feature.

66. Petitioner proposes to install an on-site potable water distribution system consisting of water mains and fire hydrants within the Project's road and street rights-of-way and will construct the distribution lines, mains and fire hydrants to meet BWS standards.

67. Petitioner, through an affiliate, is a member of the Ewa Plain Water Development Corporation ("EPWDC") organized to develop potable municipal water resources and transmission lines to accommodate proposed developments on the Ewa Plain.

EPWDC's membership also includes Campbell Estate and West Beach Partners who each proposes to pay their proportionate share of water development costs.

68. Petitioner's affiliate fulfilled its $10,000,000.00 commitment to develop its share of the necessary wells, storage and transmission facilities to serve the entire Project Area.

69. Major facilities of the EPWDC's Ewa Water Master Plan under construction and now 98% complete include a 30-inch main within Farrington Highway, a 42-inch main from Farrington Highway to the Project Area and transmission and storage facilities above H-1 Freeway which will ultimately serve the Project Area.

70. Ground water to serve the Project occurs in two aquifers. Aquifer 1, the potable basaltic aquifer, primarily lies mauka of the H-1 Freeway but extends makai beneath the limestone of the Project Area and the Ewa Plain. Aquifer 1 is primarily fed by rainfall recharge occurring miles inland near the Koolau and Waianae mountains. Aquifer 2, is located within the Project Area's surface formation and is of varying thickness and characterized by brackish quality water.

71. The Project's impermeable surfaces (housing, commercial and industrial improvements, parking lots and roads) will reduce the amount of recharge into Aquifer 2.

Petitioner believes the use of an unlined drainage channel along the bottom of Kaloi Tributary and sumps on the east side of Fort Weaver Road will offset the recharge amount lost due to the Project's impermeable surface such that the result will be no net loss to the recharge of Aquifer 2.

Drainage

72. Fort Weaver Road divides the Project Area into two separate drainage areas. An existing drain line north of the Project Area carries runoff from Fernandez Village, Ho'akea Subdivision and the adjacent site of the proposed Ewa Elderly Housing Facility into the Project Area.

73. The Kaloi Gulch watershed, which covers approximately 7.8 square miles, drains through a man-made channel on the west side of the Project Area and eventually discharges into the ocean. The existing drainage channel constructed by OSCO is inadequate to handle peak discharges. Storm water sheet flows over land in sugarcane cultivation and is partially disposed of through percolation.

74. The Project Area to the east side of Fort Weaver Road has no defined drainage course other than existing sugarcane irrigation ditches and no natural drainage outlet to the ocean or to Pearl Harbor's West Loch.

75. Petitioner's Master Drainage Plan ("Drainage Plan"), which was approved by the City Department of Public Works, was prepared by Belt Collins & Associates.

76. The Drainage Plan consists of two independent area plans for separate drainage basins on the west and east sides of Fort Weaver Road.

77. On the west side of Fort Weaver Road, Petitioner proposes to direct all on- and off-site drainage through a realigned and improved Kaloi drainage channel within the proposed golf course.

Petitioner also proposes to use the golf course as a retention and conveyance element in the Project's drainage system.

78. Petitioner proposes to construct the new grass-lined Kaloi Gulch channel and portions of the golf course lands with sufficient conveyance capacity to handle the 100-year storm flow.

79. Petitioner proposes to utilize a sump located within the proposed park/elementary school site and a pump station to handle runoff from Fernandez Village, Ho'akea Subdivision, the proposed Ewa Elderly Housing Project Site, all located mauka of the Project Area, and a portion of the Project Area known as the Soda Creek Subdivision. The pumps will assist in disposing drainage water when the water level in said sump reaches a predetermined height. The excess drainage water

will be pumped into an open channel incorporated into the design of the golf course which will ultimately connect with the Kaloi drainage channel.

80. The proposed pump station and sump areas will be operated and maintained by the Project's association of property owners.

81. On the east side of Fort Weaver Road, Petitioner proposes to excavate two sumps either within the Project Area or land under the control of the U.S. Department of the Navy adjacent to the Project's eastern boundary. The proposed sumps will be designed to accommodate runoff volumes of a 100-year storm from one to seven days duration.

82. Approval from the Department of the Navy to utilize its property for the proposed drainage facilities servicing the portion of the Project east of Fort Weaver Road has not yet been obtained.

83. Petitioner proposes to excavate material from the proposed golf course, the Kaloi Gulch channel and from the sump locations on the east and west sides of Fort Weaver Road and to use said material to increase the elevation of adjacent proposed residential areas in order to elevate proposed residential areas with the lowest elevation above the 100-year flood areas of the golf course and channel.

84. Petitioner believes that the two sumps on the east side of Fort Weaver Road will prevent runoff from the

Property from finding its way to the bird sanctuaries of West Loch and will completely contain the runoff within the sumps.

85. OSP is concerned that the absence of a defined drainage channel in the area south of the Property may cause flood damage due to sheet flow, even if the volume of flood waters is reduced by the development of the proposed drainage system within the Property. The proposed Ewa Marina project, makai of the Project, was to have incorporated a marina as part of the ocean outlet for the realigned Kaloi channel extending from the Project. Should the Ewa Marina portion of the proposed drainage system not be constructed, Petitioner's drainage plan may need to be revised.

Flora and Fauna

86. Petitioner's consultant, Char and Associates, conducted a botanical reconnaissance of the Project Area and concluded that the Project is not expected to significantly impact the botanical resources of the site nor have a significant impact on the flora of the general Ewa region. None of the native flora found on the Project Area is considered rare, threatened or endangered.

87. Dr. Andrew Berger surveyed the Project Area to assess the types of birds and mammals on the Project Area and the quality of the existing habitat and concluded that the entire region has been drastically disturbed for well over 100 years and there is no semblance of any endemic eco-system in the Project Area's vicinity.

88. Petitioner's consultant, Dr. Andrew Berger, indicates that there are no endemic forest birds on the Project Area and all of the mammals that occur on the Project Area are introduced.

89. Dr. Berger recommends that all necessary steps should be taken to prevent runoff from the Property from flowing into the bird sanctuaries in West Loch, Pearl Harbor.

Archaeological Resources

90. Petitioner's archaeological surface reconnaissance study of the Project Area conducted by Archaeological Consultants of Hawaii indicates that no above ground archaeological sites were located in the Project Area and that related documents indicated that sub-surface recovery potentials would be very limited, if nonexistent, because historic plantation activities have contributed to the loss of any above ground structures which may have once existed.

91. The Bishop Museum conducted an archaeological sub-surface survey of the Project Area on June 27, 1988, and found no evidence of prehistoric or early historic human settlement within the Project Area and recommended that no further archaeological work be done for the Project Area.

Air Quality

92. Petitioner's consultant, DHM, Inc. ("DHM"), indicates that carbon monoxide from increased vehicular traffic will be the primary source of air pollutants.

Based on the air quality impact study conducted for the City's West Loch Estates Project, DHM recommends the following methods to mitigate anticipated impacts from air pollutants: (1) improvement of existing roadway intersections; (2) increased public bus service; and (3) staggering starting hours for schools and businesses; (4) construction of a 35-foot "greenway", a landscaped open area, to separate residential areas from Fort Weaver Road.

93. Petitioner represents that it will implement the recommended mitigation measures relating to air quality.

94. OSP points out that the proposed project will contribute to exceedance of State air quality standards for carbon monoxide and the State Department of Health recommends a monitoring program be initiated to verify compliance with State standards.

95. Petitioner anticipates that increased levels of fugitive dust resulting from the Project's construction activities will temporarily impact local air quality. Petitioner proposes to mitigate this impact by periodic application of non-potable water and contractor monitoring of high wind conditions and increased water applications during such periods.

96. Petitioner anticipates that OSCO's occasional cane burning activities will also result in reduced air quality in the Project Area's vicinity.

97. The City's Department of Public Works (DPW) is concerned about unpleasant odors and the need to carefully locate land uses due to the proximity of the Property to the Honouliuli Wastewater Treatment Plant. DPW recommends that the present agricultural land use designation around the plant should be retained as a buffer between the plant and urban development.

98. OSP is concerned that Petitioner did not consider odor when the project's land uses around the Honouliuli Wastewater Treatment Plant were proposed.

99. DHM recommends that a study on odors emanating from the HWWTP should be performed.

Aural Quality

100. The major noise source in the vicinity of the Project Area is aircraft noise from Honolulu International Airport ("HIA").

101. The HUD-established standard for acceptable noise levels external to buildings and other facilities provides that noise levels not exceeding 65 ldn are acceptable and noise attenuation measures are not required. Effective August 13, 1979, HUD removed the dual exterior and interior standard for acceptable noise levels. Section 51.103 of HUD's criteria and standards now provides that the noise level inside a building is considered acceptable if the noise level external to the building does not exceed 65 ldn, provided that the building is

constructed in a manner common to the area or, if of uncommon construction, has at least the equivalent noise attenuation characteristics.

102. According to the State Department of Transportation (DOT), Airports Division's 1987 LDN Contour Map, the southwest portion of the Property is impacted by noise levels of 60 Ldn or greater and no part of the Project Area is subject to noise levels 65 Ldn or greater. In addition, this portion of the Property is directly beneath the flight corridor into HIA's Runway 08L causing additional problems with overflights such as fumes, dust, and other emissions that are normal to aircraft operations.

DOT, Airports Division, strongly recommends against the development of residential uses in the southwest portion of the Property where noise levels are 60 Ldn or greater. DOT, Airports Division believes that the 60 Ldn standard, which is 5 Ldn stricter than the U.S. Housing and Urban Development's (HUD) Standard, is more appropriate for the outdoor-oriented lifestyle of Hawaii residents.

103. OSP is concerned that should housing be constructed in areas subject to noise levels that are 60 Ldn or greater, complaints about flights may result in petitions to limit night operations which would seriously jeopardize the utility and efficiency of Honolulu International Airport and the benefits to the general public derived from having an airport which operates on a 24-hour timeframe.

104. DOT, Airports Division recommends an avigation easement for any portion of the Property subject to noise levels of 55 Ldn or greater. Such an easement grants a right-of-flight including the right to continue to make noise, fumes, dust, and other emissions that are normal to aircraft operations.

DOT, Airports Division also recommends that purchasers of properties subjected to overflight should be made aware of said proposed avigation easement.

105. The noise levels affecting the Project Area from aircraft activities at NASBP are below 55 Ldn.

Intervenor recommends that purchasers of properties be advised that the properties are near NASBP and are subject to noise and vibration associated with the operations of a military air station.

106. Petitioner indicates that noise levels from vehicular traffic along Fort Weaver Road are in the "significant exposure, normally unacceptable" noise range.

107. Possible measures to mitigate vehicular noise along primary roadways include setback of homes from street rights-of-way, creation of buffers through landscaping and fencing, construction of sound attenuating windows and air conditioners for two story houses.

To mitigate noise from construction activities, DHM recommends that Petitioner obtain a noise permit if

construction noise exceeds allowable noise standards, equip construction equipment and onsite vehicles with mufflers and construct sound barriers or berms in construction equipment baseyards or materials stockpile areas if noise complaints are received from the general public.

108. Petitioner represents that it will implement recommended mitigation measures relating to noise.

Hazards Associated With Naval Magazine Lualualei and NASBP

109. According to Intervenor, generally, five to twenty loads of ordnance may be hauled each day by truck through the Property, either going to or leaving from Naval Magazine Lualualei West Loch branch. These trucks use Iroquois Point, Geiger and Fort Weaver Roads. Traffic congestion, particularly at the intersection of Geiger Road and Fort Weaver Road, will increase the length of time residents are exposed to explosive hazards from trucks hauling ordnance. Intervenor recommends, in consideration of these safety concerns, that the commercial development proposed for the intersection be relocated and that all prospective residents prior to purchase be informed: a) of the proximity of the explosive safety zone; and b) that ordnance and explosives are transported on roadways through and in the vicinity of the Project.

110. Intervenor recommends that Petitioner coordinate with the Navy to avoid damaging underground jet fuel, utility, water or communication lines in the vicinity of the proposed

development and maintain and preserve surface access to these lines.

111. Intervenor also indicates that while armed patrols and sentries monitor the Naval Magazine, development brings with it significant increases in population. Therefore, Intervenor recommends that the Project include some measure such as fencing along the Property's eastern boundary to minimize the risk of inadvertent entrance into the explosive safety zone.

ADEQUACY OF PUBLIC SERVICES AND FACILITIES

Transportation/Traffic

112. Fort Weaver Road bisects the Project and provides the primary vehicular access to and from the Project Area.

113. Campbell Estate's Ewa Long Range Master Plan ("Master Plan") provides for the construction of a new north-south road through the Project Area to alleviate traffic on Fort Weaver Road. Construction of the north-south road within the Project Area is scheduled to be completed prior to full development of the Project.

114. The north-south road's alignment, as proposed by the Master Plan, will run from Ewa Beach and the proposed Ewa Marina development to the Project and the Ewa Village area and extend northwesterly to the Kapolei Village areas and then mauka to the H-1 Freeway. An east-west branch of the north-south road will extend to the Kapolei Town Center area.

115. The Department of Transportation of the State of Hawaii ("DOT") testified that it is essential that the east-west portion of the north-south road which connects the Project to the Kapolei Town Center be constructed as proposed to encourage the concept of the second city providing jobs and to facilitate the reverse traffic flow concept.

116. DOT disagrees with a portion of Campbell Estate's proposed alignment of the north-south road, and instead recommends that the north-south roadway be constructed parallel to and closer to the existing Fort Weaver Road. DOT proposes that a separate east-west road be built to connect the Project to the Kapolei Village Area and the Kapolei Town Center area.

DOT testified that the State and Campbell Estate have not yet reached an agreement on the northerly alignment of the north-south road.

117. Petitioner proposes to construct the portion of the north-south road that traverses the Project Area.

118. OSP points out the necessity of the north-south road since traffic on Fort Weaver Road could increase by an additional twenty percent (20%) to twenty-five percent (25%) if the north-south road is not completed prior to the Project's full buildout. This may result in a poor level of service, LOS F, along Fort Weaver Road.

Furthermore, Petitioner's traffic study does not take into consideration the traffic generated by the West Loch

Estates housing project nor the full buildout of the proposed Ewa Marina project.

119. Petitioner's traffic consultant, Parsons, Brinckerhoff, Quade & Douglas, Inc. ("PBQD"), concludes in its traffic impact study, that both the Renton Road/Fort Weaver Road and Geiger Road/Fort Weaver Road intersections are presently functioning at under-capacity conditions during the A.M. and P.M. peak hours.

120. PBQD estimates that the Project will generate 73,744 total trips per day. During the A.M. peak hour, 3,977 vehicles per hour ("vph") are expected to exit the Project Area and 1,673 vph are expected to enter. During the P.M. peak hour, 4,551 vph are expected to enter the Project Area and 2,852 vph are expected to exit.

121. PBQD estimates that the Project will impact the immediate area of Fort Weaver Road and the Kunia interchange and H-1 Freeway on a regional basis and recommends the following improvements to provide the necessary capacity for the estimated traffic volumes:

(a) An additional traffic lane in each direction on the segment of Fort Weaver Road between Renton Road and Iroquois Point Road. The additional north bound lane on Fort Weaver Road should begin south of Iroquois Point Road and continue past Renton Road at least 1,000 feet north of the Renton Road/Fort Weaver Road intersection to encourage full

utilization. The additional south bound lane on Fort Weaver Road should begin north of Renton Road as a shared lane for through and right turn traffic and terminate at least 1,000 feet south of Iroquois Point Road;

(b) Implementation of a ride sharing program.

122. DOT expressed concerns about the adequacy of the highway system to accommodate the traffic generated by the Project and other projects in Ewa. Problem areas include: Fort Weaver Road and its connections to the H-1 Freeway (Kunia Interchange) and Farrington Highway; and the east-west road toward the Kapolei Town Center.

123. DOT recommends that the Petitioner should contribute its fair share of both the on-site and off-site transportation improvements to mitigate impacts caused by the proposed Project.

124. DOT recommends that the Petitioner monitor the traffic attributable to the proposed development at on-site and off-site locations, and shall undertake subsequent mitigative measures that may be required. These activities shall be coordinated with and approved by DOT.

In addition, Petitioner should coordinate with Campbell Estate and other developers in the area to ensure that highway improvements are in place and operation as needed and that each developer's fair share contribution toward the implementation of such improvements is determined.

125. Petitioner has requested a temporary at-grade cane haul road crossing at the intersection of Fort Weaver Road and Puuloa road. According to DOT, the Federal Highway Administration finds the request of a temporary crossing to be unacceptable from a safety standpoint.

126. Intervenor indicates that Petitioner's traffic consultant did not, in preparing their studies or providing recommendations to Petitioner, take into consideration the Navy's practice of towing aircraft along Geiger and Iroquois Point Roads.

127. Intervenor states that approximately 40 times per year, aircraft, in need of repair or shipped from the mainland, are towed from NASBP, along Geiger and Iroquois Point Roads to West Loch at Pearl Harbor for shipment or in the opposite direction from West Loch to NASBP.

128. These aircraft, some being 63 feet long, 64 feet wide, and with heights of 17 feet or more, when placed on trucks for transporting require an unobstructed pathway of 80 feet in width and 25 feet in height.

129. These routine towing operations, which are conducted during non-peak traffic hours, even in the existing rural environment of Ewa cause traffic tie-ups, and cause cars to pull off the paved road surface and onto the shoulder.

130. Intervenor recommends that Geiger and Iroquois Point Roads be improved to four lanes; that parallel access

roads be created within the development to permit traffic to be diverted away from the main roadways during aircraft towing; that intersections not be located near the NASBP gate on Geiger Road; and that traffic control devices and dedicated turning lanes be installed at every intersection with the main roadways.

Fire Protection

131. Existing and planned fire protection services provided by the City will be adequate to meet the Project's fire protection needs.

Health Care Facilities

132. St. Francis Medical Center-West, Waipahu Clinic and the Moanalua Kaiser Medical Center health care facilities will be adequate to meet the health care service needs of Project residents.

Parks/Golf Courses

133. Petitioner proposes to dedicate lands for public development of three community parks within the Project Area in compliance with the City's Park Dedication Ordinance.

134. Petitioner proposes to develop an 18-hole semi-private golf course within the Project's western portion to accommodate the Project's recreational and drainage needs.

Police Protection

135. The City will provide police protection from existing facilities provided that the necessary resources are made available to the police department.

Power and Telephone

136. Petitioner proposes to use both gas and electric power to serve residences in the Project Area. Gasco, Inc. will install a main transmission line to the area and Petitioner will install individual lines to the homes.

137. Hawaiian Electric company, Inc. and Hawaiian Telephone Company will provide electrical and telephone service, respectively, to the Project.

Schools

138. According to the State Department of Education (DOE), the development of the Project is expected to result in the following public school enrollment projections:

Grades	Increase Enrollment
K - 6	950 - 1,550
7 - 8	250 - 350
9 - 12	450 - 600

139. The three existing public schools in the vicinity which would be affected by the increased enrollments due to the Project are: Ewa Beach Elementary School, Ilima Intermediate School, and Campbell High School. Based on existing enrollments and enrollments projected for housing projects which have already been approved, these schools cannot accommodate the students expected from this project.

140. Petitioner represents that it will provide a school site in the Project Area for the development of an elementary school by DOE.

141. The Department of Education is concerned that legislative funding limitations will not allow the Department to respond to the school needs of the many developments throughout the State, including the Project. The cost of constructing and furnishing an elementary school is about $10,000,000. DOE suggests that Petitioner provide portable classrooms or house shells during the interim period until the new school is in place.

142. Existing intermediate and high schools cannot accommodate the enrollments projected and additional classrooms will be required. A new intermediate and high school are expected to be constructed in Kapolei to the west of the Project.

Solid Waste

143. DHM estimates the Project will generate approximately 58 tons of solid waste per day.

144. The Project will be served by public and private refuse collection services.

145. The Waimanalo Gulch landfill near Kahe power plant is under construction and expected to become available for use in late 1988. City and private operators will transport solid waste to the proposed H-Power Cogeneration Facility near Campbell Industrial Park upon its completion in 1990.

Wastewater

146. The Project is expected to generate approximately 2.8 million gallons of wastewater per day.

147. Petitioner proposes to construct an on-site sewage collection system in compliance with City Department of Public Works standards to be dedicated to the City and be connected to the HWWTP's 84-inch interceptors along Geiger Road.

148. The City Department of Public Works plans to expand the plant's capacity to 38 million gallons per day in 1993 from its current capacity of 25 million gallons per day.

STATE AND COUNTY FINANCES

149. DAH estimates that City's debt service for facilities built and associated maintenance costs of $12.5 million per year will slightly exceed the estimated $12.1 million of real property tax revenues generated by the Project because of the relatively large number of lower priced homes within the Project.

150. DAH estimates that the Project's development will generate a net gain in tax revenues of approximately $10.5 million per year to the State at full development. DAH estimates that the Project's development will generate excise income and other tax revenues of approximately $25.9 million per year at full development.

151. DAH estimates that State expenditures on health, education, parks, recreation, transportation, housing, etc. and

debt service on schools and road improvements will be approximately $15.4 million per year.

152. DAH estimates that the State will realize an additional $65.5 million in tax revenues from construction activity over the nine year development period of the Project.

RELATIONSHIP TO PLANS, POLICIES AND REGULATIONS

Conformance to Urban District Standards

153. The Property meets the standards applicable in establishing boundaries of the Urban District set forth in Section 15-15-18 of the Commission's Rules as follows:

(a) The Property is in close proximity to centers of trading and employment and will create new centers of trading and employment. In addition to the Project's commercial and industrial uses, the Property is in close proximity to existing and future employment centers in Ewa, Pearl City, Waipahu, Waipio and Wahiawa and several military installations including Pearl Harbor, Hickam Air Force Base and NASBP which provide additional job opportunities.

(b) Petitioner has established the need for additional housing and has demonstrated its capacity to financially undertake the Project.

(c) The Property is in proximity to existing basic services such as sewers, water, sanitation, schools, parks and police and fire protection. In addition, Petitioner proposes to provide on-site infrastructure for the Project with

connections to existing and new infrastructure systems and proposes to set aside lands for public development of an elementary school and three parks.

(d) The Property is of satisfactory topography and drainage and reasonably free from the danger of floods, tsunami and unstable soil conditions and other adverse environmental effects. Petitioner will comply with all applicable state and county requirements for flood control and drainage.

(e) The Project is consistent with the planned urbanization of the Ewa Plain as the General Plan of the City has designated the Ewa District for development as Oahu's secondary urban center.

(f) The Project is contiguous to the Urban Land Use District on its northern and western boundaries and will not contribute towards scattered spot urban development necessitating unreasonable investment in public supported services.

Impact on Areas of Statewide Concern

154. Studies of the Project Area's flora and fauna resources by Petitioner's consultants indicate that no native or endangered species exist within the Project Area.

155. The archaeological surface and sub-surface reconnaissance studies conducted of the Project Area indicate that no known or valued cultural, historic or scenic resources will be affected by the Project's development.

156. Loss of prime agricultural land caused by the Project's development and its impacts on the sugar industry and diversified agriculture will be offset by the public benefits of affordable housing proposed by Petitioner.

157. State revenues generated by the Project's construction, and the income taxes from the Project's residents and the Project's commercial and industrial uses will greatly exceed expenditures incurred by the State in connection with the Project.

158. The Project's construction, golf course and commercial and industrial uses will provide many employment opportunities.

159. The Project's intended market ranges from the low-moderate income category through the entire affordable housing market as well as a portion of the upper middle income market.

Conformance with the Hawaii State Plan

160. Based on the findings as previously stated, the Project's proposed development is consistent with the objectives, policies and priorities of the Hawaii State Plan Chapter 226, HRS, as follows:

226-5(a) and (b)	Provides 7,550 new single-family and multi-family housing units and is consistent with the development of Ewa as Oahu's secondary urban center.
226-6(a)(1), (b)(8) and (9)	Creates diversified job opportunities and new retail trade and commercial service opportunities within the Ewa

District as well as increase household income for area residents.

Incremental Districting

161. Petitioner states it cannot substantially complete the Project within 5 years after the date of final county zoning approval. Petitioner believes that its request to reclassify the entire Property to the Urban District is appropriate at this time as major commitments regarding financing and construction of infrastructure for the entire Project will be required during the initial 5 year period.

CONFORMANCE WITH COASTAL ZONE POLICIES AND OBJECTIVES

162. The proposed reclassification of the Property for the development of the project conforms to the policies and objectives of the Coastal Zone Management Program Chapter 205A, Hawaii Revised Statutes, as amended.

RULING ON PROPOSED FINDINGS OF FACT

Any of the proposed findings of fact submitted by the Petitioner or the other parties not already ruled upon by the Commission by adoption herein, or rejected by clearly contrary findings of fact herein, are hereby denied and rejected.

Any conclusion of law herein improperly designated as a finding of fact should be deemed or construed as a conclusion of law; any finding of fact herein improperly designated as a conclusion of law should be deemed or construed as a finding of fact.

CONCLUSIONS OF LAW

Pursuant to Chapter 205 of the Hawaii Revised Statutes, as amended, and the Hawaii Land Use Commission Rules, the Commission finds upon a preponderance of the evidence that the reclassification of the Property consisting of approximately 685 acres from the Agricultural Land Use District into the Urban Land Use District at Honouliuli, Ewa, Oahu, City and County of Honolulu, subject to the conditions stated in the Order, conforms to the standards for establishing the Urban Boundaries, is reasonable, non-violative of Section 205-2, Hawaii Revised Statutes, and is consistent with the Hawaii State Plan as set forth in Chapter 226, Hawaii Revised Statutes, as amended.

ORDER

IT IS HEREBY ORDERED that the Property, being the subject of this Docket No. A88-627 by Gentry Development Company, a Hawaii Limited Partnership, consisting of approximately 685 acres, situated at Honouliuli, District of Ewa, Island of Oahu, State of Hawaii, and identified as Oahu Tax Map Key Nos.: 9-1-10: Portion of 2 and Portion of 7; 9-1-12: Portion of 1, Portion of 5 and 30, and approximately identified on Exhibit "A" attached hereto and incorporated by reference herein, for reclassification from the Agricultural District to the Urban District, shall be reclassified from the Agricultural District to the Urban District and the State Land

Use District Boundaries are amended accordingly, subject to the following conditions:

1. Petitioner shall implement sound attenuation measures on all residential units on the Property that are subject to noise levels from 60 Ldn to 65 Ldn as determined by the State of Hawaii, Department of Transportation, Honolulu International Airport Draft 1987 Noise Contour Map introduced as OSP's Exhibit Number 2, herein referenced the HIA 1987 Ldn Map.

Petitioner shall not construct residential units on any portion of the Property subject to noise levels 65 Ldn or greater as indicated on the HIA 1987 Ldn Map.

2. Petitioner shall grant to the State of Hawaii an avigation easement in the form prescribed by the State Department of Transportation on any portion of the Property subject to noise levels 60 Ldn or greater as determined by the HIA 1987 Ldn Map.

3. Petitioner shall be responsible for implementing sound attenuation measures to reduce noise levels from vehicular traffic in the Property and along Fort Weaver Road to acceptable levels. Petitioner shall coordinate its actions with the State Department of Health, DOT, and agencies of the City.

4. Petitioner shall provide housing opportunities for low, low-moderate and moderate income residents of the

State by offering for sale or lease a number of units equal to at least thirty percent (30%) of the residential units in the Property at prices which families with an income range of up to one hundred twenty percent (120%) of Oahu's median income can afford, and a number of units equal to at least thirty percent (30%) of the residential units in the Property at prices which families with an income range of one hundred twenty to one hundred forty percent (120% - 140%) of Oahu's median income can afford.

This condition may be fulfilled through construction of units in the Property or in the adjoining Urban Area or through other projects, under such terms as may be mutually agreeable, between Petitioner and the Housing Finance and Development Corporation of the State.

This condition may also be fulfilled, with the approval of the Housing Finance and Development Corporation and/or the City, through construction of rental units to be made available at rents which families in the specified income ranges can afford.

In addition, Petitioner may obtain the special credit, as determined by the Housing Finance and Development Corporation, for the provision of housing affordable to persons with very low incomes (those earning less than fifty percent (50%) of Oahu's median income) and for the provision of housing for special needs groups, as determined by the Housing Finance and Development Corporation.

Insofar as possible, Petitioner shall implement this affordable housing requirement concurrently with the completion of market priced units in residential portions of the Property. The determination of median income, as the term is used in this condition, shall be based on median income figures published by the United States Department of Housing and Urban Development at the time that construction of such housing units is commenced.

5. Petitioner shall coordinate, with the Board of Water Supply, the Department of Land and Natural Resources, the Ewa Plain Water Development Corporation, adjoining land owners and developers, and/or other federal, state of county agencies, measures designed to develop water for the Property. Petitioner through its affiliates and together with the other members of the Ewa Plain Water Development Corporation shall develop, at the expense of the Ewa Plain Water Development Corporation, the necessary water source, storage and transmission facilities to provide an adequate supply of potable water to the Property prior to development of the Property.

6. Petitioner shall participate in the funding and construction of transportation improvements at access points to the Property as identified by the State Department of Transportation.

Petitioner shall also participate with all adjoining landowners and developers on a fair share basis in the funding

and construction of other on-site and off-site transportation improvements necessitated by development of the Property and in designs and schedules accepted by and coordinated with the State Department of Transportation, provided that the extent of Petitioner's participation shall not exceed Petitioner's share of the increased community traffic impacts in the Ewa and Central Oahu region, and provided further that, in the event that the City adopts an impact fee for transportation improvements, the foregoing requirements shall not include or double-count the cost of any specific traffic improvements which may also be included in the City's impact fee computation.

Such improvements may include, but not be limited to, Geiger Road, Iroquois Point Road and Fort Weaver Road, improvements to the Kunia Interchange, construction of the proposed north-south road and its accesses to the H-1 freeway and Farrington Highway, and construction of the proposed east-west road to Kapolei Town Center.

7. Petitioner shall monitor the traffic attributable to the development proposed on the Property at on-site and off-site locations and shall undertake subsequent mitigative measures that may be reasonably required. These activities shall be coordinated with and approved by DOT.

8. Petitioner shall coordinate its transportation improvements with other land owners and developers in the Ewa region to ensure that all reasonably necessary improvements are operational in consonance with urban development.

9. Petitioner shall appoint a transportation manager whose function is the formation, use and continuation of alternative transportation opportunities that would optimize the use of existing and proposed transportation systems. This transportation manager may provide similar services for Petitioner's other projects in Ewa and Central Oahu.

In the alternative, Petitioner may participate in a regional program for transportation management with other developers and/or land owners. This program shall address the formulation, use and continuation of alternate transportation opportunities that would optimize the use of existing and proposed transportation systems.

10. Petitioner shall provide drainage improvements in the Property and shall coordinate off-site improvements with Campbell Estate, Intervenor, adjoining land owners and developers and/or other federal, State or City agencies.

11. Petitioner shall participate in an air quality monitoring program as specified by the State Department of Health.

12. Petitioner shall participate in a study in coordination with the City and the State Department of Health to assess the odors emanating from the Honouliuli Wastewater Treatment Plant (HWWTP) on the Property. Petitioner shall make the results of such a study available to the State and the City upon its completion.

13. Petitioner shall connect the wastewater system for the development proposed on the Property to the HWWTP. Construction of residential and industrial uses within the Property shall not commence until Petitioner has obtained assurances from the City that the capacity at the HWWTP has been reserved for the development on the Property. Petitioner shall coordinate with the City Department of Public Works and the State Department of Health for the provision of adequate buffer measures, including appropriate land uses, between the development on the Property and the existing HWWTP and any proposed expansion of the HWWTP to minimize noise, odor and other impacts associated with HWWTP.

14. Petitioner shall immediately stop work on the impacted area and contact the State Historic Preservation Office should any archaeological resources such as artifacts, shell, bones, or charcoal deposits, human burial, or rock or coral alignments, paving or walls of historic or prehistoric significance be encountered during the development on the Property.

15. Petitioner shall provide, at no cost to the State, a public school site encompassing six (6) acres, if adjacent to a public park, or eight (8) acres if not adjacent to a public park, as the Department of Education (DOE) may determine to be reasonably necessary to serve the needs of residents of the Property. The school site shall be provided,

if there is a need for such site, in a location as may be mutually agreeable to Petitioner and the DOE. As an alternative, Petitioner may provide a share of the cost of classrooms or other educational facilities with the approval of DOE.

16. Petitioner shall disclose to all initial purchasers (a) possible aircraft noise and vibration and possible odor, air, noise, and dust pollution resulting from the Fort Weaver Road, Naval Air Station Barbers Point, Honolulu International Airport, the Honouliuli Wastewater Treatment Plant, and adjoining agricultural operations, (b) the Hawaii-Right-To-Farm Act, HRS Chapter 165, which limits the circumstances under which preexisting farm activities on adjacent lands may be deemed a nuisance, and (c) existence of the Explosives Safety Zone at West Loch Branch, Naval Magazine, Lualualei, (d) the transport of explosives and munitions on roadways through and in the vicinity of the Property.

17. Petitioner shall maintain the alignment of existing cane haul roads or provide alternate cane haul roads pursuant to Petitioner's agreements with Campbell Estate and OSCO to assure uninterrupted agricultural operation of sugarcane cultivation areas.

18. Petitioner shall participate with City and State civil defense agencies, Intervenor, and adjoining land owners and developers in the formulation of an emergency preparedness

and evacuation plan for residents of the Property due to the Property's proximity to the Explosive Safety Hazard Zone at the West Loch Branch, Navy Magazine, Lualualei.

19. Petitioner shall establish a forty (40) foot setback along the existing railroad right-of-way in a manner compatible with City Ordinance No. 84-94.

20. Petitioner shall not place along Geiger or Iroquois Point Roads or at the intersection of any road with these two roadways any obstruction which would hinder aircraft towing along these two roadways in order to maintain an obstruction-free corridor 80 feet in width and 25 feet in height along these roadways.

21. Petitioner shall coordinate with the Department of the Navy to assure that any work in the vicinity will not damage or in any way limit access to utility, communication or fuel lines.

22. Petitioner shall construct no road which enters from the Property onto Geiger or Iroquois Pt. Roads within 200 feet of any Navy installation's boundary.

23. Petitioner shall install a fence or other structure along the eastern boundary of the Property to minimize residents' inadvertent entrance into the Explosives Safety Zone, which commences at the Property's eastern boundary, with the western boundary of Naval Magazine Lualualei West Loch Branch.

24. Petitioner shall complete the development on the Property in substantial compliance with the representations made before the Commission.

25. Petitioner shall notify the Commission of any intent to sell, lease, assign, place in trust, or otherwise voluntarily alter the ownership interest in the Property prior to visible commencement of construction on the Property; provided, however, that Petitioner may transfer ownership in the Property to an affiliate or in a manner consistent with prior representations to the Commission, and may mortgage the Property at any time without notice to the Commission.

26. Petitioner shall provide annual reports to the Land Use Commission, the Office of State Planning, and the City and County of Honolulu, Department of General Planning in connection with the status to the subject project and the Petitioner's progress in complying with the conditions imposed.

27. The Commission may fully or partially release these conditions as to all or any portion of the property upon timely motion and upon the provision of adequate assurance of satisfaction of these conditions by the Petitioner.

DOCKET NO. A88-627 - GENTRY DEVELOPMENT COMPANY

Done at Honolulu, Hawaii, this 8th day of May 1989, per motions on March 9, 1989 and April 14, 1989.

LAND USE COMMISSION
STATE OF HAWAII

By _____
RENTON L. K. NIP
Chairman and Commissioner

By _____
ALLEN K. HOE
Commissioner

By _____
ROBERT S. TAMAYE
Commissioner

By _____
TORU SUZUKI
Commissioner

By _____
TEOFILO PHIL TACBIAN
Commissioner

By _____
ALLEN Y. KAJIOKA
Commissioner

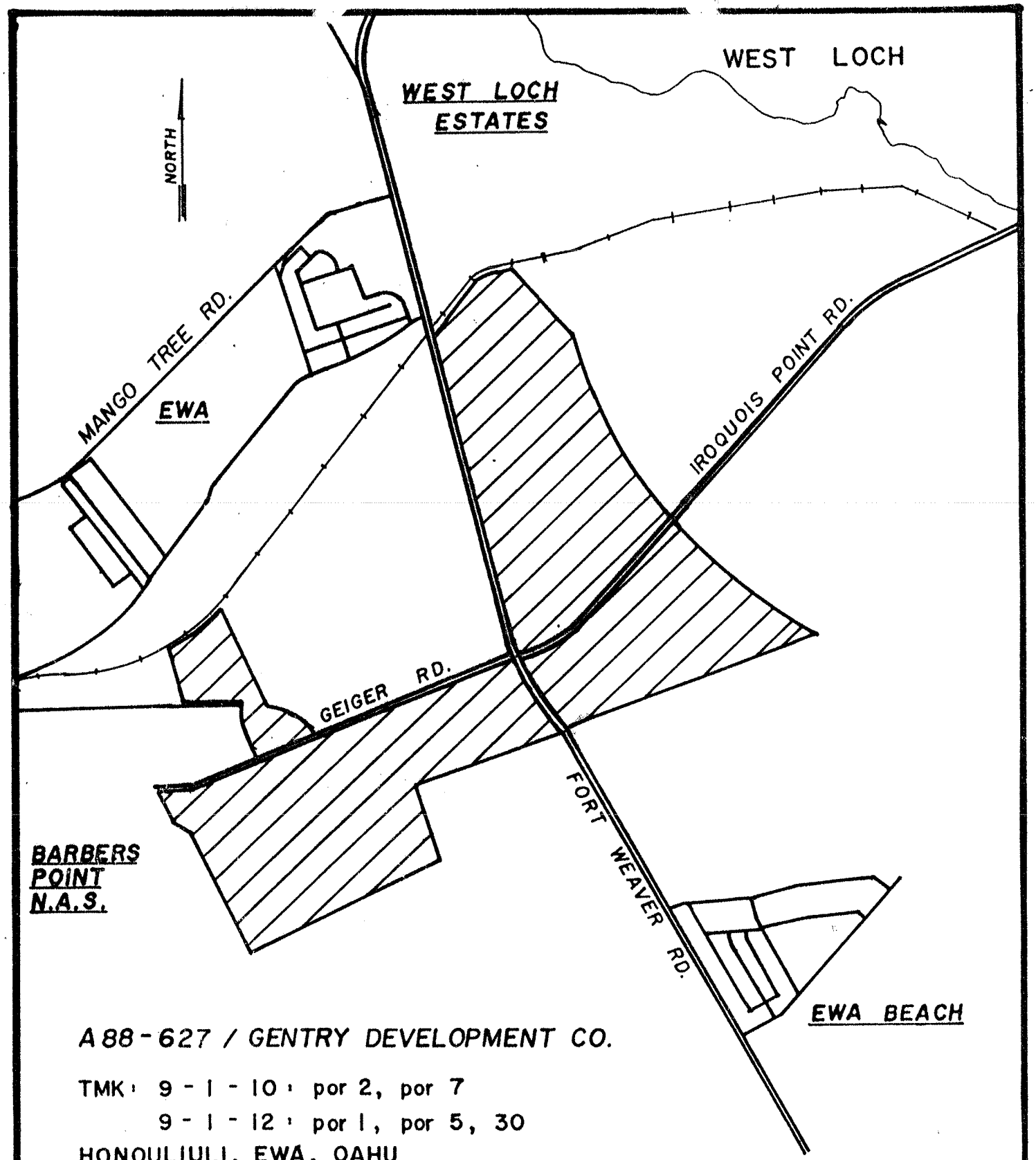
By _____
SHARON R. HIMENO
Commissioner

By _____
FREDERICK P. WHITTEMORE
Commissioner

Filed and effective on
May 8, 1989

Certified by:

_____
Executive Officer



A88-627 / GENTRY DEVELOPMENT CO.

TMK: 9 - 1 - 10 : por 2, por 7
9 - 1 - 12 : por 1, por 5, 30

HONOULIULI, EWA, OAHU

SCALE: 1" = 2000' ±

APPROVED AREA

EXHIBIT "A"

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of GENTRY DEVELOPMENT COMPANY, a Hawaii limited partnership To Amend the Agricultural Land Use District Boundary into the Urban Land Use District for Approximately 685 Acres at Honouliuli, Ewa, Oahu, State of Hawaii, Tax Map Key Nos.: 9-1-10: Portion of 2 and Portion of 7; 9-1-12: Portion of 1, Portion of 5 and 30	DOCKET NO. A88-627 GENTRY DEVELOPMENT COMPANY, a Hawaii limited partnership

CERTIFICATE OF SERVICE

I hereby certify that a copy of the Findings of Fact, Conclusions of Law and Decision and Order was served upon the following by either hand delivery or depositing the same in the U. S. Postal Service by certified mail:

HAROLD S. MASUMOTO, Director
Office of State Planning
State Capitol, Room 410
Honolulu, Hawaii 96813

DONALD A. CLEGG, Chief Planning Officer
Department of General Planning
CERT. City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

WILLIAM W. L. YUEN, ESQ. Attorney for Petitioner
CERT. Moon, O'Connor, Tam & Yuen
220 South King Street, Suite 2000
Honolulu, Hawaii 96813

REBECCA M.K. GREENWAY, ESQ., Attorney for Intervenor
CERT. Office of Counsel, Pacific Division
Naval Facilities Engineering Command
Pearl Harbor, Hawaii 96860

DATED: Honolulu, Hawaii, this 8th day of May 1989.

ESTHER UEDA
Executive Officer