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WAIKŌ INDUSTRIAL INVESTMENT, LLC

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of WAIKŌ INDUSTRIAL INVESTMENT, LLC To Amend the Land Use District Boundary of Certain Lands Situated at Waikapu, Wailuku, Island of Maui, State of Hawai'i, Consisting of approximately 31.222 Acres, from the Agricultural District to the Urban District, Tax Map Key No. (2) 3-8-007:102.	DOCKET NO. A12-796

WAIKO INDUSTRIAL INVESTMENT, LLC'S
FIRST AMENDMENT TO PETITION FOR
DISTRICT BOUNDARY AMENDMENT FILED SEPTEMBER 13, 2012

VERIFICATION

APPENDIX J-1 AND EXHIBITS "9", "10" AND "11"

CERTIFICATE OF SERVICE

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Petition of WAIKŌ INDUSTRIAL INVESTMENT, LLC To Amend the Land Use District Boundary of Certain Lands Situated at Waikapu, Wailuku, Island of Maui, State of Hawai'i, Consisting of approximately 31.222 Acres, from the Agricultural District to the Urban District, Tax Map Key No. (2) 3-8-007:102.	DOCKET NO. A12-796

WAIKO INDUSTRIAL INVESTMENT, LLC'S FIRST AMENDMENT TO PETITION FOR DISTRICT BOUNDARY AMENDMENT FILED SEPTEMBER 13, 2012

COMES NOW, PETITIONER WAIKŌ INDUSTRIAL INVESTMENT, LLC ("**Petitioner**"), a Washington limited liability company, by and through its attorneys, CARLSMITH BALL LLP, and hereby submits the following amendment to the Petition for District Boundary Amendment which was filed with the State Land Use Commission ("Commission") on September 13, 2012 (hereinafter referred to as the "Petition").

Petitioner respectfully submits this first amendment to the Petition pursuant to section 15-15-43, Hawaii Administrative Rules ("HAR"), which states in relevant part:

> . . . All pleadings may be amended at any time until forty-five days prior to the hearing date set pursuant to section 15-15-51. Amendments offered prior to the hearing date shall be served on all parties and filed with the commission. All parties shall have the opportunity to provide any further response to address the amended pleading up to thirty days prior to the hearing date set pursuant to section 15-15-51.

A. INTRODUCTION

On September 13, 2012, Petitioner filed a Petition for District Boundary Amendment to reclassify approximately 31.22 acres from the Agricultural District to the Urban District in Commission Docket No. A12-796.

Subsequent to filing the Petition, the Executive Officer of the Commission requested Petitioner to provide additional information about six (6) matters relating to the Petition and to supplement certain provisions pertaining to assessments of potential impacts that may occur due to the reclassification of the Petition Area, prompting the submission of this Amendment to the Petition.

B. AMENDED AND SUPPLEMENTED SECTIONS

Petitioner is providing additional information to and supplementing Sections X, XII, XIII, XIV, XIX and XXI of the Petition as follows:

X. LOCATION OF THE PROPOSED DEVELOPMENT TO ADJACENT LAND USE DISTRICTS AND CENTERS OF TRADING AND EMPLOYMENT

The Map, designated as **Petitioner's Exhibit "9"**, attached hereto and by reference made a part hereof, shows the location of the proposed development in relation to adjacent land use districts.

XII. IMPACTS OF THE PROPOSED DEVELOPMENT ON THE ENVIRONMENT

The Memorandum by Tom Nance of Tom Nance Water Resource Engineering, dated October 1, 2012, designated as **Petitioner's Exhibit "10"**, attached hereto and by reference made a part hereof, provides additional information relating to the impact of the Project upon the groundwater of the Kahului Aquifer System which serves a portion of Central Maui, including the Waiko/Waiale/Maui Lani area.

XIII. IMPACTS OF THE PROPOSED DEVELOPMENT ON AVAILABILITY OR ADEQUACY OF PUBLIC SERVICES AND FACILITIES

The Maui County Civil Defense Agency is responsible for administering and operating the various local, state and federal civil defense programs for the County of Maui. This includes planning, preparing and coordinating civil defense operations in meeting disaster situations and coordinating post-disaster recovery operations. According to the Maui County Civil Defense Agency, an existing emergency siren for the Waikapu area is located at the Waikapu Community Center, approximately a quarter of a mile mauka or west of the Project. A map designated as **Petitioner's Exhibit "11"**, attached hereto and by reference made a part hereof, depicts the location of the existing civil defense siren.

XIV. ECONOMIC IMPACTS OF THE PROPOSED RECLASSIFICATION OR DEVELOPMENT

As noted in the FEA, the Project is not considered a population generator and will not affect population parameters within the Wailuku-Kahului Community Plan region. Therefore, the Project will not have any impact on higher/lower education, human services and recreation. Other public services such as police, fire, and emergency medical services, are currently servicing the Waikapu region and the Project would not trigger the extension of the current limits of service.

Furthermore, there will be no public funds to be used in the development of the Project. Water and wastewater services will be provided by a private system built and paid for by the Petitioner. Similarly, roadway improvements that are required by the County for the Project will be constructed by the Petitioner at its own expense in compliance with the applicable County and State rules and regulations. In addition, solid waste disposal generated from the Project will be hauled by privately-owned commercial haulers.

Since the Project does not require any County or State funds for any improvements of the Project, there are no anticipated impacts on government debt service and government employee benefits.

XIX. HAWAIIAN CUSTOMARY AND TRADITIONAL RIGHTS

Petitioner is aware of, and is sensitive to, the protections afforded to Native Hawaiian customary and traditional rights under Article XII, section 7 of the Hawai'i State Constitution. Based on the results of the Cultural Impact Assessment, previous research, and the archaeological assessment survey, no direct evidence was encountered that indicates that Native Hawaiians had customarily and traditionally exercised for subsistence, cultural and religious purposes on this 31.222-acre portion of land in Waikapu. However, it is important to note that stream deposits were located in some test instances, indicating that water was available at different times in the past, possibly when Hawaiians lived in this general area. Given the level of intensive disturbance over the past several decades, including more recent sand-mining activities in the 1970s and 1980s, Hawaiian flora that may once have been in the general area has essentially been eliminated. The State Historic Preservation Division has previously approved an archaeological monitoring plan to help mitigate potential adverse effects of the proposed project on any undocumented site(s) that may potentially be contained within the subject parcel. In addition, Petitioner intends to follow the recommendations provided in the CIA and Archaeological Inventory Survey in the development of the proposed Waikō Industrial Subdivision.

XXI. SERVICE AND NOTIFICATION OF PETITION FILING

Pursuant to HAR § 15-15-48(a), copies of this Petition must be served upon the County of Maui Planning Department and Planning Commission, the State of Hawai'i Office of

Planning, and all persons with a property interest in the Petition Area as recorded in the County's real property tax records at the time this Petition is filed.

The County of Maui has a perpetual nonexclusive easement over a portion of the Petition Area, granted by Easement dated April 30, 1991, recorded in the Bureau of Conveyances of the State of Hawaii as Document No. 92-134141. Pursuant to Section 8-2.3 of the Charter of the County of Maui, Petitioner served a copy of the Petition upon the Patrick K. Wong, Esq., Corporation Counsel of the County of Maui, as the legal representative of the County of Maui, including, but not limited to, all departments, and all boards and commissions, on September 13, 2012.

Additionally, discussion has been initiated with the County for the relocation of the easement within the Petition Area, and the Department of Environmental Management which is charged by the County to oversee the former County landfill, which the easement connects to Waiko Road, had no comments to the Draft Environmental Assessment that showed the relocation of the easement in the Petition Area.

C. UPDATED APPENDIX AND NEW EXHIBITS

Petitioner respectfully submits the following updated appendix and new exhibits in connection with this First Amendment to Petition:

Appendix J-1	Preliminary Engineering Report prepared by Otomo Engineering, Inc., dated May 2011, attached as ***Appendix J*** to Petitioner's FEA (***Petitioner's Exhibit "1"***). The cover page of Appendix J was updated to include the preparer's name and engineer's stamp.
Exhibit "9"	Map Showing Location of the Proposed Development in Relation to Adjacent Land Use Districts
Exhibit "10"	Memorandum from Tom Nance of Tom Nance Water Resource Engineering to Vince Bagoyo dated October 1, 2012

Exhibit "11" Map Depicting Location of Existing Civil Defense Siren

All other exhibits stated in the Petition for District Boundary Amendment are current and not affected by the supplemental information in this First Amendment to Petition.

CONCLUSION

Based on the foregoing, Petitioner respectfully requests that the Commission finds that this Petition complies with the necessary requirements of a petition for boundary amendment pursuant to HAR § 15-15-50.

DATED: Wailuku, Hawaii, October 5, 2012.

B. MARTIN LUNA
GREGORY K. SCHLAIS

Attorneys for Petitioner
WAIKŌ INDUSTRIAL INVESTMENT, LLC

BEFORE THE LAND USE COMMISSION

OF THE STATE OF HAWAII

In the Matter of the petition of WAIKŌ INDUSTRIAL INVESTMENT, LLC To Amend the Land Use District Boundary of Certain Lands Situated at Waikapu, Wailuku, Island of Maui, State of Hawaii, Consisting of approximately 31.222 Acres, from the Agricultural District to the Urban District, Tax Map Key No. (2) 3-8-007:102.	DOCKET NO. A12-796

VERIFICATION

I, B. MARTIN LUNA, declare that:

1. I am an attorney for Petitioner WAIKŌ INDUSTRIAL INVESTMENT, LLC in the above-captioned matter;

2. I have read the foregoing First Amendment to Petition for District Boundary Amendment Filed September 13, 2012; know the contents thereof; and that the contents therein contained are true to the best of my knowledge, information and belief; and

3. I declare under penalty of law that the foregoing is true and correct.

DATED: Wailuku, Hawaii, October 5, 2012.

B. MARTIN LUNA

Attorney for Petitioner
WAIKŌ INDUSTRIAL INVESTMENT, LLC

PRELIMINARY ENGINEERING REPORT

FOR

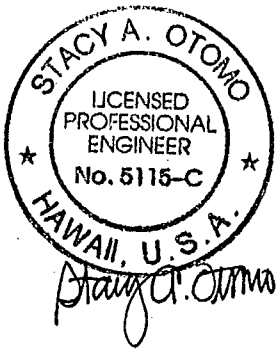
WAIKO INDUSTRIAL BASEYARD

Waikapu, Wailuku, Maui, Hawaii

T.M.K.: (2) 3-8-007: 102

Prepared for:

Waiko Industrial Investment, LLC
c/o 1300 N. Holopono Street, Suite 201
Kihei, Maui, Hawaii 96753



Prepared by:

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May 2011

Appendix J-1

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PRELIMINARY ENGINEERING REPORT
FOR
WAIKO INDUSTRIAL BASEYARD
T.M.K.: (2) 3-8-007: 102

1.0 INTRODUCTION

The purpose of this report is to provide information on the existing infrastructure which will be servicing the proposed project. It will also evaluate the adequacy of the existing infrastructure and anticipated improvements which may be required for the proposed project.

The subject parcel is identified as T.M.K.: (2) 3-8-007: 102, and encompasses an area of approximately 31.22 acres. It is also known as Lot 1-C of the Kopaa Subdivision No. 2. It is bordered by undeveloped land to the north, a cattle feed lot and Kuihelani Highway to the east, Waiko Road to the south, and undeveloped land to the west. The southwesterly end of the parcel is being used to raise cattle. The parcel is U-shaped and surrounds three sides of the Consolidated Baseyard Subdivision. A roadway leading to the Campaign Recycle Maui Composting Center traverses along the western boundary of the project site. Existing overhead utility lines are located within the property and along a portion of the northern boundary. A portion of the western section of the parcel is currently being used to raise cattle and as a construction baseyard for Fong Construction Company.

A & B Hawaii, Inc. is planning their Waiale Project to the north of the project site and to the south of Waiko Road. It will be a village concept with mixed uses. Immediately to the north of the project site, VMX and multi-family uses are being proposed.

The proposed project consists of developing thirty-seven industrial lots, ranging in size from approximately 10,000 square feet to 78,000 square feet and a commercial lot of approximately 8.4 acres. Proposed improvements include paved roadways, concrete curb, gutter and sidewalk; private water system, and landscaping. Underground water, sewer, drainage, electrical, and telephone systems will also be constructed.

2.0 EXISTING INFRASTRUCTURE

2.1 ROADWAYS

Honoapiilani Highway is located approximately 4,000 feet west of the project site. It is a two-lane undivided State Highway which runs in the north-south

direction into Wailuku town. The speed limit is 35 miles per hour (mph) in the vicinity of Waiko Road. The Waiko Road intersection is signalized with existing left turn pockets into East and West Waiko Road.

Kuihelani Highway is located immediately east of the project site. It is a two-way, four-lane divided State arterial highway which also runs in a north-south direction. The posted speed limit on Kuihelani Highway at Waiko Road is 55 mph. There is an existing traffic signal at the Kuihelani Highway-Waiko Road intersection. The southern terminus of Kuihelani Highway is its intersection with Honoapiilani Highway. The northern terminus is at its intersection with Puunene Avenue, where it turns into Dairy Road.

Waiko Road is a two-lane County collector roadway that connects Honoapiilani Highway and Kuihelani Highway. The posted speed limit on Waiko Road is 20 mph. Immediately east of Honoapiilani Highway, Waiko Road provides access to a residential community. Further east, Waiko Road provides access to industrial and livestock land uses. There is a weight limit of 10,000 pounds from vehicles entering and exiting Waiko Road from Honoapiilani Highway.

Waiale Road is a two-lane road with its southern terminus at Waiko Road. It turns into Lower Main Street near Kaahumanu Avenue. The section of Waiale Road from Waiko Road to Kuikahi Drive is privately owned. The segment from Kuikahi Drive to Lower Main Street is County owned and used as a collector road.

Access to the project site will be from Waiko Road.

2.2 DRAINAGE

As previously mentioned, the subject parcel is U-shaped with a 60-foot wide strip separating the western and eastern sections of the parcel. The western section of the parcel slopes down in a west to east direction ranging in elevation from approximately 272 feet to 232 feet above mean sea level, with an average slope of approximately 3.0%. The eastern section of the parcel slopes down in a west to east direction ranging in elevation from approximately 208 feet to 198 feet above mean sea level, with an average slope of approximately 2.2%. The 60-foot section separating the western and eastern sections of the parcel slopes down in a west to east direction ranging in elevation from approximately 232 feet to 208 feet above mean sea level, with an average slope of approximately 2.0%.

According to the "Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawaii (August, 1972)," prepared by the United States Department of Agriculture Soil Conservation Service, the soil within the project site is classified as Puuone sand (PZUE). It is characterized as having rapid permeability above the cemented layer, slow runoff and a moderate to severe wind erosion hazard.

Presently, onsite surface runoff sheet flows across the western section of the parcel in a west to east direction. A portion of the runoff sheet flows into an existing pond located near the northern boundary. The pond is a depression in the ground between 5 and 6 feet deep. The remainder of the runoff eventually sheet flows toward the 60-foot section of the parcel separating the western and eastern sections. Runoff from the 60-foot section of the parcel sheet flows in a west to east direction and eventually into the adjacent undeveloped properties. Runoff from the eastern section of the parcel sheet flows in a west to east direction. Eventually all of the onsite runoff sheet flows into the Kuihelani Highway right-of-way.

There are two existing grated inlet catch basins at the intersection of Waiko Road and Kuihelani Highway. Runoff from the project site either sheet flows into the grated catch basins or into an existing swale within the Kuihelani Highway right-of-way. Runoff along Kuihelani Highway flows in a northerly direction and outlets into the existing Kuihelani Highway drainage facilities.

According to Panel Numbers 1500030393E and 1500030394E of the Flood Insurance Rate Map, dated September 25, 2009, prepared by the United States Federal Emergency Management Agency, the project site is situated in Flood Zone X. Flood Zone X represents areas outside of the 0.2% annual chance flood plain.

It is estimated that the present 50-year, 1-hour runoff from the project site is 15.16 cfs (West Section) + 1.27 cfs (Middle Section) + 8.24 cfs (East Section) = 24.67 cfs and the corresponding runoff volume is 27,293 cubic feet (West Section) + 2,286 cubic feet (Middle Section) + 12,355 (East Section) = 41,934 cubic feet.

2.3 SEWER

There are no County sewer facilities within or adjacent to the project site. There is an existing 8-inch sewerline crossing East Waiko Road, approximately 3,000 feet west of the project site. Said 8-inch sewerline is located east of

Makai Waikapu Village and enlarges to a 12-inch sewerline and connects to the sewer system on Waiale Road and flows by a gravity sewerline to the Wailuku Pump Station. The Wailuku Pump Station is located at the end of Eluene Place and to the northwest of Kahului Harbor. Wastewater collected at the Wailuku Pump Station is pumped to the Kahului Wastewater Reclamation Facility in Naska.

The Kahului Wastewater Reclamation Facility has a capacity of 7.9 million gallons per day (mgd). As of March 2010, the average daily flow into the Kahului Wastewater Reclamation Facility was approximately 4.9 mgd. However, according to the Wastewater Reclamation Division, County of Maui, the total allocation, including projects already permitted, is 6.95 mgd.

2.4 WATER

Domestic water and fire flow for the Waikapu area is serviced from the 300,000 gallon Waikapu Tank, which is at elevation of 764 feet. A series of 8-inch and 12-inch waterlines traverse along Waiko Road from the tank to Honoapiilani Highway. To the east of Honoapiilani Highway, approximately 4,000 feet from the project site, a 12-inch waterline traverses easterly on Waiko Road and terminates at the Waiko Baseyard Subdivision, approximately 1,500 feet to the west of the project site.

The source for this water system is the Mokuhau wells located in Happy Valley. According to the Department of Water Supply, the Waikapu Tank is at or near capacity. It is inadequate to provide storage for fire flow and domestic water for this project.

There is no County water system currently servicing the project site or adjacent properties. However, there is an onsite private water system servicing the Consolidated Baseyard Subdivision, which is located between the western and eastern sections of the subject parcel. The private water system consists of two wells, a 350,000 gallon storage tank, pump building, and water appurtenances for the subdivision. According to the *"Preliminary Engineering Report for New Potable Water Sources at Consolidated Baseyard Subdivision"*, prepared by Austin Tsutsumi & Associates, Inc. in February 2006, the average daily demand for the Consolidated Baseyard Subdivision was 76,400 gallons per day (GPD) and 6,600 GPD for common area irrigation. The total daily demand amounted to 83,000 GPD, with an average daily demand of 3,860 GPD per acre for the lots. This demand is less than the 6,000 GPD per acre listed

in the Department of Water Supply standards. However, the demand is close to the 4,000 GPD per acre standard used by the other municipal water systems in the State.

2.5 ELECTRIC AND TELEPHONE

There is an existing electrical transmission system traversing through the project site. Said system is located within an easement granted to Maui Electric Company, Ltd. An existing electrical distribution system is located approximately 1,000 feet to the west of the property on land owned by A & B Properties, Inc.

3.0 ANTICIPATED INFRASTRUCTURE IMPROVEMENTS

3.1 ROADWAYS

Access to the proposed subdivision will be from Waiko Road. From Waiko Road, there will be access to Honoapiilani Highway to the west and Kuihelani Highway to the east.

The interior subdivision streets will have 56 foot right-of-ways and will be improved to County standards. The cul-de-sacs will have an edge of pavement radius of 40 feet and a right-of-way radius of 50 feet. The larger traffic lanes and cul-de-sac pavement radius are to accommodate the larger fire trucks in the Central Maui district.

The two north-south subdivision roadways will terminate at the northern boundary of the parcel. These roadways are master-planned to provide future connections to A & B's Waiale Project. Both roadways will connect to Waiko Road.

Waiko Road, fronting the project site has an existing right-of-way of 60 feet. It will be improved to accommodate the two new intersections providing access into the subdivision and the recommended turning lanes. The improvements will be designed and constructed to meet County standards.

All of the subdivision roadways will be constructed to County standards. In addition, concrete wheel chair ramps will be constructed at appropriate locations to comply with ADA standards. Appropriate striping and signage will be installed in accordance with the Department of Public Works.

A Traffic Impact Analysis Report was completed for the project on May 17, 2011 by Phillip Rowell and Associates, which provided the following summary:

"1. *The level-of-service analysis concluded that the signalized intersections (Honoapiilani Highway at Waiko Road and Kuihelani Highway at Waiko Road) will operate at acceptable levels-of-service without additional improvements.*

2. *The southbound approach of Waiale Road at Waiko Road will operate at Level-of-Service C during the morning peak hour and Level-of-Service F during the afternoon peak hour. An assessment of potential improvements concluded that installation of a left turn refuge lane for left turns from southbound Waiale Road to eastbound Waiko Road would result in Level-of-Service D and is therefore recommended. However, since the projected traffic volumes that result in the unacceptable level-of-service reflect full build out of the project, it would be prudent to defer the improvements until the left turn refuge lane is required. It is possible that the traffic projections, which are based on Institute of Transportation Engineers trip generation data, may not be realized. The intersection should be monitored and re-assessed when the proposed industrial park is approximately 50% occupied.*

3. *The current site plan for the proposed industrial park indicates two separate parcels. The parcel is located along the north side of Waiko Road between Kuihelani Highway and the east property line of the Consolidated Baseyard. Approximately 100,000 square feet of retail and commercial floor space can be constructed on this parcel. The level-of-service analysis determined that access to and egress from the project should be provided by a major driveway (unsignalized) along Waiko Road along the west boundary of the project. The main driveway, Drive A, should have separate left turn lanes along each approach and a left turn refuge lane along Waiko Road for left turns from the project. It is recommended that this driveway be monitored as the parcel is developed to determine if additional improvements are required. As with the previous intersection, the reassessment should be performed when the retail portion of the project is approximately 50% occupied.*

4. *The second parcel is located west of the Consolidated Baseyard and will consist of 19.7 acres of light industrial uses. Access to and egress from*

this parcel will be provided by one driveway, Drive B. This driveway will be unsignalized and all approaches in be one lane only."

3.2 DRAINAGE

The project's drainage system will be designed to accommodate the increase in runoff generated by the development of the entire project site. Subdivision improvements will include a master drainage system within the roadways, including curb-inlet catch basins, manholes, drainlines and a drain stubout to each lot. As each lot is developed, it will be required to install an onsite drainage system to collect runoff from the site and provide a drainline connection to the drain stubout to the master drainage system. The master drainage system will be sized to accommodate runoff from the roadways and developed lots. The runoff will be conveyed to a master underground perforated drainage system to accommodate the increase in runoff from the subdivision. It is estimated that the post development runoff = 75.23 cfs (West Section) + 6.30 cfs (Middle Section) + 41.96 cfs (East Section) = 123.49 cfs. Accordingly, the developed runoff volume is 67,705 cubic feet (West Section) + 5,671 cubic feet (Middle Section) + 27,692 cubic feet (East Section) = 101,068 cubic feet, a net increase of 59,134 cubic feet.

As each individual lot is developed, the building permit applicant will be required to construct an onsite storm runoff collection system and connect to the drainline stubout that was provided to the lot.

There will be no increase in runoff sheet flowing from the project site after completion of the development. This is in accordance with Chapter 4, Rules for the Design of Storm Drainage Facilities in the County of Maui.

3.3 SEWER

The nearest County sewer system is located approximately 3,000 feet from the project site. A master sewer system will be installed within the subdivision roadways and a sewer lateral will be provided to each lot. The master sewer system will outlet into a community leach field, which will require review and approval from the State Department of Health (SDOH).

Individual wastewater systems (IWS) will be used for the treatment of wastewater for each lot. Each lot will be required to connect the outlet line of

the IWS to the sewer lateral provided. Wastewater will be conveyed from each lot into the community leach field. Each IWS will adhere strictly to the requirements set forth by the SDOH.

Using a similar analysis for the Consolidated Baseyard Subdivision, it is estimated that the average daily wastewater contribution is 16,436 gallons (see Appendix C).

As the project progresses and building permits are applied for, the building permit applicant will be required to submit the design of an IWS. It is the responsibility of the SDOH to review and approve the IWS. Some of the restrictions of an IWS are that it has to be at least 5 feet away from the wall line of any structure, 9 feet from a property line, 50 feet from a stream, 10 feet from a large tree, and 1,000 feet from a potable drinking water well (if cesspools are used). The IWS to be used for the subdivision will be aerobic units which will allow installation in close proximity to the existing well.

3.4 WATER

The existing wells and storage tank which are currently being used as the source for domestic water and fire flow for the Consolidated Baseyard Subdivision will be modified and used for the project. The Developer will upgrade the existing water facilities as required to meet domestic water and fire flow requirements for the project.

The domestic water demand, as determined by the Domestic Consumption Guidelines set forth by the Department of Water Supply, for the project is calculated to be approximately 142,920 gallons per day. However, using the analysis for the Consolidated Baseyard Subdivision, it is estimated that the average daily domestic water demand is 139,890 gallons (see Appendix B). In accordance with Department of Water Supply standards, the fire flow demand for a light industrial or commercial development is 2,000 gallons per minute for a 2-hour duration. The maximum spacing for fire hydrants is 250 feet. The Developer will upgrade the existing offsite Consolidated Baseyard Subdivision water system to meet the demands.

A memorandum regarding the *"Capability of the Two Consolidated Baseyard Wells to Supply the Proposed Waiko Industrial Park"*, dated March 1, 2011, was prepared by Tom Nance Water Resource Engineering. In the

Conclusions, Recommendations, and Other Observations section of the memorandum, the following was stated:

"1. *The addition of water service to the Waiko Industrial Park from the Consolidated Baseyard system would require both of its well pumps to be replaced with new pumps capable of delivering 235 GPM to the system's 0.35 MG, 250-foot (spillway elevation) tank. Both well pumps would be driven by 25-horsepower motors. The pumps presently in Wells 1 and 2 are driven by 7.5- and 15-horsepower motors, respectively.*

2. *Both wells have adequate hydraulic capacity to deliver 235 GPM to the 250-foot storage tank with only modest drawdowns. The 4-inch pipeline from Well 2 to the tank, of about 500-foot length, could accommodate the higher pumping rate.*

3. *Based on available data, it appears that long-term salinity will be stable at the increased pumping rate. However, neither well has been used to a significant extent or pumped at the required higher rate. As an assurance that both parties need to have, it would be appropriate to install a 235 GPM pump in one of the wells and run a pump test of a minimum of 72 hours duration to monitor the salinity response.*

4. *Consolidated Baseyard has a 0.35 MG storage tank. Two sizing criteria were applied by ATA to determine the tank's size. As indicated below, applying these two criteria with the addition of the Waiko Industrial Park will not require additional storage.*

   Criterion 1. Provide the maximum day demand with no credit for well inflow.

	Max. Day Amount (MG)
Consolidated Baseyard	*0.1245*
Waiko Industrial Park	*0.2083*
Combined Total	*0.3328 (less than 0.35 MG)*

Criterion 2. *Provide a 2,000 GPM fir flow for two-hour duration with coincident maximum day demand, the largest well out of service, and the reservoir 3/4 full at the start of the fire.*

Consolidated Baseyard: 324,233 Gallons (less than 0.35 MG)

Addition of Waiko Industrial Park: 319,378 Gallons (also less than 0.35 MG)

5. *DOH will not allow individual wastewater disposal systems (cesspools or leach fields) within 1,000 feet of either the Consolidated Baseyard drinking water wells. Many of the Waiko Industrial Park lots are inside these 1,000-foot setback distances (Figure 7). Consolidated Baseyard dealt with this issue by requiring advanced septic systems for each lot and delivery of the effluent from these septic systems to a common leach field in the southeast corner of the subdivision. A similar accommodation will be required of the Waiko Industrial Park."*

3.5 ELECTRIC AND TELEPHONE

The proposed electrical and telephone distribution systems to the subject subdivision will be installed overhead from the existing overhead facilities located approximately 1,000 feet to the west of the project site. Within the project site, the electric and telephone systems will be installed underground in accordance with the utility companies rules and regulations. Street lights will be installed along the subdivision streets at intervals to be determined by the electrical engineer.

APPENDIX A
HYDROLOGIC CALCULATIONS

Hydrologic Calculations

Purpose: Determine the increase in onsite surface runoff from the undeveloped portion of the project site based on a 50-year, 1-hour storm.

A. Determine the Runoff Coefficient (C):

DEVELOPED AREAS:

Infiltration (Negligible)	= 0.20
Relief (Flat)	= 0.00
Vegetal Cover (None)	= 0.07
Development Type (Industrial)	= 0.55
	C= 0.82

EXISTING AREAS:

Infiltration (Medium)	= 0.07
Relief (Flat)	= 0.00
Vegetal Cover (High)	= 0.00
Development Type (Landscape)	= 0.15
	C= 0.22

EXISTING CONDITIONS:

West Section = 19.70 Acres
Middle Section = 1.65 acres
East Section = 9.87 Acres

DEVELOPED CONDITIONS:

West Section = 19.70 Acres
Middle Section = 1.65 Acres
East Section = 9.87 acres

B. Determine the 50-year 1-hour rainfall:

i_{50} = 2.5 inches

Adjust for time of concentration to compute Rainfall Intensity (I):

Existing Condition (Western Section):

T_c = 30 minutes

I = 4.31 inches/hour

Existing Condition (Middle Section):

T_c = 30 minutes

I = 4.31 inches/hour

Existing Condition (Eastern Section):

T_c = 25 minutes

I = 4.31 inches/hour

Developed Condition (Western Section):

T_c = 15 minutes

I = 4.31 inches/hour

Developed Condition (Middle Section):

T_c = 15 minutes

I = 4.31 inches/hour

Developed Condition (Eastern Section):

T_c = 11 minutes

I = 4.31 inches/hour

C. Drainage Area (A) = See previous breakdown

D. Compute the 50-year storm runoff volume (Q):

Q = CIA

Existing Condition (West Section):

Q = (0.22)(3.50)(19.70)

= 15.16 cfs

Existing Condition (Middle Section):

Q = (0.22)(3.50)(1.65)

= 1.27 cfs

Existing Condition (East Section):

$Q = (0.22)(3.79)(9.87)$

$= 8.24$ cfs

Developed Condition (West Section):

$Q = (0.82)(4.66)(19.70)$

$= 75.23$ cfs

Developed Condition (Middle Section):

$Q = (0.82)(4.66)(1.65)$

$= 6.30$ cfs

Developed Condition (East Section):

$Q = (0.82)(5.18)(9.87)$

$= 41.96$ cfs

The total existing runoff from the project site = 15.16 cfs (West Section) + 1.27 cfs (Middle Section) + 8.24 cfs (East Section) = 24.67 cfs. The total developed runoff from the project site = 75.23 cfs (West Section) + 6.30 cfs (Middle Section) + 41.96 cfs (East Section) = 123.49 cfs. Accordingly, the existing runoff volume generated from a 50-year, 1-hour storm is 27,293 cubic feet (West Section) + 2,286 cubic feet (Middle Section) + 12,355 (East Section) = 41,934 cubic feet and the developed runoff volume is 67,705 cubic feet (West Section) + 5,671 cubic feet (Middle Section) + 27,692 cubic feet (East Section) = 101,068 cubic feet, a net increase of 59,134 cubic feet.

APPENDIX B
WATER DEMAND CALCULATIONS

WATER DEMAND CALCULATIONS

Per 2002 Water System Standards:

Average Daily Demand (ADD) = 6,000 gallons per acre per day (Commercial)
= 6,000 gallons per acre per day (Light Industrial)

ADD = (6,000)(8.43) = 50,580 gpd (Commercial)

= (6,000)(15.39) = 92,340 gpd (Light Industrial)

Average Daily Demand = 50,580 gpd + 92,340 gpd = 142,920 gpd

(Note-the land area used in the ADD calculations excluded the proposed roadways from the calculations)

The report prepared by Tom Nance Water Resource Engineering stated that the anticipated daily domestic water demand is 124,890 gallons and an allotment of 15,000 gallons for the common area irrigation. Therefore, the total daily water demand is 139,890 gallons.

APPENDIX C
WASTEWATER CALCULATIONS

WASTEWATER CALCULATIONS

The following wastewater calculations are based on the design criteria used for the *"Consolidated Baseyard Subdivision On-Site Leaching Fields"*:

Maximum employees per acre = 435 / 23.163 = 18.78 employees per acre
Wastewater Contribution for Industrial Shop is 25 gallons/employee/day

Total maximum employees = (31.22)(18.78) = 586.31 (use 587 employees)

Wastewater Contribution = (587)(25) = 16,436 gpd

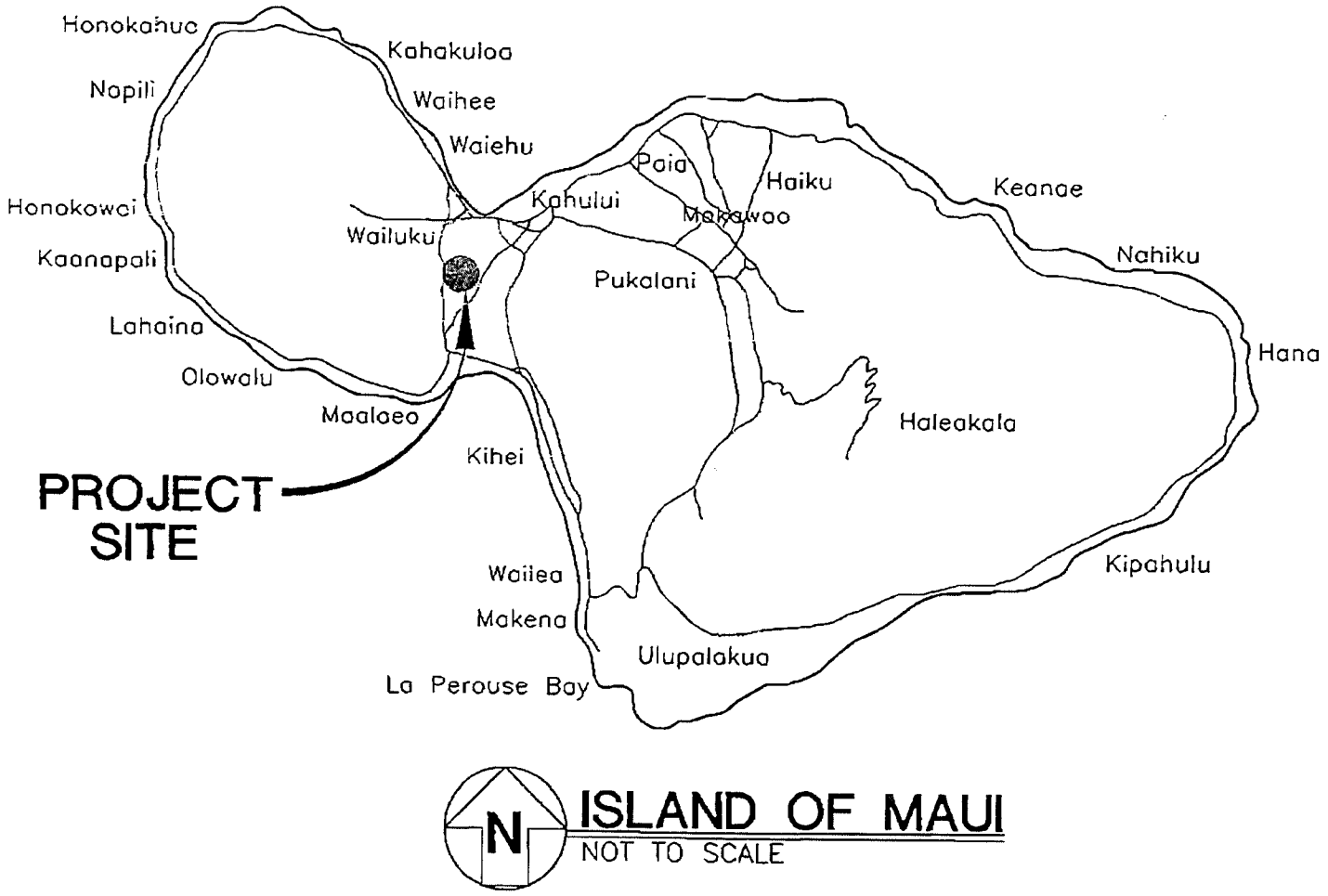
EXHIBITS

1 Location Map

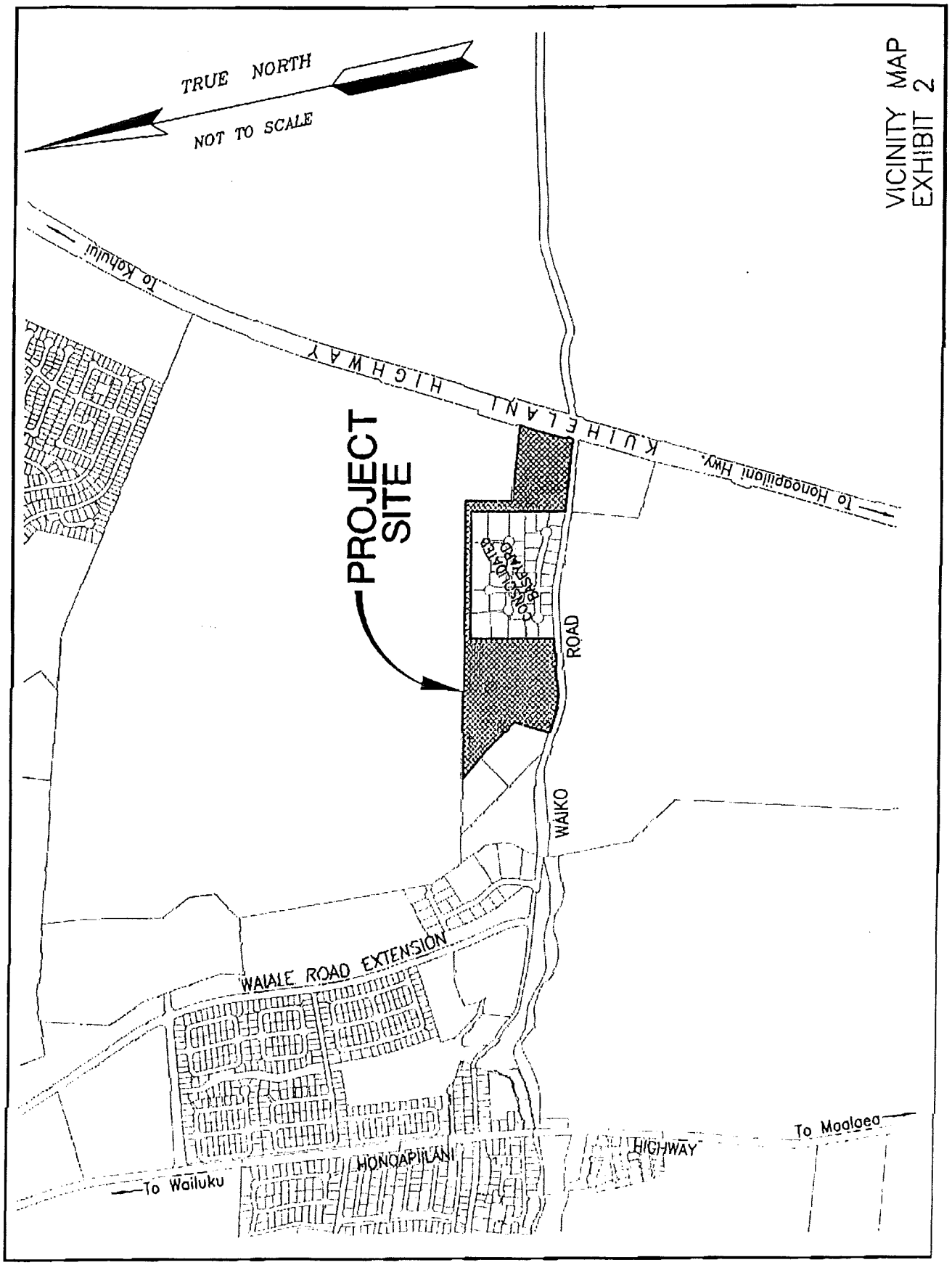
2 Vicinity Map

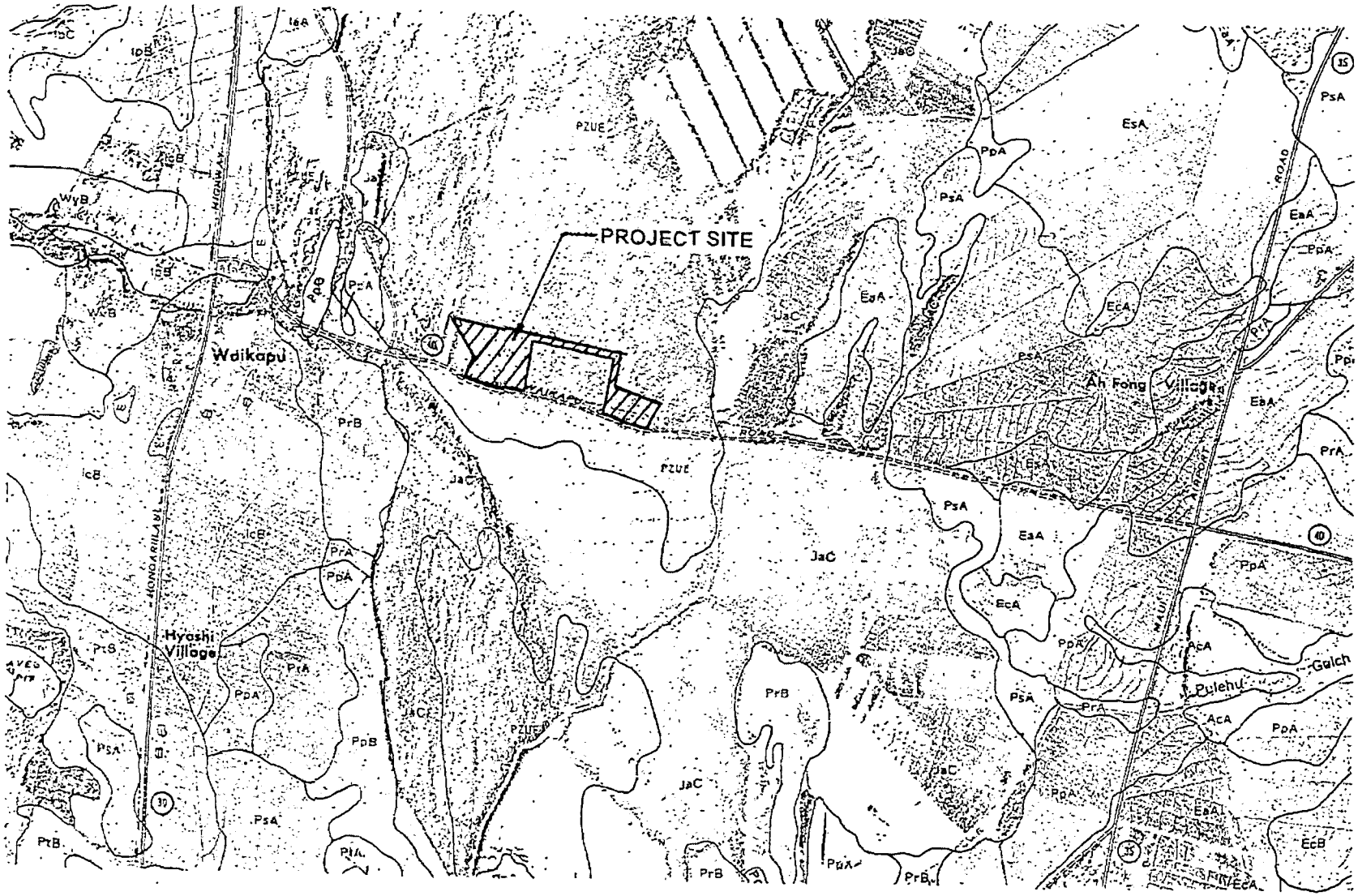
3 Soil Survey Map

4 Flood Insurance Rate Map



LOCATION MAP
EXHIBIT 1

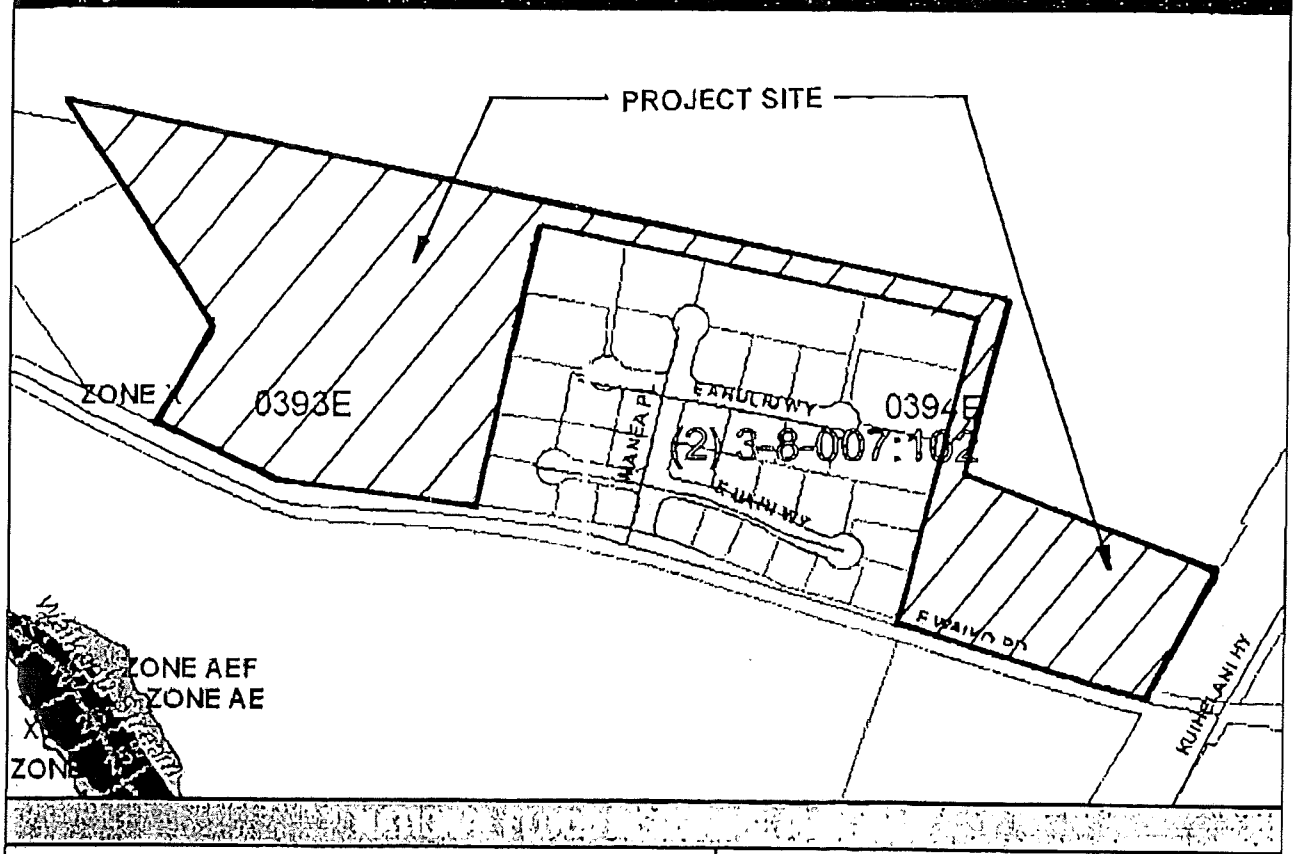

TRUE NORTH
NOT TO SCALE
VICINITY MAP
EXHIBIT 2
To Kahului
KUIHELANI HIGHWAY
To Honoapiilani Hwy.
PROJECT SITE
ROAD
WAIKO
WAIALE ROAD EXTENSION
To Wailuku
HONOAPIILANI
HIGHWAY
To Maalaea



SOIL SURVEY MAP
EXHIBIT 3

State of Hawaii

FLOOD HAZARD ASSESSMENT REPORT



FLOOD ZONE DEFINITIONS

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD – The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zone A, AE, AH, AO, V, and VE. The Base Flood Elevation (BFE) is the water-surface elevation of the 1% annual chance flood. Mandatory flood insurance purchase applies in these zones.

- Zone A: No BFE determined.
- Zone AE: BFE determined
- Zone AH: Flood depths of 1 to 3 feet (usually areas of ponding); BFE determined.
- Zone AO: Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined.
- Zone V: Coastal flood zone with velocity hazard (wave action); no BFE determined
- Zone VE: Coastal flood zone with velocity hazard (wave action); BFE determined.
- Zone AEF: Floodway areas in Zone AE. The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without increasing the BFE.

NON-SPECIAL FLOOD HAZARD AREA – An area in a low-to-moderate risk flood zone. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

- Zone XS (X shaded): Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- Zone X: Areas determined to be outside the 0.2% annual chance floodplain

OTHER FLOOD AREAS

- Zone D: Unstudied areas where flood hazards are undetermined, but flooding is possible. No mandatory flood insurance purchase requirements apply, but coverage is available in participating communities.

PROPERTY INFORMATION

COUNTY:	MAUI
TMK NO:	(2) 3-8-007:102
PARCEL ADDRESS:	645 E WAIKO RD
FIRM INDEX DATE:	SEPTEMBER 25, 2009
LETTER OF MAP CHANGE(S):	NONE
FEMA FIRM PANEL(S):	1500030393E-SEPTEMBER 25, 2009 1500030394E-SEPTEMBER 25, 2009

PARCEL DATA FROM:	AUGUST 2010
IMAGERY DATA FROM:	MAY 2005

IMPORTANT PHONE NUMBERS

County NFIP Coordinator	
County of Maui	
Francis Cerizo, CFM	(808) 270-7771
State NFIP Coordinator	
Carol Tyau-Beam, P.E., CFM	(808) 587-0267

FLOOD INSURANCE RATE MAP
EXHIBIT 4

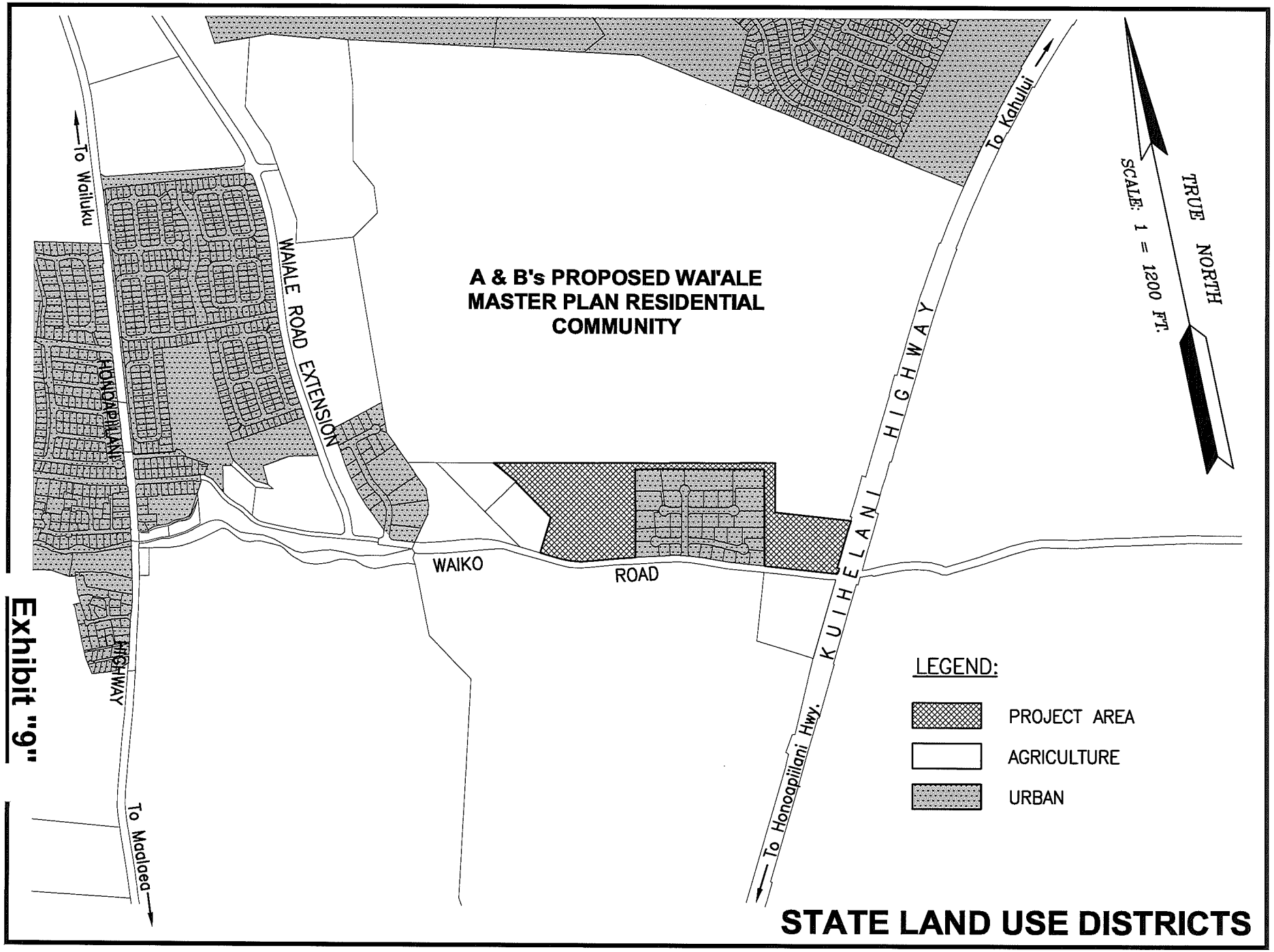


Exhibit "9"

STATE LAND USE DISTRICTS

TNWRE
Tom Nance Water
Resource Engineering

No. of pages: 1
Email: vbagoyo-devgroup@hawaii.rr.com
greg@tnwre.com

Original ☐ will ☑ will not be mailed to you.

October 1, 2012
12-195 | 11-08

MEMORANDUM

To: Vince Bagoyo

From: Tom Nance

Subject: Response to Item 2 of the SLUC's September 26, 2012 Letter

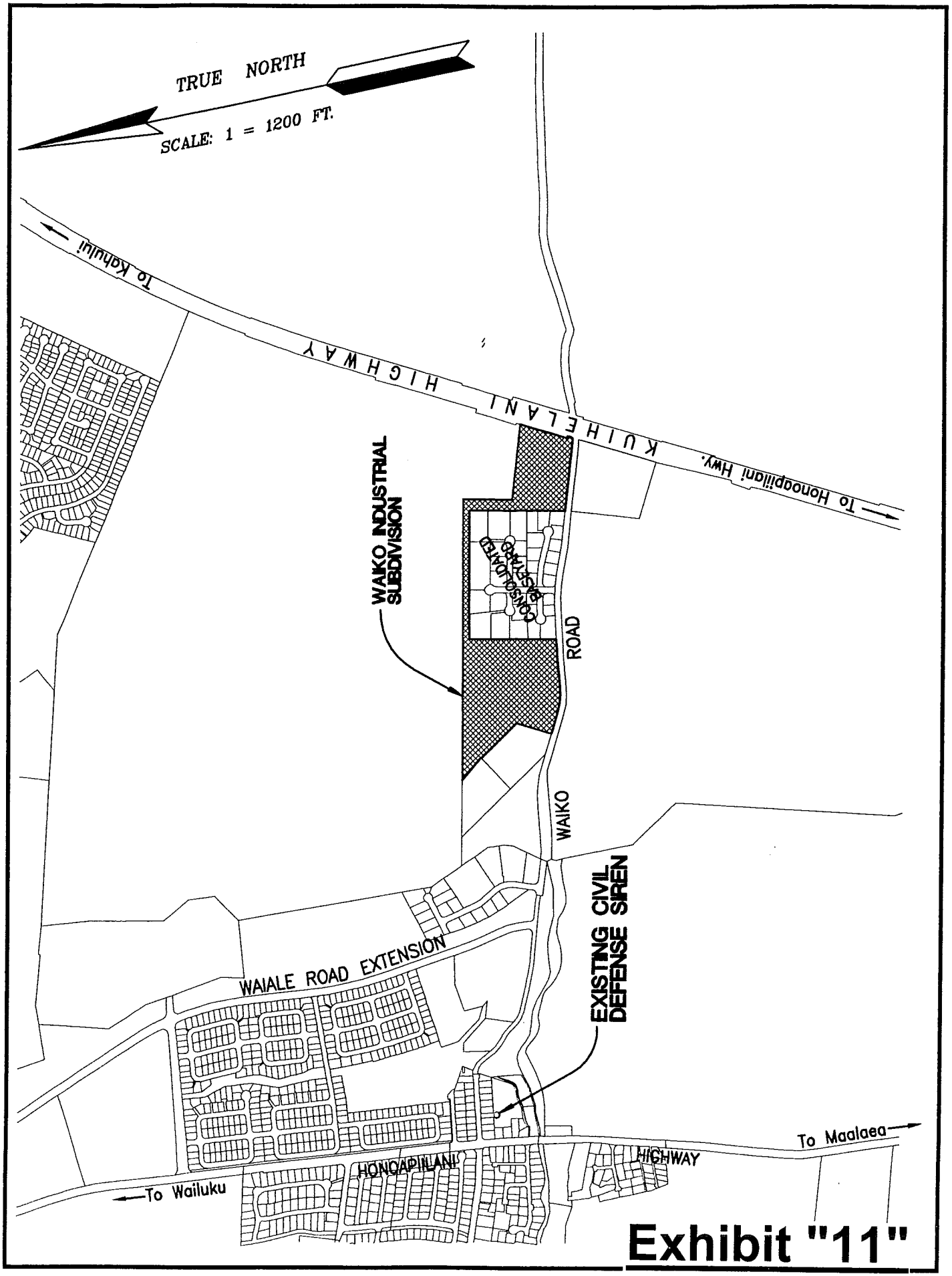
The proposed industrial subdivision will be supplied by two existing wells (identified as State Nos. 5129-02 and -03) which are located in and draw from the Kahului Aquifer System. The State Commission on Water Resource Management (CWRM) has set the sustainable yield of this aquifer at 1.0 million gallons per day (MGD) based on a conservative calculation of rainfall-recharge on about half the aquifer's total area.

In actual fact, the aquifer has been pumped for many decades at 45 MGD and is presently pumped at between 25 and 30 MGD, all without adverse effects such as increased salinity or water level decline. How is this possible? The reality is that the CWRM's 1.0 MGD sustainable yield amount does not include the aquifer's most important sources of recharge and unique hydro-geologic characteristics. Beyond its modest direct rainfall recharge, the aquifer's more significant sources of recharge include: groundwater underflow from Haleakala and from the West Maui mountain; surface runoff from both of these mountains out onto the Kahului isthmus where it sinks into the ground; irrigation return flow from HC&S sugarcane fields; leakage from HC&S ditch systems; and leakage from Waiale Reservoir which receives ditch flow and surface runoff from most of Wailuku Town. With these additional sources of recharge, salinity intrusion into the aquifer is retarded by thick caprock deposits along the aquifer's two discharge shorelines, Maalaea and Kahului Bays.

The CWRM recognizes that its sustainable yield figure is not realistic and continues to issue permits for new wells, albeit with a disclaimer that the loss of sugarcane's irrigation return if the plantation closes may result in higher salinity. That irrigation return flow may be on the order of 25 to 30 MGD as a first order approximation. However, the plantation's closing would also reduce aquifer pumpage by more than 25 MGD, leaving current and projected future pumpage at less than five (5) MGD. In a possible post-plantation closure future, the two wells supply the proposed industrial subdivision will continue to provide the necessary quantity and quality of groundwater.

cc: greg@tnwre.com

Exhibit "10"


TRUE NORTH
SCALE: 1 = 1200 FT.
To Kahului
KUIHELANI HIGHWAY
To Honoapiilani Hwy.
WAIKO INDUSTRIAL SUBDIVISION
CONSOLIDATED CANE CO.
ROAD
WAIKO
EXISTING CIVIL DEFENSE SIREN
WAIALE ROAD EXTENSION
To Maalaea
HIGHWAY
HONOAPIILANI
To Wailuku
Exhibit "11"

CERTIFICATE OF SERVICE

I hereby certify that due service of the within document was made by depositing the same with the United States Mail, postage prepaid, or by hand delivery, on October 5, 2012, addressed to:

JESSE K. SOUKI Director Office of Planning State of Hawaii 235 South Beretania Street, Room 600 Honolulu, Hawai`i 96813	BY MAIL
BRYAN C. YEE, ESQ. Deputy Attorney General Department of the Attorney General 425 Queen Street Honolulu, Hawaii 96813	BY MAIL
WILLIAM SPENCE Director, Planning Department County of Maui 250 South High Street Wailuku, Hawaii 96793	BY HAND DELIVERY
PLANNING COMMISSION County of Maui 250 South High Street Wailuku, Hawaii 96793	BY HAND DELIVERY
PATRICK K. WONG, ESQ. Corporation Counsel Department of the Corporation Counsel County of Maui 200 South High Street Wailuku, Maui, Hawaii 96793	BY HAND DELIVERY
MAUI ELECTRIC COMPANY, LIMITED Attention: Dan Takahata P. O. Box 398 Kahului, Hawaii 96733-6898	BY MAIL

HAWAIIAN TELCOM INC. BY MAIL
Attention: Legal Department
P. O. Box 2200
Honolulu, Hawaii 96816

FONG CONSTRUCTION COMPANY, LIMITED BY MAIL
405 Hukilike Street, Bay 4
Kahului, Hawaii 96732

NOBRIGA'S RANCH, INC. BY MAIL
P. O. Box 1170
Wailuku, Hawaii 96793

DATED: Wailuku, Hawaii, October 5, 2012.

B. MARTIN LUNA
GREGORY K. SCHLAIS

Attorneys for Petitioner
WAIKŌ INDUSTRIAL INVESTMENT, LLC