

DEPARTMENT OF WATER SUPPLY • COUNTY OF HAWAII
345 KEKŪANAŌA STREET, SUITE 20 • HILO, HAWAII 96720
TELEPHONE (808) 961-8050 • FAX (808) 961-8667

July 8, 2004

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OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

Ms. Genevieve Salmonson, Director
Office of Environmental Quality Control
State Office Tower
235 South Beretania Street, Room 702
Honolulu, HI 96813

**FINDING OF NO SIGNIFICANT IMPACT (FONSI) FOR THE
DEPARTMENT OF WATER SUPPLY JOB NO. 2002-806
MĀMALAHOA HIGHWAY WATERLINE IMPROVEMENTS
TAX MAP KEY 7-4-02, 03, 04, AND 06
DISTRICT OF NORTH KONA, ISLAND OF HAWAII**

The Department of Water Supply has reviewed the comments received during the 30-day public comment period that began on April 23, 2004.

The Department has determined that this project will not have significant environmental effects and has issued a Finding of No Significant Impact (FONSI).

Please publish this notice in the next edition of the Environmental Notice.

A completed OEQC Publication Form and four (4) copies of the Final Environmental Assessment are enclosed.

Please call Mr. Owen Nishioka at (808) 961-8070, extension 259, if there are any questions.

Sincerely yours,

Milton D. Pavao, P.E.
Manager

ON:sco

Encs.

... Water brings progress...

2004-07-23 FONSI
MAMALAHOA HWY WATERLINE IMPROVEMENTS

JUL 23 2004

FILE COPY

FINAL ENVIRONMENTAL ASSESSMENT

MAMALAHOA HIGHWAY WATER LINE IMPROVEMENTS

DWS JOB No. 2002-806

Portion of Honokohau and Kealakehe, District of North Kona, Hawaii



Prepared for:

Department of Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, Hawaii 96720

June 2004

FINAL ENVIRONMENTAL ASSESSMENT

MAMALAHOA HIGHWAY WATER LINE IMPROVEMENTS

DWS JOB No. 2002-806

Portion of Honokohau and Kealakehe, District of North Kona, Hawaii

Prepared in Partial Fulfillment of the Requirements of the National Environmental Policy Act, Federal Regulations 40 CFR Part 1500-1508, and Environmental Protection Agency Regulations, 40 CFR Part 6; Chapter 343, Hawaii Revised Statutes and Title 11, Chapter 200, Hawaii Administrative Rules, Department of Health, State of Hawaii.

Prepared for:

Department of Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, Hawaii 96720

Prepared by:

Gerald Park Urban Planner
1400 Rycroft Street, Suite 876
Honolulu, Hawaii 96814

and

BK Inc.
675 Kinoole Street
Hilo, Hawaii 96720

June 2004

SUMMARY INFORMATION

Project: Mamalahoa Highway
Water Line Improvements

Applicant: Department of Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, Hawaii 96720

Approving Agency: United States Environmental Protection Agency

Tax Map Key: 7-04-02, 03, 04, and 06
Land Owner: County of Hawaii, State of Hawaii
Existing Use: Roadway
State Land Use Designation: Agricultural
County of Hawaii General Plan: Alternate Urban Expansion, Orchards,
Extensive Agricultural
Special Management Area: Outside SMA

Need for Assessment: Use of Federal Funds
Use of County Land and Funds
HAR §11-200-6-(2)(b)(1)(A)
HAR §11-200-6-(2)(b)(2)(B)

Anticipated Determination: Finding of No Significant Impact

Contact Person: Barry Pollock
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105
Telephone: (415) 972-3563
Facsimile: (415) 947-3549

Owen Nishioka
Department Water Supply
County of Hawaii
345 Kekuanaoa Street, Suite 20
Hilo, Hawaii 96720
Telephone: (808) 961-8070 x 259

Note: Revisions to the text of the Draft Environmental Assessment are shown in ***bold italic*** type. Deleted text is [shaded].

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DESCRIPTION OF THE PROPOSED PROJECT

1

The Department of Water Supply, County of Hawaii, proposes to construct water line improvements within the right-of-way of Mamalahoa Highway, District of North Kona, Hawaii. The project is planned along a section of Mamalahoa Highway between the Department of Water Supply's Honokohau Well and Water Storage Reservoir and the Keahuolu (formerly labeled as QLT) Well and Water Storage Reservoir. A Location Map is shown in Figure 1.

A. Purpose of the Project

An existing 16-inch water transmission main on Mamalahoa Highway services areas north of Palani Road. The limits of the line are at Hina Lani Street to the north and the Honokohau Well and Reservoir to the south. Both the Honokohau and Keahuolu Well and Reservoir sites were developed to supply water to the areas north of Palani Road and sections of Kailua Town below Mamalahoa Highway. The Department of Water Supply proposes to connect both reservoirs to provide water flow between the reservoirs. Water drawn down at the Honokohau Reservoir would be replenished from its well and flow from the Keahuolu Reservoir. The reservoirs are located at the same elevation thus water can gravity flow between both.

B. Technical Characteristics

Approximately 7,110 lineal feet (1.3 miles) of new 16" water line will be installed within the Mamalahoa Highway right-of-way. An existing 8-inch distribution line is buried under the mauka travel lane and will not be disturbed. Service for customers on both sides of Mamalahoa Highway is drawn from this line. The new 16-inch line would be installed under the makai travel lane approximately 5 feet inside the edge of pavement. The waterline routing plan is shown in Figures 2 to 7.

At its northern end, the new water line would tie-in to an existing 16-inch line in Mamalahoa Highway and a 16-inch line from the Department of Water Supply Honokohau Reservoir. At its southern end, the water line would connect to a 16-inch line from the Keahuolu Reservoir.

Construction will commence at a location to be determined by the Contractor, the Department of Water Supply, and the consulting engineer. Although the General Contractor may select from a range of construction methods and the sequencing of actions during construction, it is anticipated that construction will proceed as described below.

A cut and cover construction method is assumed. The asphalt pavement will be saw cut, basecourse and underlying material removed by a backhoe, and the material hauled by truck to a stockpile site. Excavation will precede laying of the pipeline and the contractor will coordinate the interaction between excavation, material delivery to the work site, and pipeline installation. A maximum allowable trenching length of 500 lineal feet will be exposed at any one time. The pipeline will be placed in a 4-foot wide trench at a depth of five feet along its length. A minimum 36" cover consisting of engineered fill, base course, and asphalt paving will be required. A cross section is shown in Figure 8.

Solid waste generated from excavating the trench for the pipeline will be hauled to the West Hawaii Quarry for disposal. Approximately one-half of the excavated material will be hauled away by the general contractor and the remaining half used for backfilling the open trench.

As sections of the waterline are installed, it will be pressure tested and disinfected per Department of Water Supply standards. Assuming there are no leaks, the line would be drained and hydro-testing water disposed of and the trench backfilled with engineered fill. This process will be repeated until the line is completed. The entire line would then be disinfected with chlorine prior to being brought on-line. Hydro-testing and chlorinated water will be discharged along the roadside in uninhabited or undeveloped areas. Excavated areas will be restored to pre-construction conditions or better.

The project also includes installing 8" (12 LF) and 16" lines (178 LF) and connections to existing water facilities at the junction of Palani Road and Mamalahoa Highway. Work will be performed in the State of Hawaii right-of-way and applicable easements will be sought from the State Department of Transportation. An existing flow controller at the junction will be removed.

C. Economic Characteristics

1. Cost and Phasing

The construction cost of the project is estimated at \$1.2 million. Funding will be provided by the Department of Water Supply, County of Hawaii and through a grant from the U.S. Environmental Protection Agency. Federal funding requires that an environmental assessment be prepared pursuant to the requirements of the National Environmental Policy Act.

The project will be constructed in one phase over a 6-month period. Construction will commence after all approvals are received.

No night work is being considered at this time to install the waterline.

2. Community Served

The project is proposed on Mamalahoa Highway in the village of Kailua-Kona. Kailua-Kona is located in the District of North Kona on the west coast of the Island of Hawaii. It is the second most populous area in the county next to Hilo, the County seat, which is located in East Hawaii.

Population growth in the North Kona District has increased substantially since 1970. Between 1970 and 1980 the resident population increased 185% (4,832 to 13,748); 62% between 1980 and 1990 (22,284); and 28% in the year 2000 (28,543).

Few persons would dispute the contention that one of the major contributing factors to population growth is resort development and associated employment opportunities. The South Kohala and North Kona Districts are the island's principal visitor destination areas. In West Hawaii, Kailua and Keauhou were for many years the center of the visitor industry. Beginning with the opening of the Mauna Kea Resort in South Kohala in the late 1970s, the industry commenced a gradual movement northward from Kailua into South Kohala. In the last 20 years, major resort development has opened at coastal locations including Kaupulehu,

Hualalai, Anaehoomalu, Kalahuipuaa, Hapuna, and Kaunaoa. Diversified agriculture preceded the visitor industry as the primary economic activity in Kona with coffee the principal crop---and Kona coffee remains the principal agricultural crop until today. The construction industry is also one of the mainstays of the West Hawaii economy, and in recent years has been hard pressed to keep up with the many resort, commercial, and residential developments in the district.

The calm Pacific Ocean waters off Kona have long been associated with fishing. Local fishermen, commercial fishermen, fishing charters, and fishing tournaments all contribute to the local fishing industry. The cold ocean water off the Kona coast also contributes to a growing aquaculture industry in which cold ocean water is pumped on to shore and used to raise abalone, seaweed, lobster and microalgae at the Natural Energy Laboratory of Hawaii to the north of Kailua. There are no heavy industrial activities (except perhaps quarrying) or large manufacturing operations in the district.

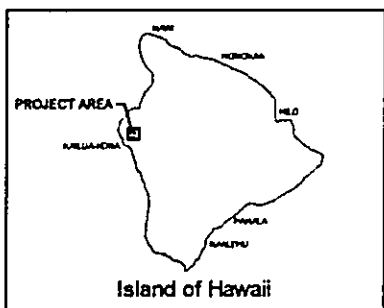
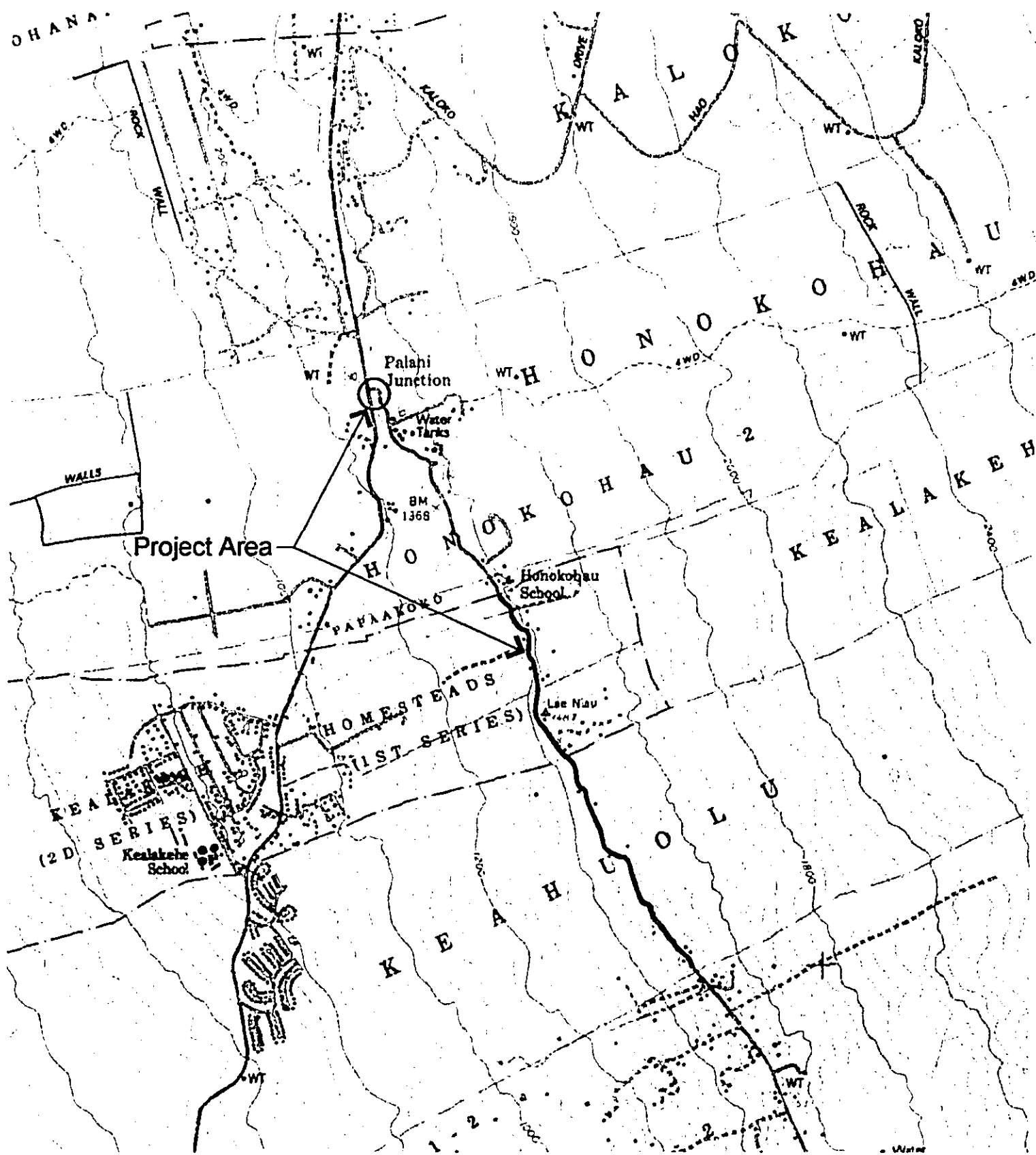
Increased economic and population growth has also contributed to increased opportunities in the service and retail industries. New major retail shopping complexes dot the four corners of the intersection of Queen Kaahumanu Highway and Palani Road, the long-time entrance into Kailua. Kailua Village also supports a multitude of retail stores catering to visitors and residents.

3. Land Ownership

The County of Hawaii owns the Mamalahoa Highway right-of-way and the State of Hawaii owns the section of road joining Mamalahoa Highway with Palani Road. The State Department of Transportation is requiring the County of Hawaii to acquire a utility easement on roads under State jurisdiction to install the proposed improvements.

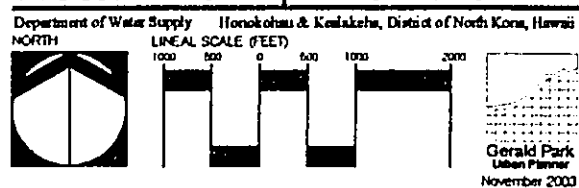
D. Social Characteristics

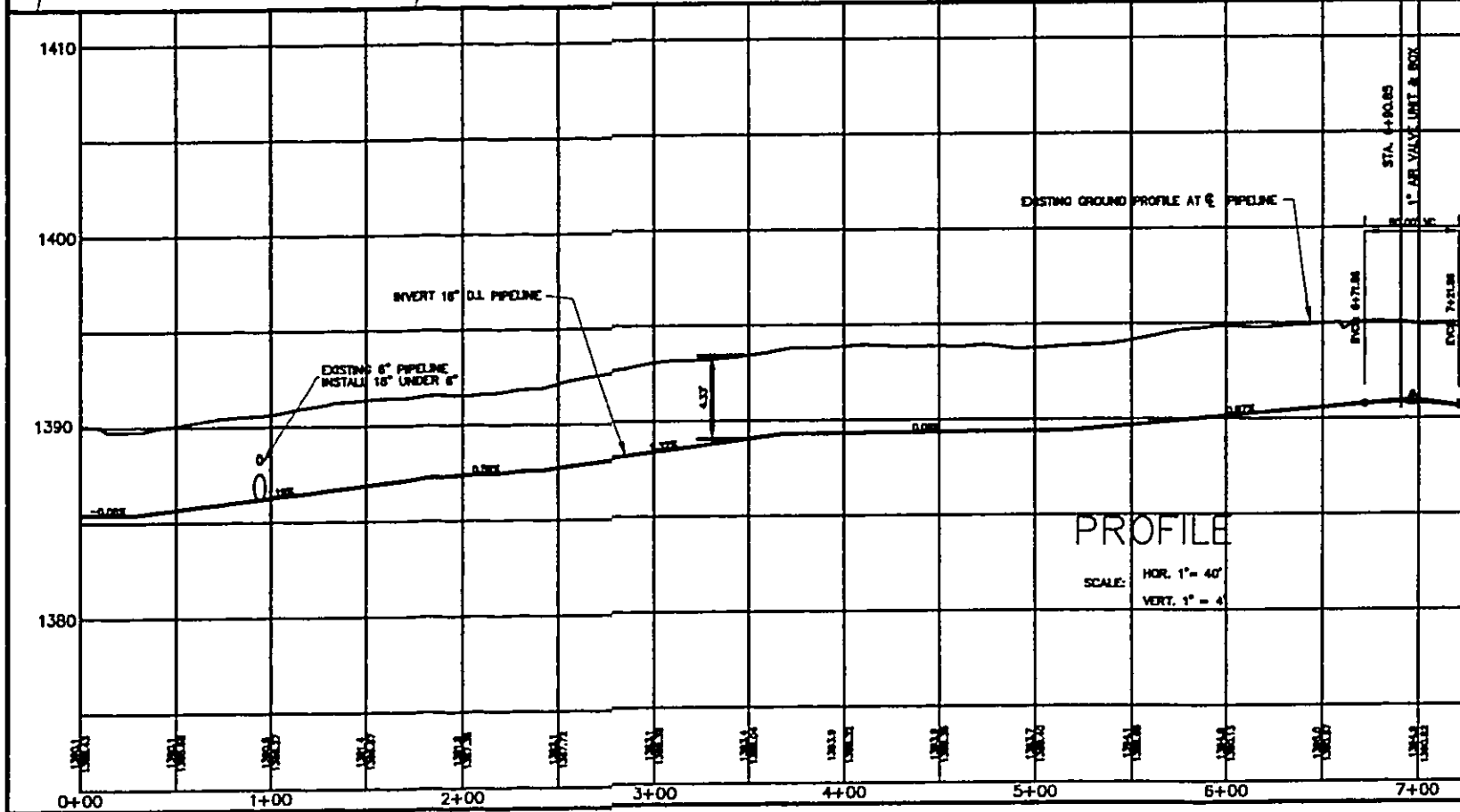
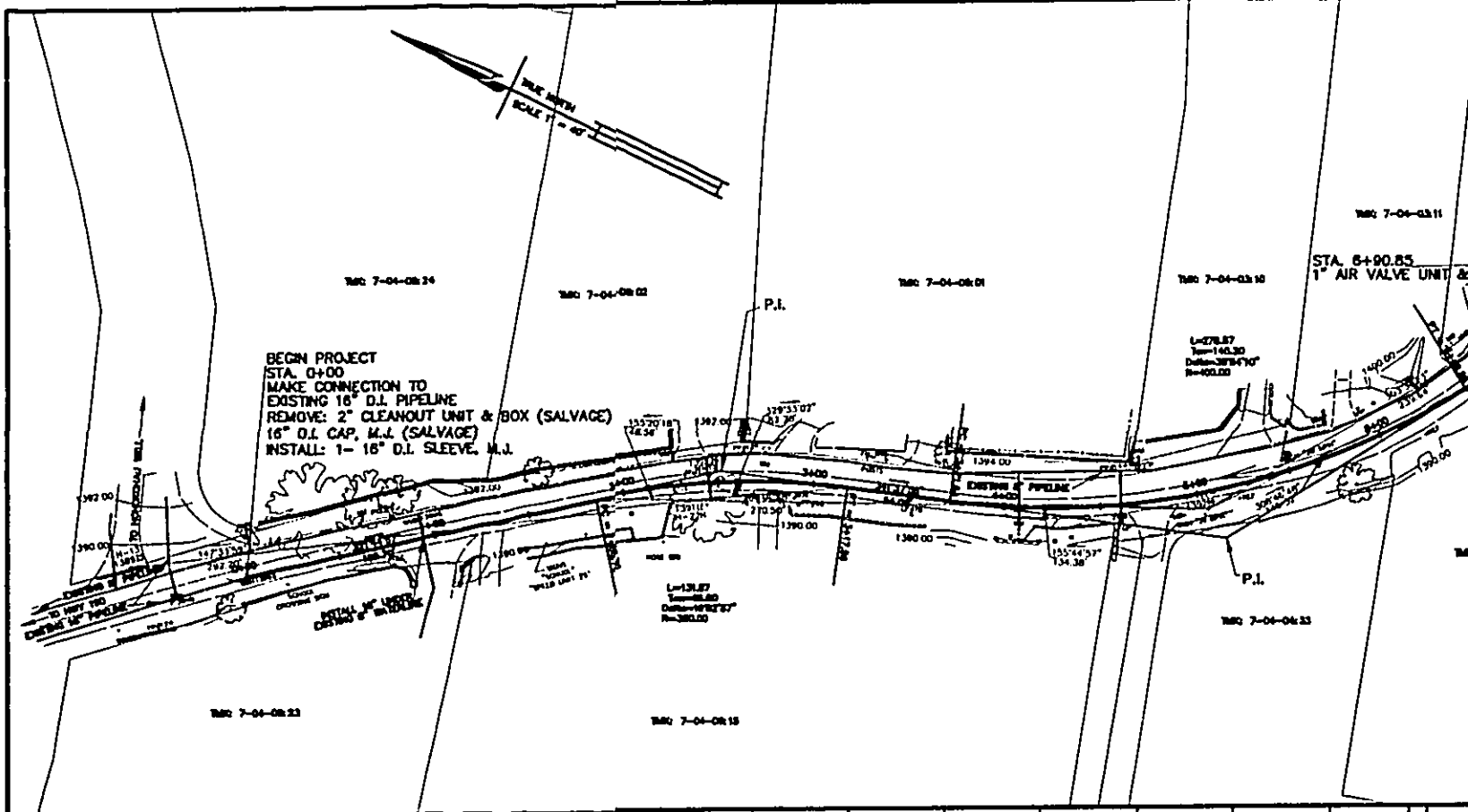
No residence or business establishment will be displaced because of the project.



Source: USGS, Kailua Quadrangle

Figure 1
 Location Map
 Mamalahoa Highway
 Water Line Improvements



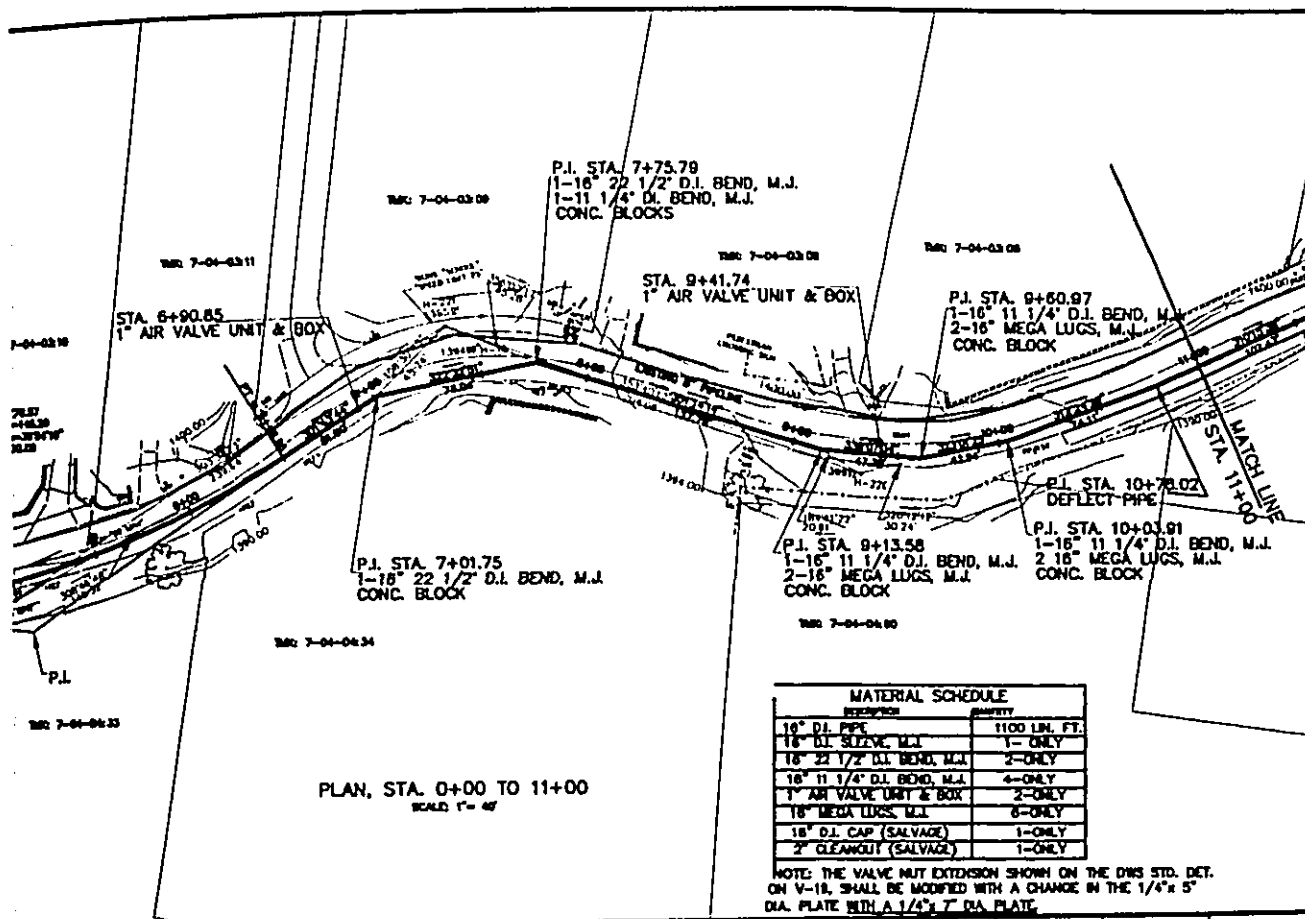


BK, INC.
CIVIL ENGINEERS

875 KNOCKLE STREET
HONOLOULU, HAWAII 96720
TELEPHONE: (808) 961-2125



The work herein prepared by me or under my supervision and authorized by me for this project will be under my observation.

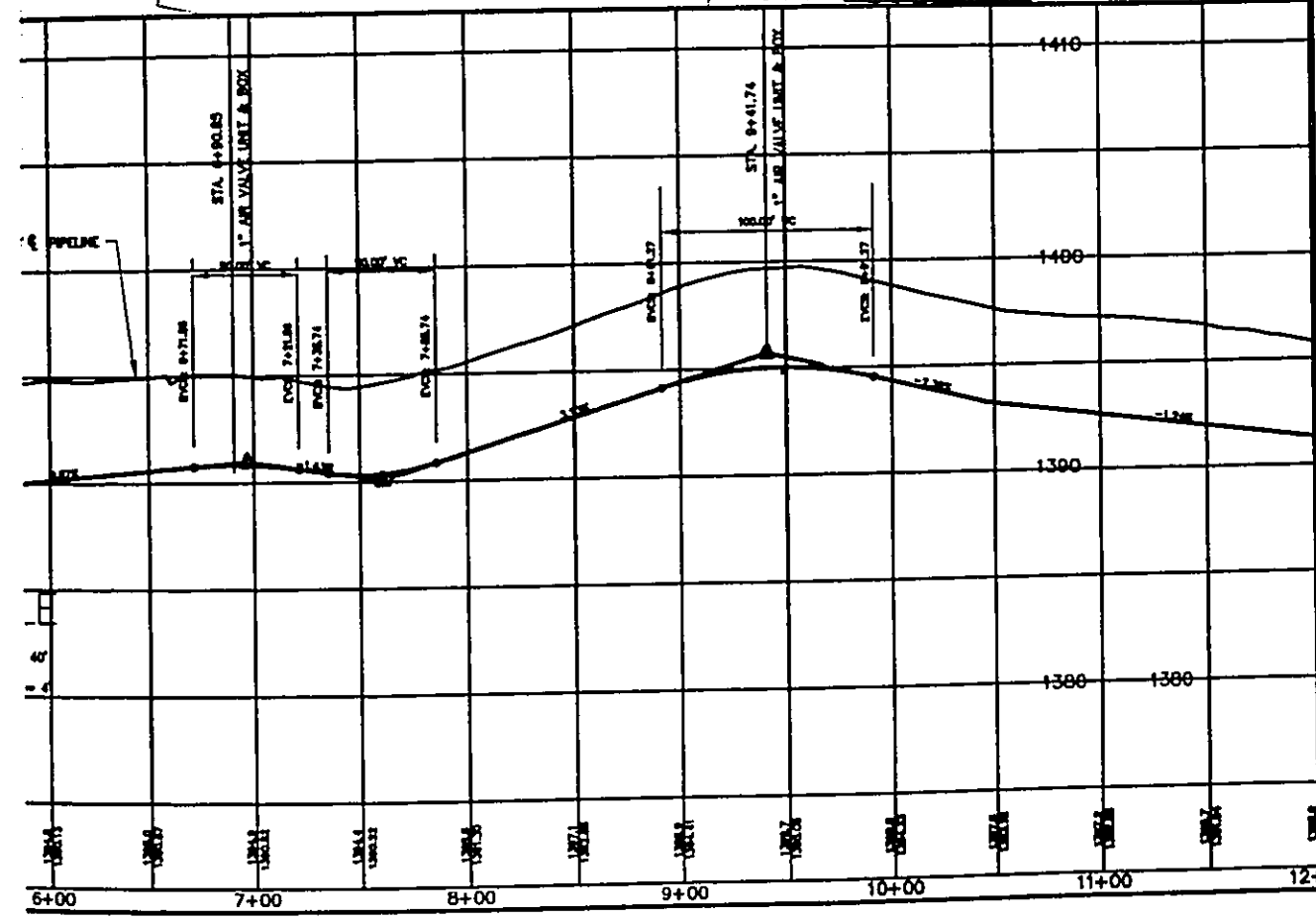


MATERIAL SCHEDULE

DESCRIPTION	QUANTITY
18" DI. PIPE	1100 LIN. FT.
18" DI. ELBOW, M.J.	1-ONLY
18" 22 1/2" DI. BEND, M.J.	2-ONLY
18" 11 1/4" DI. BEND, M.J.	4-ONLY
1" AIR VALVE UNIT & BOX	2-ONLY
18" MEGA LUGS, M.J.	6-ONLY
18" DI. CAP (SALVAGE)	1-ONLY
2" CLEANOUT (SALVAGE)	1-ONLY

NOTE: THE VALVE NUT EXTENSION SHOWN ON THE DWS STD. DET. ON V-18, SHALL BE MODIFIED WITH A CHANGE IN THE 1/4" x 5" DIA. PLATE WITH A 1/4" x 7" DIA. PLATE.

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED BY



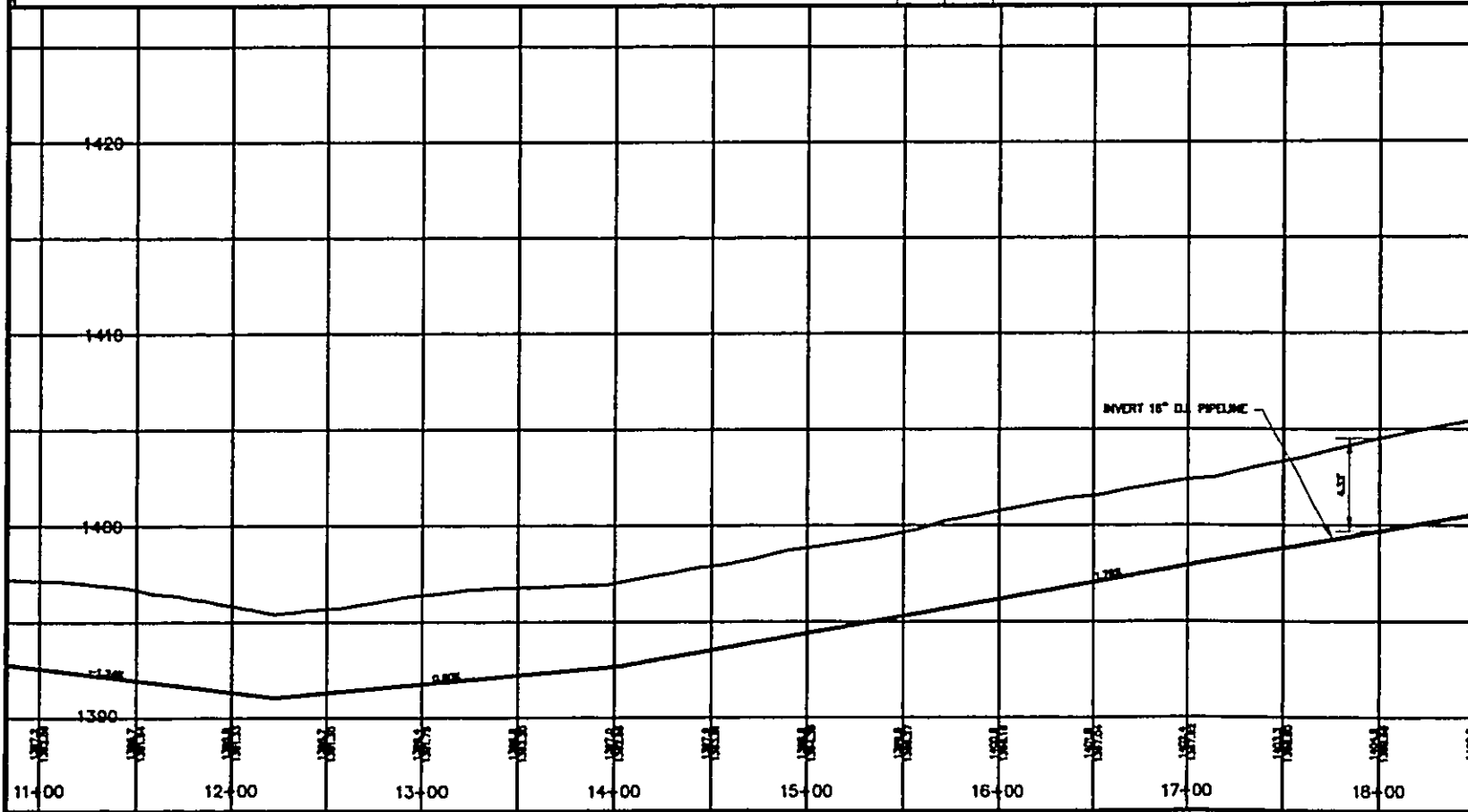
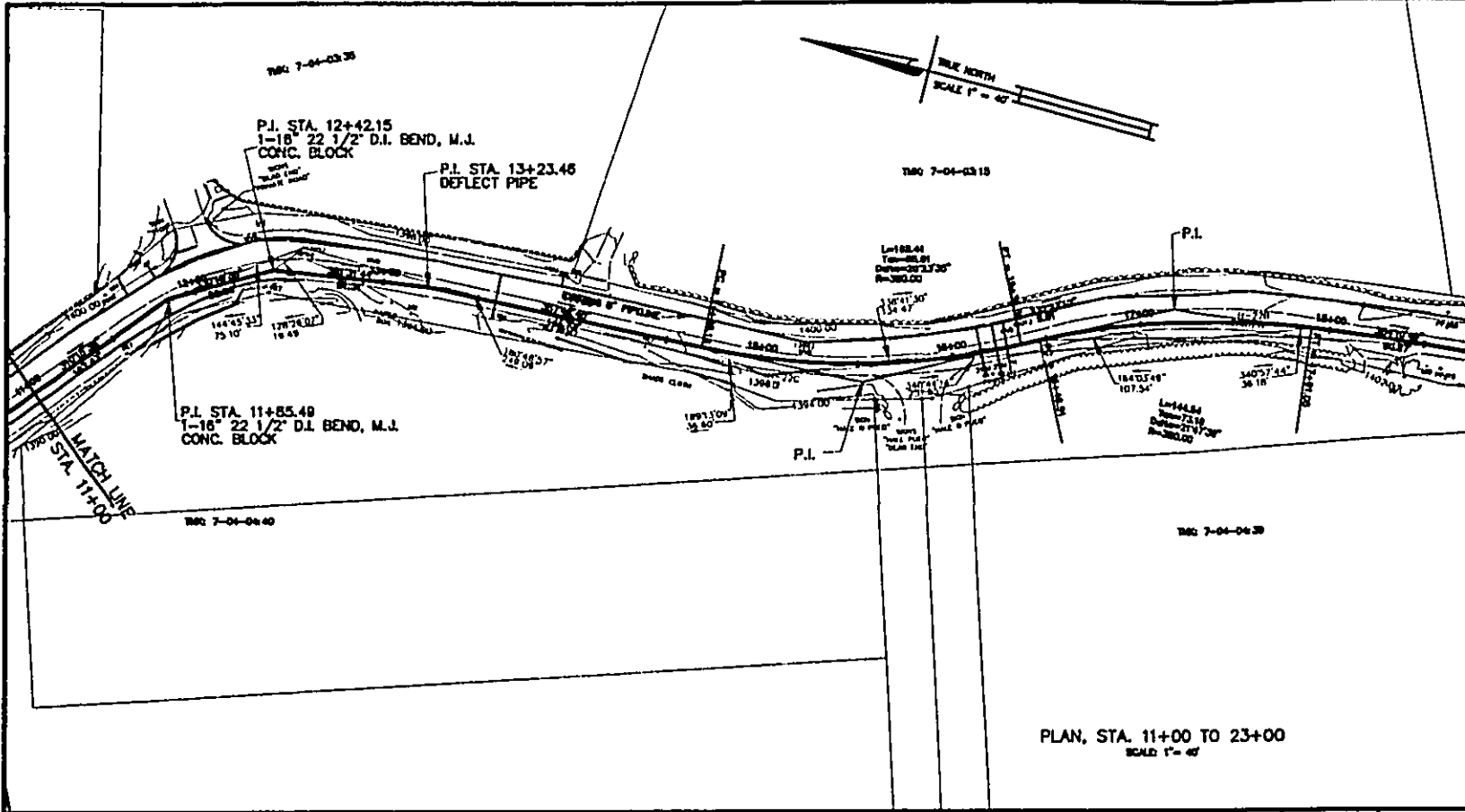
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IMPROVEMENTS - PHASE I**
JOB NO. 2000-806
KEALAKEHE HOMESTEADS, NORTH
KONA, HAWAII

SHEET TITLE:
PLAN AND PROFILE
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DEPARTMENT OF PUBLIC WORKS

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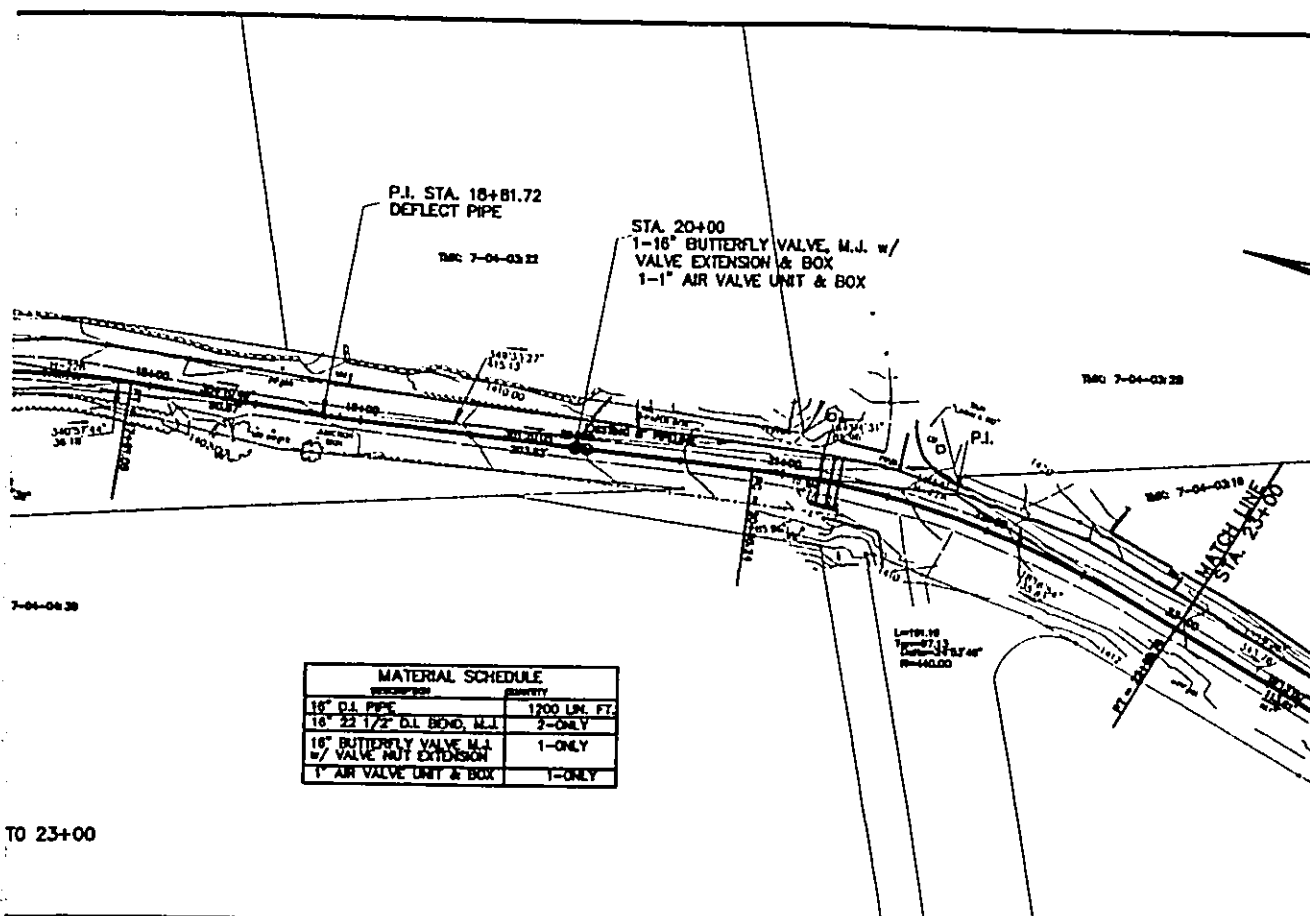


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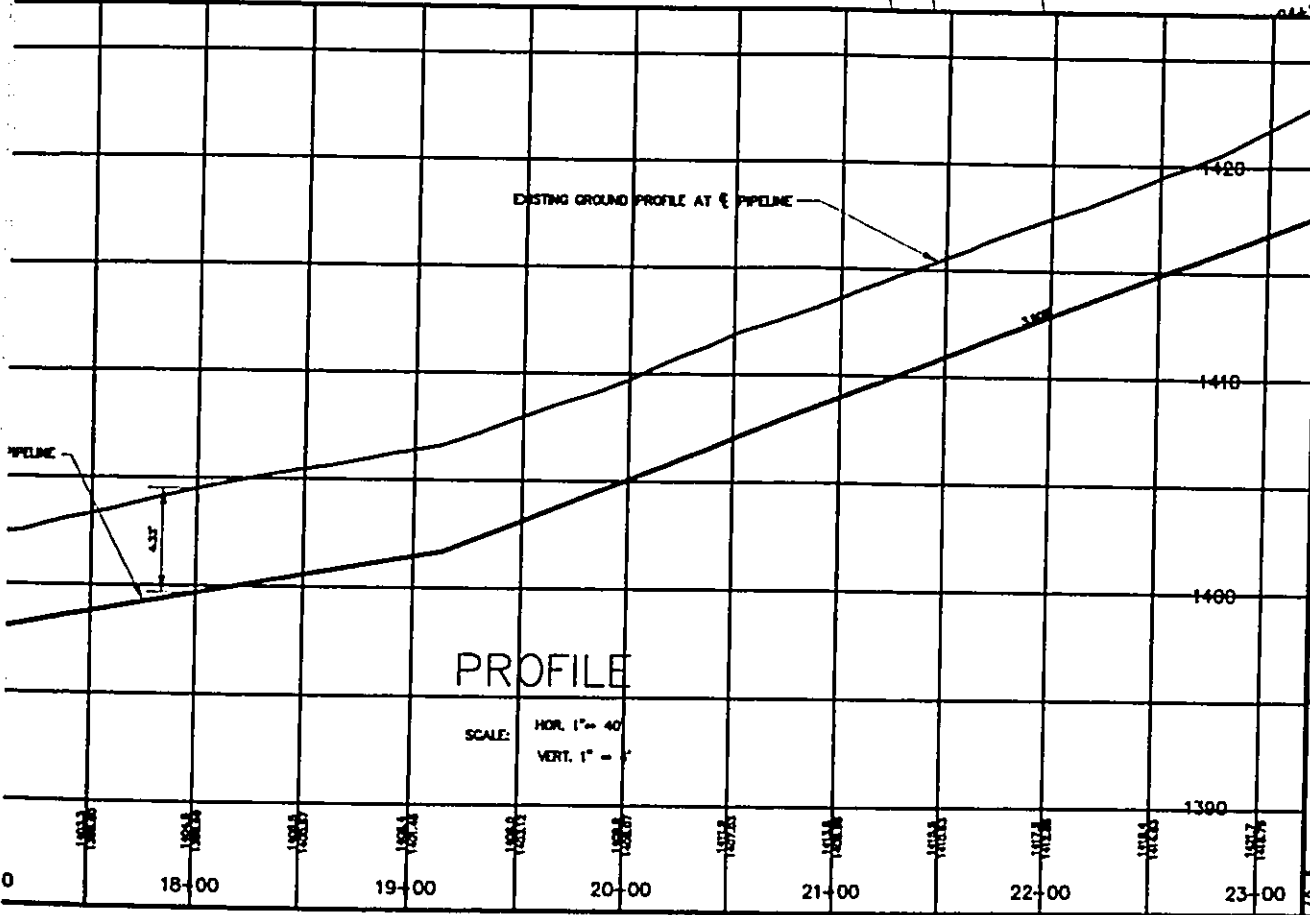


This work was prepared by me or under my supervision and control and I am a duly licensed and registered professional engineer in the State of Hawaii.



DESCRIPTION	QUANTITY
18" D.I. PIPE	1700 L.M. FT.
18" 22 1/2" D.I. BOND. M.I.	2-ONLY
18" BUTTERFLY VALVE M.I. w/ VALVE MUT. EXTENSION	1-ONLY
1" AIR VALVE UNIT & BOX	1-ONLY

REVISION DATE	DESCRIPTION	MADE BY	APPROVED



**MAMALAHOA HIGHWAY WATERLINE
IMPROVEMENTS - PHASE I**
JOB NO. 2000-806
KEALAKEHE HOMESTEADS, NORTH
KONA, HAWAII

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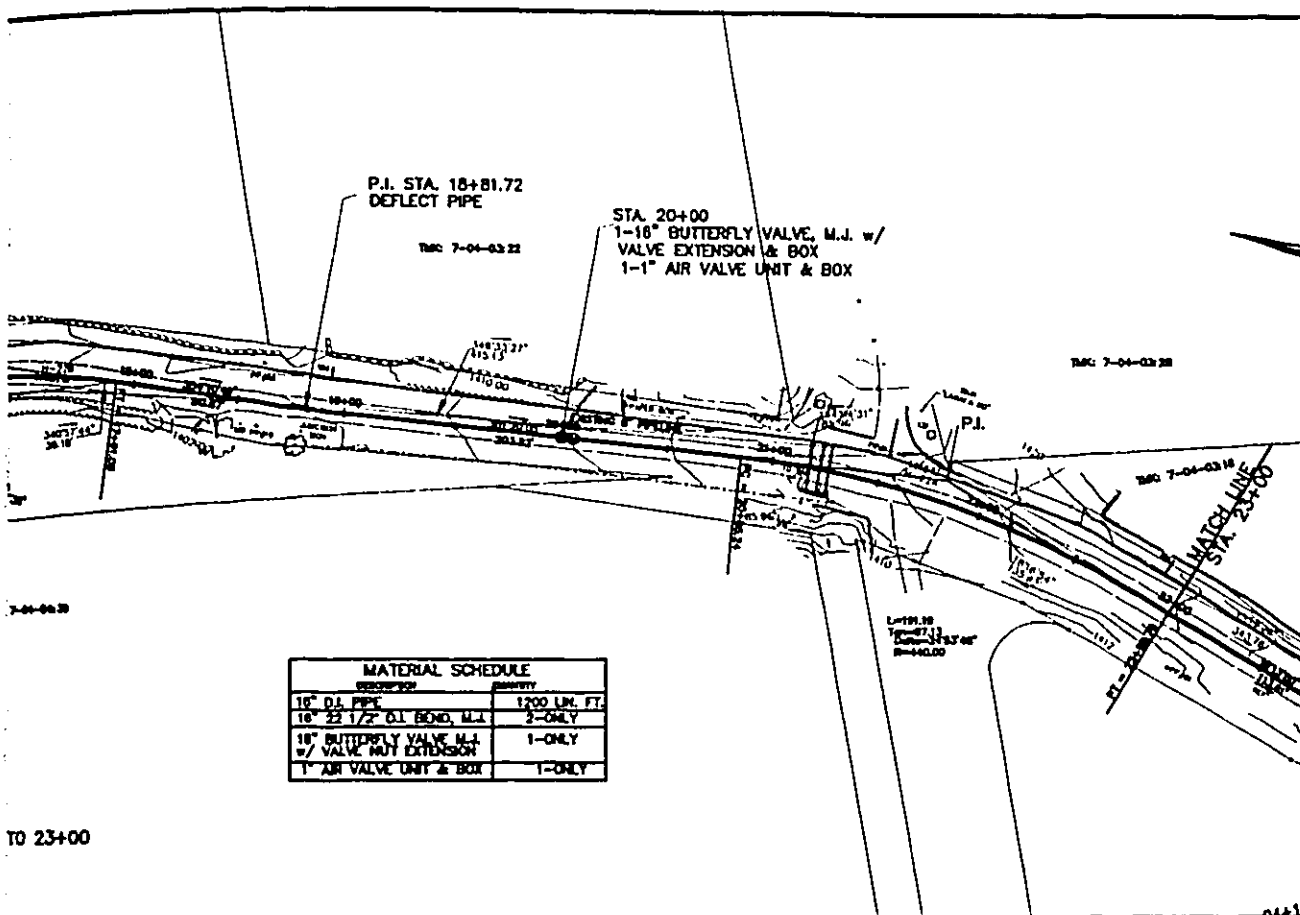
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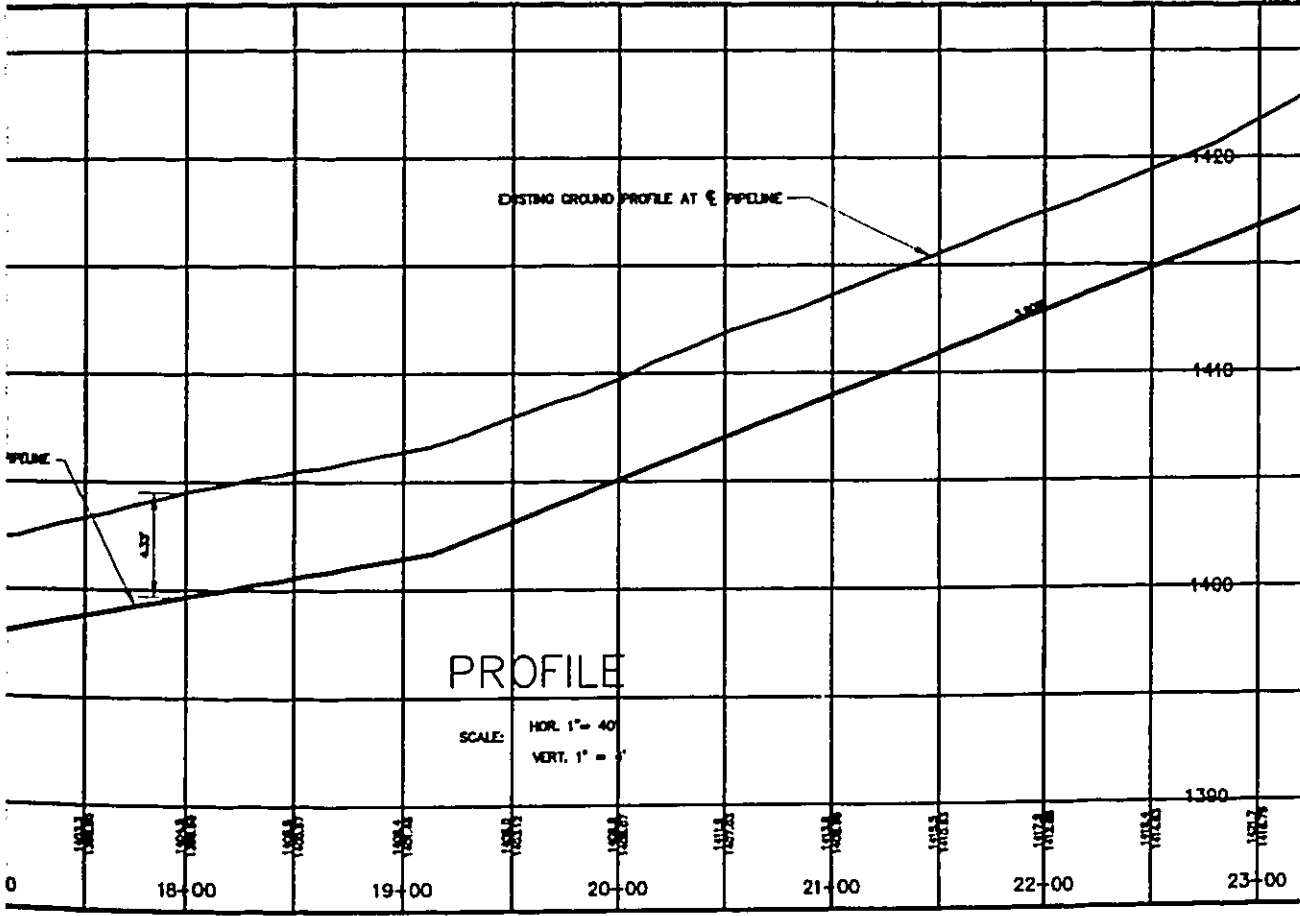


This work was prepared by me or under my supervision and construction of this project will be under my observation.



MATERIAL SCHEDULE	
DESCRIPTION	QUANTITY
18" D.I. PIPE	1200 LIN. FT.
16" 22 1/2" O.I. BOND, M.I.	2-ONLY
18" BUTTERFLY VALVE, M.I. w/ VALVE MUT EXTENSION	1-ONLY
1" AIR VALVE UNIT & BOX	1-ONLY

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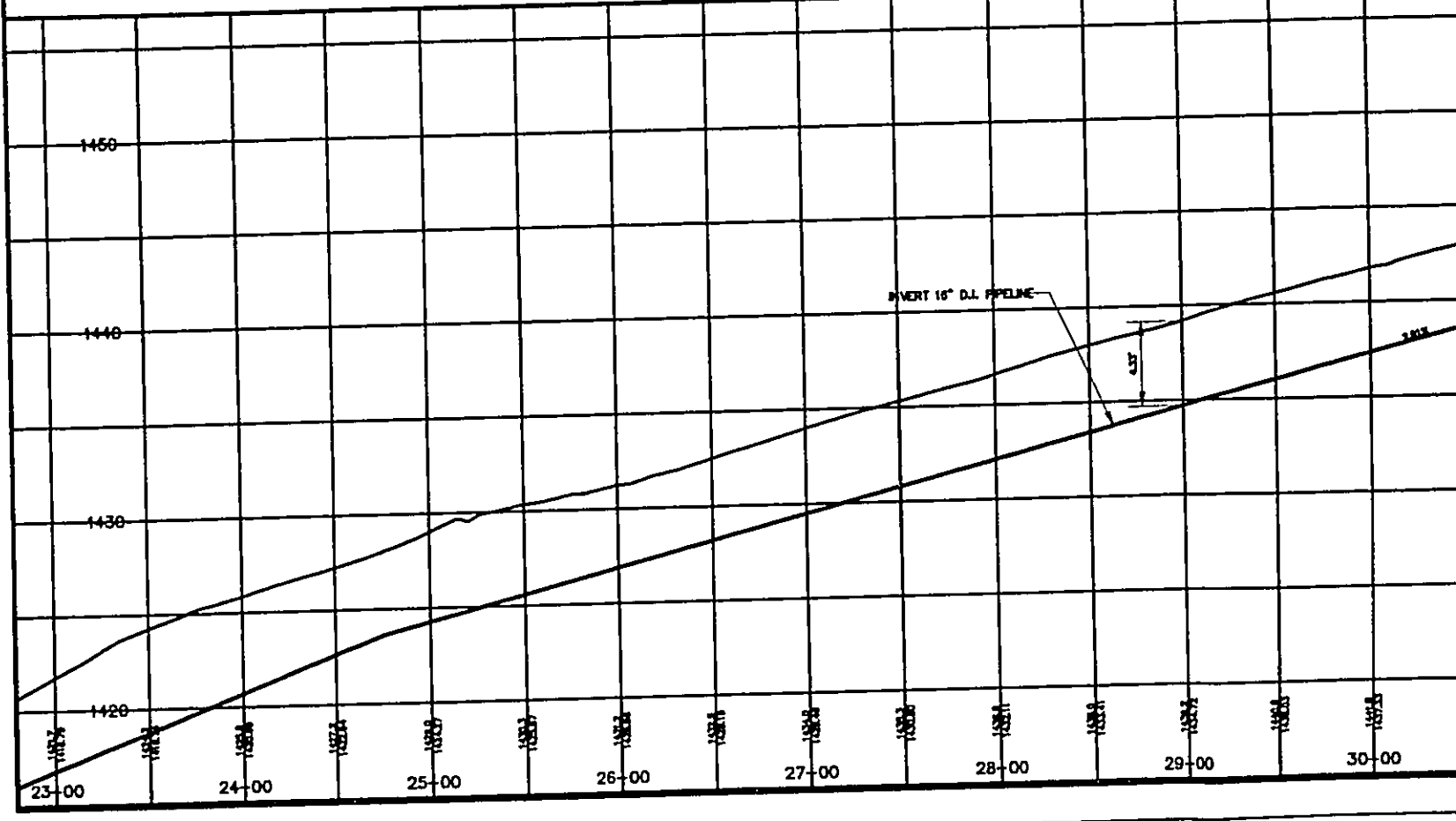
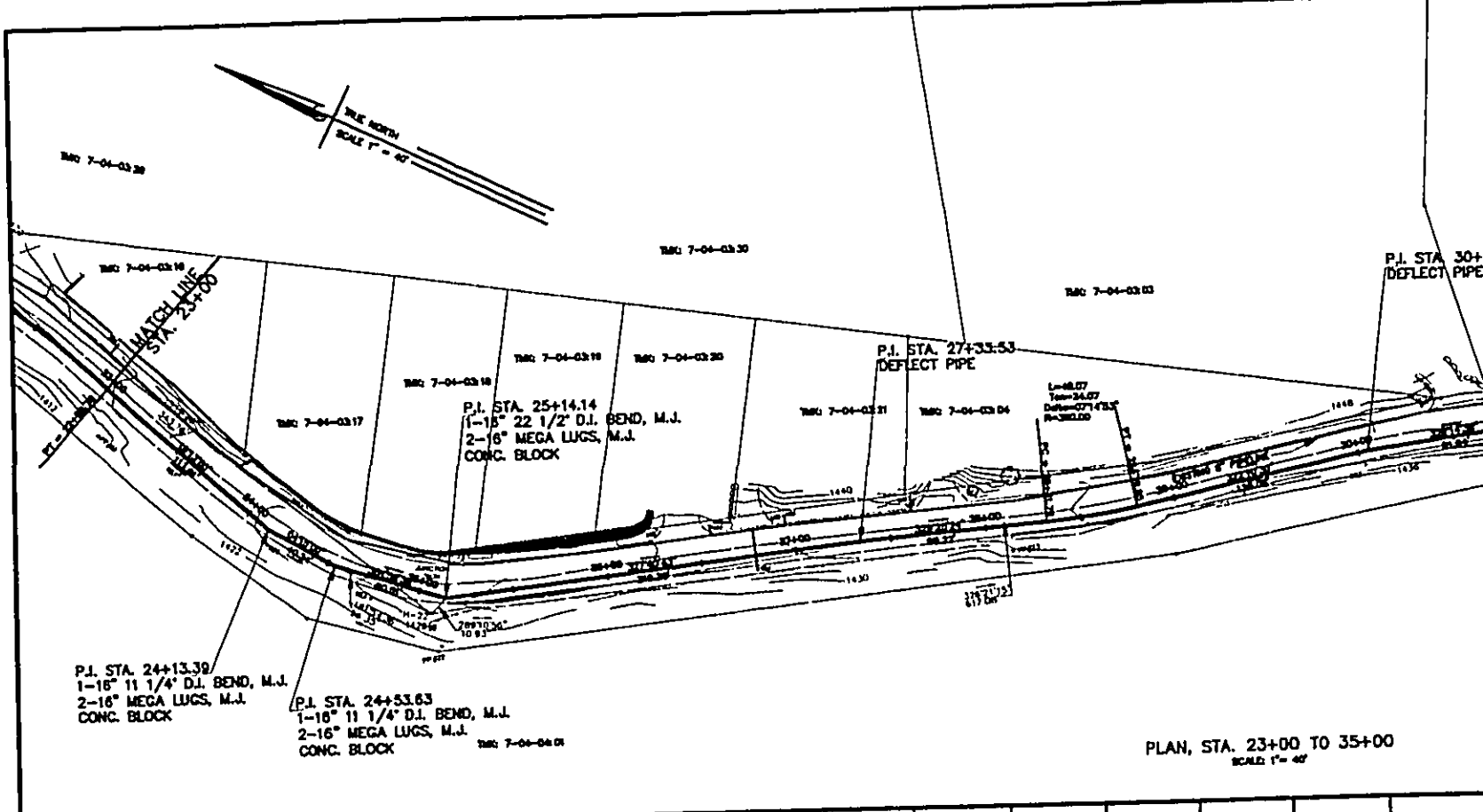
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 KONA, HAWAII

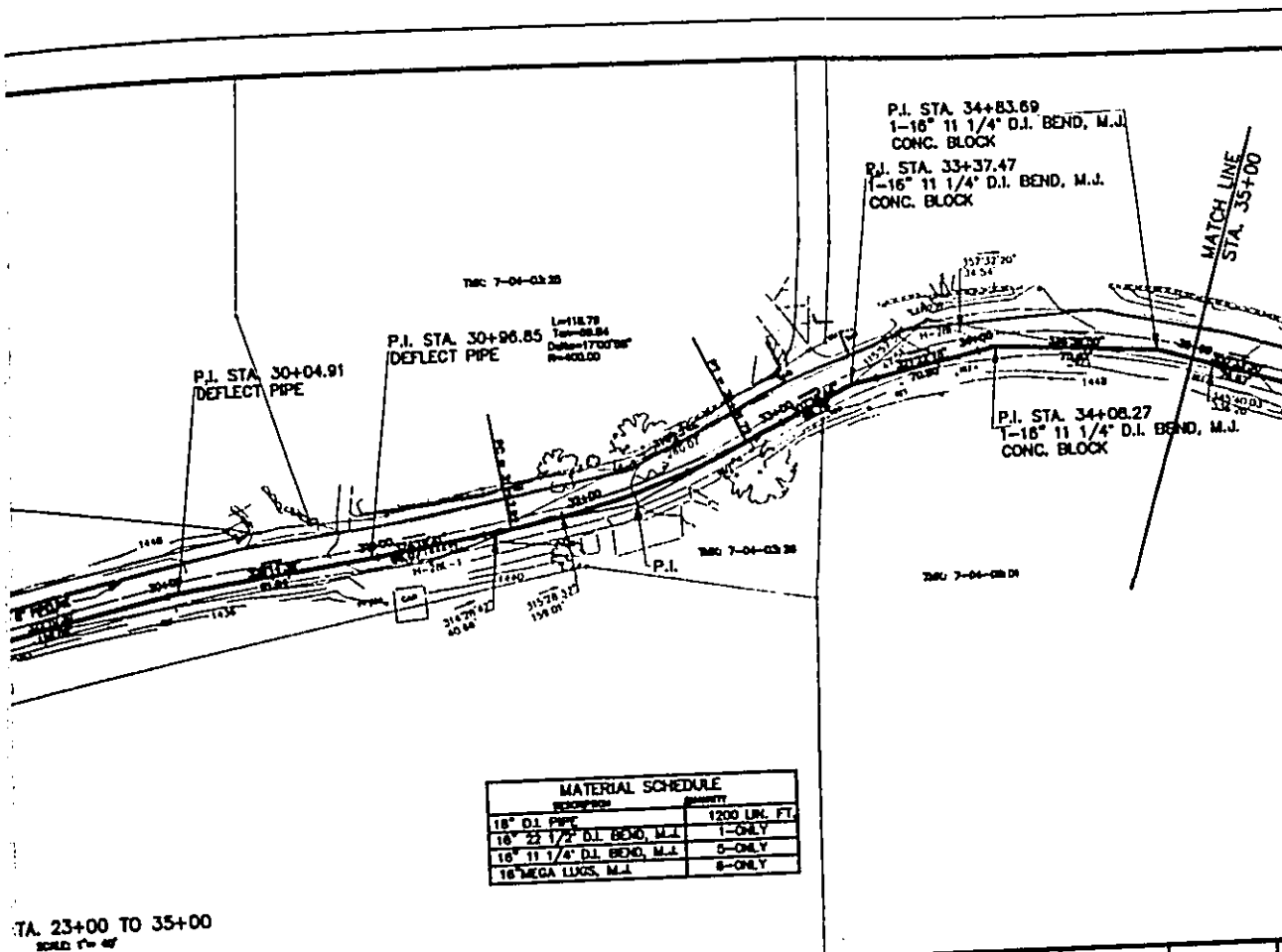
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 DEPARTMENT OF PUBLIC WORKS
 DATE: _____

SHEET 5 OF 11 SHEETS





MATERIAL SCHEDULE

DESCRIPTION	QUANTITY
18" DI PIPE	1200 LIN. FT.
18" 22 1/2" D.I. BEND, M.J.	1-ONLY
18" 11 1/4" D.I. BEND, M.J.	5-ONLY
18" MEGA LUGS, M.J.	8-ONLY

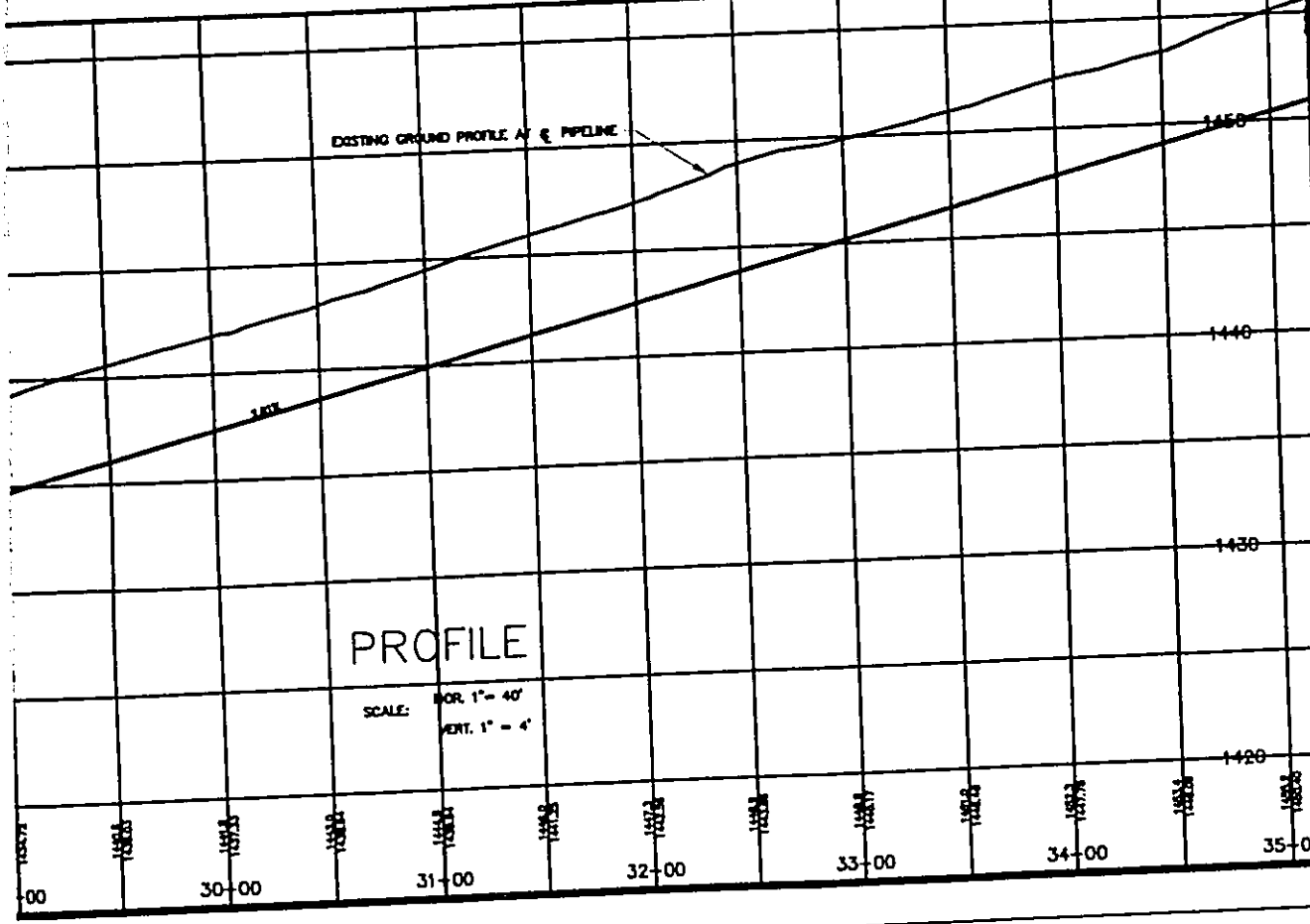
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875 KINOOLE STREET
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TELEPHONE: (808) 961-2125



This work was prepared by me or under my supervision and I am a duly licensed professional engineer in the State of Hawaii. My registration number is 03483-C.

PERSON	DATE	DESCRIPTION	MADE BY	APPROVED



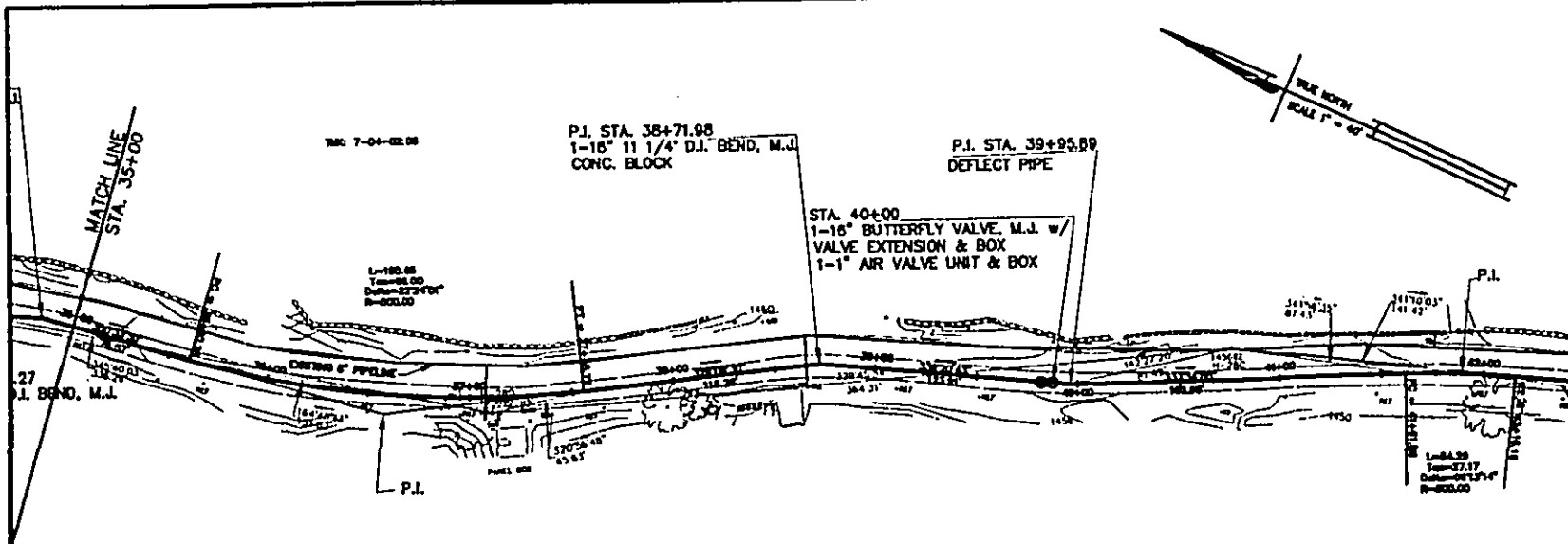
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KEALAKEHE HOMESTEADS, NORTH
KONA HAWAII

SHEET TITLE:
PLAN AND PROFILE
STA. 23+00 TO STA. 35+00

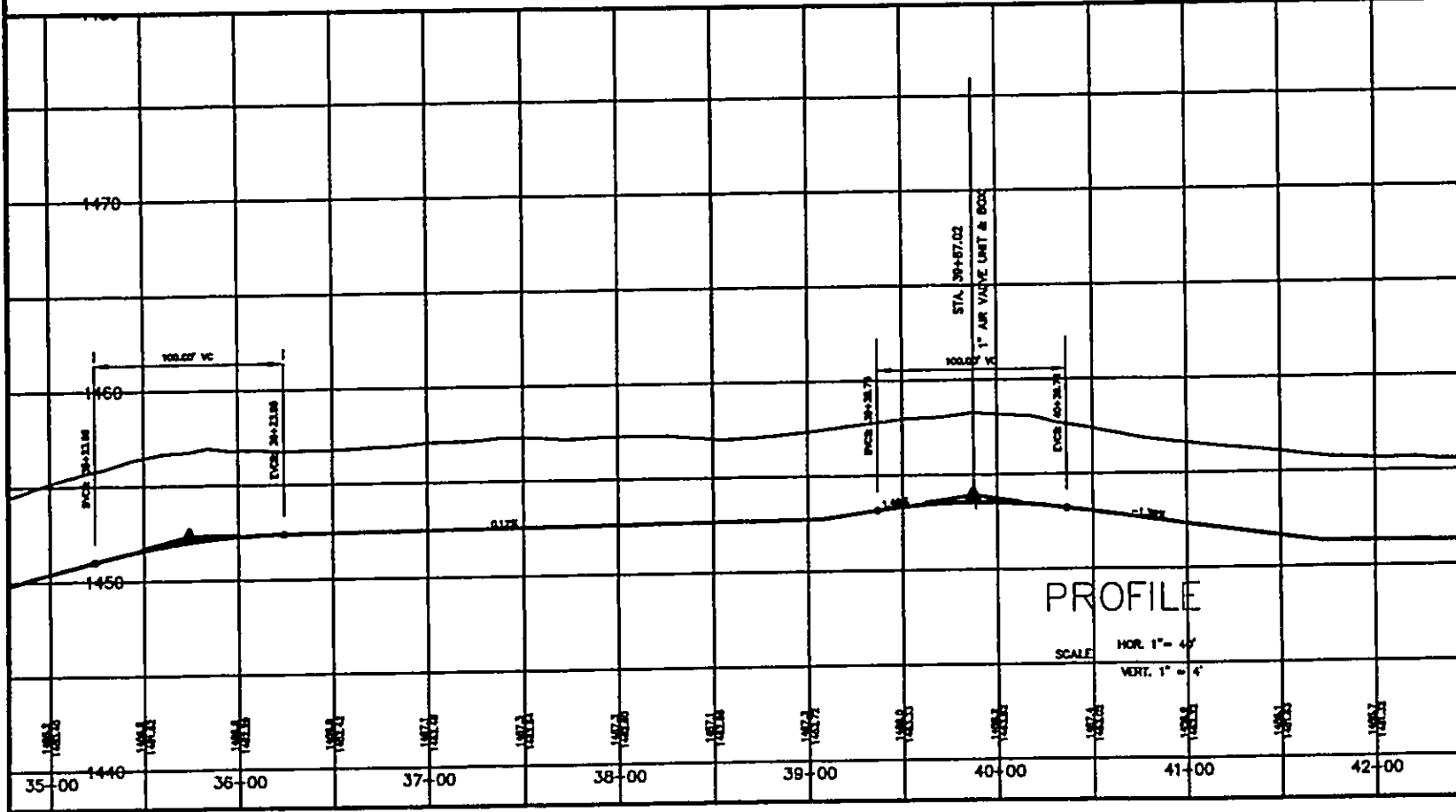
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PLAN, STA. 35+00 TO 47+00
 SCALE 1" = 40'



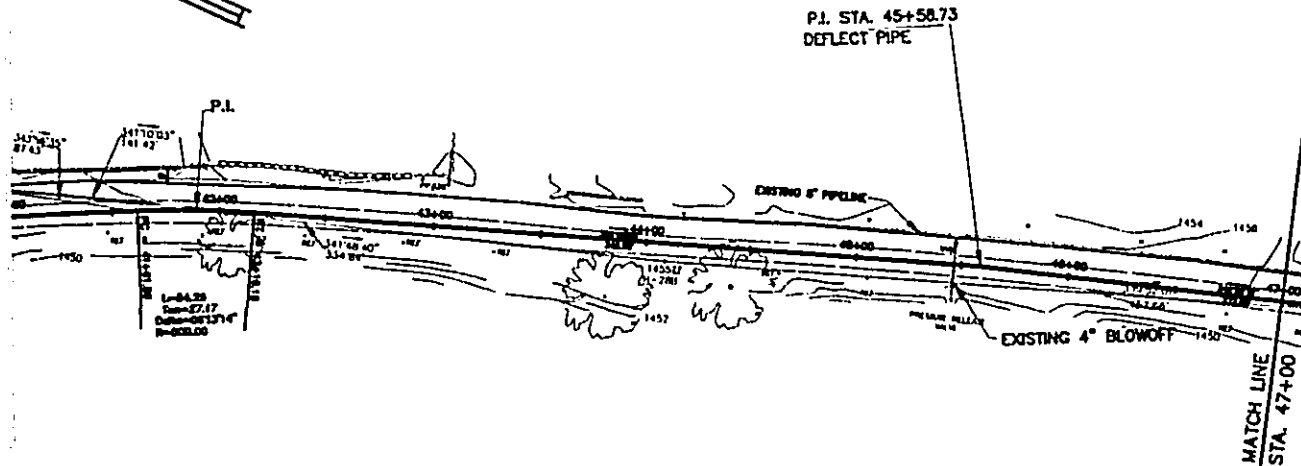
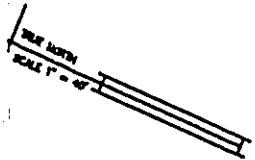
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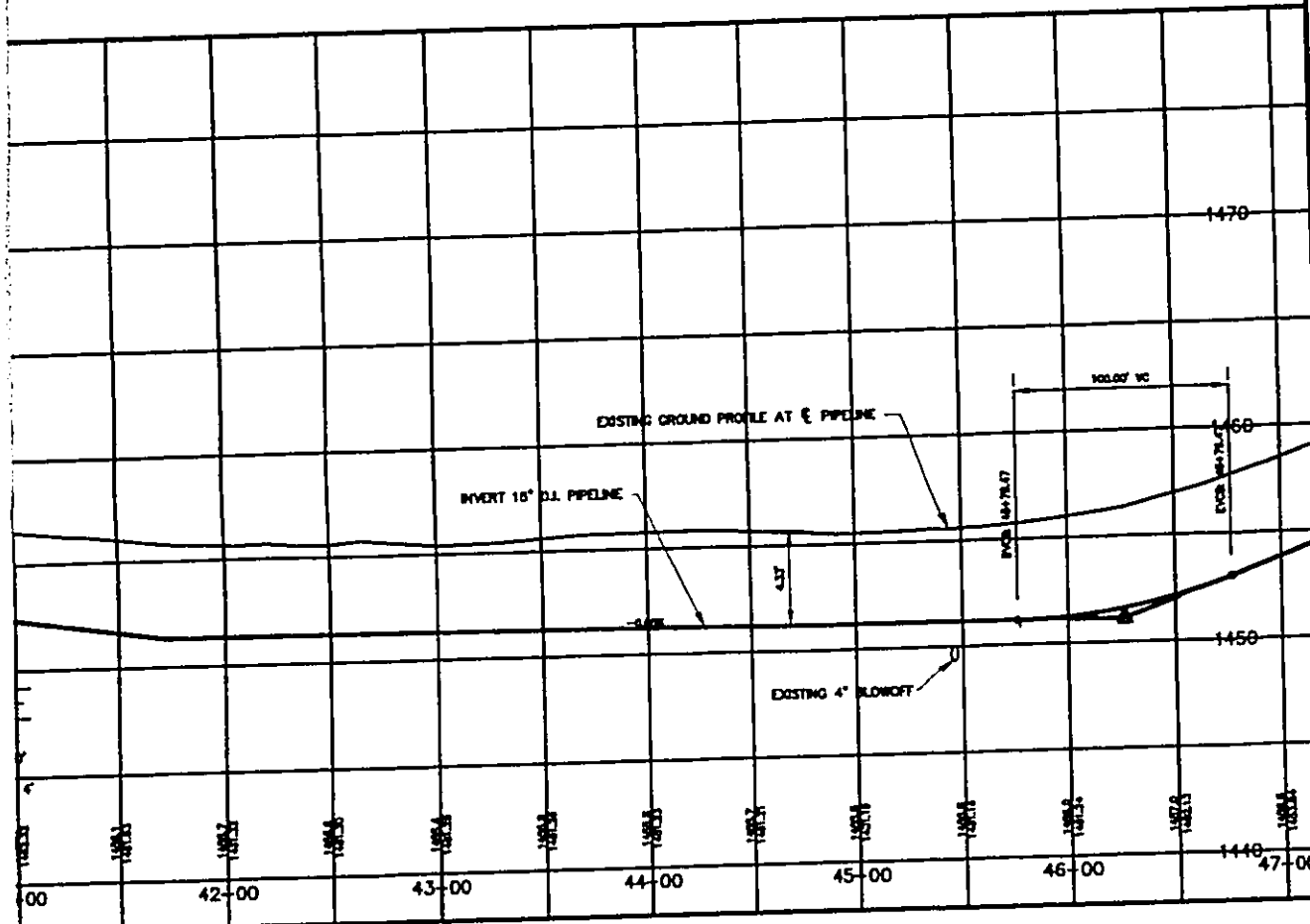
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TRC 7-04-02 DR



MATERIAL SCHEDULE	
DESCRIPTION	QUANTITY
16" D.I. PIPE	1200 LMC. FT.
16" 11 1/4" O.D. BEND, M.I.	1-O-N-L-Y
16" BUTTERFLY VALVE M.I.	1-O-N-L-Y
1/2" VALVE NUT EXTENSION	1-O-N-L-Y
1" AIR VALVE UNIT & BOX	1-O-N-L-Y

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED



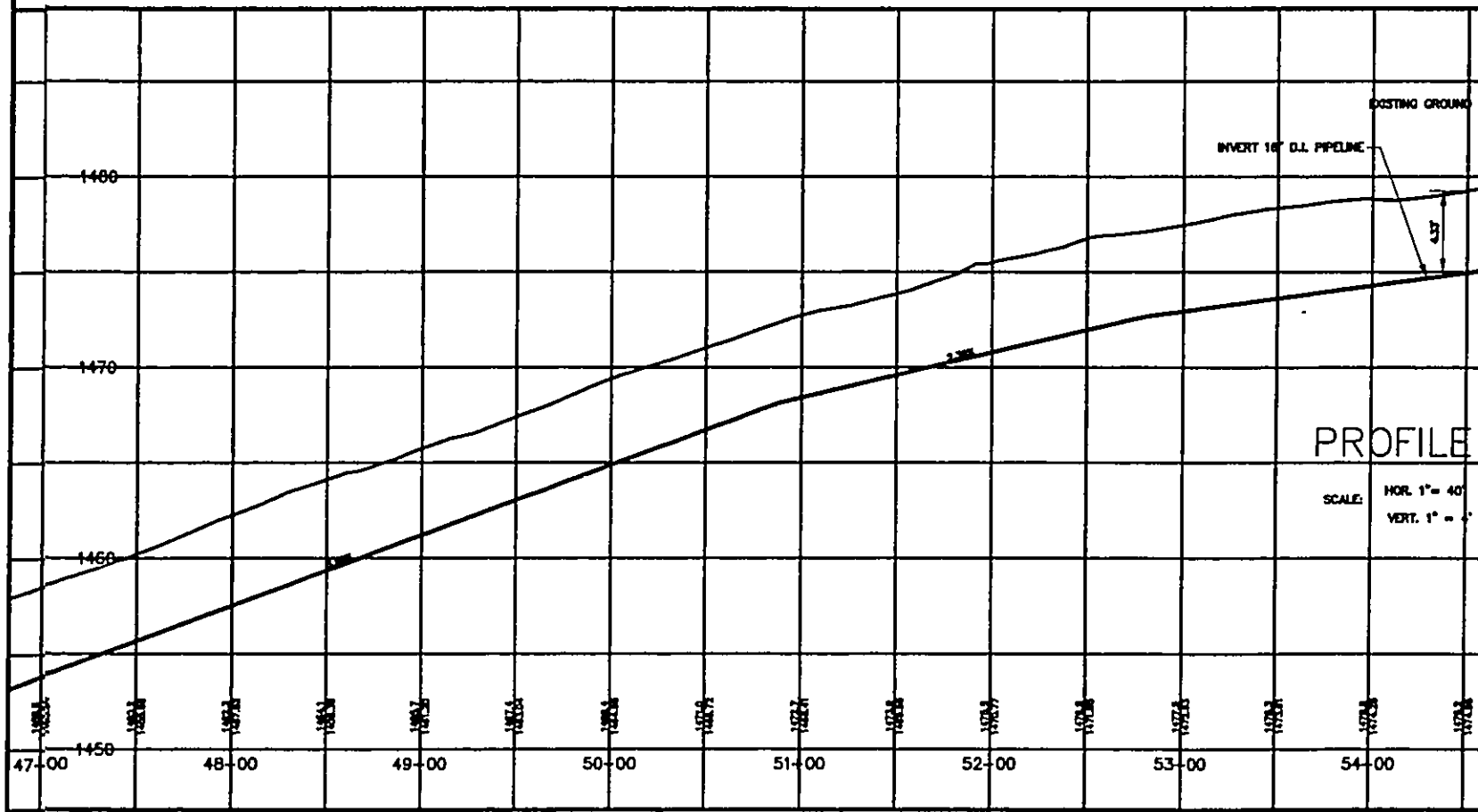
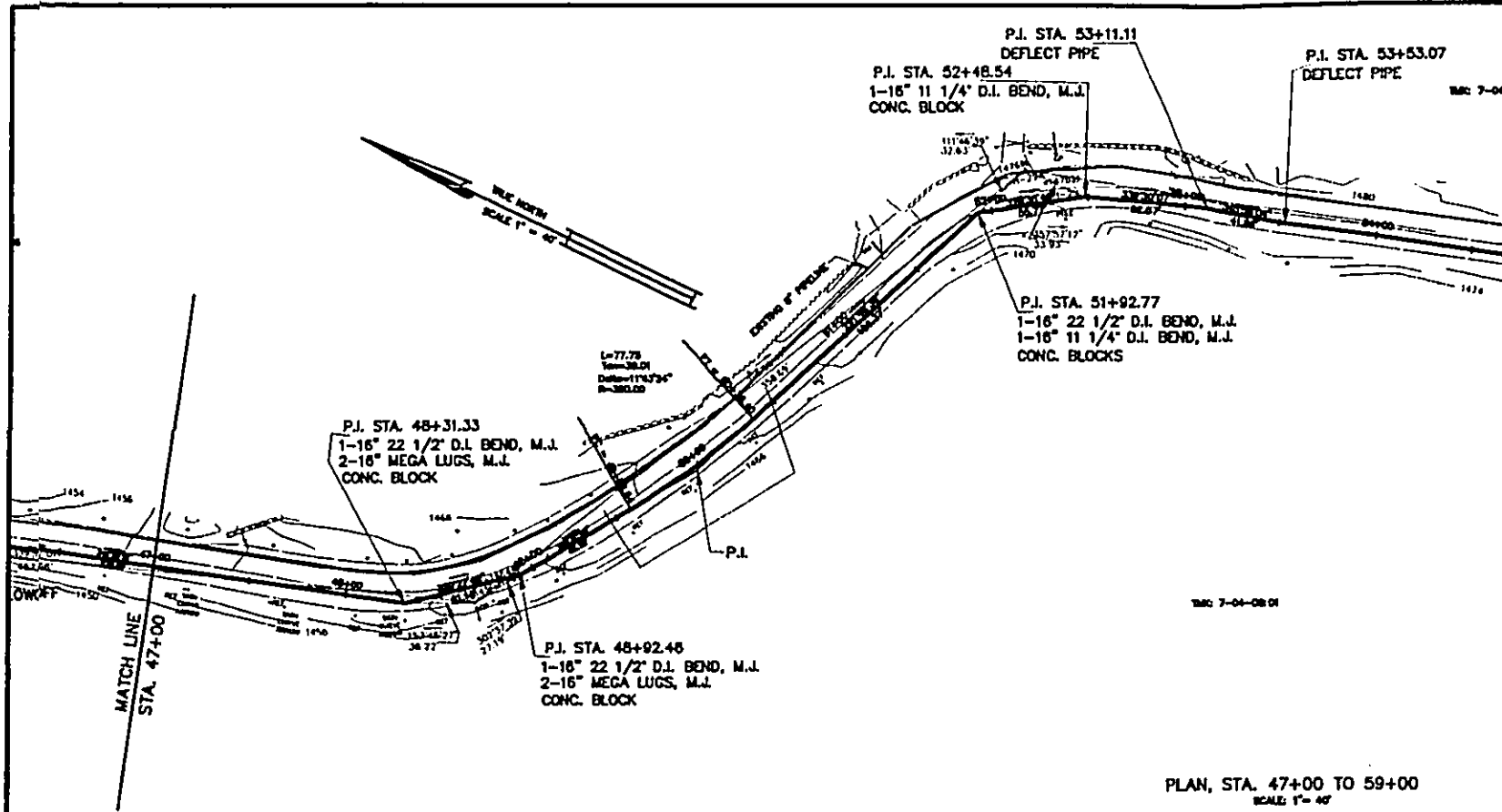
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 KONA, HAWAII

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SHEET 7 OF 11 SHEETS

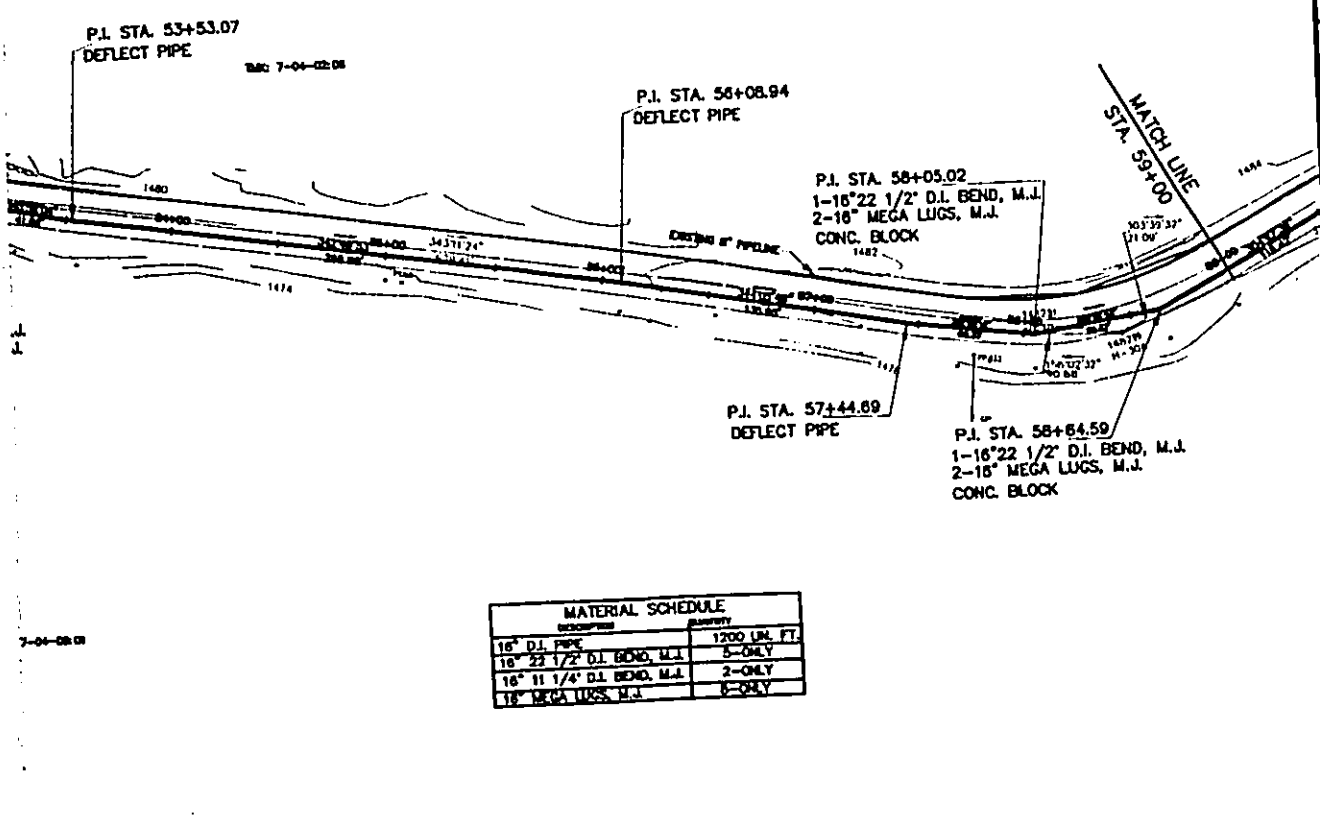


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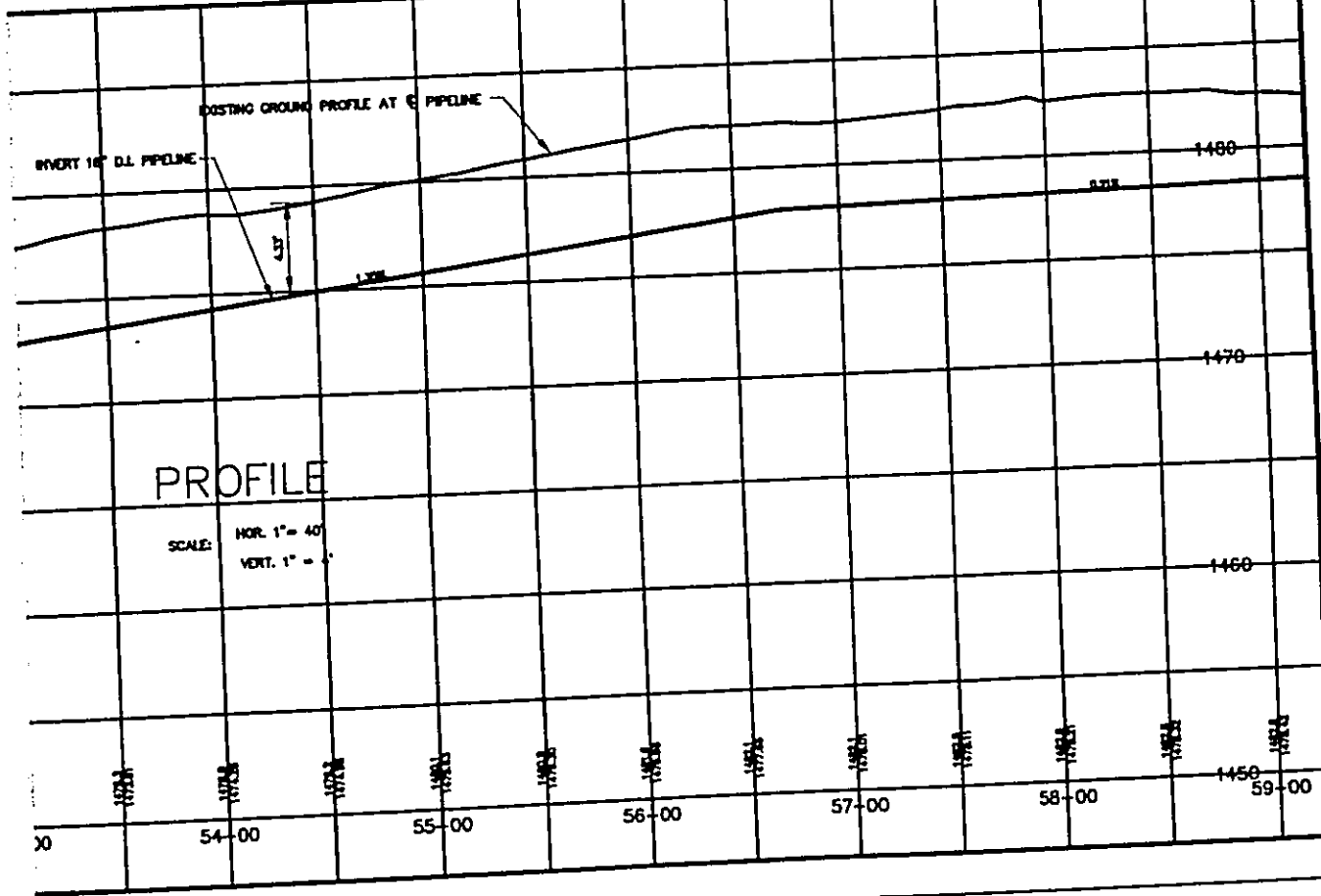
This work was prepared by me or under my supervision and I am a duly licensed professional engineer. I will be under my jurisdiction.



MATERIAL SCHEDULE		QUANTITY
16" D.I. PIPE		1200 LIN. FT.
16" 22 1/2" D.I. BEND, M.J.		5-ONLY
16" 11 1/4" D.I. BEND, M.J.		2-ONLY
18" MEGA LUGS, M.J.		6-ONLY

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED

STA. 47+00 TO 59+00
SCALE: 1" = 40'



MAMALAHOA HIGHWAY WATERLINE
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JOB NO. 2000-806
KEALAKEHE HOMESTEADS, NORTH
KONA, HAWAII

SHEET TITLE:
PLAN AND PROFILE
STA. 47+00 TO STA. 59+00

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DESIGN CHIEF, WASTEWATER DIVISION
DEPARTMENT OF PUBLIC WORKS

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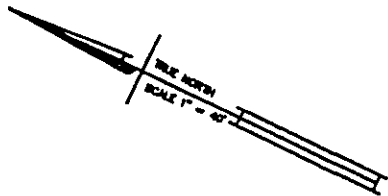
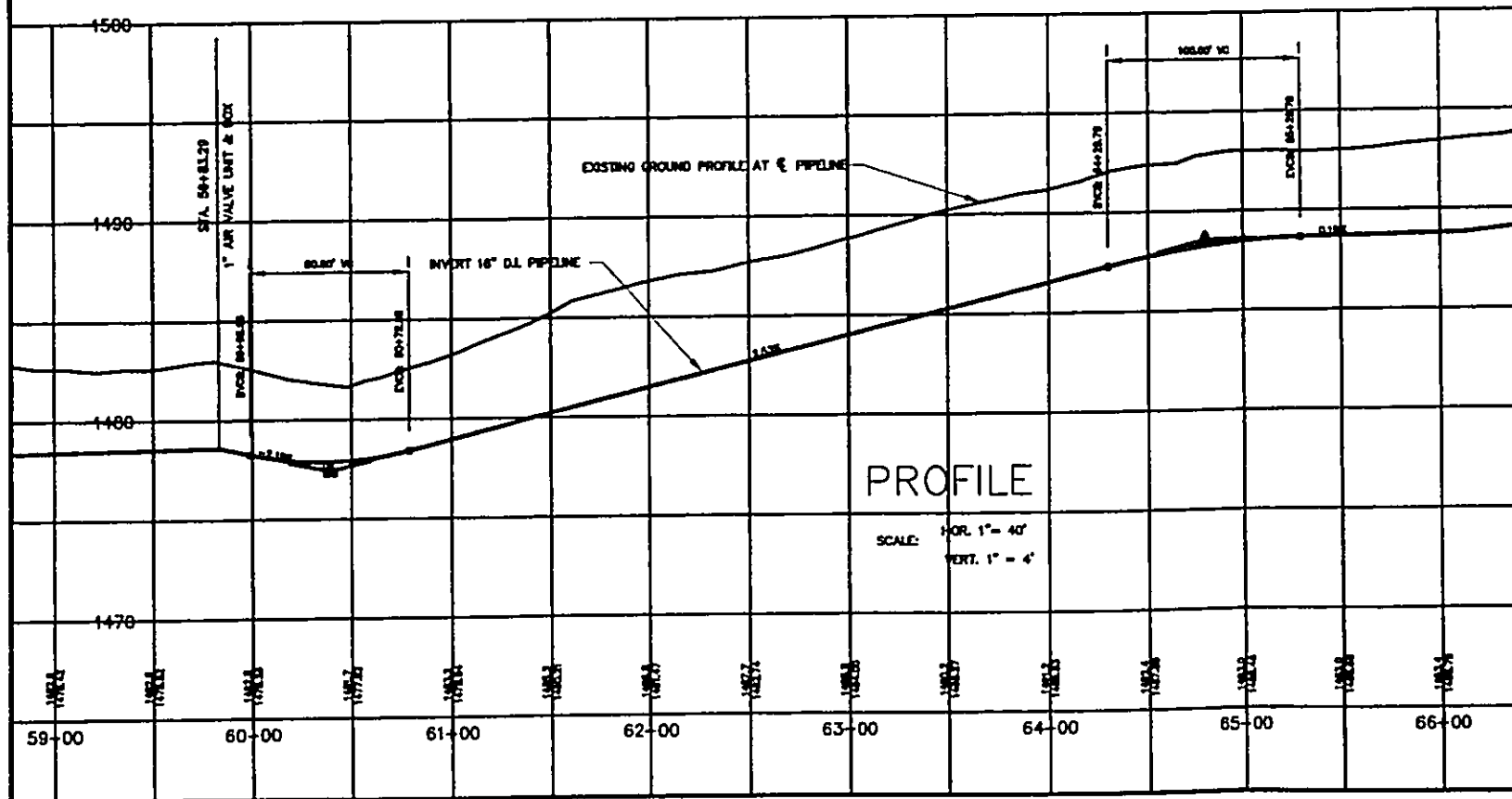
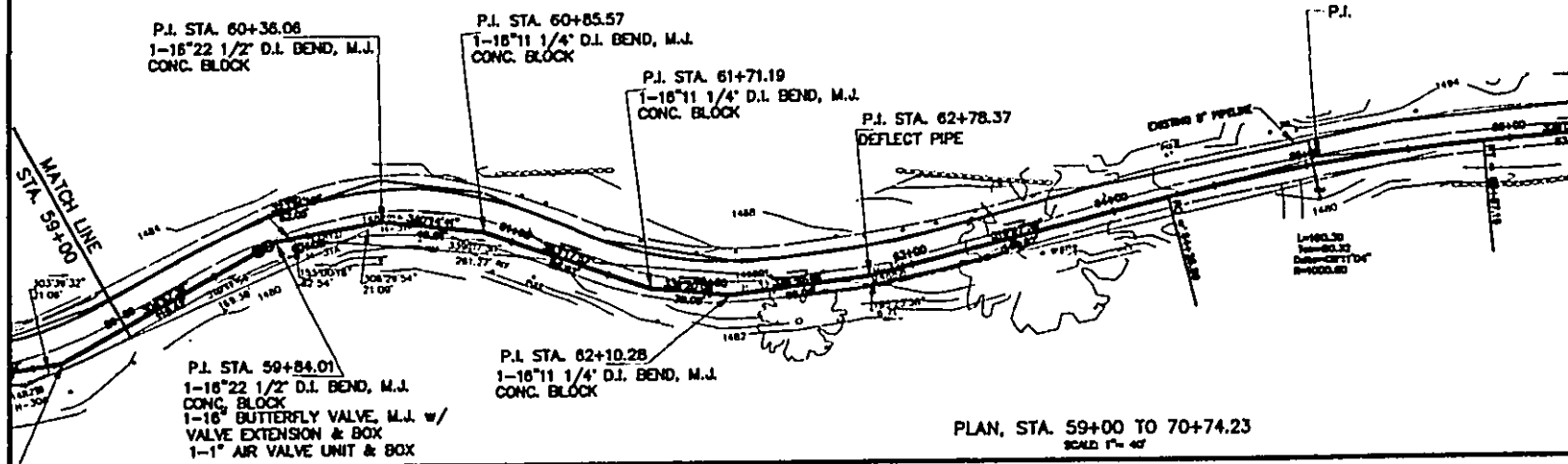


FIG. 7-04-02-06



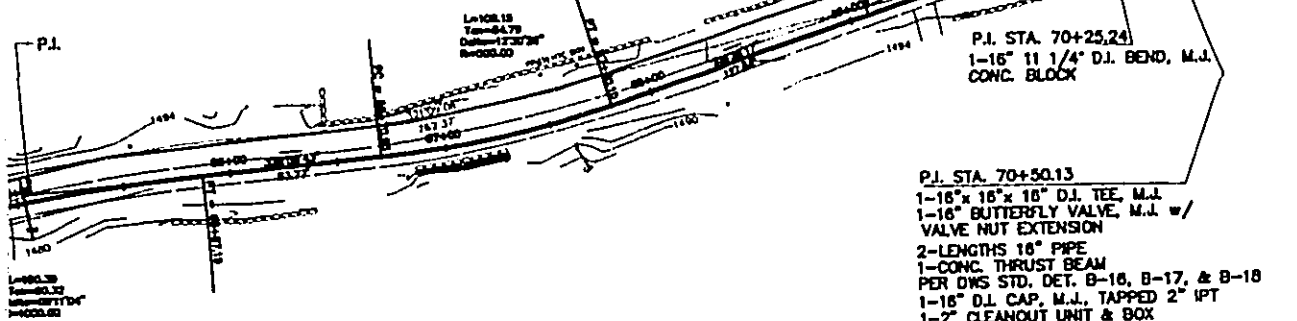
DESCRIPTION	QUANTITY
18" D.I. PIPE	1210 LIN. FT.
18" 22 1/2" D.I. BEND, M.J.	2-ONLY
18" 11 1/4" D.I. BEND, M.J.	5-ONLY
18" BUTTERFLY VALVE, M.J. w/ VALVE NUT EXTENSION	2-ONLY
1" AIR VALVE UNIT & BOX	1-ONLY
18" x 18" x 18" D.I. TEE, M.J.	1-ONLY
CONCRETE THRUST BEAM	1-ONLY
18" D.I. CAP, TAPPED 2" IPT	1-ONLY
2" CLEANOUT UNIT & BOX	1-ONLY
18" D.I. SLEEVE, M.J.	1-ONLY
VERTICAL THRUST BLOCK	1-ONLY
18" D.I. CAP (SALVAGE)	1-ONLY
2" CLEANOUT UNIT & BOX (SALVAGE)	1-ONLY

P.I. STA. 70+74.23
 MAKE CONNECTION TO
 EXISTING 18" PIPELINE
 REMOVE:
 18" CAP AND 2" CLEANOUT (SALVAGE)
 INSTALL:
 1-18" D.I. SLEEVE, M.J.
 2-18" 11 1/4" D.I. BEND, M.J.
 1-VERTICAL THRUST BLOCK
 SEE DET. DWS STD. DET. B-7
 (A=5'-3", B=4'-3" & D=3'-0")
 CONC. BLOCKS

P.I. STA. 62+78.37
 DEFLECT PIPE

P.I. STA. 70+25.24
 1-18" 11 1/4" D.I. BEND, M.J.
 CONC. BLOCK

P.I. STA. 70+50.13
 1-18" x 18" x 18" D.I. TEE, M.J.
 1-18" BUTTERFLY VALVE, M.J. w/
 VALVE NUT EXTENSION
 2-LENGTHS 18" PIPE
 1-CONC. THRUST BEAM
 PER DWS STD. DET. B-16, B-17, & B-18
 1-18" D.I. CAP, M.J., TAPPED 2" IPT
 1-2" CLEANOUT UNIT & BOX
 CONC. BLOCKS



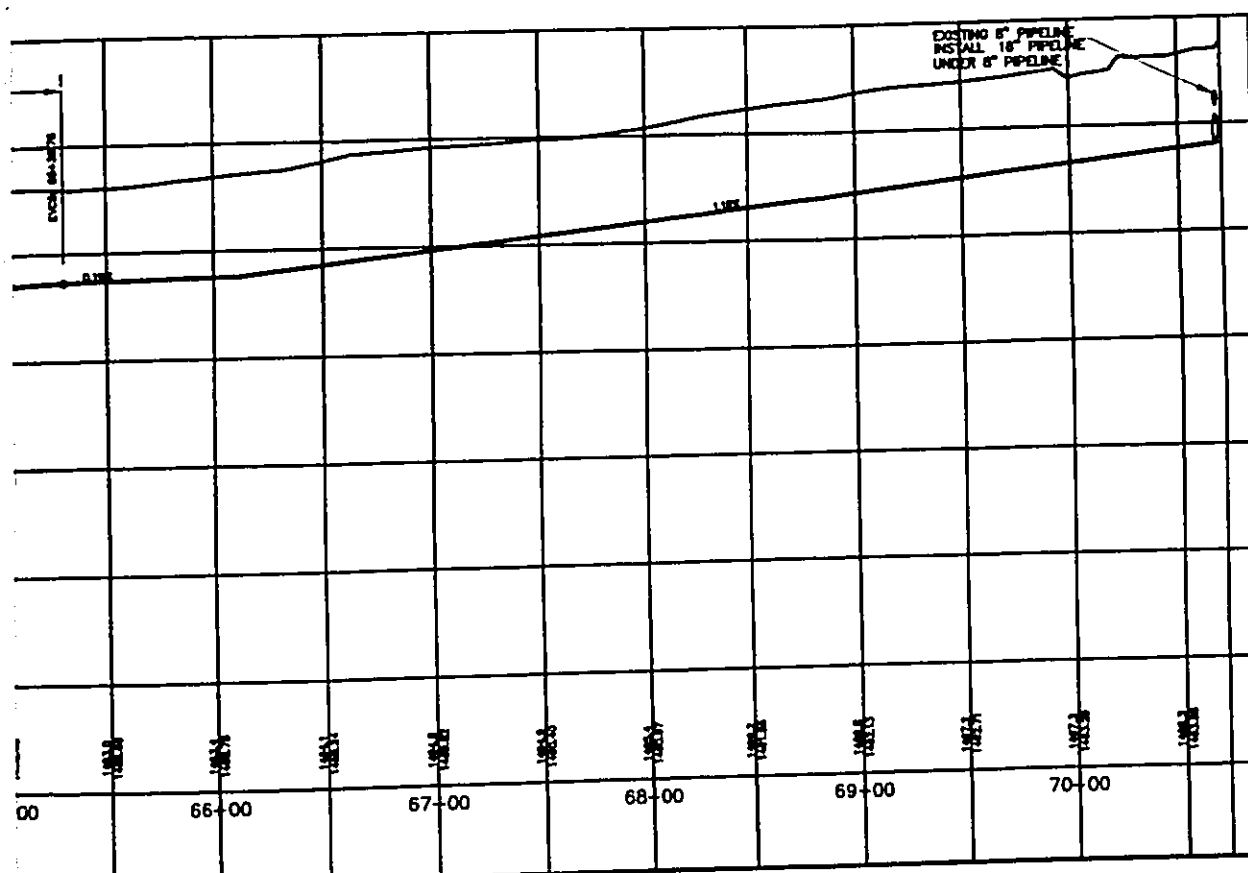
BK, INC. CIVIL ENGINEERS

675 KONOOLE STREET
 HILLO, HAWAII 96720
 TELEPHONE: (808) 981-2125



This work was prepared by me or under my supervision and I am a duly licensed and registered professional engineer in the State of Hawaii.

REVISION	DATE	DESCRIPTION	MADE BY	APPROVED



MAMALAHOA HIGHWAY WATERLINE
 IMPROVEMENTS - PHASE I
 JOB NO. 2000-806
 KEALAKEHE HOMESTEADS, NORTH
 KONA, HAWAII

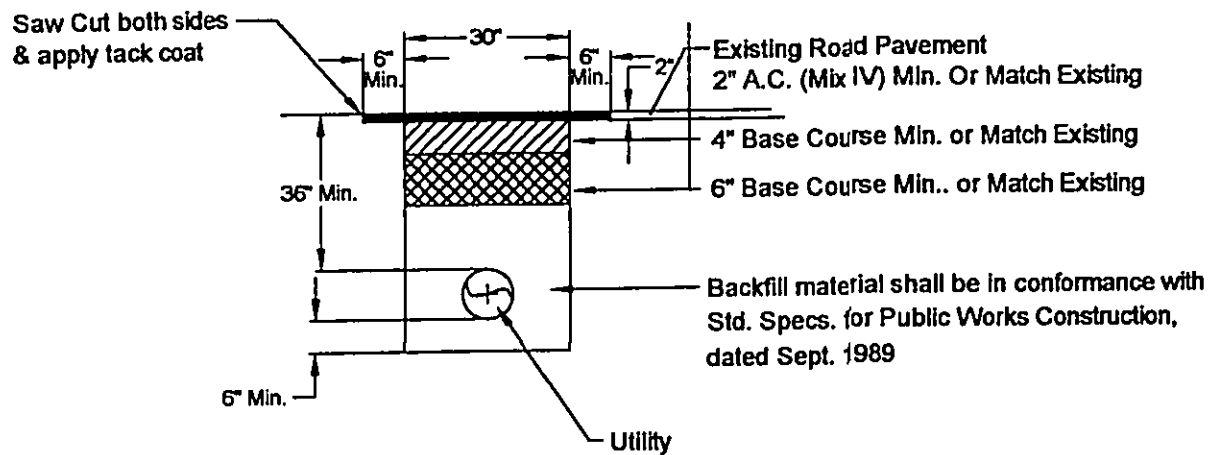
SHEET TITLE:
 PLAN AND PROFILE
 STA. 59+00 TO STA. 70+74

APPROVED BY:

 DIVISION CHIEF, WATERWORKS DIVISION
 DEPARTMENT OF PUBLIC WORKS

DATE: _____

SHEET 9 of 11 SHEETS



ROAD PAVEMENT RESTORATION DETAIL
NOT TO SCALE

NOTES:

1. Where existing driveway is concrete, 4" thick concrete reinforced with 6x6-10/10 WWM on 4" Base Course shall be used in lieu of the above section.
2. Where an existing driveway is unpaved, the driveway shall be restored to condition equal to or better than the existing driveway.
3. Contractor shall notify the owner of the driveway 48 hours before the commencement of any work.
4. Areas with pavement/geotextile fabric shall be restored as directed by the Dept. of Public Works.
5. The Contractor shall resurface the entire lane of any portion of Mamalahoa Highway trenched or damaged as a result of the proposed work. Cold planing of existing pavement will be required before final pavement restoration.

Figure 8
Trench Section
Mamalahoa Highway
Water Line Improvements

Department of Water Supply Honokohau & Kealahou, District of North Kohala, Hawaii

A. Existing Conditions

The Department of Water Supply, County of Hawaii divides the island of Hawaii into five Hydrographic Areas. The Districts of North and South Kona and part of the Ka'u District comprise Hydrographic Area IV. (Department of Water Supply, 1980). The Kona system can be separated into the North Kona and South Kona Systems with the division between systems corresponding generally to the judicial district boundaries. A schematic drawing of the North Kona Water System is shown in Figures 9 and 10. The water system is also identified as Public Water System #131.

Department of Water Supply developed groundwater sources in North Kona include the Kahaluu Wells, the Kahaluu Water Shaft, Hualalai Well, Holualoa Well, and the soon to be on-line Waiaha Well. The pumping capacity of these wells is 11.6 mgd. Water from the Kahaluu Wells and Shaft are either pumped mauka to storage reservoirs in the upper service area (generally those areas along Mamalahoa Highway) or gravity flow to the lower service area between Keahole Airport and Keauhou Bay. Potable water for storage reservoirs located in areas between Mamalahoa and Queen Kaahumanu Highways and Mamalahoa Highway and Alii Drive is pumped uphill to upper elevation reservoirs and gravity flow to lower elevation reservoirs. The 47 water storage reservoirs comprising the North Kona System (Note: Makalei Tank #3 is not included) have a combined storage capacity of 20.270 million gallons. Average daily demand is estimated at 10.3 million gallons.

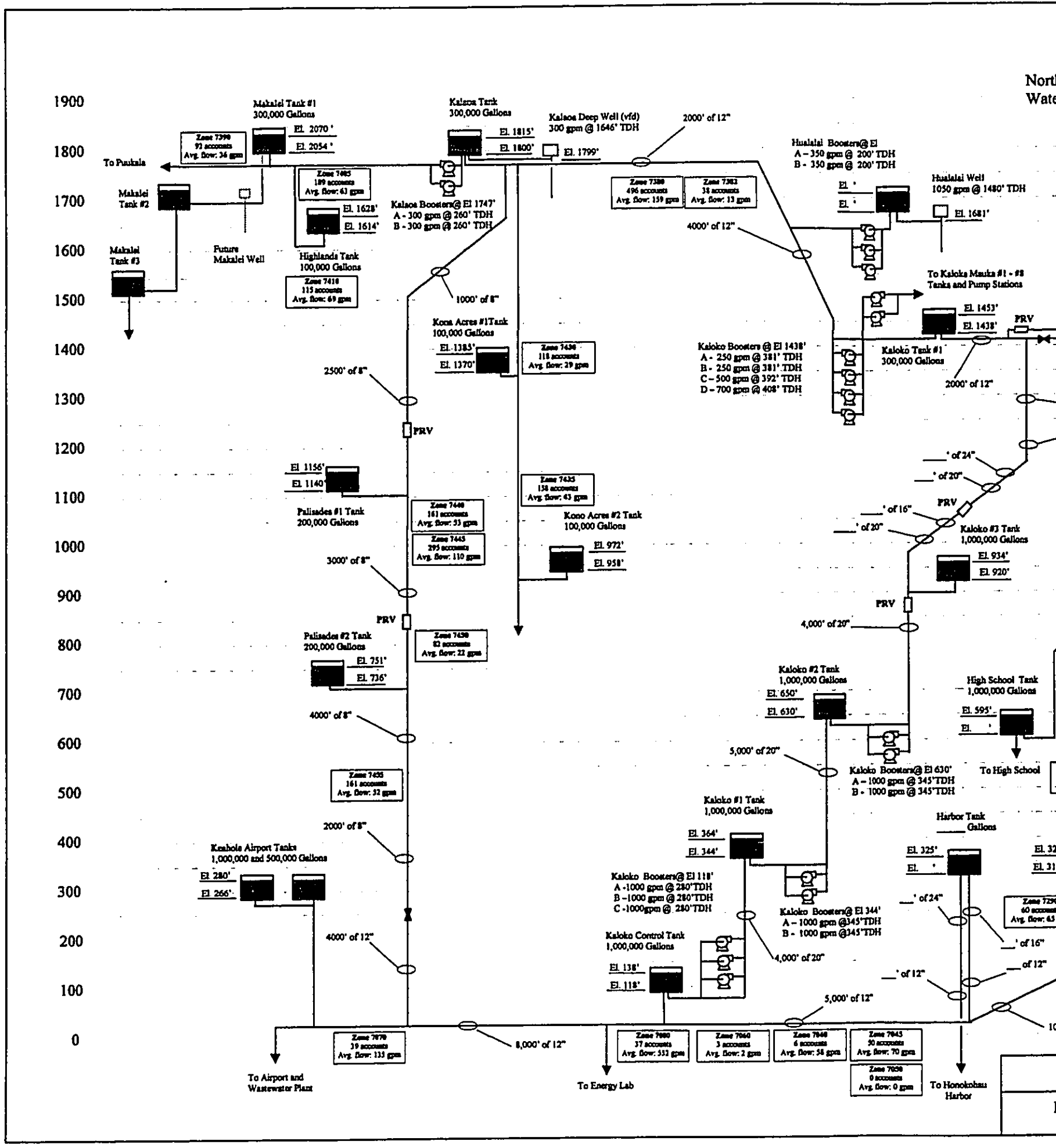
The project is part of the Department of Water Supply improvement program to upgrade existing water infrastructure and to provide new infrastructure for the North Kona Water System. Improvements to the water line along Mamalahoa Highway are proposed in the Water Master Plan, County of Hawaii (1980).

Kona residents often refer to Mamalahoa Highway as the "upper road". Until the completion of the Queen Kaahumanu Highway between Kawaihae and Kailua Village in the mid 1970s, Mamalahoa Highway was the only road linking the South Kohala District with the North Kona District, a distance of about 40 miles.

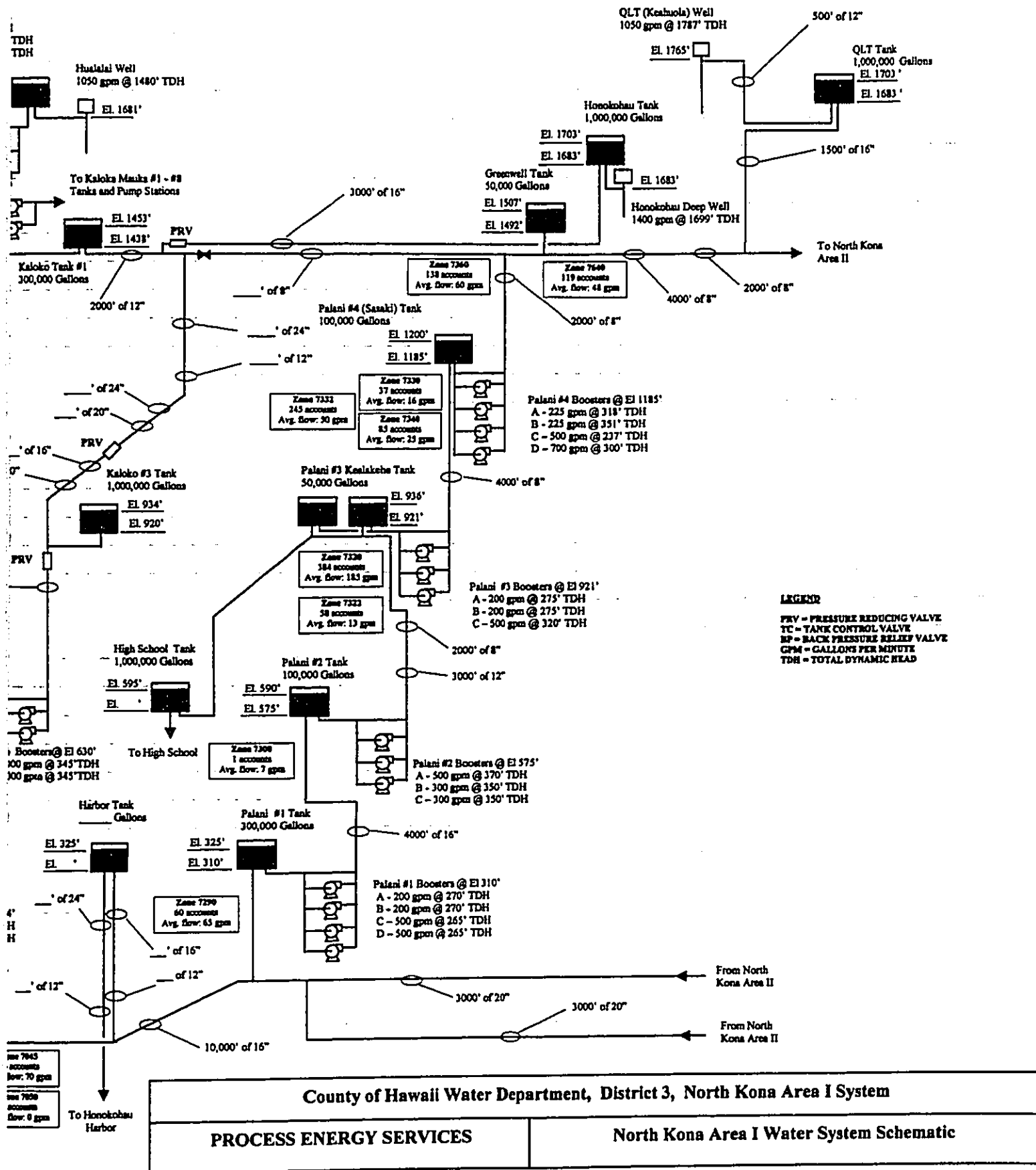
From its junction with Palani Road (one of the first "mauka to makai" connector roads to Kailua Village) at the northern end of the project limits, the two-lane highway winds its way for about 11 miles south through Kona mauka to Honalo where it joins with Kuakini Highway. From this junction, Mamalahoa Highway continues on through the South Kona and Kau Districts around the southern tip of the island.

Within the project limits, Mamalahoa Highway passes primarily through lands that support small-scale agricultural activities. Residential uses line the highway either as individual homes or dwellings that are part of a larger subdivision (See Images 1 and 2). Given the agricultural zoning for most of the area, these residential uses are presumed connected with a current or former agricultural activity of some kind. Undeveloped lands covered with dense vegetation also border the highway.

North
Water



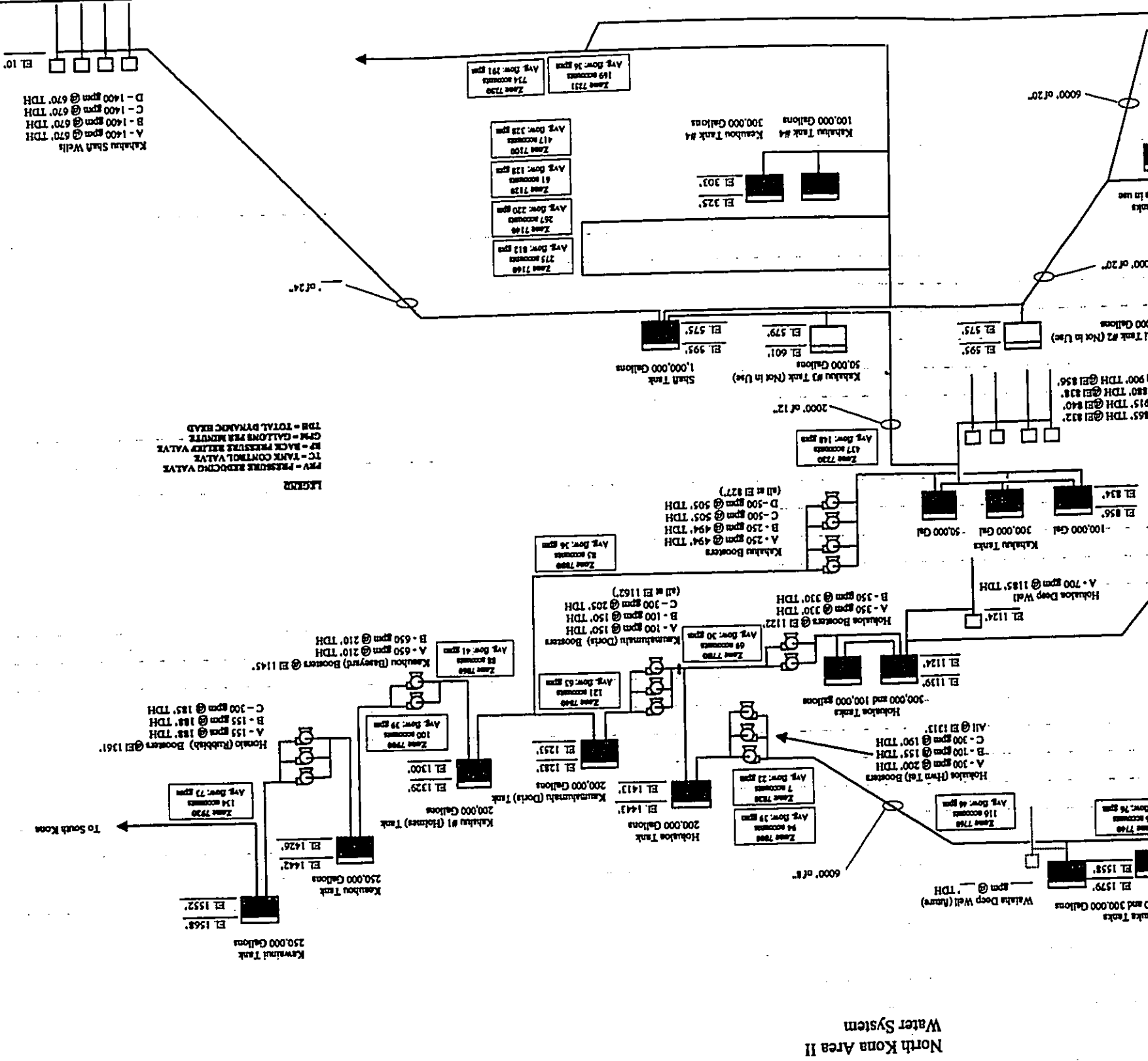
North Kona Area I Water System

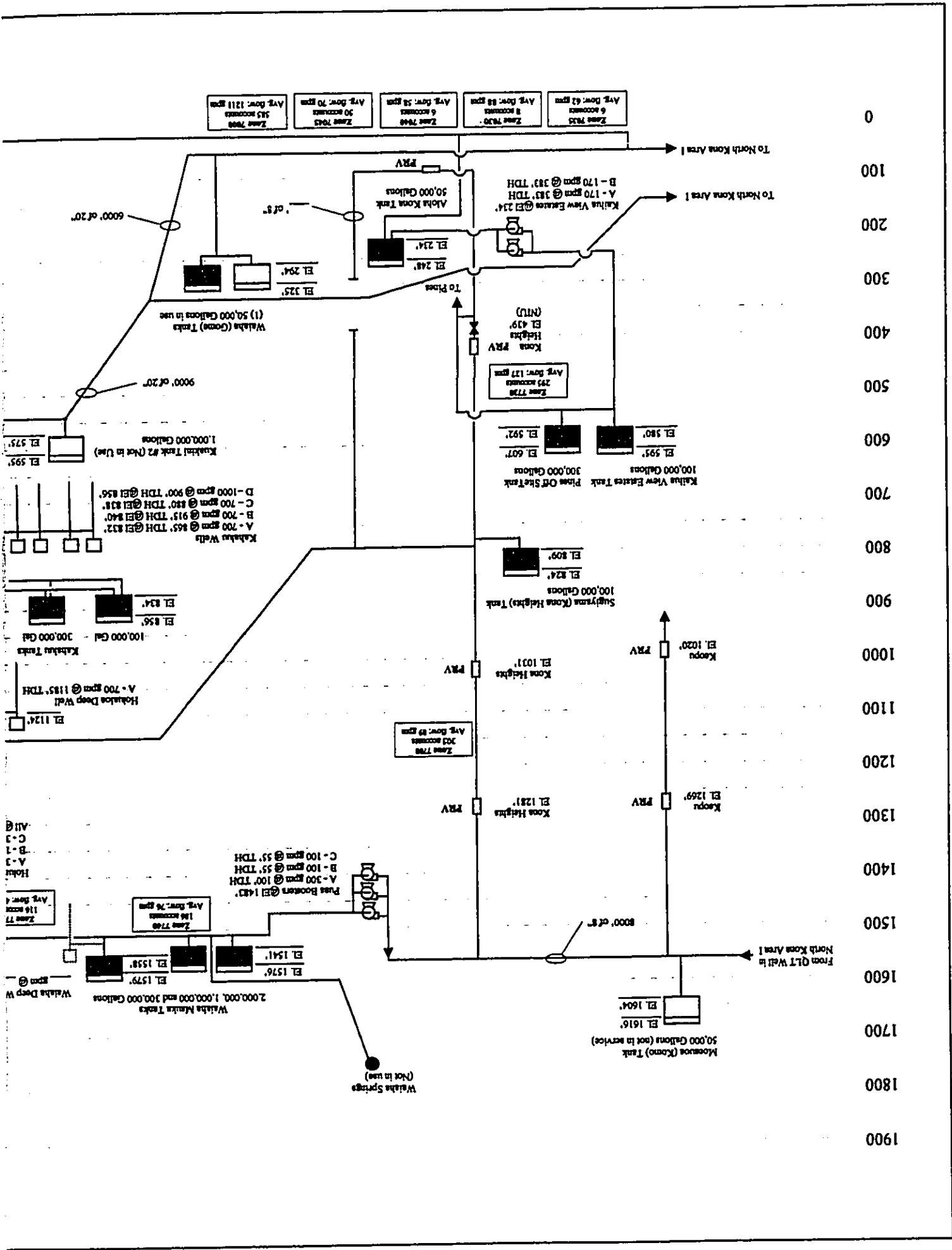


North Kona Area II Water System Schematic

PROCESS ENERGY SERVICES

County of Hawaii Water Department, District 3, North Kona Area II System





0
100
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900

Zone 7825
8 accounts
Avg. flow: 63 gpm

Zone 7820
8 accounts
Avg. flow: 88 gpm

Zone 7816
6 accounts
Avg. flow: 28 gpm

Zone 7815
30 accounts
Avg. flow: 70 gpm

Zone 7808
545 accounts
Avg. flow: 1211 gpm

Kaula View Estates @ El. 234'
A - 170 gpm @ 383' TDH
B - 170 gpm @ 383' TDH

6000' of 20"

Waialea (Cooze) Tanks
(1) 50,000 Gallons in use

9000' of 20"

Kauihewa Tank #2 (Not in Use)
1,000,000 Gallons

Kahaloa Wells
A - 700 gpm @ 845' TDH @ El. 832'
B - 700 gpm @ 915' TDH @ El. 840'
C - 700 gpm @ 850' TDH @ El. 838'
D - 1000 gpm @ 900' TDH @ El. 856'

Kahaloa Tanks
100,000 Gal
300,000 Gal

Hobson Deep Well
A - 700 gpm @ 1185' TDH

Zone 7788
303 accounts
Avg. flow: 89 gpm

Pumps Broomers @ El. 1483'
A - 300 gpm @ 100' TDH
B - 100 gpm @ 55' TDH
C - 100 gpm @ 55' TDH

Zone 7788
186 accounts
Avg. flow: 76 gpm

Zone 7787
119 accounts
Avg. flow: 4

Waialea Kaula Tanks
2,000,000, 1,000,000 and 300,000 Gallons

Waialea Deep W

Ploerue (Kona) Tank
50,000 Gallons (not in service)
El. 1604'
El. 1616'

Waialea Springs
(Not in use)

Zone 7787
119 accounts
Avg. flow: 4

Hobson
A-3
B-1
C-3
Avg. flow

Waialea Deep W

Waialea Kaula Tanks

Zone 7788
186 accounts
Avg. flow: 76 gpm

Zone 7787
119 accounts
Avg. flow: 4

Hobson
A-3
B-1
C-3
Avg. flow



Image 1. Agricultural Activity Along Section of Mamalahoa Highway.



Image 2. Residences Along Section of Mamalahoa Highway.

B. Climate

The weather is generally warm and sunny with daily minimum and maximum temperatures ranging between 67-83° F, respectively. The wind pattern for North and South Kona is influenced by the landmass of Mauna Kea, Hualalai, and Mauna Loa and land-water temperature differentials along the coast. The end result is that during the daytime (when the ocean warms) winds move onshore and during nights (when the land cools) winds generally move downslope and offshore.

Annual rainfall averages about 20 inches at the shoreline to 100 inches at elevation 3,000 feet. In general, rainfall occurs in the afternoon in conjunction with the diurnal onshore winds.

C. Topography

Ground elevation follows the road elevation within the project limits. The northern end of the project limits is at approximately the 1,385-foot elevation and rises to about elevation 1,494 feet at the southern end. Most of the road (and hence water line) rises gradually but there is an approximately 2,000 LF section that rises rapidly from elevation 1,395 to 1,450 (See Figures 3 and 4) and a second section of 1,200 LF that rises from elevation 1,450 to 1,480 feet (See Figure 6).

D. Soils

The Soil Conservation Service (1973) identifies two soil types within the project limits--- Punaluu extremely rocky peat (rKYD) and Puna extremely stony muck (rPXE). Both soil types are relatively shallow with less than 10" of cover before encountering either a'a or pahoehoe lava. Both soils are poorly suited for use as road fill.

Because Mamalahoa Road is an existing roadway, more than likely, the aforementioned soils have been removed and replaced with engineered fill in support of road construction.

Within the project limits, Mamalahoa Highway passes through a large tract of agricultural lands designated Other Important Agricultural Lands on the Agricultural Lands of Importance to the State of Hawaii ("ALISH") map for this area of Kona. In generally quantifiable terms, about one-half of the project limits falls into this category; the other half is not rated for agricultural suitability.

The ALISH Map also identifies two pockets of agriculture land designated Unique Agricultural Land. Although within the project limits, both pockets are located makai of Mamalahoa Highway.

E. Drainage

No major drainageways are found within the project limits. The nearest major drainageway is the Keopu-Hienaloli Drainage System that crosses Mamalahoa Highway approximately 1.25 miles to the south of the Keahuolu (QLT) Reservoir. This drainage system originates mauka of Mamalahoa Highway and passes under Mamalahoa Highway. The Keopu channel discharges into Kailua Bay and the Hienaloli channel discharges into the ocean south of the Kona Hilton Hotel.

F. Natural Hazards

A Flood Insurance Rate Map panel is not printed for this area and, the Federal Emergency Management Agency notes, "Panel not printed; Area All in Zone X". Zone "X" is defined as "areas determined to be outside the 500 year flood plain (FEMA, 1988)".

Lava Flow Hazard Maps (USGS, No Date) divides the Island of Hawaii into "zones that are ranked from 1 [highest] to 9 [lowest] based on the probability of coverage by lava flows". The District of North Kona is placed in Zone 4 in which the probability of coverage by lava flows is rated high.

G. Hydrology

1. Surface Water

There are no streams, ponds, lakes, or wetlands within the project limits (Field Observation Gerald Park Urban Planner, 2003; National Wetland Inventory Maps).

2. Ground Water

The project located is in the Keauhou Aquifer System a basal water source that spans most of North Kona (Commission on Water Resources Management, 1995). The State of Hawaii Commission on Water Resource Management has determined that the Keauhou System has a sustainable yield of 38.0 million gallons per day and the entire Hualalai Sector (the Keauhou and Kioholo systems) a sustainable yield of 56 mgd.

The project is not located in an U.S. Environmental Protection Agency designated sole source aquifer for EPA Region IX (<http://www.epa.gov/cgi-bin/epaprintonly/cgi>)

H. Historical Features

An archaeological survey was not conducted for this project. State Historic Preservation Division ("SHPD") historic site maps for the area were reviewed and no recorded archaeological features are shown within the road right-of-way.

The SHPD has indicated that there is no historic properties present because residential development/urbanization has disturbed the land. Thus "no historic properties will be affected by this undertaking (SHPD Correspondence, 2004).

I. Flora

There is no flora growing within the travel lanes. An abundance of roadside vegetation, however, grows fronting residences, agricultural lots, and vacant parcels along the highway. During a field investigation (Gerald Park Urban Planner, 2003) typical roadside vegetation observed included Guinea grass, Christmas berry, milo, koa haole, ironwood, and African tulip in undeveloped areas and common trees and shrubs such as papaya, plumeria, guava, ironwood, kukui, money plant, rose apple, ti, hibiscus, assorted palms, monstera, ginger, firecracker plant, bougainvillea, monstera, aloe, and sansivera in developed areas. Stands of coffee trees are planted on several agricultural lots.

None of the observed flora is listed or proposed for listing as rare, threatened, or endangered species (US Fish and Wildlife Service, Threatened and Endangered Species System, Listing by State and Territory: Hawaii).

J. Wildlife

Mamalahoa Highway per se does not provide habitat for wildlife. Families residing along the road may have dogs and cats as family pets although none were observed during our field investigation. Undeveloped areas may provide habitat for common animals including mice, mongoose, rats, and birds.

The US. Fish and Wildlife Service reported that the endangered Hawaiian hawk (*Buteo solitarius*) and Hawaiian hoary bat (*Lasiurus cinereus semotus*) have been seen in the vicinity of the proposed project, but there are no known nests nearby (Correspondence, 2004).

K. Land Use Controls

State and County land use controls within the project limits are:

State Land Use Designation: Agricultural
County of Hawaii General Plan: Alternate Urban Expansion, Orchards, **Extensive Agricultural**
Zoning: Agriculture (A-1a, A-5a, A-20a), [Unplanned] **Family Agricultural (FA-1a)**
Special Management Area: Outside Special Management Area

L. Public Facilities

Mamalahoa Highway, a County of Hawaii road, is a two-way, two-lane, all weather surface road within a 50-foot right-of-way. Each of the two travel lanes is nine feet wide. Road shoulders on either side vary in width from areas with no shoulder to 6-foot wide paved shoulders. In some places, the road shoulder is comprised of 2 to 12 foot wide gravel shoulders (See Images 3 and 4). The road is not lighted but posted reflectors alert motorists to curves in the road. The posted speed limit is 25 mph.

A Department of Water Supply 8-inch transmission main is located within the Mamalahoa Highway right-of-way under the mauka travel lane. This line is the primary service line for customers in Holualoa.

The Honokohau and Keahuolu water storage reservoirs are 1.0 mg reinforced concrete structures comprising part of the North Kona Water System. Gated driveways secure access to the respective reservoir sites and water wells.

There are no municipal sewer or drainage systems within the project limits.

Overhead power and communication systems are supported on utility poles. The utility poles are located on either side of Mamalahoa Highway and the overhead wires cross from one side of the highway to the other.

Makua Lani Christian School, a private school (either pre-school or elementary) is located at the northern end of the project limits on the mauka side of Mamalahoa Highway.



Image 3. Road Section with Limited Shoulder Improvements. Note Dense Vegetation of Both Sides of the Road.

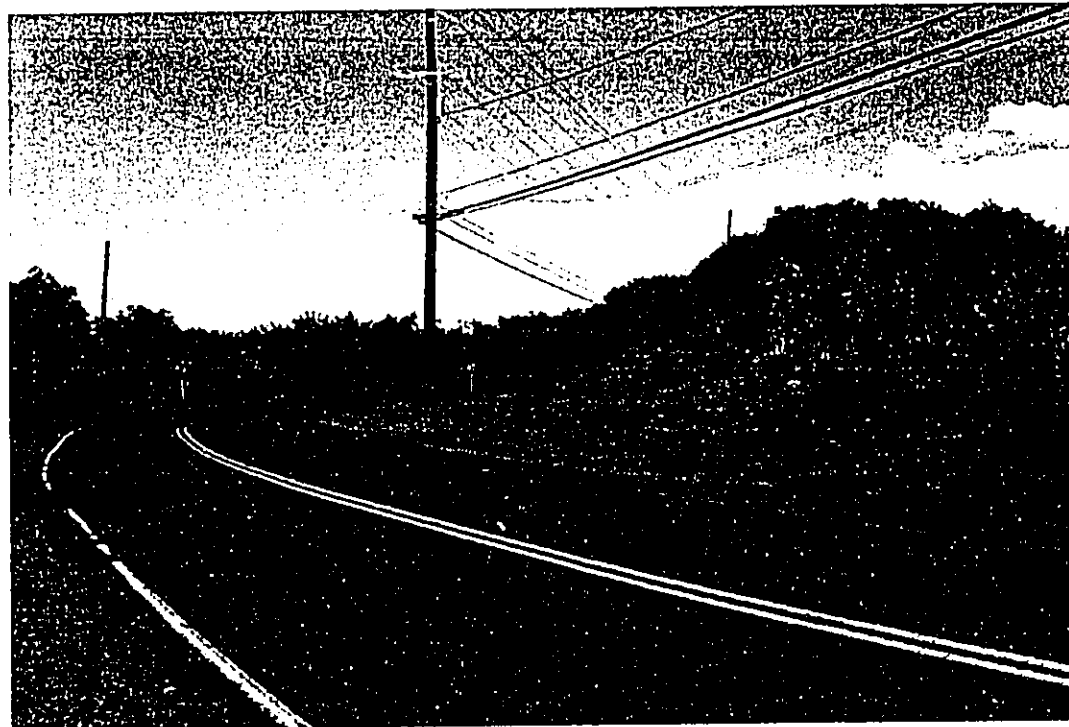


Image 4. Road Section with Wide Shoulder and Edge Markings.

SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS

3

A. Assessment Process

The scope of the project was discussed with the consulting engineer and staff of the Department of Water Supply. State and County agencies were contacted for information relative to their areas of jurisdiction and expertise. Time was spent noting site conditions and environmental features along Mamalahoa Highway. The sum total of consultations and field investigations helped to identify existing conditions and features that could affect or be affected by the project.

B. Short-term Impacts

Site work is a persistent source of fugitive dust. Site contractors are aware that dust is a nuisance to both workers and people living or working near to work sites and it is imperative for them to maintain stringent dust controls. Frequent water sprinkling is probably the most effective dust control measure given the size of the site and the type and scale of proposed improvements. The Contractor, however, may choose to implement other measures based on their experience with similar projects and job sites. The project is proposed in an area of moderate rainfall and frequent afternoon showers also may help in controlling fugitive dust.

The Contractor will be responsible for general housekeeping of construction sites within the project limits and for keeping adjacent areas free of mud, sediment, and construction litter and debris. Pollution control measures will comply with Chapter 60.1, Air Pollution Control regulations of the State Department of Health.

Like fugitive dust, construction noise cannot be avoided. Residential areas and schools are considered noise sensitive activities and construction noise will be audible in areas adjoining the right-of-way. Exposure to noise will vary by construction phase, the duration of each phase, and the type of equipment used during the different phases. Maximum sound levels in the range of 82-96 db(A) measured at 50 feet from the source would be generated by heavy machinery and pneumatic impact equipment during the site work phase. After site work is completed, reductions in sound levels, frequency, and duration can be expected during actual installation of the facility.

Community Noise Control regulations establish maximum permissible sound levels for construction activities occurring within "acoustical" zoning districts. Based on the agriculture zoning of the area, the project is considered to be located in the Class C zoning district for noise control purposes. The maximum permissible daytime sound level in the district is 70 dBA all day (Chapter 46, Community Noise Control, 1996).

In general, construction activities cannot exceed the permissible noise levels for more than ten percent of the time within any twenty-minute period except by permit or variance. Any noise source that emits noise levels in excess of the maximum permissible sound levels cannot be operated without first obtaining a noise permit (or variance) from the State Department of Health. Although the permit does not attenuate noise per se it regulates the hours during which excessive noise is allowed.

The general contractor will be responsible for obtaining and complying with conditions attached to the permit. Work will be scheduled between the hours of 8:00 AM to 3:30 PM Mondays through Fridays. The contractor will also ensure that construction equipment with motors is properly equipped with mufflers in good operating condition.

Site work will expose soil thus creating opportunities for runoff and erosion. Trenching, grading, and stockpiling activities will be performed in accordance with erosion control ordinances of the County of Hawaii and approved grading plans. Best Management Practices (BMPs) for erosion and drainage control during construction will be prepared for review and approval by the Department of Public Works, County of Hawaii.

Because the project generally is route specific (versus site specific), construction would progress from one location to another following the right-of-way. Thus, construction impacts, although repetitive over the duration of the project, would be temporary at any one location. The exception to the water line route is the removal of a flow controller at Palani Junction. Here, limited excavation is required to install approximately 178 feet of new water line and to remove an existing flow controller and approximately 120 feet of an existing 8" water line.

Flora growing along the road is common to the Island and State of Hawaii. None are considered rare, threatened, or endangered or proposed for such status.

If burials or archaeological artifacts are unearthed, work in the immediate area will cease and the proper authorities (historical and police) notified for disposition of the finds (OEQC Comment).

Construction in the right-of-way will interrupt traffic flow on Mamalahoa Highway resulting in short traffic delays for motorists. This impact cannot be avoided. At least one lane of the road will be closed and traffic diverted to the other half during working hours until the waterline installation is completed.

A Traffic Control Plan will be prepared and submitted to the State Department of Transportation, Highways Division for review and approval. State DOT approval is required for work in the right-of-way at Palani Road. The measures identified below can also be used for work in Mamalahoa Highway. Measures to be prescribed in the plan to mitigate traffic impacts include but are not limited to:

- Publishing notice of impending construction in a local daily newspaper;
- ***Limiting construction to non-peak traffic hours (Police Department Comment);***
- Posting warning signs on both sides of the work area to alert motorists of road work and to slow traffic speed;
- Positioning traffic cones or other directional devices in the roadway to guide vehicles around work areas;
- Posting flagmen to assist in traffic control; and
- Providing ingress and egress from private driveways abutting the road at all times.

The contractor will schedule work activity between the hours of 8:30 AM to 3:30 PM, Monday through Friday, excluding recognized holidays. At least one through-lane will be open to traffic during all periods of construction. Both traffic lanes will be open during morning and afternoon peak hours and during non-working hours (3:30 PM to 8:30 AM). Trenches will be covered with safe, non-skid bridging material to accommodate all types of vehicular traffic,

and not more than the maximum allowable trenching length shall be exposed at any one time. ***Trenches will be covered during non-working hours (Police Department Comment).***

Material deliveries will be scheduled during non-peak traffic hours to minimize impacts on local traffic. Flagmen will be posted for traffic control if material loading and off-loading occurs within the Mamalahoa Highway right-of-way.

Overhead utilities should not be affected during construction. Construction plans will be submitted for review and construction operations coordinated with the respective utility providers.

In the event of accidental breakage, emergency crews will be summoned immediately to repair the breakage and affected residents and businesses notified of the disruption. If extensive repair work is required, the contractor will take reasonable effort to provide service to affected residents and agricultural activities.

Sections of the water line will be tested under Department of Water Supply supervision and following the Water System Standards, State of Hawaii (2002 as amended). The line will be disinfected with ***a solution of water and chlorine gas*** before being put into service. Hydrotesting and chlorinated water will be discharged on vacant, ***barren***, or undeveloped areas alongside Mamalahoa Highway selected by the contractor. ***Discharged water will percolate into the ground.*** Chlorinated water to be discharged following disinfection will not adversely impact environmental resources along the highway. Water system standards for disinfecting water lines require flushing the system adequately with chlorinated water of at least 50 mg/l and leaving the water inside the pipe overnight or exposing interior surfaces of the pipe with chlorinated water (300 mg/l) for three hours. A NPDES Permit will be needed for discharging hydrotesting and chlorinated water into the environment. ***The contractor will be responsible for following all State and/or County laws, regulations, and procedures, including applying for and receiving any NPDES which may be required for discharging hydrotesting and chlorinated water into the environment.***

If the contractor cannot find a suitable area for discharge, the chlorinated water will be discharged into water wagons and hauled away for proper disposal (OEQC Comment).

C. Long-term Impacts

The proposed Mamalahoa Highway Water Line Improvements Project will help to implement the Department of Water Supply Master Plan for the North Kona Water System. It is one of several projects either completed, near completion, or planned to upgrade the water infrastructure in the North Kona District.

The Keahuolu and Honokohau Reservoirs are sited at approximately the same ground elevation with matching overflow elevations. Each reservoir is fed by a well at each location. Water level in each reservoir is currently replenished by the respective well. An existing 8" line connects both reservoirs. Customers along Mamalahoa Highway are hooked-up to this line. The proposed connection will improve the interconnection between both reservoirs. Should one of the wells become inoperable or unable to keep up with demand, water from the other would flow thorough the proposed 16" line. Operationally, this should help to balance water levels in each reservoir and improve source water and gravity flow pressure to customers served by the system. Customer hook-ups to the 16" line are not planned.

The project should not contribute to growth in the region but will help to meet existing demand through improved system operation and management.

Impacts to cultural resources are not anticipated. During the pre-assessment consultation stage of the project, the State Historic Preservation Division commented, "there are no historic properties along the roadway." The road is not adjacent to any bodies of water thus the area was not fished. The project area has been urbanized for at least 75+ years and most of the plants along the right-of-way are exotic weeds and vegetation commonly found throughout the state. Some of the observed plants such as plumeria and bougainvillea are commonly grown and used for making lei; aloe is used medicinally for burns and skin treatment. No unique plant species were observed thus no gathering practices are believed to occur within the project limits. No burials are known to exist within the right-of-way (OEQC Comment).

The buried pipeline will not result in long-term adverse impacts on air quality, the acoustical environment, historic features, and flora and fauna. The pipeline will not be seen thus impacts on scenic resources or open space quality are not anticipated. There are no streams, lakes, or wetlands within the project limits that would be affected by the project.

A. Archaeological and Historic Preservation Act of 1960 (As amended)

The AHPA requires Federal agencies to consult with the State Historic Preservation Officer (or Division) to ensure that there are no historical or archaeological features of interest that may be impacted by development. If historical or archaeological features are present, formal review pursuant to adjunct federal legislation concerning historic properties may be required.

After reviewing a description of the project, maps of the project area, and project plans, the State Historic Preservation Division has determined that "no historic properties will be affected" by this undertaking (SHPD Correspondence, 2004).

B. Clean Air Act (42 U.S.C. § 7506(C))

The project area is located in an air quality attainment area. Measures to mitigate short-term construction related impacts on air quality are described in the environmental assessment. (Website: <http://www.epa.gov/air/data/aqsdb.html>).

C. Coastal Zone Management Act of 1972 (As amended 1976, 1980, and 1996)

The Act provides national policy concerning development and protection of the Nation's coastal environment. The Hawaii Coastal Zone Management Act articulates the following objectives for managing the State's coastal resources. The entire State is designated a coastal zone management area excluding the State Forest Reserves. The relationship of the proposed project to the objectives and policies of the Hawaii Coastal Zone Management Act is discussed below.

1. Provide coastal recreational opportunities accessible to the public.

The project area is located about 2.8 miles mauka (west) of the Kona coastline at Kailua Bay and does not provide coastal recreational opportunities accessible to the public.

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

There are no historic or archaeological features within the Mamalahoa Highway right-of-way.

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

The water line will be buried and will not affect the quality of coastal scenic and open space resources.

4. Protect valuable coastal ecosystems from disruption and minimize adverse impacts on all coastal ecosystems.

There are no valuable coastal ecosystems within the project limits.

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

This objective is not applicable to the proposed project.

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

The project is not located in an area subject to tsunami, storm waves, and stream flooding.

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

The preparation and subsequent distribution of his Environmental Assessment is intended to communicate to government agencies and the general public information about the project and to allow them the opportunity to review the project and its potential environmental impact. All comments received will be considered and incorporated into the Final Environmental Assessment.

8. Stimulate public awareness, education, and participation in coastal management.

This objective is not applicable to the subject project.

9. Protect beaches for public use and recreation.

The project is not located on the shoreline or on a beach.

10. Implement the State's ocean resources management plan.

This objective is not applicable to the subject project.

D. Endangered Species Act of 1973 (As amended 1976-1982, 1984, and 1988)

The Endangered Species Act provides broad protection for species of fish, wildlife, and plants that are listed as threatened or endangered in the United States or elsewhere. The Act mandates that federal authorities seek to conserve endangered and threatened species and use their authorities in furtherance of the purposes of the Act. It provides for the listing of species, as well as for recovery plans, and the designation of critical habitat for listed species.

*The US. Fish and Wildlife Service reported that the endangered Hawaiian hawk (*Buteo solitarius*) and Hawaiian hoary bat (*Lasiurus cinereus semotus*) have been seen flying in the vicinity of the proposed project, but there are no known nests nearby (Correspondence, 2004).*

Plants listed in Section 2.1 of this Assessment are not listed or proposed for rare, threatened, or endangered status. All are common to the State of Hawaii.

E. Farmland Protection Policy Act of 1981

The purpose of the Farmland Protection Act is to minimize the effect of Federal programs on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The Act does not apply to lands already in or committed to urban development. For purposes of the FPPA, farmland includes *prime* farmland, *unique* farmland, and land of local or statewide importance. Farmland does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land but not water or urban built-up land. The FPPA also exempts construction within an existing right-of-way purchased on or before August 4, 1984.

The Mamalahoa Highway right-of-way has been in existence prior to 1984 and is exempt from this act.

F. Fish and Wildlife Coordination Act of 1934 (As amended 1936, 1946, 1947, 1948, 1949, 1958, 1965)

The Fish and Wildlife Coordination Act provides the basic authority for the US Fish and Wildlife Service involvement in evaluating impacts to fish and wildlife from proposed water resources development projects. It requires that fish and wildlife resources receive equal consideration to other project features. It also requires that Federal agencies that construct, license, or permit water resource development projects must first consult with the Fish and Wildlife Service and State fish and wildlife agency regarding the impacts on fish and wildlife resources and measures to mitigate these impacts.

The proposed project neither proposes development of a water resource nor modifications to an existing water body.

There are no streams, ponds, lakes, and fresh water bodies in the project area. No wildlife habitat was observed within the Mamalahoa Highway alignment. The US Fish and Wildlife Service did not indicate the presence of wildlife habitat within the project area. The absence of fish and wildlife indicates that there should be no impact on these resources.

G. Floodplain Management (Executive Order 11988)

The purpose of Executive Order 11988 is to have Federal agencies consider alternatives to locating their projects in floodplains when other alternatives are available that achieve the same objective. This is to avoid risks to lives and loss of property that are the result of occupying a floodplain and also to avoid losing the beneficial values of floodplains.

According to HUD regulation 24 CFR Part 55, floodplains are those land areas identified on maps published by FEMA as 100-year floodplain (Zones A or V) or 500-year floodplain (Zone B).

A Flood Insurance Rate Map panel is not printed for the project area and, the Federal Emergency Management Agency notes, "Panel not printed; Area All in Zone X". Zone "X" is defined as "areas determined to be outside the 500 year flood plain (FEMA, 1988)".

H. Safe Drinking Water Act of 1974 (As amended)

The Safe Drinking Water Act is the principal federal law that ensures the quality of American's drinking water. Under the Act, the Environmental Protection Agency sets standards for

drinking water quality and oversees the states, localities, and water suppliers who implement those standards. The Act requires that all public water systems meet stringent water quality standards.

The Safe Drinking Water Act also provides for the regulatory protection of principal or sole source aquifers. The Law establishes regulations on the injection of materials into subsurface aquifers in those areas of the United States where only one aquifer (principal or sole source aquifer) exists.

The project is not located in an U.S. Environmental Protection Agency designated sole source aquifer for EPA Region IX (Website: <http://www.epa.gov/cgi-bin/epaprintonly/cgi>).

I. Wetlands Protection (Executive Order 11990)

Wetlands generally include swamps, marshes, bogs, sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds. The purpose of the Executive Order is to avoid, if possible, any long or short-term adverse impacts associated with destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands whenever there is a *practicable alternative*.

There are no wetlands within the project limits (Gerald Park Urban Planner, Field Observation, 2003; Website: <http://mapper.tat.fws.gov/nwi/viewer.htm?Title=>); U.S. Fish and Wildlife Service, 2004.

J. Wild and Scenic Rivers Act of 1968 (As amended)

A wild, scenic, or recreational river area is included in the National Wild and Scenic Rivers System by Act of Congress or it may be designated by a State of States if the Secretary of Interior finds it meets the criteria established by the Act.

A river or segment of a river may be designated as *wild* if it is free of impoundment, has little or no evidence of human activity and is generally accessible only by trail. In order to be classified *scenic*, a river (or river segment that has been designated) is free of impoundment, there is no substantial evidence of human activity, and in some places it is accessible by road. Classification as recreational means the river (or a river segment) has some impoundment or diversion, there is substantial evidence of human activity, and it is readily accessible by road or railroad.

The State of Hawaii has no river designated a Wild and Scenic River. (Website: <http://www.nps.gov/wildriverslist.html>).

K. Wilderness Act of 1964 (As amended)

The Wilderness Act established a National Wilderness Preservation System to be composed of federally owned areas designated by the Congress as "wilderness areas" to be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness. The Act also provides for the protection of these areas, the preservation of their wilderness character, and for gathering and dissemination of information regarding their use and enjoyment as wilderness. No Federal lands shall be designated as "wilderness area" except as provided for in this Act or by a subsequent Act.

Currently there are 45 national park areas containing Congressionally designated wilderness. Another 39 parks have recommended or proposed wilderness.

Hawaii Volcanoes National Park on the island of Hawaii is one of two national parks in Hawaii containing Congressionally designated wilderness (Haleakala National Park on the island of Maui is the other) (Website: <http://www.nps.gov/parks.html>). Volcanoes National Park (the western boundary of the Park) is located on the east side of the island approximately 21 miles from the project area.

There are no wilderness areas in national wildlife refuges in the State of Hawaii (Website: <http://realty.fws.gov/table10.html>)

The project does not occur within or near a designated wilderness and should not impact a wilderness area (Website: <http://www.wilderness.nps.gov/maplocator.cfm>).

L. Coastal Barrier Resources Act of 1982

The purpose of the Act was to eliminate federal development incentives on undeveloped coastal barriers, thereby preventing the loss of human life and property from storms, minimizing federal expenditures, and protecting habitat for fish and wildlife. Coastal barriers are landscape features that protect the mainland, lagoons, wetlands, and salt marshes from the full force of wind, wave, and tidal energy. The major types of coastal barriers include fringing mangroves, tombolos, barrier islands, barrier spits, and bay barriers (Website: (<http://laws.fws.gov/lawdisgest/coasbar.html>)).

According to correspondence between the Department of Health, State of Hawaii and the United States Fish and Wildlife Service, this Act is not applicable to the State of Hawaii as no formally identified "coastal barriers" are known to exist in the State of Hawaii.

M. Environmental Justice (Executive Order 12898)

This Executive Order directs each Federal agency to make achieving environmental justice part of its mission by "identifying and addressing as appropriate disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."

The proposed project neither proposes the use of toxic substances during construction and in the use of construction materials nor places long-term environmental risk on any population within the project area.

A. No Action

A no action alternative would preclude all impacts, short and long-term, beneficial and adverse described in this Assessment. A No Action alternative would maintain the status quo.

B. Alternative Location

The alternative location is to place the water line on the mauka side of the road adjacent to the existing 8-inch waterline. The Department of Water Supply has determined that this is not a prudent alternative.

PERMITS AND APPROVALS

7

Permits and approvals listed below are indicative of rather than a comprehensive listing of all permits that may be required to construct the project.

<u>Permit</u>	<u>Authority</u>
County of Hawaii	
Building, Electrical, and Plumbing Permits	Department of Public Works
Grubbing, Grading, Excavation and Stockpiling	Department of Public Works
Best Management Practices	Department of Public Works
State of Hawaii	
Variance from Pollution Controls	Department of Health
Permit to Perform Work within a State Highway Right-of-Way	Department of Transportation
NPDES Permit (Discharge of Water)	Department of Health

**AGENCIES AND ORGANIZATIONS CONSULTED IN
PREPARING THE ENVIRONMENTAL ASSESSMENT**

8

The Draft Environmental Assessment for the Mamalahoa Highway Waterline Improvements was published in the Office of Environmental Quality Control Environmental Notice of April 23, 2004 and May 8, 2004. Publication initiated a 30-day public review period ending on May 24, 2003. The Draft Environmental Assessment was mailed to agencies and organizations below. An asterisk identifies agencies and organizations that submitted written comments during the review period. All comment letters and responses are found in Appendix A.*

County of Hawaii

Bruce McClure, P.E., Director	*Department of Public Works, County of Hawaii 101 Pauahi Street, Suite 7 Hilo, Hawaii 96720-4224
Christopher J. Yuen, Director	*Planning Department, County of Hawaii Aupuni Center 101 Pauahi Street, Suite 3 Hilo, Hawaii 96720-3043
Lawrence K. Mahuna, Police Chief	*Police Department, County of Hawaii 349 Kapiolani Street Hilo, Hawaii 96720
Darryl J. Oliveira, Fire Chief	*Fire Department, County of Hawaii 25 Aupuni Street, Room 103 Hilo, Hawaii 96720
Wendell M. Hatada, Acting Director	Civil Defense Agency, County of Hawaii 920 Ululani Street Hilo, Hawaii 96720

State of Hawaii

Sandra L. Kunimoto, Director	Department of Agriculture, State of Hawaii 1428 South King Street Honolulu, Hawaii 96814
Rodney Haraga, Director	*Department of Transportation, State of Hawaii 869 Punchbowl Street Honolulu, Hawaii 96813
June Harrigan-Lum, Manager	Environmental Planning Office Department of Health, State of Hawaii PO Box 3378 Honolulu, Hawaii 96801-3378

Genevieve Salmonson, Director

***Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813-2437**

Others

Hawaii Electric Light Company

PO Box 1027
Hilo, Hawaii 96721-1027

Kailua-Kona Public Library

75-138 Hualalai Road
Kailua-Kona, Hawaii 96740

Holualoa Public Library

PO Box 214
Holualoa, Hawaii 96725-0214

Chapter 200 (Environmental Impact Statement Rules) of Title 11, Administrative Rules of the State Department of Health, establishes criteria for determining whether an action may have significant effects on the environment (§11-200-12). The relationship of the proposed project to these criteria is discussed below.

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

No significant archaeological or natural resources are located within the project limits and specifically within the Mamalahoa Highway right-of-way.

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

The project does not curtail the beneficial use of the environment.

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

The project does not conflict with long-term environmental policies, goals, and guidelines of the State of Hawaii.

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

The project will not substantially affect the economic or social welfare of the community or State.

- 5) **Substantially affects public health;**

The proposed action will not adversely affect public health. On occasion, construction noise may exceed the allowable noise standard established by Hawaii Administrative Rules. Construction noise, however, will be temporary and will not endanger public health.

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

The project will neither result in substantial secondary impacts nor foster population changes or adverse impacts on public facilities.

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

Environmental quality will not be degraded as a result of this project. Construction generally will be confined to an existing improved road.

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

The proposed project does not involve a commitment for a larger action.

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

There are no rare, threatened or endangered flora or fauna or habitat within or alongside Mamalahoa Highway.

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

Ambient air quality may be affected by fugitive dust and combustion emissions but can be controlled by measures stipulated in this Assessment. Construction noise will be pronounced during site work but should diminish in any one location as construction proceeds from area to area. All construction activities will comply with air quality and noise pollution regulations of the State Department of Health. Best Management Plans will be prepared to minimize construction runoff.

There are no fresh water bodies within the project limits thus there should be no effect on water quality in the event of discharge. In addition, any accidental or planned discharge would be potable water free of pollutants.

Chlorinated water used in disinfecting the water line will be discharged into the surrounding environment and allowed to percolate into the ground. The chlorine concentration does not pose a public health and long-term adverse environmental effects are not anticipated as a result of this action.

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

The proposed action is not located in a flood hazard area, tsunami zone, beach, erosion prone area, or adjacent to fresh and coastal water bodies.

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

The completed project will not be visible thus should not affect scenic vistas and viewplanes identified in county or state plans.

- 13) Requires substantial energy consumption.**

The project will not increase the demand for electrical energy.

REFERENCES

- BK Inc. 2003. *Plans for the Construction of the Mamalahoa Highway Waterline Improvements-Phase I*. Prepared for Department of Water Supply, County of Hawaii.
- County of Hawaii, Planning Department. 1989. *The General Plan Hawaii County*.
- County of Hawaii, Planning Department. 1967. *North-Kona Zone Map (Section 7.02), Portion of Ordinance No. 74*.
- County of Hawaii, Department of Water Supply. 1980. *Water Master Plan Island of Hawaii*.
- Federal Emergency Management Agency. 1990 (Revised). *Flood Insurance Rate Map, County of Hawaii*. Panel No. 155166 0001-190
- Land Study Bureau. 1965. *Detailed Land Classification, Island of Hawaii*. L.S. Bulletin, No. 6. University of Hawaii.
- Park, Gerald. 2003. *Field Observation*.
- Planning Solutions. 2003. *Final Environmental Assessment Wai'aha Production Well and Reservoir*. Prepared for Department of Water Supply, County of Hawaii'i.
- State of Hawaii. 2002. *Water System Standards*.
- U.S. Department of Agriculture, Soil Conservation Service. 1973. *Soil Survey of Island of Hawaii*. In Cooperation with The University of Hawaii Agricultural Experiment Station. U.S. Government Printing Office, Washington D.C.
- U.S. Department of Agriculture, Soil Conservation Service. 1977. *North Kona Flood Hazard Analyses, Basic Technical Data on Flood Prone Areas*. In Cooperation with County of Hawaii, Kona Soil and Water Conservation District, Department of Land and Natural Resources.
- U.S. Department of the Interior, Geological Survey. No Date. *Volcanic and Seismic Hazards on the Island of Hawaii*. Written by Christina Heliker. U.S. Government Printing Office.
- U.S. Department of Transportation, Federal Highway Administration; State of Hawaii Department of Transportation, Highways Division; County of Hawaii Department of Public Works. 1998. *Final Environmental Assessment. Kuakini Highway Improvements Between Palani And Hualalai Roads, Kailua-Kona, Hawaii County, Hawaii*.

Websites

Air Quality	http://www.epa.gov/air/data/oaqps/greenbk
Endangered Species	http://endangered.fws.gov/wildlife.html
Wetlands	http://wetlands.fws.gov/
Sole Source Aquifers	http://www.epa.gov/OGWD/swp/sumsa.html
Wilderness	http://www.nps.gov/parks.html
Coastal Barriers	http://laws.fws.gov/lawdisgest/coasbar.html

APPENDIX A
CONSULTATION CORRESPONDENCE



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Fish and Wildlife Office
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850



In Reply Refer to:
1-2-2004-SP-086

JAN 13 2004

Gerald Park
1221 Kapiolani Blvd., Suite 211
Honolulu, HI 96814



Dear Mr. Park:

Thank you for your December 11, 2003, letter regarding a County of Hawaii, Department of Water Supply proposed project to connect two sections of existing water line on Mamalahoa Highway, District of North Kona, Hawaii. The waterline project will be supplemented with funding from the U.S. Environmental Protection Agency. Your letter was received in our office on December 12, 2003.

Based on our review of the information contained in your letter and in our files, including maps prepared by the Hawaii Natural Heritage Program, the endangered Hawaiian hawk (*Buteo solitarius*) and the Hawaiian hoary bat (*Lasiurus cinereus semotus*) have been seen flying in the vicinity of the proposed project, but there are no known nests nearby. In addition, based on our review of available National Wetlands Inventory maps, we confirm your observation that there are no wetlands within the project area.

We appreciate your efforts to conserve endangered species. If you have any questions, please contact Elizabeth Sharpe, Fish and Wildlife Biologist (phone: 808/792-9400; fax: 808/792-9580).

Sincerely,

Christa Ruescher

for

Gina Shultz
Acting Field Supervisor

LINDA LINGLE
GOVERNOR OF HAWAII



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

HISTORIC PRESERVATION DIVISION
KAKUHIHEWA BUILDING, ROOM 555
601 KAMOKILA BOULEVARD
KAPOLEI, HAWAII 96707

HAWAII HISTORIC PRESERVATION
DIVISION REVIEW

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

DAN DAVIDSON
DEPUTY DIRECTOR - LAND

ERNEST Y.W. LAU
DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

received
1.30.04

LOG NO: 2004.0183
DOC NO 0401MM37

Received: December 12, 2003

Applicant/Agency: County of Hawaii Department of Water Supply c/o Gerald Park,
Urban Planner
Address: 1221 Kapiolani Blvd., Honolulu, Hawaii 96814
Project: Chapter 6E-8 Historic Preservation Comment on a Consultation for
Preparation of Draft Environmental Assessment, Waterline Improvements
within Mamalahoa Highway Right-of-Way [County/DWS]
Location: Honokohau 1st, 2nd, Kealakehe Homesteads, North Kona, Hawaii
Tax Map Key : (3) 7-4-multiple

1. We believe there are no historic properties present:

- a. intensive cultivation has altered the land
- b. residential development/urbanization has altered the land
- c. previous grubbing/grading has altered the land
- d. an acceptable archaeological assessment or inventory survey found no historic properties
- e. other

2. This project has already gone through the historic preservation review process.

- a. mitigation has been completed
- b. other:

Thus, we believe that "no historic properties will be affected" by this undertaking.

P. Holly Mc Eldowney
P. Holly Mc Eldowney, Administrator
State Historic Preservation Division

1/28/04
Date:

MM:ak

APPENDIX B
COMMENT LETTERS AND RESPONSES

Harry Kim
Mayor



County of Hawaii
DEPARTMENT OF PUBLIC WORKS
Apparel Center
101 Punch Street, Suite 7 • Hilo, Hawaii 96720-4724
(808) 941-8321 • Fax (808) 941-3639

Bruce C. McClure
Director
Russell K. Takahashi
Deputy Director

received
4. 20. 04

April 19, 2004

Mr. Gerald Park
Gerald Park, Urban Planner
1221 Kapiolani Blvd., Suite 211
Honolulu HI 96814

Subject: Draft Environmental Assessment
Mamalahoa Highway Waterline Improvements
Portion of Honokohau and Kealahou, District of North Kona, HI

We reviewed the subject document, dated January 2004, and have no comments to offer.
We have given our approval on the construction plans for Phase 1, DWS Job No. 2000-806.
Thank you for the opportunity to comment.

If you have any questions, please contact Kiran Emler of our Kona office at 327-3530.

Galen M. Kuba, Division Chief
Engineering Division

KE

c: ENG-HILO/KONA

Harry Kim
Mayor



County of Hawaii
FIRE DEPARTMENT
25 Aspinall Street • Suite 101 • Hilo, Hawaii 96720
(808) 941-8377 • Fax (808) 941-8294

Darryl J. Oliveira
Fire Chief
Dorcasia E. West
Deputy Fire Chief

received
4. 21. 04

April 15, 2004

Mr. Gerald Park
Gerald Park Urban Planner
1221 Kapiolani Blvd., Suite 211
Honolulu, HI 96814

Dear Mr. Park:

RE: MAMALAHOA HIGHWAY WATER LINE IMPROVEMENTS
PORTION OF HONOKOHAU AND KEALAKEHE
DISTRICT OF NORTH KONA, HAWAII

This responds to your request for comments regarding the Environmental Assessment for the subject project.

We have no comments to offer at this time concerning this proposal.

Thank you for the opportunity to participate in the planning stages of the project.

Sincerely,

DARRYL OLIVEIRA
Fire Chief

NA:ik



Harry Kim
Mayor



County of Hawaii
POLICE DEPARTMENT
349 Kapiolani Street • Hilo, Hawaii 96720-3998
(808) 933-3311 • Fax (808) 941-2339

April 23, 2004

Mr. Gerald Park
Urban Planner
1221 Kapiolani Street, Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

**SUBJECT: MAMALAHOA HIGHWAY WATER LINE IMPROVEMENTS
PORTION OF HONOKOHAU AND KEALAKEHE, DISTRICT OF
NORTH KONA, HAWAII**

This responds to your letter of March 31, 2004, relative to the above-listed subject matter.


Staff has reviewed the assessment and offers the following recommendations:

1. That construction be limited to non-peak traffic hours;
2. That all trenches be covered during non-construction hours.

Should you have any questions, please contact Captain John Dawrs, our Kona District Commander, at Phone No. 326-4211.

Sincerely,

LAWRENCE K. MAHUNA
POLICE CHIEF


THOMAS J. HICKCOX
ASSISTANT POLICE CHIEF
AREA II OPERATIONS

JD:dmtv

An Equal Opportunity Provider



GERALD PARK
Urban Planner

Planning
Land Use
Research
Environmental
Studies

1221 Kapiolani Blvd
Suite 211
Honolulu, Hawaii
96814

Telephone:
(808) 596-7484

Facsimile:
(808) 596-7485
e-mail:
geraldpark@aol.com

Lawrence K. Mahuna
Police Chief

Harry S. Kabejiri
Deputy Police Chief



June 9, 2004

Lawrence K. Mahuna
Chief of Police
County of Hawaii
Police Department
349 Kapiolani Street
Hilo, Hawaii 96720-3998

Dear Chief Mahuna:

**Subject: Mamelahoa Highway Water Line Improvements
District of North Kona, Hawaii**

Thank you for reviewing and commenting on the Draft Environmental Assessment for the subject project. We offer the following response to your comments.

The Environmental Assessment has been revised to include your comments that construction shall be limited to non-peak traffic hours and all trenches shall be covered during non-construction hours.

We thank the County of Hawaii Police Department for participating in the environmental assessment review process.

Sincerely,

Gerald Park Urban Planner


Gerald Park

c: O. Nishioka, DWS

Harry Kim
Mayor



Christopher J. Yuen
Deputy Director

Roy R. Takemoto
Deputy Director

County of Hawaii

PLANNING DEPARTMENT
101 Pauahi Street, Suite 3 • Hilo, Hawaii 96720-3043
(808) 961-8288 • Fax (808) 961-8742

May 7, 2004



Mr. Gerald Park
Urban Planner
1221 Kapiolani Blvd, Suite 211
Honolulu, HI 96814

Dear Mr. Park:

SUBJECT: Consultation on Draft Environmental Assessment
Applicant: Department of Water Supply
Project: Mamalaha Highway Water Line Improvements
Tax Map Key: 7-4-2, 3, 4 & 6

This is to acknowledge receipt of your March 31, 2004 letter and a copy of the Draft Environmental Assessment for the Mamalaha Highway Water Line Improvements for portions of Honokohau and Kealahou, District of North Kona, Hawaii.

The Department of Water Supply proposes to construct water line improvements within the right-of-way of Mamalaha Highway between their Honokohau Well and Water Storage Reservoir and the Keahuolu Well and Water Storage Reservoir.

In reviewing the Draft Environmental Assessment, we have the following to offer:

1. The County zoning designations for parcels along this section of Mamalaha Highway are Agricultural (A-1a, A-5a & A-20a) except for one that is zoned Family Agricultural (FA-1a).
2. The General Plan designations for the project area are Urban Expansion, Extensive Agricultural and Orchards.

Hawaii's County is an equal opportunity provider and employer

Mr. Gerald Park
Urban Planner
Page 2
May 7, 2004

3. The project site is not located in the County's Special Management Area. Thank you for the opportunity to comment on the proposed project. If you have questions, please feel free to contact Esther Imamura or Larry Brown of our office at 961-8288.

Sincerely,

CHRISTOPHER J. YUEN
Planning Director

ET:lmad
P:\WP\160\ETTE\Adm\Pr-conseal\Pr\4D\WS\Mamalaha\w74.doc

xc: Planning Department - Kona



June 9, 2004

GERALD PARK
Urban Planner

Christopher J. Yuen, Planning Director
County of Hawaii
Planning Department
101 Pauahi Street, Suite 3
Hilo, Hawaii 96720

Environmental
Studies

1221 Kopekone Blvd
Suite 211
Honolulu, Hawaii
96814

Telephone
(808) 595-7484
Facsimile
(808) 595-7485
e-mail
geraldpark@coi.com

Dear Mr. Yuen:

Subject: Mamalaha Highway Water Line Improvements
District of North Kona, Hawaii

Thank you for reviewing and commenting on the Draft Environmental Assessment for the subject project. We offer the following responses to your comments in the order presented.

1. The Final Environmental Assessment will be revised to include the Agricultural zoning designations (A-5a and A-20a) and Family Agricultural (FA-1a).
2. The general plan designation "Extensive Agricultural" also will be included.
3. A response is not required.

We thank the Planning Department for participating in the environmental assessment review process.

Sincerely,

Gerald Park Urban Planner

Gerald Park

c: O. Nishioka, DWS

LINDA LINDLE
GOVERNOR OF HAWAII



STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

225 SOUTH BERTHOUD STREET
HONOLULU, HAWAII 96813
TELEPHONE: (808) 586-4185
FACSIMILE: (808) 586-4186
E-mail: oeq@hawaii.gov

May 21, 2004

received
5-25-04

GENEVIEVE SALMONSON
DIRECTOR

Mr. Milton D. Pavao, Manager
Department of Water Supply
345 Kekuaaoa Street, Suite 20
Hilo, Hawaii 96720

Dear Mr. Pavao:


Subject: Draft EA for the Mamalaha Highway Waterline Improvements, Hawai'i

Thank you for the opportunity to review and comment on the subject project. We have the following comments.

1. Please describe the impacts to cultural resources.
2. Please disclose the risk of discharging chlorinated water to plants and animals.
3. Please consult with community groups and individual who may be affected.

Should you have any questions, please call Jeyan Thiruganaram at 586-4185.

Sincerely,


Genevieve Salmonson
Director

c: Gerald Park Urban Planner

MH 5-24



GERALD PARK
Urban Planner

Planning
Land Use
Research
Environmental
Studies

1221 Kapiolani Blvd
Suite 211
Honolulu, Hawaii
96814

Telephone:
(808) 596-7484
Facsimile:
(808) 596-7485
e-mail:
geraldp@hawaii.gov

June 9, 2004

Genevieve Salmonson, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813-2437

Dear Ms. Salmonson:

Subject: Mamalahea Highway Water Line Improvements
District of North Kona, Hawaii

Thank you for reviewing the Draft Environmental Assessment for the subject project. We offer the following responses to your comments in the order presented.

1. Impacts to cultural resources are not anticipated. During the pre-assessment consultation stage of the project, the State Historic Preservation Division commented, "there are no historic properties along the roadway." The road is not adjacent to any bodies of water thus the area was not fished. The project area has been urbanized for at least 75+ years and most of the plants along the right-of-way are exotic weeds and vegetation commonly found throughout the state. Some of the observed plants such as plumeria and bougainvillea are commonly grown and used for making lei; aloe is used medicinally for burns and skin treatment. No unique plant species were observed thus no gathering practices are believed to occur within the project limits. No burials are known to exist within the right-of-way; should burials or other cultural artifacts be unearthed, work in the immediate area will cease and the proper authorities (historical and police) notified for disposition of the finds.

2. Discharged chlorinated water is not anticipated to adversely affect plants and animals. The pipeline would be disinfected using a solution of water and chlorine gas. Chlorine would kill bacteria inside the pipe and would then be discharged at locations selected by the chlorinator. Upon discharge, the chlorine gas would react with bacteria in the open environment (bacteria in the air for example) and dissipate.

It should be noted that the Department of Water Supply chlorinates water it delivers to its customers to assure that the water is free of bacteria and safe for consumption.

The geology of the area is comprised of a'a and pahoehoe lava and discharged water should percolate quickly into the ground. If the chlorinator cannot find a suitable area for discharge, the chlorinated water will be discharged into water wagons and hauled away to a detention basin for disposal (evaporation).

3. This comment has been forwarded to the Department of Water Supply. Public notice of the project was published as a legal notice in West Hawaii Today and the Hilo Tribune Herald.



Genevieve Salmonson
Page 2
June 9, 2004

We thank the Office of Environmental Quality Control for participating in the environmental assessment review process.

Sincerely,

Gerald Park Urban Planner

Gerald Park

c: O. Nishioka, DWS

LINDA LINGGLE
GOVERNOR



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

May 12, 2004

Mr. Gerald Park
Gerald Park Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

Subject: Mamelahoa Highway Water Line Improvements
Draft Environmental Assessment (DEA)
TMK: 7-04-02, 03, 04, and 06

Thank you for requesting our review of the subject environmental report.

The proposed work is similar to other waterline projects implemented by the County of Hawaii Department of Water Supply. We expect that the usual coordination and notification will be conducted by the County of Hawaii for work that affects our highway right-of-way at the intersection of Mamelahoa Highway and Palani Road. Plans for construction work within our State highway right-of-way must be submitted for our review and approval.

We appreciate the opportunity to provide our comments.

Very truly yours,

Bay Mc

RODNEY K. HARAGA
Director of Transportation

c: Owen Nishioka, Hawaii Department of Water Supply
Galen Kuba, Hawaii Department of Public Works

RODNEY K. HARAGA
DIRECTOR

Deputy Director
BRUCE Y. MATSUDA
LINDEN H. JOHNSON
BRAND H. SODOLICH

BY REPLY REFER TO:

STP 8.1152

received
5-20-04



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June 9, 2004

Rodney K. Haraga, Director
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Haraga:

Subject: Mamelahoa Highway Water Line Improvements
District of North Kona, Hawaii
STP8.1152

Thank you for reviewing the Draft Environmental Assessment for the subject project. As you indicated, the County of Hawaii Department of Water Supply will notify and coordinate its work with the Department of Transportation. Construction plans for the project were submitted to the Highways Division, Hawaii District Office and approved on December 17, 2003.

We thank the Department of Transportation for participating in the environmental assessment review process.

Sincerely,

Gerald Park Urban Planner

Gerald Park
Gerald Park

c: O. Nishioka, DWS