

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII

SPECIAL PROVISIONS, SPECIFICATIONS, PROPOSAL
AND CONTRACT

FOR

LIHUE GATEWAY
MAINTENANCE, REPAIR AND INSPECTION OF LANDSCAPE IRRIGATION SYSTEM
PROJECT NO. 51BD-01-2018 & 570A-01-2018
ISLAND OF KAUAI

2018

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NOTICE TO BIDDERS
(Chapter 103D, HRS)

SEALED BIDS for LIHUE GATEWAY MAINTENANCE, REPAIR AND INSPECTION OF LANDSCAPE IRRIGATION SYSTEM, PROJECT NO. 51BD-01-2018 & 570A-01-2018, ISLAND OF KAUAI will be received at the Contracts Office, Department of Transportation, 869 Punchbowl Street, Honolulu, Hawaii 96813 or at the office of the District Engineer-Kauai, 1720 Haleukana Street Lihue, Hawaii 96766 until 2:00 P.M., Hawaii Standard Time (HST), May 10, 2018, at which time and places they will be publicly opened and read.

A compact disc containing the specifications, proposal and contract forms may be obtained from the above office. Bids (hard copies) shall be submitted in a sealed envelope, and shall be on the Proposal Form provided on the compact disc furnished by said Department. Bids received after the established due date and time will not be considered.

The scope of work consists of furnishing all labor, materials, tools, equipment and incidentals necessary for the maintenance, repair and inspection of irrigation system within the highway right-of-way.

To be eligible for award, bidders must possess a valid State of Hawaii Specialty Contractor's "C-27" Landscaping Contractor's license **or** State of Hawaii Specialty Contractor's "C-37b", Irrigation and Lawn Sprinkler Systems contractor's license at the time of bidding. The Contractor shall be able to respond to trouble calls/ (repairs) which requires a response time of one (1) hour of receiving notification (voice or text) from the Engineer or his representative. Bidder's attention is also directed to Section 2.1 of the Special Provisions regarding additional bidder's qualification.

The Hawaii Products Preference pursuant to ACT 175, SLH 2009 is applicable to this project. Persons wishing to certify and qualify a product as a Hawaii Product shall submit a Certification for Hawaii Product Preference (SPO Form 38) to the Department of Transportation Contracts Office no later than 4:30 p.m., fourteen (14) calendar days prior to the bid opening date. Late submittals for this project will not be reviewed by the Department.

A separate SPO-38 form shall be completed and submitted for each product. The form is available at <http://spo.hawaii.gov/wp-content/uploads/2013/12/spo-038.doc>

Driving While Impaired (DWI) Education. HDOT encourages all organizations contracted with the DOT to have an employee education program preventing DWI. DWI is defined as operating a motor vehicle while impaired by alcohol or other legal or illegal substances. HDOT promotes this type of program to accomplish our mission to provide a safe environment for motorists, bicyclists and pedestrians utilizing our State highways.

Campaign contributions by State and County Contractors. Contractors are hereby notified of the applicability of Section 11-355, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the term of the contract if the contractors are paid with funds appropriated by a legislative body. For more information, contact the Campaign Spending Commission at (808) 586-0285.

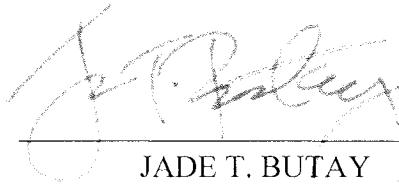
Any protest of this solicitation shall be submitted in writing to the Director of Transportation, in accordance with §103D-701, HRS and §3-126, HAR.

The Equal Employment Opportunity Regulations of the Secretary of Labor implementing Executive Order 11246, as amended, shall be complied with on this on this project.

The U.S. Department of Transportation Regulation entitled “Nondiscrimination in Federally-Assisted Programs of the U.S. Department of Transportation,” Title 49, Code of Federal Regulations (CFR), Part 21 is applicable to this project. Bidders are hereby notified that the Department of Transportation will affirmatively ensure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the grounds of race, color, national origin or sex (as directed by 23 CFR Part 200).

For additional information, contact Leandro Manding by telephone at (808) 587-2184 or by facsimile at (808) 587-2524.

The State reserves the right to reject any or all proposals and to waive any defects in said proposals for the best interest of the public.



JADE T. BUTAY
Director of Transportation

Internet Posting: April 19, 2018

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII

SPECIAL PROVISIONS

SPECIAL PROVISIONS

The specifications contained herein are amended as follows:

A. SECTION 1 – DEFINITIONS AND TERMS is amended as follows:

1. 1.38 WORKING DAY is amended in its entirety to read as follows:

“Everyday, except Saturdays, Sundays and State holidays as observed.

Normal State holidays are as follows:

New Year’s Day (1st day in January) *
Dr. Martin Luther King, Jr. Day (third Monday in January)
President’s Day (third Monday in February)
Prince Kuhio Day (26th day in March)
Good Friday (day preceding Easter Sunday)
Memorial Day (last Monday in May)
King Kamehameha Day (11th day in June)
Independence Day (4th day in July)
Statehood Day (third Friday in August)
Labor Day (first Monday in September)
General Election Day (as observed by the State)
Veterans Day (11th day in November)
Thanksgiving Day (fourth Thursday in November)
Christmas Day (25th day in December)

State Holiday schedules can be obtained online at:
<http://dhrd.hawaii.gov/state-observed-holidays/>

2. Add the following new subsections:

“1.39 ENGINEER – The District Engineer, acting directly or through his duly authorized representatives including the Engineer – Kauai District’s representative (Point of Contact), who are responsible for engineering supervision of construction and other highway matters.

1.40 STANDARD SPECIFICATIONS – The Hawaii Standard Specifications for Road and Bridge Construction, 2005, Highways Division, Department of Transportation, including any amendments. To review the standard specifications, log on to:

<http://hidot.hawaii.gov/highways/s2005-standard-specifications/>

The Contractor shall utilize the latest revision.

1.41 MUTCD – The Manual On Uniform Traffic Control Devices, 2009, Federal Highway Administration, U.S. Department of Transportation, including any amendments or revisions. To review the MUTCD, log on to:

<http://mutcd.fhwa.dot.gov/>

The Contractor shall utilize the latest revision.

1.42 HMSLM – The Hawaii Department of Transportation (HDOT) Highway Manual for Sustainable Landscape Maintenance, 2011, Highways Division, Hawaii Department of Transportation, including any amendments or revisions. Contractors may purchase this manual by contacting Ms. Emily Hsu of the Department of Transportation Staff Services Office at (808)587-4069. To review the HMSLM, log on to: <http://hidot.hawaii.gov/highways/landscape-architecture-program/>

1.43 OSHA – The U.S. Department of Labor (DOL), Occupational Safety and Health Administration (OSHA). To review the OSHA, log on to:

<https://www.osha.gov/law-regs.html>

The Contractor shall utilize the latest revision.”

B. SECTION 2 – PROPOSAL REQUIREMENTS AND CONDITIONS is amended as follows:

1. 2.1 QUALIFICATION OF BIDDERS is to be amended by adding the following paragraphs to the first paragraph therefor:

“Attention is directed to the provisions of Chapter 444, H.R.S., regarding the licensing of contractors in the State.”

A. Contractor **or** Contractor’s Responsible Managing Employee (RME) Qualification

1. **License.** *At the date of bidding*, possesses a valid State of Hawaii Specialty Contractor’s C-27 Landscaping contractor’s license **or** State of Hawaii Specialty Contractor’s C-37b, Irrigation and Lawn Sprinkler Systems contractor’s license. The Contractor or RME must possess the license throughout the duration of the contract and or any extensions.

A contractor or contractor’s RME who possesses a valid C-27 contractor’s license only but NOT the C-37b contractor’s license shall be required to employ or subcontract the work that is not included in the C-27 specialty license. Refer to Section 2.1.B.1b for the specified requirements.

- a. Statement of Capabilities. In the spaces provided in the Statement of Capabilities, the Contractor shall provide the following information (*Refer to Section 10.2(A) 1 Statement of Capabilities, of the Specifications for more information on Statement of Capabilities*):

- i. Copy of the specified license, as applicable and Contractor's license number, as applicable.
- 2. **Work Experience.** *At the date of bidding, the Contractor or RME shall have a minimum of two (2) consecutive years of C-27 Landscaping Contractor's or C-37b, Irrigation and Lawn Sprinkler Systems contractor's experience in the field of irrigation system maintenance, repair and inspection services. The experience shall include a minimum of two (2) years in managing contracts similar to this project in size and scope prior to bid opening.*
 - a. Statement of Capabilities. In the spaces provided in the Statement of Capabilities, the Contractor shall provide the following information (*Refer to Section 10.2(A) 1 Statement of Capabilities, of the Specifications for more information on Statement of Capabilities*):
 - i. Number of years of experience, as applicable. and
- 3. **Documentation of Work Experience.** Produce a list of similar projects to substantiate the Contractor's experience. List shall contain a minimum of three (3) different irrigation system maintenance, repair and inspection services projects to include name of company that you worked with or you are currently working with, point of contact, phone number, description of landscaping work performed and size of project (cost wise). *The minimum of three (3) different landscape projects experience shall be positive on performance evaluation by the respective agency.*
 - a. Statement of Capabilities. In the spaces provided in the Statement of Capabilities, the Contractor shall provide the following information (*Refer to Section 10.2(A) 1 Statement of Capabilities, of the Specifications for more information on Statement of Capabilities*):
 - i. Client references, as applicable.
- 4. Be familiar with working on State Highways.
- 5. Be experienced on establishing required traffic control per the current U.S. Federal Highway Administration's 'Manual on Uniform Traffic Control Devices (MUTCD). The Contractor may employ a person(s) or use a sub-contractor who is knowledgeable on traffic control.
 - a. Traffic control and closing of lanes personnel including flagman shall be performed by staff personnel who are trained and certified on Flagging/Work Zone Traffic

Control Safety or higher such as Work Zone Safety Inspection.

- b. The Contractor may employ a person or use a subcontractor who is knowledgeable on traffic control and closing of lanes upon approval by the Director. Subcontracting and approval process shall be in accordance with Section 8.2 Subcontracting, of the Special provisions. *The Contractor shall obtain the Director's written approval to subcontract prior to the issuance of the Notice to Proceed.*
- 6. Have administrative resources to facilitate monthly estimates and payment requests.
- 7. Have the required business and tax license to conduct business in the State of Hawaii.
- 8. Have all required equipment (e.g. handheld tools, utility trucks, mowers, etc.) necessary to perform the specified services in this document. Since public safety is of utmost importance, the Contractor shall complete the Statement of Capabilities form. *Refer to Section 10.2(A)1 Statement of Capabilities, of the Specifications for more information on Statement of Capabilities.* For leased equipment, the copy of the lease agreement shall be verified during the pre-start meeting as specified in Section 10.13 Pre-start Meeting, of the Specifications.

The following are required on all equipment/vehicles, as applicable:

- a. Contractor's vehicles must have Contractor's company name and/or logo displayed on doors or side panels and shall be in letters large enough to be easily legible from a distance of one hundred (100) feet. Magnetic signs bearing the contractor's company name/logo are acceptable. *Cost for the logo/contractor's company name shall be considered as incidental cost of maintaining landscaped areas.*
- b. All vehicles shall be in good condition and appearance.
- c. Shall meet all State and County licensing and registration and safety requirements and shall be equipped properly in accordance with City, State, Federal and OSHA requirements.
- d. Equipment/vehicles parked on the shoulder shall require proper traffic signage (i.e. "Shoulder Work Ahead", etc.) traffic cones, barricades, etc. as necessary and placed in

accordance with the MUTCD. *Refer to Section 10.11(A) 4 of the Specifications for more information.*

- e. The Contractor shall obtain insurance coverages as specified by Section 7.9 Insurance, of the Specifications.
- f. Operation of all equipment shall be in accordance with all applicable OSHA, other Federal, State, and local regulations and laws and the equipment operator's manual.

Required equipment maybe owned or leased. To show availability of equipment, the bidder shall complete the Statement of Capabilities form or submit a separate list of owned and/or leased equipment. *Refer to Section 10.2(A) 1 Statement of Capabilities, of the Specifications for more information on Statement of Capabilities.*

For leased equipment, the copy of the lease agreement as listed in the Statement of Capabilities shall be verified during the pre-start meeting as specified in Section 10.13 Pre-start Meeting, of the Specifications. The State reserves the right to verify the availability of equipment, prior to the Notice to Proceed date and throughout the term of the contract.

B. Contractor, Contractor's RME **or Contractor's Personnel Qualification**

The Contractor shall determine the number of trained/certified staff personnel that he/she is going to employ in order to satisfactorily perform all tasks and fulfill all the safety requirements of the contract documents, but shall employ a minimum of one personnel who is trained/certified/licensed/experienced on the following:

1. Motorola Irrinet Systems Training

- a. Factory Training. *At the date of bidding*, possesses a valid training and a valid certification on Irrinet Systems by Motorola **or** a company equivalent to Motorola Irrinet Systems.
- b. The Motorola -trained **or** trained by a company equivalent to Motorola Irrinet Systems and certified personnel shall have a minimum of two (2) years work experience as Motorola -trained **or** trained by a company equivalent to Motorola Irrinet Systems and certified in operating, installing and maintaining Irrinet Systems.
- c. In the spaces provided in the Statement of Capabilities, the Contractor shall provide the following information (*Refer to Section 10.2(A) 1 Statement of Capabilities, of the*

Specifications for more information on Statement of Capabilities):

- i. Name of Motorola (or equivalent) -certified personnel,
- ii. Motorola Irrinet Systems (or equivalent) certification number, as applicable.
- iii. Work experience similar to the scope of this contract,
- iv. Copy of the Motorola Irrinet Systems (or equivalent) certification, and
- v. Years of experience as of bid opening date.

1a. Pump Technician

- a. **Certification.** *At the date of bidding*, possesses a valid training completion certificate related to the qualifications as specified in Section 2.1.B.1a.b through Section 2.1.B.1a.e. of this section.
- b. **Work Experience.** *At the date of bidding*, shall have a minimum of five (5) years work experience in maintaining and repairing the pump system as specified in Section 10.1 Description, of the Specifications, or equivalent pump systems, that are monitored/associated with Motorola Irrinet Systems or equivalent.
- c. As a minimum, the Pump Technician shall be knowledgeable on:
 - i. Irrigation filter types and cleaning and adjustment of filter screens.
 - ii. Electrical concepts, electrical safety and pump control circuits.
- d. As a minimum, experienced in performing routine maintenance and troubleshooting the pump system as specified in Section 2.1.B.1a.b above. Routine maintenance experience shall include maintenance requirements as specified in Appendix A of the Appendices of the contract documents, including, voltage and current checks, pump performance analysis, lubricating motor bearings, checking and calibrating control valves. Repair experience shall include troubleshooting the specified pump system, pressure tanks, valves, etc.
- e. As a minimum, experienced in testing the grounding systems for pumps and irrigation controllers.

f. In the spaces provided in the Statement of Capabilities, the Contractor shall provide the following information (*Refer to Section 10.2(A) 1 Statement of Capabilities, of the Specifications for more information on Statement of Capabilities*)::

- i. Name of Pump Technician,
- ii. Copy of applicable certificate of training completion related to the qualifications as specified in Section 2.1. B.1a.b through Section 2.1. B.1a.e, and
- iii. Years of experience as of bid opening date.
- iv. Work experience similar to the scope of this contract,
- v. Submit a signed documented Pump Technician experience.

1b. State of Hawaii Irrigation and Lawn Sprinkler Systems Specialty C-37b contractor's license. This is applicable if bidder is subcontracting. *Refer to Section 2.1.A.1 of the Specifications.*

- a. **License.** *At the date of bidding*, the C-37b contractor's licensee possesses a valid certification.
- b. **Work Experience.** *At the date of bidding*, C-37b contractor's licensee shall have a minimum of two (2) consecutive years of State of Hawaii Specialty Contractor's C-37b, Irrigation and Lawn Sprinkler Systems contractor's license experience in the field of irrigation system maintenance, repair and inspection services.
- c. The C-37b contractor's licensee shall be onsite at all times when irrigation work requiring c-37b specialty skills is being performed.

If the C-37b contractor's licensee is found not to be onsite when irrigation work is being performed more than three (3) times in one contract year then contract shall not be renewed.

- d. In the spaces provided in the Statement of Capabilities, The Contractor shall provide the following information (*Refer to Section 10.2(A) 1 Statement of Capabilities, of the Specifications for more information on Statement of Capabilities*)::
 - i. Name of C-37b contractor's licensee.
 - ii. Work experience similar to the scope of this contract that fulfills the requirements of Sections 2.1.B.1.a or 2.1.B.1.b above.

- iii. Copy of the C-37b contractor's license.
- iv. Years of experience that fulfills the requirements of Sections 2.1.B.1.a **or** 2.1.B.1.b above *as of bid opening date*.

2. **Lead Irrigation Person.** The Contractor shall employ, as a minimum, one in his staff with the following requirements. *Refer to Section 2.1.B.2.c.i below for minimum requirements if the Bidder/Contractor has been awarded multiple landscaping contracts at the time of bid of this project.*

a. **Certification.** *At the date of bidding*, possesses a valid certification and in good standing as a Landscape Industry Council Certified Landscape Technician (CLT) Exterior/Irrigation.

b. **Work Experience.** *At the date of bidding* and pursuant to "The Highway Manual for Sustainable Landscape Maintenance_(HMSLM)" possesses the following:

- i. a minimum of one (1) year of experience in supervising personnel performing irrigation work **or**
- ii. at least two (2) years of experience in all phases of sprinkler repair and installation work.

Refer to Section 1.42 HMSLM, of the Special Provisions for the definition of "HMSLM."

c. The CLT Exterior/Irrigation Lead Irrigation Person shall be onsite *at all times* when irrigation work is being performed.

- i. *To effectively enforce this requirement, Bidders/Contractors with multiple landscaping contracts with the Highways Division, Kauai District shall be required to employ a minimum of one (1) CLT Exterior/Irrigation Lead Irrigation Person per two (2) landscaping contracts. Bids from Contractors with multiple contracts may not be considered if certificate of CLT Exterior/Maintenance Lead Maintenance has been submitted for the past two awarded bids/contracts.*
- ii. *Pursuant to Section 8.6 Liquidated Damages Statement of Capabilities, of the Specifications, the Contractor shall be charged liquidated damages for failure to have the CLT Exterior/Irrigation Lead Irrigation Person on site whenever irrigation maintenance/repair operations are in progress.*

- iii. If the CLT Exterior/Irrigation Lead Irrigation Person is found not to be onsite more than three (3) times in one contract year then contract shall not be renewed.
- iv. A CLT Exterior/Irrigation who is also a CLT Exterior/Maintenance will satisfy the minimum requirement of one (1) CLT Exterior/Maintenance Lead Maintenance Person per two (2) landscaping contracts as specified in Section 2.1.B.2.c.i of the Special Provisions.
- d. In the spaces provided in the Statement of Capabilities, the Contractor shall provide the following information (*Refer to Section 10.2(A) 1 Statement of Capabilities, of the Specifications for more information on Statement of Capabilities*):
 - i. Name of CLT Exterior/Irrigation personnel.
 - ii. Work experience similar to the scope of this contract that fulfills the requirements of Sections 2.1. B.2.b.i or 2.1.B.2.b.ii above.
 - iii. Copy of the CLT Exterior/Irrigation certification.
 - iv. Years of experience that fulfills the requirements of Sections 2.1.B.2.b.i or 2.1.B.2.b.ii above.
- e. The following certificates from the following training sources are acceptable:
 - i. Landscape Industry Council of Hawaii (LICH)
 - ii. Professional Landscape Network (PLANET)
 - iii. Combined LICH or PLANET
 - iv. Equivalent certificates similar to items i through iii above.

3. **Sprinkler Technician**

- a. **Working Knowledge.** *At the date of bidding*, the Sprinkler Technician shall be, as a minimum, capable of reading plans and following instructions.
- b. **Work Experience.** *At the date of bidding*, possess a minimum of one (1) year experience in all phases of sprinkler system installation and maintenance work.

- c. In the spaces provided in the Statement of Capabilities, the Contractor shall provide the following information (*Refer to Section 10.2(A) 1 Statement of Capabilities, of the Specifications for more information on Statement of Capabilities*):
 - i. Name of Sprinkler Technician.
 - ii. Work experience similar to the scope of this contract that fulfills the requirements of Section 2.1.B.3.b above.
 - iii. Years of experience that fulfills the requirements of Section 2.1.B.3.b above.

4. **Traffic Control personnel.** *Refer to Section 2.1.B of the Special Provisions for the required minimum number of trained/certified personnel.*

- a. If the Contractor is using his or her own work force/personnel to perform flagging/traffic control/closing of lanes services, the Contractor shall fulfill the following requirements:

- i. **Certification.** *At the date of bidding*, the Contractor or his personnel shall possess a valid certificate of training completion respectively. As a minimum, the Contractor or his/her personnel shall be trained and certified on the following American Traffic Safety Services Association (ATSSA) courses or their respective equivalent from other training sources:

- 1. Flagger,
- 2. Traffic Control Technician (TCT) **and**
- 3. Traffic Control Supervisor (TCS).

For more information on the above courses, log on to: <http://www.atssa.com/Training>

- 4. The Contractor shall submit the following acceptable documentation of training completion:
 - a. American Traffic Safety Services Association (ATSSA).
 - b. Equivalent documentation to the above.

5. In the space provided in the Statement of Capabilities form, the Contractor shall provide the following information and documentation (*Refer to Section 10.2(A) 1 of the Specifications for more information on Statement of Capabilities*):

- a. Name of ATSSA certified personnel **for each** of the personnel in Section 2.1.B.4.a.i.1 through 3 above.
- b. Description of work experience for each specified personnel similar to the scope of this contract,
- c. Years of experience for each specified personnel as of bid opening date. Years of experience shall meet the requirements of Section 2.1.B.4.a.ii of this section.

ii. **Work experience.** *At the date of bidding, the Contractor or Contractor's traffic control personnel shall have a minimum of two (2) years' experience as a certified Flagger, Traffic Control Technician (TCT) and traffic Control Supervisor (TCS) or their respective equivalent.*

1. Statement of Capabilities. In the space provided in the Statement of Capabilities form, the Contractor shall provide the following information (*Refer to Section 10.2(A) 1 of the Specifications for more information on Statement of Capabilities*):

a. Number of years of experience.

b. If the Contractor plans on using a subcontractor(s) to perform flagging/traffic control/closing of lanes, the subcontractor shall fulfill the training and certification requirements as detailed in Section 2.1.B. 4. a. i of the Special Provisions and shall have sufficient equipment and traffic control devices to perform traffic control services.

Subcontracting and approval process shall be in accordance with Section 8.2 Subcontracting, of the Special provisions. *The Contractor shall obtain the Director's written approval to subcontract prior to the issuance of the Notice to Proceed.*

In the space provided in the Statement of Capabilities form, the Contractor shall indicate his/her intent on using a subcontractor who has the required experience, training and certification as specified under this section."

5. Ability to Communicate: Contractor personnel shall be able to speak and understand the English language and be able to communicate sufficiently in order to perform their assigned work. Contractor personnel shall be able to read, understand written materials such as manuals regulations, instructions, and others that personnel will be required to use in the performance of their assigned work.
6. Falsification of personnel qualifications, inability to successfully perform the work, or excessively high turnover of personnel assigned to this work, shall constitute a major breach of this contract and the contract shall be subject to termination.
7. Supplementary Contractor Personnel Requirements
 - a. Uniforms. Contractor employees on the job site shall be easily identified as Contractor's employees by wearing a shirt, T-shirt or coverall with the company name or logo.

Contractor's employees shall present a neat and clean appearance at all times. One color and style of uniform shirt shall be selected which will be worn by all Contractor personnel. *Cost of employee's shirt, T-shirt or coverall shall be incidental to the unit price of furnishing maintenance of landscaped services.*
 - b. Conduct of personnel. For security and safety reasons, the Contractor shall prohibit his or her personnel from parking their personally-owned vehicle along the highway right-of-way areas.

The State reserves the right to disqualify the person based on performance anytime during the contract. Upon disqualification, the Contractor has ten (10) working days to submit a qualified replacement.

The determination of the Contractor's qualifications shall be made solely by the Director and the Director's decision shall be final."

2. 2.3 PROPOSAL GUARANTY is deleted in its entirety.
3. Add the following new section:

“2. 9 CERTIFICATE FOR PERFORMANCE OF SERVICES – Pursuant to Section 103-55, Hawaii Revised Statutes, and unless indicated otherwise, bidders should submit the attached “Certificate for Performance of Services” in the event bids are in excess of \$25,000. The notarized certificate must be submitted to said Contracts Office, Department of Transportation, 869 Punchbowl Street, Honolulu, Hawaii 96813, before entering into a contract to perform services.

As of April 1, 2017, salaries of State employees performing work similar to the work called for under this contract are as follows:

Class Title	Bargaining Unit (BU) Salary Schedule	Grade	Minimum Hourly Pay Rate
General Laborer I	BU 01	BC-02	\$ 18.72
General Laborer II	BU 01	BC-03	\$ 19.24
General Laborer III	BU 01	WS-03	\$ 20.60
Equipment Operator I	BU 01	BC-04	\$ 20.02
Equipment Operator II	BU 01	BC-06	\$ 21.65
Irrigation Service Worker II	BU 01	BC-07	\$ 22.52
Sprinkler System Repairer	BU 01	BC-05	\$ 20.82
Highway Maintenance Supervisor I & II	BU 02	F-105	\$24.35

The above information is provided to the Contractor for guidance only and is subject to change in accordance with existing collective bargaining contracts or shall change as contracts are renegotiated.

It is the bidder’s responsibility to verify the accuracy of the wage rates contained herein and to provide for changes in the minimum wages, which must be paid to personnel working on this project at all times. Information on the status of Bargaining Unit (BU) contracts, salary schedules, Class Specifications and minimum qualification requirements can be obtained from the State Department of Transportation, Highways Division, Personnel Management office (587-2229) or on line at: <http://dhrd.hawaii.gov/state-hr-professionals/class-and-comp/>

Bidders are further advised that they are not restricted to hire only those classifications of employees as listed, but are free to employ such other classifications of workers as the bidder deems proper and proposes to use on the project, as may be according to the bidder’s common hiring practice. However, the principal duties of employees other than those listed hereinabove working on the project will be matched against those of State workers to determine the closest equivalent State employee classification, and the Contractor must compensate such employee(s) at a rate which is no less than that of the equivalent State employee.”

C. SECTION 4 - SCOPE OF WORK is amended as follows:

1. 4.2 PERFORMANCE OF WORK - is amended by adding the following paragraph to the end of the subsection:

“The Contractor shall perform work satisfactorily in the judgment of the Director during the contract period. If it appears at any time that the work contracted to be performed is not satisfactory, the Director may require the Contractor to furnish and place in operation such additional force and equipment as the Director shall deem necessary to bring the work up to satisfactory status. In case the Contractor fails to comply after ten (10) working days from the date of receipt of such a written order from the Director, the Director may employ a working force and equipment and charge the Contractor for the reasonable cost thereof including depreciation for equipment and/or the Director may terminate the contract.”

D. SECTION 5 - CONTROL OF WORK is amended as follows:

1. 5.3 COOPERATION OF CONTRACTOR AND DIRECTOR is amended by adding the following paragraphs to the end of the subsection:

“The Contractor shall have at each work site, at all times when work is scheduled, a responsible individual who is able to understand and speak the English language. Such individual(s) shall have complete authority to communicate with the Inspector and to relate the Inspector’s instructions to the Contractor or his workers. The Contractor shall submit the name(s) of such individual(s) before starting work on the project and inform the Inspector in writing of any changes in such assigned responsibilities.

The Contractor shall furnish the State with a telephone number and email address where he can be reached at all times during normal working hours. This is very important during the bidding period as well as the contract period.”

2. 5.4 INSPECTION is amended by adding the following paragraphs to the end of the subsection:

“The Director reserves the right to have all work as specified by the contract documents to be inspected by a State Inspector or by a State-Contractor/Consultant-provided inspector. Refer to Subsections 1.12 Director and 1.19 Inspector, of the Specifications for the definitions of Director and Inspector respectively.

The Contractor shall maintain all books, documents, papers, records and other evidence pertaining to payroll, employee’s name, wage rates and hours worked and to make such materials and information available at their respective offices at all reasonable times during the contract period and for three (3) years from the date of final payment under the contract, for inspection by the State. Failure to comply with the conditions of this Section during the contract period may result in cancellation of the contract.”

3. Add the following new subsection:

“5.7 CONTRACTOR PERFORMANCE RATING - The Contractor shall be rated every month or more often as determined by the Engineer based on his performance for that period. The Contractor will be rated on eleven (11) performance factors related to compliance with the contract specifications. *Refer to Appendix A Contractor Performance Rating, of the Appendices for the eleven (11) performance factors.*

At the fourth-month period of the contract, the Engineer shall make a determination whether to extend or not extend a contract. A consistent performance rating of “Unsatisfactory” and or a maximum of two failures on any of the tasks observed throughout a four month – period shall be grounds for non-extension of the contract. Rating of “Unsatisfactory” shall constitute “failure.”

- E. SECTION 7 - LEGAL RELATIONS AND RESPONSIBILITY is amended as follows:

1. 7.8 LABOR AND COMPENSATION REQUIREMENTS is amended by replacing the first paragraph with the following:

“7.8 LABOR AND COMPENSATION REQUIREMENTS - Wages paid each employee employed by the Contractor shall be no less than those specified in Section 2.9 of the Special Provisions. The Contractor shall submit certified payroll affidavits in the form approved by the Department, **showing full information on the following**:

- a. Name of each employee who worked during the reporting period,
- b. Their rates of pay,
- c. The number of hours worked,
- d. Gross earnings and
- e. Deductions made.

Personal information such as social security numbers and addresses of employees are not required.

For a sample format of certified payroll, click on the link:

<http://pwd.hawaii.gov/construction-management-branch/construction-administration-forms/>. Click on “Statement of Compliance & DAGS-ECP for Payroll Affidavits” for additional information. *Refer to Appendix I, Sample – Payroll Report, of the Appendices*

The Engineer - Kauai District's representative (Point of Contact) shall document failures to submit certified payroll affidavits and notify the Contractor in writing. Two documented offenses that show willfully ignoring this requirement or failure to document all employees in the payroll affidavit shall constitute a major breach of the Contract and the Contract maybe terminated by the Director.

The Contractor shall be required to comply with the laws of the U.S. Citizenship and Immigration Services (USCIS). The Department reserves the right to periodically check the employable status of persons listed on the

certified payroll certificates. Any person, who is found to be an illegal alien (undocumented alien) under the laws of the (USCIS), shall be immediately dismissed from the project and not be rehired until he or she is properly cleared.”

2. Add the following new section:

“7.11 PUBLIC CONVENIENCE AND SAFETY

The Contractor shall conduct his maintenance and inspection operations with due regard to the convenience and safety of the public at all times. The protection of persons and property shall be provided by the Contractor.

All work under this contract shall be in full compliance with Subsection 107.11, Safety: Accident Prevention and 107.12, Protection of Persons and Property of the Standard Specifications. *Refer to Section 1.40 Standard Specifications, of the Special Provisions for the definition of Standard Specifications.*

The Contractor shall take all necessary precautions to protect all his/her employees and all other personnel from hazards and injuries. The rules and regulations promulgated by the U.S. Department of Labor Occupational Safety and Health Acts (OSHA); the Hawaii Department of Labor and Industrial Relations (DLIR) Hawaii Occupational Safety and Health Division (HIOSH) and any other applicable federal, state, and local rules and regulations are not included herein, but are applicable and made part of these specifications.”

- F. SECTION 8 - PROSECUTION AND PROGRESS is amended as follows:

1. 8.2 SUBCONTRACTING is amended by adding the following:

“The Contractor shall give his personal attention to the fulfillment of the contract and shall keep the work under his control at all times.

Any work, which falls outside of the authorized work of the C-27 Landscape Contractor or C-37b Irrigation and Lawn Sprinkler Systems license, may be subcontracted only upon approval of the Director. His decision shall be final. Payment of all costs for such subcontractor work shall be according to prices or arrangements agreed upon prior to authorization of such work in writing.”

2. 8.6 LIQUIDATED DAMAGES by adding the following paragraphs to the end of the subsection:

“A. Liquidated Damages for Maintenance, Repair and Inspection of Irrigation and System (Routine/Preventive):

Timely performance by the Contractor of all his duties every calendar day is an essential part of this contract and in case of failure on the part of the Contractor to perform any of his duties in a timely manner; damages will

be sustained by the State. As the amount of damages are difficult to predetermine, the amount of such damages is fixed in advance as follows:

1. For failure to provide satisfactory and timely maintenance and inspection service in accordance with the specifications as determined by the Director, liquidated damages shall be assessed to the Contractor for each and every calendar day at the rate of five percent (5%) of the unit price of the maintenance service items.
2. Five percent (5%) of current total monthly billing may be deducted from State's payment to the Contractor for each and every time it does not respond within two (2) hours after receipt of an irrigation trouble call request for remedial maintenance for which it is contractually obligated under this contract. For purposes of this paragraph, definition of the term "respond" means to have maintenance personnel on the job and working on the equipment, which is the subject of the request."
3. \$400.00 for each and every calendar day for failure to have the required CLT Exterior Irrigation certified personnel on site during irrigation maintenance/repair operations as specified in 2.1.B.2.c of the Special Provisions, respectively."

G. SECTION 9 - PAYMENT is amended as follows:

1. 9.2 RETAINAGE/DEDUCTION FROM PAYMENT - is amended by adding the following paragraphs to the end of the third paragraph:

*"Retainage is deducted monthly starting on the first invoice of the applicable term and if contract performance is satisfactory, deduction will end after six months. The Contractor, in order to be paid the retainage amount, has **two options**:*

- a. *Submit the total retainage invoice at the end of the first term. Repeat the whole process of deducting retainage and submitting total retainage for payment for each contract term, **or***
- b. *Submit the total retainage invoice held during the first term at the end of the fifth term or the final term, as applicable (when contract is not renewed, etc.). Retainage will no longer be deducted at the 2nd, 3rd, 4th and 5th term, or the final term, as applicable (when contract is not renewed, etc.) of the contract."*

2. 9.4 PROGRESS PAYMENTS is amended by adding the following paragraphs to the end of the subsection:

"The Contractor shall bill the State once a month. To expedite processing of all payments for services rendered, the Contractor shall forward copies of the invoice as specified in Section 9.4 Progress Payments, of the Specifications to the following address:

District Engineer - Kauai District
Highways Division
Department of Transportation
1720 Haleukana Street, Lihue, Hawaii 96766

Each invoice shall include but not limited to the following information:

- a. Contractor's name, address, and phone number.
- b. Contract no., project no., and project title.
- c. Bid item no., description of services, periods covered or date of service performed, quantity, unit price, amount, subtotal, and total.
- d. Deductions, as applicable, shall be included in the invoice as separate subtotal(s) and labeled as either (1), (2), and/or (3) below:
 - i. Deductions for failing to maintain the designated landscaped areas satisfactorily as specified in Section 10.19(C) Deductions, of the Specifications.
 - ii. Liquidated Damages – as specified in Section 8.6 Liquidated Damages, of the Special Provisions.
 - iii. Retainage as specified in Section 9.2 Retainage/Deduction from Payment, of the Special Provisions and the Specifications.
- e. Certification by the Contractor that services as requested under the contract have been performed as specified in Section 9.4 Progress Payments, of the Specifications.

Refer to the sample invoice in Appendix H - Sample Monthly Invoice, of the Appendices.

Pursuant to Section 7.8 Labor and Compensation Requirements, of the Special Provisions, the Contractor shall submit each month to the Department, certified copies of the payrolls within seven (7) days after the end of the month. The certification shall affirm that the payrolls are correct and complete. The certificates shall be forwarded to the same address as specified above.”

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII

SPECIFICATIONS

SECTION 1 - DEFINITION AND TERMS

Whenever the following pronouns are used in these specifications, or in any documents or instruments where these specifications govern, the intent and meaning shall be interpreted as follows:

1.1 ADDENDA - A written document which may be issued by the Director during the bidding period involving changes to the specifications and plans, if any, which shall be considered and made a part of the contract.

1.2 AIRPORTS DIVISION - Airports Division, Department of Transportation, State of Hawaii.

1.3 AWARD - The written acceptance of a proposal by the State.

1.4 BIDDER - Any individual, partnership, corporation or other legal entity, or combination thereof, submitting a proposal for the work contemplated, acting either directly or through a duly authorized representative.

1.5 CALENDAR DAY - Every day shown on the calendar. If no designation of calendar or working day is made, "day" shall mean calendar day.

1.6 CHANGE ORDER - A written order issued by the Director to the Contractor requiring the contract work to be performed in accordance with a change or changes that may involve an adjustment in contract time and price or requiring performance of any unforeseen work essential to complete the contract.

1.7 CONTRACT - The written agreement between the State and the Contractor setting forth the obligations of the parties thereunder, including, but not limited to, the performance of the work, the furnishing of labor and materials, and the basis of payment.

The contract includes the (1) notice to bidders, (2) proposal, (3) contract form and contract bond, (4) specifications, (5) special provisions and plans, if any, (6) addenda, (7) notice to proceed, and (8) change orders and agreements that are required to complete the work, all of which constitute one instrument.

1.8 CONTRACT BOND - The approved form of security, executed by the Contractor and its Surety or Sureties, guaranteeing the completion of the work in accordance with the terms of the contract, and guaranteeing full payment of all claims for labor, materials, and supplies used or incorporated in the work.

1.9 CONTRACT TIME - The number of working days or calendar days allowed for completion of the contract, including authorized time extensions.

If a calendar date is specified as the date of completion in lieu of the number of working days or calendar days, the contract shall be completed by that date.

In case the contract is for a specified period of time, the contract time shall be for said specified period of time.

1.10 CONTRACTOR - The individual, partnership, corporation or other legal entity, or combination thereof, contracting with the State for performance of the prescribed work.

1.11 DEPARTMENT - The State Department of Transportation.

1.12 DIRECTOR - The Director of Transportation, acting either directly or through the Director's duly authorized representative.

1.13 EQUAL OR APPROVED EQUAL - Whenever this term is used in the specifications and plans, if any, it means a brand or article pre-qualified in accordance with Section 6.2 Trade Names and Alternates and which may be used in place of the one specified.

1.14 H.A.R. or HAR - Hawaii Administrative Rules.

1.15 H.R.S. or HRS - Hawaii Revised Statutes.

1.16 HARBORS DIVISION - Harbors Division, Department of Transportation, State of Hawaii.

1.17 HIGHWAYS DIVISION - Highways Division, Department of Transportation, State of Hawaii.

1.18 HOLIDAYS - The days which are set apart and established as State holidays pursuant to Section 8-1, H.R.S.

1.19 INSPECTOR - The Director's authorized representative assigned to make detailed inspections of contract performance and materials supplied.

1.20 NOTICE TO BIDDERS - The public announcement, as required by law, inviting proposals for the work to be performed or materials to be furnished.

1.21 NOTICE OF FINAL ACCEPTANCE - Written notice from the Director to the Contractor that the entire contract has been completed in all respects in accordance with the specifications and plans, if any, and any changes thereof previously approved by the Director.

1.22 NOTICE TO PROCEED - Written notice from the Director to the Contractor advising the Contractor of the date on which he is to begin the prosecution of the work.

1.23 PLANS - The contract drawings approved by the Director which show the location, character, dimensions and details of the work to be done and shall be a part of the contract.

1.24 PROCUREMENT OFFICER - The Director's duly authorized representative including project managers, project engineers and contract administrators assigned to prepare, evaluate and administer contracts for the purchasing of goods and services.

1.25 PROPOSAL (OR BID) - The offer of a bidder, on the prescribed form, to perform the work and to furnish the labor and materials at the prices quoted.

1.26 PROPOSAL FORM - The approved format prepared by the Department or a facsimile thereof on which bids for the work must be prepared and submitted. (Reasonable facsimile acceptable for bidding.)

1.27 PROPOSAL GUARANTY - The security furnished with a proposal to guarantee that the bidder will enter into the contract and furnish all other requirements if the bidder's proposal is accepted.

1.28 QUALIFICATION QUESTIONNAIRE - The specified forms on which the bidder shall furnish required information as to the bidder's ability to perform and finance the work.

1.29 S.L.H. or SLH - Session Laws of Hawaii.

1.30 SPECIAL PROVISIONS - Revisions to the specifications. The specific clauses setting forth conditions or requirements peculiar to the project under consideration which are not thoroughly or satisfactorily stipulated in these specifications.

1.31 SPECIFICATIONS - The directions, provisions, and requirements pertaining to the method and manner of performing the work and to the quantities and qualities of materials to be furnished under the contract.

1.32 STATE - The State of Hawaii.

1.33 SUBCONTRACTOR - An individual, partnership, corporation, other legal entity, or any combination thereof, that enters into an agreement with the Contractor to perform a portion of the work for the Contractor.

1.34 SUPERINTENDENT - The Contractor's representative who is responsible for and in charge of the work.

1.35 SURETY - The corporation, partnership or individual, other than the Contractor, executing a bond furnished by the Contractor and guaranteeing performance by the Contractor.

1.36 TITLES (OR HEADINGS) - The titles or headings of the Sections herein are intended for convenience of reference and shall not be considered as having any bearing on their interpretation. Unless otherwise indicated, whenever the word "Section" is used, reference is being made to a Section in these specifications.

1.37 WORK - The furnishing of all labor, materials, equipment, and other incidentals necessary or convenient for the successful completion of the project and the execution of all the duties and obligations imposed by the contract.

1.38 WORKING DAY - Any day, except Saturdays, Sundays and State holidays.

SECTION 2 - PROPOSAL REQUIREMENTS AND CONDITIONS

2.1 QUALIFICATION OF BIDDERS - Prospective bidders must be capable of performing the work for which bids are called.

In accordance with Section 103D-310, HRS, the Department may require any prospective bidder to submit answers to questions contained in the "Standard Qualification Questionnaire for Prospective Bidders on Public Works Contracts" on the form furnished by the Department, properly executed and notarized, setting forth a complete statement of the experience of such prospective bidder and its organization in performing similar work and a statement of the equipment proposed to be used, together with adequate proof of the availability of such equipment. Whenever it appears to the Department, from answers to the questionnaire or otherwise, that the prospective bidder is not fully qualified and able to perform the intended work, the Department will, after affording the prospective bidder an opportunity to be heard and if still of the opinion that the bidder is not fully qualified to perform the work, refuse to receive or consider any bid offered by the prospective bidder. All information contained in the answers to the questionnaire shall be kept confidential. Questionnaire so submitted shall be returned to the bidders after serving their purpose.

Failure to complete the qualification questionnaire will be sufficient cause for the Department to disqualify a prospective bidder.

No person, firm or corporation may bid where (1) the person, firm, or corporation, or (2) a corporation owned substantially by the person, firm, or corporation, or (3) a substantial stockholder or an officer of the corporation, or (4) a partner or substantial investor in the firm is in arrears in payments owed to the State of Hawaii or its political subdivisions or is in default as a surety or failure to do faithfully and diligently previous contracts with the State.

2.2 REJECTION OF PROPOSALS CONTAINING ALTERATIONS, ERASURES, OR IRREGULARITIES - Proposals may be rejected if they show any alterations of form, additions not called for, conditional bids, incomplete bids, erasures, or irregularities of any kind.

When proposals are signed by any agent, other than the officer or officers of a corporation authorized to sign contract on its behalf or a member of copartnership, a Power of Attorney must be on file with the Department prior to opening bids or shall be submitted with the proposal; otherwise, the proposal may be rejected as irregular and unauthorized.

Members of a joint venture may be requested to supply the Department with a copy of their joint venture agreement or each member of the joint venture may be required to sign the proposal.

2.3 PROPOSAL GUARANTY - A proposal guaranty (bid bond) is not required except when specifically noted in the proposal section of the bid document.

When a proposal guaranty is required with a bid, it will be specifically stated in the proposal; and no proposal totaling \$25,000 or more will be considered unless accompanied by one of the following forms of bidder's security:

- A. a deposit of legal tender; or
- B. a surety bid bond underwritten by a company licensed to issue bonds in the State of Hawaii and submitted on the standard form provided herewith; or
- C. a certificate of deposit, share certificate, cashier's check, treasurer's check, teller's check, or official check drawn by, or a certified check accepted by and payable on demand to the State by a bank, savings institution, or credit union insured by the Federal Deposit Insurance Corporation (FDIC) or the National Credit Union Administration (NCUA).

1. The bidder may use these instruments only to a maximum of one hundred thousand dollars (\$100,000.00).

2. If the required security or bond amount totals over one hundred thousand dollars (\$100,000.00), more than one instrument not exceeding one hundred thousand dollars (\$100,000.00) each and issued by different financial institutions shall be acceptable.

3. The instrument shall be made payable at sight to the Department of Transportation, State of Hawaii.

According to Section 103D-323, HRS, the above shall be in a sum not less than five percent (5%) of the amount bid.

2.4 DELIVERY OF PROPOSALS - Each proposal shall be placed, together with the proposal guaranty when required, in an envelope and sealed and so marked as to indicate the identity of the project, the name and address of the bidder, and other required information and then delivered as indicated in the Notice to Bidders. Proposals will be received up to the time fixed in the Notice to Bidders for the opening of bids.

2.5 WITHDRAWAL OF PROPOSALS - Any proposal may be withdrawn at any time prior to the time fixed in the Notice to Bidders for the opening of proposals upon the filing of a written request therefore with the Department, executed by the bidder or a duly authorized representative. The withdrawal of a proposal shall not preclude a bidder from submitting a new proposal.

2.6 PUBLIC OPENING OF PROPOSALS - Proposals will be opened and read publicly at the time and place indicated in the Notice to Bidders. Bidders or their authorized agents are invited to be present.

2.7 DISQUALIFICATION OF BIDDERS - Any of the following reasons may be considered as being sufficient grounds for the disqualification of a bidder and the rejection of his proposal or proposals.

- A. More than one proposal for the same work from an individual, firm, or corporation under the same or different name.
- B. Evidence of collusion among bidders. Participants in such collusion will receive no recognition as bidders for any future work of the Department until such participant shall have been reinstated as a qualified bidder.
- C. Evidence of assistance from a person who has been an employee of the agency within the preceding two years and who participated while in State office or employment in the matter with which the contract is directly concerned, pursuant to Section 84-15, H.R.S.
- D. Lack of proposal guaranty.
- E. Unsigned proposal or proposal not signed in ink by person or persons legally authorized to submit a proposal on behalf of the bidder.

2.8 MATERIAL GUARANTY - The bidder may be required to furnish a complete statement of the origin, composition and manufacture of any or all materials to be used in the prosecution of the work, together with samples. Such samples may be subjected to tests to determine their quality and fitness for the work.

SECTION 3 - AWARD AND EXECUTION OF CONTRACT

3.1 AWARD OF CONTRACT - The State reserves the right to reject any and all proposals and to waive any defects as may be deemed to be in the best interest of the public.

The award of contract, if it be awarded, will be made within sixty (60) calendar days after the opening of bids to the lowest responsive and responsible bidder whose proposal complies with all the prescribed requirements. The successful bidder will be notified, by letter mailed to the address shown in its proposal, that its proposal has been accepted and it has been awarded the contract.

Requirement for award. To be eligible for award, the apparent low Bidder will be contacted to submit copies of the documents listed below to demonstrate compliance with Section 103D-310(c), HRS. The documents should be submitted to the Department as soon as possible. If a valid certificate/clearance is not submitted on a timely basis for award of a contract, a Bidder otherwise responsive and responsible may not receive the award.

A. Tax Clearance.

Pursuant to §103D-310(c), 103-53 and 103D-328, HRS, the successful bidder shall be required to submit a certified copy of its tax clearance issued by the Hawaii State Department of Taxation (DOTAX) and the Internal Revenue Service (IRS) to demonstrate its compliance with Chapter 237, HRS. A tax clearance is valid for six (6) months from the most recent approval stamp date on the tax clearance and must be valid on the bid's first legal advertisement date or any date thereafter up to the bid opening date.

FORM A6, TAX CLEARANCE CERTIFICATE, is available at the following website:

<http://www.hawaii.gov/tax/>

To receive DOTAX Forms by fax or mail, phone (808)587-7572 or 1-800-222-7572.

The application for the Tax Clearance Certificate is the responsibility of the bidder, and must be submitted directly to the DOTAX or IRS. The approved certificate may then be submitted to the Department.

B. DLIR Certificate of Compliance.

Pursuant to §103D-310(c), HRS, the successful bidder shall be required to submit a copy (faxed copies are acceptable) of its approved Certificate of Compliance issued by the Hawaii State Department of Labor and Industrial Relations (DLIR) to demonstrate its compliance with unemployment insurance (Chapter 383, HRS), workers' compensation (Chapter 386, HRS), temporary disability insurance (Chapter 392, HRS), and prepaid health care (Chapter 393, HRS). The certificate is valid for six (6) months from the most recent approval stamp date on the certificate and must be valid on the bid's first legal advertisement date or any date thereafter up to the bid opening date. For certificates which receive a "pending" approval stamp, a DLIR approval stamp is required prior to the issuance of the Notice to Proceed.

FORM LIR#27, APPLICATION FOR CERTIFICATE OF COMPLIANCE WITH SECTION 3-122-112, HAR, is available at the following website:

www.hawaii.gov/labor

More information is available by calling the DLIR Unemployment Insurance Division at (808) 586-8926.

Inquiries regarding the status of a LIR#27 Form may be made by calling the DLIR Disability Compensation Division at (808) 586-9200.

The application for the Certificate of Compliance is the responsibility of the bidder, and must be submitted directly to the DLIR. The approved certificate may then be submitted to the Department.

C. DCCA Certificate of Good Standing.

Pursuant to §103D-310(c), HRS, the successful bidder shall be required to submit a copy (faxed copies are acceptable) of its approved Certificate of Good Standing issued by the Hawaii State Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG) to demonstrate that it is either:

- (1) incorporated or organized under the laws of the State; or
- (2) registered to do business in the State as

a separate branch or division that is capable of fully performing under the contract.

A Certificate of Good Standing is valid for six (6) months from the approval date on the certificate and must be valid on the bid's first legal advertisement date or any date thereafter up to the bid opening date. A Hawaii business that is a sole proprietorship, is not required to register with the BREG, and therefore not required to submit a Certificate of Good Standing. Bidders are advised that there are costs associated with registering and obtaining a Certificate of Good Standing from the DCCA.

To purchase a CERTIFICATE OF GOOD STANDING, go to On-Line Services at the following website:

www.hawaii.gov/dcca/

The application for the Certificate of Good Standing is the responsibility of the bidder, and must be submitted directly to the DCCA. The approved certificate may then be submitted to the Department.

3.2 CANCELLATION OF AWARD - The State reserves the right to cancel the award of any contract any time before the execution of said contract by all parties without any liability to the successful bidder or any other bidder.

3.3 RETURN OF PROPOSAL GUARANTY - All proposal guaranties, except those of the lowest two (2) bidders, will be returned immediately following the opening and checking of the proposals. The retained proposal guaranty of the second lowest bidder, if not a bid bond, will be returned within ten (10) calendar days following execution of contract by the successful bidder. The successful bidder's proposal guaranty, if not a bid bond, will be returned after a satisfactory contract bond has been furnished and the contract has been executed.

3.4 REQUIREMENT OF CONTRACT BOND - Only when required by the proposal, the successful bidder at the time of the execution of the contract shall file good and sufficient performance and payment bonds on the forms furnished by the Department, or a facsimile thereof, conditioned for the full and faithful performance of the contract in accordance with the terms and intent thereof and also for the prompt payment to all others for all labor and materials furnished by them to it and use in the prosecution of the work provided for in such contract,

in the manner, form and amount required by Section 3-122-224(b)(2), H.A.R., which bonds shall be in an amount equal to fifty per cent (50%) of the contract price, including amounts estimated to be required for extra work, or in the case of price-term, open-end, or requirements contract under which the total amount to be paid to the Contractor cannot be accurately estimated at the time the contract is to be awarded, the bond amounts shall be as designated in the bid documents. Such bonds shall also by their terms inure to the benefit of any and all persons entitled to file claims for labor performed or materials furnished in the work so as to give them a right of action as contemplated by Section 103D-324, H.R.S.

The bidder shall limit the acceptable performance and payment bonds to the following:

- (a) Legal tender; or
- (b) Surety bond underwritten by a company licensed to issue bonds in the State of Hawaii; or
- (c) A certificate of deposit; share certificate;; cashier's check; treasurer's check; teller's check drawn by or a certified check accepted by and payable on demand to the State by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation (FDIC) or the National Credit Union Administration (NCUA).

1. The bidder may use these instruments only to a maximum of one hundred thousand dollars (\$100,000.00).

2. If the required security or bond amount totals over one hundred thousand dollars (\$100,000.00) more than one instrument not exceeding one hundred thousand dollars (\$100,000.00) each and issued by different financial institutions shall be acceptable.

3.5 EXECUTION OF CONTRACT - The contract and the "Certificate for Performance of Services", similar to a copy of the same annexed hereto, shall be executed by the successful bidder and returned, together with the contract bonds, when required, within ten (10) days after the award of the contract or within such further time as the Director may allow after the bidder has received the contract for execution.

Pursuant to Section 103D-309, H.R.S., the contract shall not bind the State in any way unless said contract has been fully and properly executed by all the parties thereto and

the Comptroller has endorsed thereon a certificate that there is available an unexpended appropriation over and above all outstanding contracts, sufficient to cover the amount required by the contract.

3.6 FAILURE TO EXECUTE CONTRACT - Failure to execute the contract, Certificate for Performance of Services and file acceptable bonds, when required, within ten (10) days after the award of the contract, or within such further time as the Director may allow, shall be cause for the cancellation of the award and the forfeiture of the proposal guaranty. Award of the contract may then be made to the next lowest responsible bidder.

SECTION 4 - SCOPE OF WORK

4.1 WORK TO BE DONE - The work to be done is described in the Section(s) following Section 9 of these specifications.

4.2 PERFORMANCE OF WORK - The Contractor shall employ, so far as possible, such methods and means in carrying out his work so as not to cause any interruption, disturbance, or interference with the public.

In case the Contractor is performing work in a building, the Contractor shall conduct the work in such a manner so as not to cause any interruption, disturbance, or interference with the business activities of the tenants in the building.

4.3 EXTRA WORK - New and unforeseen items of work will be classed as extra work when they cannot be covered by any of the various items for which there is a bid price.

4.4 CHANGES AND CLAIMS FOR ADJUSTMENT

A. Change order. By a written order, at any time, and without notice to any surety, the procurement officer may, subject to all appropriate adjustments, make changes within the general scope of this contract in any one or more of the following:

1. Drawings, designs, or specifications, if the goods to be furnished are to be specially manufactured for the State in accordance therewith;
2. Method of shipment or packing;
3. Place of delivery;
4. Changes in the work within the scope of the contract; or
5. Changes in the time of performance of the contract that do not alter the scope of work.

B. Adjustments of price or time for performance. If any change order increases or decreases the contractor's cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, an adjustment shall be made and the contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined in accordance with the price adjustment clause of this contract. Failure of the parties to agree to an adjustment shall not excuse the contractor from proceeding with the contract as changed, provided that the procurement officer promptly and duly make the provisional adjustments in payment or time for performance as may be reasonable. By proceeding with the work, the contractor shall not be deemed to have

prejudiced any claim for additional compensation, or an extension of time for completion.

C. Time period for claim. Within thirty (30) days after receipt of a written change order under subsection (a) unless the period is extended by the procurement officer in writing, the contractor shall file notice of intent to assert a claim for an adjustment. Later notification shall not bar the contractor's claim unless the State or county is prejudiced by the delay in notification.

D. Claim barred after final payment. No claim by the contractor for an adjustment hereunder shall be allowed if notice is not given prior to final payment under this contract.

E. Other claims not barred. In the absence of a change order, nothing in this clause shall be deemed to restrict the contractor's right to pursue a claim as under the contract or for breach of contract.

4.5 PRICE ADJUSTMENT

Any adjustment in contract price pursuant to a clause in this contract shall be made in one or more of the following ways:

A. By agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;

B. By unit prices specified in the contract or subsequently agreed upon;

C. By the costs attributable to the event or situation covered by the clause, plus appropriate profit or fee, all as specified in the contract or subsequently agreed upon;

D. In such other manner as the parties may mutually agree; or

E. In the absence of agreement between the parties, by a unilateral determination by the procurement officer of the costs attributable to the event or situation covered by the clause, plus appropriate profit or fee, all as computed by the procurement officer in accordance with generally accepted accounting principles and applicable sections of chapters 3-123 and 3-126 of the Hawaii Administrative Rules.

4.6 VARIATION IN QUANTITY

Upon agreement of the parties, the quantity of goods or services or both specified in this contract may be increased by a maximum of ten (10) percent provided (1) the unit prices will remain the same except for any price adjustments otherwise applicable and (2) the procurement officer makes a written determination that such an increase will either be more economical than awarding another contract or that it would not be practical to award another contract.

SECTION 5 - CONTROL OF WORK

5.1 AUTHORITY OF DIRECTOR - The Director shall decide all questions which may arise as to the quality or acceptability of materials furnished and work performed; the manner of performance and rate of progress of the work; the compensation for work performed; the interpretation of the contract and the fulfillment of the contract on the part of the Contractor. The Director's decision shall be final and the Director shall have the authority to enforce any such decision and order which the Contractor fails to carry out promptly and diligently. The Director shall have the following powers in the way of enforcement:

- A. The right to suspend the work.
- B. The right to withhold payment due the Contractor.

5.2 COORDINATION OF PLANS, SPECIFICATIONS AND SPECIAL PROVISIONS - These specifications, the plans, special provisions, and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to describe and provide for the complete work.

5.3 COOPERATION OF CONTRACTOR AND DIRECTOR - The Contractor shall have available at the work site at all times, a copy of the specifications, special provisions and plans. The Contractor shall give the work constant attention to facilitate the progress thereof and shall cooperate with the Director in every way possible.

Before starting work on the project, the Contractor shall designate in writing a superintendent who shall have complete authority to represent and to act for the Contractor.

5.4 INSPECTION - The Director at all times shall have access to the work during its prosecution and shall be furnished with every reasonable facility for ascertaining that the materials and the workmanship are in accordance with the requirements and intentions of these specifications and special provisions. All work done and all materials furnished shall be subject to the Director's inspection and approval.

The inspection of the work shall not relieve the Contractor of any of its obligations to fulfill its contract as prescribed, and defective work shall be made good and unsuitable materials may be rejected, notwithstanding that such defective work and materials may have been previously overlooked by the Director and accepted or included in an estimate for payment.

Projects financed in whole or in part with Federal funds shall be subject to inspection at all times by representatives of the Federal agency involved.

5.5 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK - All work which has been rejected shall be corrected or removed and replaced by the Contractor in an acceptable manner and no compensation will be allowed the Contractor for such correction or removal and replacement. Upon failure on the part of the Contractor to comply promptly with any order of the Director, the Director may cause any rejected work to be corrected or removed and replaced and to deduct the costs thereof from any monies due or to become due the Contractor.

5.6 CLAIMS AND DISPUTES - The Contractor may give notice in writing to the Director for claims that extra compensation, damages, or an extension of time for completion is due the Contractor for one or more of the following reasons:

- A. Requirements not clearly covered in the contract, or not ordered by the Director as extra work;
- B. Failure between the State and the Contractor to agree to an adjustment in price for a contract change order issued by the State; or
- C. An action or omission on the part of the Director requiring performance changes within the scope of the contract.

The Contractor shall continue with performance of the contract in compliance with the directions or orders of the procurement officer, but by so doing, the Contractor shall not be deemed to have prejudiced any claim for additional compensation, damages, or an extension of time for completion; provided:

- A. The notice in writing be given:
 - 1. Before the commencement of the work involved, if at that time the Contractor knows of such requirements or the occurrence of such actions or omissions; or
 - 2. Within thirty (30) calendar days after the Contractor knows of such requirements or the occurrence of such action or omission if the Contractor did not have such knowledge before the commencement of the work; or
 - 3. Within thirty (30) calendar days after receipt of the written contract change order that was not

agreed upon by both parties; or

4. Within such further time as may be allowed by the Director in writing.

B. The notice shall clearly state the Contractor's intention to make claim and the reasons why the Contractor believes that additional compensation, changes or an extension of time may be remedies to which the Contractor is entitled; and afford the Director every facility for keeping records of the actual cost of work. Failure on the part of the Contractor to give such notification or to afford the procurement officer proper facilities for keeping strict account of actual cost shall constitute waiver of the claim for such extra compensation. The filing of such notice by the Contractor and the keeping of costs by the procurement officer shall not in any way be construed to prove the validity of the claim.

The Director will review the notice and render a decision. The Director's decision shall be final and conclusive unless, within thirty (30) calendar days from the date of the decision, the Contractor mails or otherwise furnishes a written appeal to the Director. The decision of the Director shall be final. Later notification of such claims shall not bar the Contractor's claim unless the State is prejudiced by the delay in notification. No claim by the Contractor for an adjustment hereunder shall be allowed if notice is not given before final payment under this contract.

Any adjustment in the contract price made pursuant to this clause shall be determined according to Section 4.5 - Price Adjustment.

The provisions of this Section shall not be construed as establishing any claims contrary to the terms of Section 4.4 - Changes and Claims for Adjustment.

Nothing herein contained, however, shall excuse the Contractor from compliance with any rules of law precluding any state officers and any Contractors from acting in collusion or bad faith in issuing or performing contract change orders which are clearly not within the scope of the contract.

SECTION 6 - CONTROL OF MATERIAL AND EQUIPMENT

6.1 DEFECTIVE MATERIALS - All materials not conforming to the requirements of these specifications or the special provisions shall be considered defective and all such materials, whether in place or not, shall be rejected. They shall be removed immediately from the site of the work, unless otherwise permitted by the Director. No rejected materials, the defects of which have been subsequently corrected, shall be used until approval in writing has been given by the Director. Upon failure on the part of the Contractor to comply promptly with any order to remove and replace defective materials, the Director may remove and replace defective material and to deduct the cost of removal and replacement from any monies due or to become due the Contractor.

6.2 TRADE NAMES AND ALTERNATES - For convenience in designation on the plans or in the specifications, certain equipment or articles or materials may be designated under a trade name or the name of a manufacturer and its information catalogue. The use of alternate equipment or an article or material which is of equal quality and of the required characteristics for the purposes intended will be permitted, subject to the written approval of the Director, in accordance with the following requirements:

A. QUALIFICATION BEFORE BID OPENING - When the specifications and/or plans specify one or more manufacturer's brand names of materials or equipment to indicate a quality, style, appearance, or performance, the bidder will be assumed to have based its bid on one of the specified named products, except where such proprietary product are specified, alternate brands may be qualified if found equal or better by the Director. Bidders requesting qualification of alternate proprietary products must submit a request to the Director for review and approval at the earliest date possible, but in any event, such request must be received at the Contracts office not later than ten (10) days before the bid opening date, not including the bid opening date.

It shall be the responsibility of the bidder to submit sufficient evidence based upon which a determination can be made by the Director that the alternate brand is qualified. The evidence shall be transmitted with a covering letter which shall list the evidence submitted and the items for which the substitution is requested.

If the evidence accompanying a request for substitution is insufficient to qualify a particular

model, the request shall be denied provided that further evidence may be submitted to qualify the item five (5) days prior to the bid opening date if the initial request was made prior to the deadline set above.

B. SUBSTITUTION AFTER BID OPENING - Substitution of material or equipment will not be allowed after the bid opening date except under the following unforeseen circumstances:

1. If a specified or pre qualified item is delayed by a lengthy strike in the factory or other unforeseeable contingency beyond the control of the Contractor which would cause an abnormal delay in the project completion.

2. If a specified or pre qualified item is found to be unusable due to change or other circumstances.

3. If the Contractor is willing to provide a more recently developed or manufactured item of material or equipment of the same manufacturer which the Director determines to be equal or better than the one specified or pre-qualified.

A substitution request, regardless of reason, shall be fully explained in writing by the Contractor and shall include its justification for said request, the quantities and unit prices involved, quotations and such other documents as are deemed necessary to support the request. Any savings in cost will accrue to the State and any additional cost for the substituted items will be paid by the Contractor.

The burden of proof as to the comparative quality and suitability of alternate equipment, articles, or materials shall be upon the bidder or Contractor and bidder or Contractor shall furnish, at its own expense, all information necessary or related thereto as required by the Director. The Director shall be the sole judge as to the comparative quality and suitability of alternate equipment, articles or materials and the Director's decisions shall be final.

The above shall not be construed to mean that substitution for brand name specified materials and equipment will be allowed; the Director reserves the right to deny any request he deems irregular or not in the best interest of the State.

6.3 ASSIGNMENT OF ANTITRUST CLAIMS FOR OVERCHARGES FOR GOODS
AND MATERIALS PURCHASED

A. Vendor and purchaser recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, vendor hereby assigns to purchaser any and all claims for such overcharges as to goods and materials purchased in connection with this order or contract, except as to overcharges which result from antitrust violations commencing after the price is established under this order or contract and which are not passed on to the purchaser under an escalation clause.

B. Contractor and owner recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the owner. Therefore, contractor hereby assigns to owner any and all claims for such overcharges as to goods and materials purchased in connection with this order or contract, except as to overcharges which result from antitrust violations commencing after the price is established under this order or contract and any change order. In addition, contractor warrants and represents that each of its first tier suppliers and subcontractors shall assign any and all such claims to owner, subject to the aforementioned exception.

SECTION 7 - LEGAL RELATIONS AND RESPONSIBILITY

7.1 LAWS TO BE OBSERVED - The Contractor shall comply with all federal, state, city and county laws, ordinances, rules and regulations which in any manner affect those engaged or employed in the work, the materials used in the work, and the conduct of the work. Any reference to such laws, ordinances, rules and regulations shall include any amendments thereto effective as of the date of the call for sealed proposals.

The Contractor shall hold harmless, indemnify, defend and where appropriate, insure the State, its officers, agents and employees against any claim or liability arising from or based on the violation of any such laws, ordinances, rules or regulations. If any discrepancy or inconsistency is discovered in the contract for the work in relation to any law, ordinance, rule, regulation, order or decree, the Contractor shall forthwith report the same to the Director in writing.

7.2 PERMITS AND LICENSES - The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work.

7.3 PATENTS - The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the work, and shall hold harmless, indemnify, defend and where appropriate, insure the State, its officers, agents and employees from all suits at law or actions of every nature, for or on account of the use of any patented materials, equipment, devices or processes.

7.4 RESPONSIBILITY FOR INJURY AND DAMAGE - The State, its officers, agents and employees shall not be held accountable in any manner for any loss or damage to the work or any part thereof, or for any of the materials and equipment used or employed in performing the work, or for any injury to any person or persons either workers or the public, or for any damage to property caused by the Contractor or its workers or any one employed by the Contractor. The Contractor shall be responsible for any liability imposed by law for any injury to any person or any damage to property resulting from defects or obstructions or from any cause whatsoever during the progress of the work or at any time before its completion and final acceptance. The acceptance of the completed work of the Contractor by the Director shall not relieve the Contractor from any liability which may have accrued or may accrue as a result of the performance of the work by the Contractor. The Contractor shall hold harmless, indemnify, defend and where appropriate, insure the State, its officers, agents and employees, from all suits or actions of every name, kind and description, brought for or on account of

any injuries or damages sustained by any persons or property caused by the Contractor, its servants or agents, or by or on account of any act or omission of the Contractor or its servants or agents, regardless of whether such actions or any claim is brought against them or any one of them before or after the final acceptance of the work. In addition to any remedy authorized by law, the State may withhold payment of any money due to Contractor as shall be reasonable until disposition has been made of any suits or claims for injuries or damages.

It is not the intention of the parties to this contract to make the public or any member thereof a third party beneficiary hereunder, or to authorize anyone not a party hereto to maintain a suit for personal injuries or property damage based on a contract theory of liability. In any event, the Contractor shall hold harmless, indemnify, defend and where appropriate, insure the State from suits and claims for personal injuries or property damage where such injuries or damage are caused by the negligent acts or omissions of the Contractor, its agents or employees.

7.5 COOPERATION BETWEEN CONTRACTORS - Where two or more Contractors are employed on related or adjacent work, each shall conduct its operations in such a manner as not to cause any unnecessary delay or hindrance to the other.

7.6 CONTRACTOR'S RESPONSIBILITY FOR WORK - Until the acceptance of the contract, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore, and make good all damages to any portion of the work occasioned by any of the above causes before its completion and acceptance and shall bear the expenses thereof.

7.7 NO PERSONAL LIABILITY - Neither the Director nor any other officer or authorized employee of the Department shall be personally responsible for any liability arising under the contract.

7.8 LABOR AND COMPENSATION REQUIREMENTS - Wages paid each laborer employed by the Contractor or any subcontractor shall not be less than the prevailing minimum wage rate prescribed by law.

Every laborer employed by the Contractor or any subcontractor whose rate of compensation is Five Dollars (\$5.00) or less per day shall be paid his wages weekly pursuant to Section 103-54, H.R.S.

The Contractor's attention is directed to Chapter 377, H.R.S., Hawaii Employment Relations Act; Chapter 378, H.R.S., Employment Practices; Chapter 383, H.R.S., Hawaii Employment Security Law; Chapter 386, H.R.S., Workers' Compensation Law; Chapter 387, H.R.S., Wage and Hour Law; Chapter 392, H.R.S., Temporary Disability Insurance; Chapter 393, H.R.S., Prepared Health Care Act; Chapter 396, H.R.S., Occupational Safety and Health; and Section 103-55, H.R.S., Wages, Hours, Working Conditions of Employees of Contractor's Supplying Services.

7.9 INSURANCE - Prior to commencing with the work, the Contractor shall, at its own expense, obtain and submit to the Department, Certificate of Insurance from an insurance company authorized by the laws of the State to issue such insurance in the State of Hawaii showing full policy coverage of the Contractor.

TYPES OF INSURANCE:

A. Workers' Compensation:

The Contractor shall obtain worker's compensation insurance for all persons whom they employ in carrying out the work under this contract. This insurance shall be in strict conformity with the requirements of the most current and applicable State of Hawaii Worker's Compensation Insurance laws in effect on the date of the execution of this contract and as modified during the duration of the contract. The minimum limit of liability for workers compensation is the HRS 386 statutory limit.

B. Comprehensive Automobile Liability:

The Contractor shall obtain Auto Liability Insurance covering all owned, non-owned and hired autos with a combined single Limit of not less than \$1,000,000 per accident for bodily injury and property damage with the State of Hawaii named as additional insured. The required limit of insurance may be provided by a single policy or with a combination of primary and excess

policies.

C. Commercial General Liability:

The Contractor shall obtain General Liability insurance with a limit of not less than \$1,000,000 per occurrence and in the aggregates. The General liability insurance shall include the State of Hawaii as an additional insured. The required limit of insurance may be provided by a single policy or with a combination of primary and excess policies.

All policies must provide that 30 days prior written notice of cancellation or material change in coverage be given to certificate holders stated above.

Such insurance when accepted by the Director in writing shall become applicable and shall remain unmodified throughout the entire term of the contract and in no event shall be terminated or otherwise allowed to lapse prior to written certification of final acceptance of the work by the State. Such insurance aforementioned shall cover the State for all work performed under the contract, all work performed incidental thereto or directly or indirectly connected therewith, including other work performed outside of the work area, and all change orders.

Any delay in the submission and approval of insurance certificates shall not be justification of or grounds for a request by the Contractor postponing the issuance of a notice to proceed notwithstanding the fact that the Contractor shall not be allowed to proceed with the work until said certificates are submitted and approved.

Failure to obtain insurance in accordance with the Section, on the part of the Contractor, shall be considered a major breach of the contract; and should the State be forced to expend funds which would have been covered under the insurance, the Contractor agrees to assume the liability for such funds and to indemnify and hold the State harmless.

SECTION 8 - PROSECUTION AND PROGRESS

8.1 NOTICE TO PROCEED - A "Notice to Proceed" letter will be written to the Contractor by the Director. Such letter will indicate the date the Contractor is to begin work and from which date the contract time will commence to run.

The Contractor shall diligently perform the required duties during the term of the contract, or if the work is to be completed within a specified time limit, the Contractor shall diligently prosecute the work to completion within the specified time limit.

8.2 SUBCONTRACTING - The Contractor shall give its personal attention to the fulfillment of the contract and shall keep the work under its control.

Subject to Section 103D-302, H.R.S., the Contractor may subcontract a portion of the work pursuant to the provisions of this section, but the Contractor shall be primarily responsible for the work so subcontracted. The Contractor shall not subcontract any work to any subcontractor who has been suspended by the State.

Before any work is started under a subcontract, the Contractor shall have the written approval of the Director on a written statement on forms furnished by the Department, indicating the work to be subcontracted, the names of the subcontractors and the description of each portion of the work to be so subcontracted and showing that the subcontractors are particularly experienced and equipped to do the work subcontracted. The Contractor shall give assurance that the minimum wage rate schedule as stated in the contract shall apply to labor performed on the work so subcontracted. Consent of the Director to the subcontracting of work shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the contract.

When any portion of the work which has been subcontracted by the Contractor is not prosecuted in a manner satisfactory to the Director, the Contractor, upon receipt of a notice thereof in writing from the Director, shall remove the subcontractor immediately from the project and the subcontractor shall not again be employed on the work.

8.3 ASSIGNMENT OF CONTRACT - The performance of the contract may be assigned only with the prior written consent of the Director and when applicable, the Contractor's surety. Consent to any assignment shall not relieve the Contractor or the Contractor's surety of any obligations of the contract.

8.4 INSUBORDINATION - If any subcontractor or person employed by the Contractor shall fail or refuse to carry out the directions of the Director or shall appear to the Director to be incompetent or to act in a disorderly or improper manner, the subcontractor or person shall be removed immediately upon request by the Director and shall not again be employed on the work, nor shall it be employed upon any other Department project currently under contract to the same Contractor or subcontractor.

8.5 TEMPORARY SUSPENSION OF WORK

A. Order to stop work. The Director, may, by written order to the contractor, at any time, and without notice to any surety, require the contractor to stop all or any part of the work called for by this contract. This order shall be for a specified period not exceeding sixty (60) days after the order is delivered to the contractor, unless the parties agree to any further period. Any such order shall be identified specifically as a stop work order issued pursuant to this section. Upon receipt of such an order, the contractor shall forthwith comply with its terms and take all reasonable steps to minimize the occurrence of costs allocable to the work covered by the order during the period of work stoppage. Before the stop work order expires, or within any further period to which the parties shall have agreed, the Director shall either:

1. Cancel the stop work order; or
2. Terminate the work covered by such order as provided in the "termination for default clause" or the "termination for convenience clause" of this contract.

B. Cancellation or expiration of the order. If a stop work order issued under this section is canceled or if the period of the order or any extension thereof expires, the contractor shall have the right to resume work. An appropriate adjustment shall be made in the delivery schedule or contract price, or both, and the contract shall be modified in writing accordingly; if:

1. The stop work order results in an increase in the time required for, or in the contractor's cost properly allocable to, the performance of any part of this contract; and
2. The contractor asserts a claim for such an adjustment within thirty (30) days after the end of the period of work stoppage; provided that, if the Director decides that the facts justify such

action, any such claim asserted may be received and acted upon at any time prior to final payment under this contract.

C. Termination of stopped work. If a stop work order is not canceled and the work covered by such order is terminated for default or convenience, the reasonable costs resulting from the stop work order shall be allowable by adjustment or otherwise.

D. Adjustment of price. Any adjustment in contract price made pursuant to this clause shall be determined in accordance with the price adjustment clause of this contract.

8.6 LIQUIDATED DAMAGES - It is mutually understood and agreed by and between the parties to the contract that the performance by the Contractor of its duties every calendar/working day is an essential part of the contract and in case of failure on the part of the Contractor to perform its duties for the time specified in the contract, the State will be damaged thereby and the amounts of said damages being difficult, if not impossible of definite ascertainment and proof, shall be estimated, agreed upon and fixed at the sum shown in the proposal for each and every calendar/working day that the Contractor fails to perform its duties during the period the contract is in effect; and the Contractor shall pay the liquidated damages as provided for in the proposal and, in case the same are not paid, the Department may deduct the amount thereof from any monies due or that may become due the Contractor under the contract.

8.7 DEFAULT AND TERMINATION OF CONTRACT

A. Termination by Default. If the contractor refuses or fails to perform any of the provisions of this contract with such diligence as will ensure its completion within the time specified in this contract, or any extension thereof, otherwise fails to timely satisfy the contract provisions, or commits any other substantial breach of this contract, the Director may notify the contractor in writing of the delay or non-performance and if not cured in ten (10) days or any longer time specified in writing by the Director, such officer may terminate the contractor's right to proceed with the contract or such part of the contract as to which there has been delay or a failure to properly perform. In the event of termination in whole or in part the Director may procure similar goods or services in the manner and upon terms deemed appropriate by the Director. The contractor shall continue performance of the contract to the extent it is not terminated and shall be liable for excess costs incurred in procuring

similar goods or services.

1. Contractor's duties. Notwithstanding termination of the contract and subject to any directions from the Director, the contractor shall take timely, reasonable, and necessary action to protect and preserve property in the possession of the contractor in which the State or county has an interest.

2. Compensation. Payment for completed goods delivered and accepted by the State shall be at the contract price. Payment for the protection and preservation of property shall be in an amount agreed upon by the contractor and Director; if the parties fail to agree, the Director shall set an amount subject to the contractor's rights under chapter 3-126, HAR. The State may withhold from amounts due the contractor such sums as the Director deems to be necessary to protect the State against loss because of outstanding liens or claims of former lien holders and to reimburse the State for the excess costs incurred in procuring similar goods and services.

3. Excuse for nonperformance or delayed performance. Except with respect to defaults of subcontractors, the contractor shall not be in default by reason of any failure in performance of this contract in accordance with its terms, including any failure by the contractor to make progress in the prosecution of the work hereunder which endangers such performance, if the contractor has notified the Director within fifteen (15) days after the cause of the delay and the failure arises out of causes such as: acts of God; acts of the public enemy; acts of the State and any other governmental body in its sovereign or contractual capacity; fires; floods; epidemics; quarantine restrictions; strikes or other labor disputes; freight embargoes; or unusually severe weather. If the failure to perform is caused by the failure of a subcontractor to perform or to make progress, and if such failure arises out of causes similar to those set forth above, the contractor shall not be deemed to be in default, unless the goods or services to be furnished by the subcontractor were unreasonably obtained from other sources in sufficient time to permit the contractor to meet the contract requirements. Upon request of the contractor, the Director shall ascertain the facts and extent of such failure, and if such officer determines that any failure to perform was

occasioned by any one or more of the excusable causes, and that, but for the excusable cause, the contractor's progress and performance would have met the terms of the contract, the delivery schedule shall be revised accordingly, subject to the rights of the State under the clause entitled "Termination for Convenience". As used in this paragraph of this clause, the term "subcontractor" means subcontractor at any tier.

4. Erroneous termination for default. If, after notice of termination of the contractor's right to proceed under the provisions of this clause, it is determined for any reason that the contractor was not in default under the provisions of the clause, or that the delay was excusable under the provisions of paragraph 3 above, Excuse for nonperformance or delayed performance of this clause, the rights and obligations of the parties shall, if the contract contains a clause providing for termination for convenience of the State, be the same as if the notice of termination had been issued pursuant to such clause.

5. Additional rights and remedies. The rights and remedies provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

B. Termination for convenience. The Director may, when the interests of the State so require, terminate this contract in whole or in part, for the convenience of the State. The Director shall give written notice of the termination to the contractor specifying the part of the contract terminated and when termination becomes effective.

1. Contractor's obligation. The contractor shall incur no further obligations in connection with the terminated work and on the dates set in the notice of termination the contractor will stop work to the extent specified. The contractor shall also terminate outstanding orders and subcontracts as they relate to the terminated work. The contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated work. The Director may direct the contractor to assign the contractor's right, title, and interest under terminated orders or subcontracts to the State. The contractor must still complete the work not terminated by the notice of termination and may incur obligations as are necessary to do so.

2. Right to goods. The Director may require the contractor to transfer title and deliver to the State in the manner and to the extent directed by the Director:

- a. Any completed goods; and
- b. The partially completed goods and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights hereinafter called "manufacturing material," as the contractor has specifically produced or specially acquired for the performance of the terminated part of this contract.

The Contractor shall, upon direction of the Director, protect and preserve property in the possession of the contractor in which the State has an interest. If the Director does not exercise this right, the contractor shall use the Contractor's best efforts to sell such goods and manufacturing materials. Use of this section in no way implies that the State has breached the contract by exercise of the termination for convenience clause.

3. Compensation:

- a. The Contractor shall submit a termination claim specifying the amounts due because of the termination for convenience together with cost or pricing data to the extent required by subchapter 15, chapter 3-122, HAR, bearing on such claim. If the Contractor fails to file a termination claim within one (1) year from the effective date of termination, the Director may pay the Contractor, if at all, an amount set in accordance with subparagraph c. below.
- b. The Director and the Contractor may agree to settlement provided the Contractor has filed a termination claim supported by cost or pricing data to the extent required by subchapter 15, chapter 3-122, HAR, and that the settlement does not exceed the total contract price plus settlement costs reduced by payments previously made by the State, the proceeds of any sales of goods and manufacturing materials under paragraph (2) of this clause, and the contract price of the work not terminated.

c. Absent complete agreement under subparagraph b above, the Director shall pay the Contractor the following amounts, provided payments agreed to under subparagraph b shall not duplicate payments under this subparagraph for the following:

(i) Contract prices for goods or services accepted under the contract;

(ii) Costs incurred in preparing to perform and performing the terminated portion of the work plus a fair and reasonable profit on such portion of the work, such profit shall not include anticipatory profit or consequential damages, less amounts paid or to be paid for accepted goods or services; provided that if it appears that the Contractor would have sustained a loss if the entire contract would have been completed, no profit shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss;

(iii) Costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to paragraph 1 of this clause. These costs must not include costs paid in accordance with subparagraph (ii) above.

(iv) The reasonable settlement costs of the Contractor including accounting, legal, clerical, and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the terminated portion of the contract and for the termination of subcontracts thereunder, together with reasonable storage, transportation, and other costs incurred in connection with the protection or disposition of property allocable to the terminated portion of this contract. The total sum to be paid the Contractor under this subparagraph shall not exceed the total contract price plus the reasonable settlement cost of the Contractor reduced by the amount of payments otherwise made, the proceeds of any sales of supplies and manufacturing materials under subparagraph b of this paragraph, and the contract price of work not terminated.

d. Cost claimed, agreed to, or established under subparagraphs b and c shall be in accordance with chapter 3-123, HAR. bearing on such claim.

8.8 FINAL INSPECTION - Upon notice from the Contractor of the completion of the work or contract, the Director shall make an inspection. If the contract is found completed to the Director's satisfaction, such inspection shall constitute the final inspection and acceptance of the work.

If the work is unsatisfactory in whole or in part, the Director shall notify the Contractor of the work necessary for final completion and acceptance and the Contractor shall forthwith perform the work required by the Director. Upon performance of such required work by the Contractor, another inspection shall be made which shall constitute the final inspection if the work is completed satisfactorily.

Within ten (10) days after final inspection and acceptance of the work, or as soon thereafter as is practicable, the Contractor shall be notified by the Director in writing of such acceptance.

8.9 TERMINATION OF CONTRACTOR'S RESPONSIBILITY - The contract will be considered complete when all work has been completed, the final inspection made, the work accepted by the Director, and the final estimate paid. The Contractor will then be released from further obligation except as set forth in the contract and bond, when applicable.

SECTION 9 - PAYMENT

9.1 SCOPE OF PAYMENT - The Contractor's bid price shall be inclusive of all costs, direct or indirect, including all taxes, required for the fulfillment of the contract.

Contract payments to the Contractor by the State shall be full payment for the furnishing of all labor, tools, equipment, and other incidentals, including all taxes, necessary for performing all work and services contemplated and embraced under the contract.

9.2 RETAINAGE/DEDUCTION FROM PAYMENT - The Director may at any time retain or deduct out of any sums due the Contractor to cover claims of the State against the Contractor, or such sums sufficient to cover any unpaid claims of others supported by sworn statements filed in the office of the Director, without any liability for damages, interest or otherwise to the Contractor for such retention or deduction.

Provided the work of the Contractor is progressing satisfactorily in the judgment of the Director and in accordance with the provisions of this contract, monthly payments, less five percent (5%), will be made to the Contractor. The amount of such monthly payments shall be determined by the Director based on the Director's estimate of the items of work performed and materials incorporated in the work and the value therefor at the unit prices or lump sum prices set forth in the contract. All monthly payments are shall be subject to correction at any time prior to or in the final payment.

At any time after fifty per cent (50%) of the work has been completed, if the State determines that the work contracted to be performed is progressing satisfactorily, the State may make any of the remaining monthly payments in full.

If the Director finds that unsatisfactory progress is being made, the State may, from the beginning of such unsatisfactory progress, withhold any amount up to five per cent (5%) of any subsequent monthly payment.

9.3 ASSIGNMENT OF PAYMENTS - All monies payable under the contract, or any part thereof, shall be paid to the Contractor in accordance with the provisions of this Section and no assignment or order executed by the Contractor directing payment of any portion or all of such funds to any other person or persons shall be recognized by the State unless such assignment or order specifies the amounts to be so paid and the purposes for which the assignment or order is given. Such assignment or order shall have attached thereto, by endorsement or otherwise, the consent of the surety, when

applicable. No such assignment or order shall be binding on the State.

Any assignment of money shall, however, be subject to all proper set-offs in favor of the State, to all deductions provided for in the contract and to all liens and rights conferred by law on the State. All money withheld, whether assigned or not, shall be subject to being used by the State for the completion of the work in the event of the Contractor's default.

9.4 PROGRESS PAYMENTS - Payments under this contract shall be made only upon submission by the Contractor of an original invoice and 2 copies. The invoice shall specify the amount due less retainage and shall also certify that services requested under the contract have been performed by the Contractor according to the contract.

9.5 FINAL PAYMENT - Final payment will only be made after the Contractor receives final acceptance by the Director as provided in Section 8.8, and until the Contractor has filed with the Department the following:

- A. Consent of the surety, when applicable, to payment of the final estimate;
- B. Satisfactory evidence by affidavit that all debts resulting from the contract have been fully paid or satisfactorily secured;
- C. A current "Certificate of Vendor Compliance" issued by the Hawaii Compliance Express (HCE). The Certificate of Vendor Compliance is used to certify the Contractor's compliance with (a) Section 103D-328, HRS (for all contracts \$25,000 or more) which requires a current tax clearance certificate issued by the Hawaii State Department of Taxation and the Internal Revenue Service; (b) Chapters 383, 386, 392, and 393, HRS; and (c) Subsection 103D-310(c), HRS. The State reserves the right to verify that compliance is current prior to the issuance of final payment. Contractors are advised that non-compliance status will result in final payment being withheld until compliance is attained.

The filing of willfully false affidavits will disqualify the Contractor from bidding on future work of the Department.

SECTION 10 - MAINTENANCE, REPAIR AND INSPECTION OF LANDSCAPE IRRIGATION SYSTEM

10.1 DESCRIPTION – The Contractor shall furnish labor, materials and equipment to maintain, repair and inspect the irrigation system located at Lihue Gateway and at the Kauai District Office and Maintenance Baseyard.

The landscape irrigation system comprises of a complex Motorola Irrinet System which includes a central computer, Irrinet Control Center, communication infrastructure (radio antennae, satellite controllers, etc.), Motorola Irrinet field units (water valves, etc.), CORNELL Pump System, AMIAD Automatic Filter System, SELECTRIC Motor Control, Fertilizer Injector System, Chlorine Injection System, Mercoid Pressure Switch, Bermad Pressure Relief Valve, etc.

The Contractor shall furnish the State with a telephone through which the Contractor can be called by the State 24 hours a day, every day of the week. This is very important during the bidding period as well as the contract period.

The Contractor shall present his “Irrigation *Trouble Call* Report” to the authorized Engineer representative for certification at the end of each day or each job whichever is earlier. *Refer to Appendix C Sample - Irrigation Trouble Call Report, of the Appendices.*

10.2 BIDDER REQUIREMENTS

(A) The bidder shall submit the following documents as scheduled in Section 10.2(B) below:

1. Statement of Capabilities.
 - a. The Statement of Capabilities is a questionnaire regarding the bidder’s qualifications as specified in Section 2.1 Qualification of Bidders, of the Special Provisions.
 - b. *The Statement of Capabilities form is not physically included in these bid specifications but will be provided by mail to the bidders, **starting with the lowest bidder**, along with the written request as specified in Section 10.2(B) 1 of this section after bid opening and during the award process.*
 - c. *The bidder shall “complete” and sign this document. “Complete” shall mean providing **all** the requested information, except items marked optional. **Do not leave anything blank.***
2. Copy of the valid State of Hawaii Specialty Contractor’s C-27, Landscaping or C-37b Irrigation and Lawn Sprinkler System Contractor license. *The copy shall be in compliance with Section 2.1.A.1 License, of the Special Provisions.*
3. Copy of the valid factory training completion certificate by Motorola Irrinet System **or** by a company equivalent to Motorola. *The copy shall be in compliance with Section 2.1.B.1.b of the Special Provisions.*

4. Copy of the valid certification and in good standing as a Landscape Industry Council Certified Landscape Technician (CLT) **Exterior/Irrigation**. *The copy shall be in compliance with Section 2.1.B.2.a Certification, of the Special Provisions.*
5. *If the Contractor is using his or her own work force/personnel to perform Flagging/traffic control/closing of lanes services, the Bidder shall submit a copy of the certificate of training completion, as a minimum, one (1) of each of the following:*
 - a. Flagger,
 - b. Traffic Control Technician and
 - c. Traffic Control Supervisor.

The respective copies shall be in compliance with Section 2.1.B.4.a.i.1 through 3 of the Special Provisions.

If the Bidder plans on using a subcontractor(s) to perform flagging/traffic control/closing of lanes, refer to Section 2.1.B.4.b of the Special Provisions for information on subcontracting requirements.

(B) *Schedule of Submitting Required Documents.*

1. **Submit prior to award.** The completed Statement of Capabilities as specified in Section 10.2 (A) 1 Statement of Capabilities, above **and** requested documents as specified in Section 10.2 (A) 2 through 5 above, *as applicable*, shall be received by the Project Manager no later than seven (7) working days from the date of request (date of receipt of the written request) from the State. *The Statement of Capabilities shall be mailed, starting with the lowest bidder, in accordance Section 10.2(A)1. b of this section.*

- (C) **Failure by the bidder to submit.** *The bidder maybe considered non-compliant with the requirements of the Special Provisions and the Specifications if the bidder fails to submit the documents to the Project Manager no later than **seven (7) working days** from the date of request (date of receipt of the written request) from the State. This failure may result in an adverse decision of an award by the Department of Transportation.*

- (D) The signed statement of capabilities, including any documents, shall be returned to the bidder after serving their purpose.

10.3 INSPECTION OF DETAILED PLANS & EQUIPMENT DATA - Detailed plans and limited manufacturer's catalog cuts and maintenance manuals for the Motorola Irrinet Irrigation System as described in Section 10.1 Description, of the Specifications will be available for inspection at the Kauai District Office, located at the address as specified in Section 9.4 of the Special Provisions, from the first day of advertising for bids up to and including the day of bid opening. It is the Contractor's responsibility to meet with District personnel and discuss the plans and specifications prior to submitting his/her proposal. *Bidders are advised to make an appointment by calling the Engineer, Kauai District's representative (Point of Contact) in Section*

10.9 Coordination of Work, of the Specifications. Refer to Appendix D Location Plan, of the Appendices for the areas that are included in this contract.

10.4 SCOPE OF WORK - All work shall conform to the best irrigation practices including but not limited to the manufacturer's maintenance standards, the most current requirements of Section 616 - Sprinkler System, of the Standard Specifications and the HMSLM. *Refer to Sections 1.40 and 1.42 of the Special Provisions for the definition of Standard Specifications the HMSLM.*

(A) Maintenance and Inspection (routine/preventive)

1. As a minimum, perform the maintenance and inspection tasks as listed in Appendix A Irrigation System Maintenance and Inspection Tasks Frequency and Checklist, of the Appendices to all the equipment at the specified schedule as specified in Section 10.4(A)6 of the Specifications, as applicable.
2. If any procedure in this specification is found to contradict any manufacturers' recommendation contained in the Operations and Maintenance Manual, the Contractor shall immediately bring such contradiction to the Engineer who shall determine which of the procedures shall be followed.
3. **Submittal of Routine/preventive Maintenance and Inspection Report/Work Tag.** *The Contractor shall present this Report to the Engineer– Kauai District's representative (Point of Contact) at the end of each day or each job whichever is earlier.*

The Contractor shall record all maintenance performed. The report should include at least the following:

- a. the date, hours and time
- b. task completed by them,
- c. malfunctions and
- d. corrective actions taken on the equipment
- e. Existing deficiencies, which are the responsibility of the Contractor and
- f. Repair status for these items.

Refer to Appendix B Sample - Maintenance and Inspection Report/Work Tag, of the Appendices.

4. *No later than thirty (30) calendar days after each twelve (12) – month period, the Contractor shall submit annual reports of system status, based on their assessment of preventive maintenance to the Engineer. The report shall include, as a minimum, an assessment of system adequacy and recommendations for equipment replacement.*
5. All routine/preventive maintenance work shall be completed within seven (7) working days of the scheduled maintenance date and shall be performed during regular working hours as specified in Section 10.10 Hours of Operation, of the Specifications.

6. Maintenance work shall be accomplished at the following schedule, *as applicable*:

Required maintenance tasks	Required completion date
Weekly	First 3 days of the week
Monthly	During the last week of the month
Quarterly	During the months of February, May, August and November
Annual	Month of February

7. Refer to Section 10.4(H) Miscellaneous Work, of the Specifications for additional miscellaneous work that the Engineer may task the Contractor.
8. The Contractor shall prepare a schedule to satisfy the prescribed schedule in the Operations and Maintenance Manual of each equipment covered in this contract and submits to the Engineer as specified under Section 10.12 Submittal/Reports Summary, of the Specifications.

(B) Repairs/Trouble Calls

In case of mechanical/electrical failure or malfunction of the irrigation system or leakages and damages caused by vehicular traffic covered by this contract, the Contractor is subject to be called by the Engineer. *The number of personnel used to perform repair work on trouble calls by the Contractor shall be fully justified and approved by the Engineer before starting the said repair work.* The Contractor shall have adequate personnel, supervisors and equipment necessary to perform trouble calls. The Contractor shall present his Irrigation Trouble Call Report to the Engineer or an authorized representative for certification at the end of each day or each job whichever is earlier. The Irrigation Trouble Call Report shall include all chargeable time, material and equipment used, as applicable. *Refer to Appendix C Sample –Irrigation Trouble Call Report, of the Appendices for additional required information.*

1. Trouble Calls are classified as follows:
- a. Trouble Calls During Regular Working Hours. Refer to Section 10.10, Hours of Operation of the Specifications for the definition of “regular working hours.”
1. The Contractor shall respond within one (1) hour to the job site. The Contractor shall be charged liquidated damages as specified in Section 8.6, Liquidated Damages of the Special Provisions if the Contractor fails to respond within the specified time.
 2. Trouble calls during regular working hours shall be paid for based on the hourly bid price in the Contractor’s proposal as applicable (Bid items 2 **and or** 3) multiplied by the time spent at the job site to complete the repair work.

3. Time spent at the job site to complete the repair work during regular working hours shall be taken to the closest one-quarter (1/4) of an hour and any fraction of a one-quarter (1/4) of an hour shall be considered a full one-quarter (1/4) of an hour.
 4. In order for the Contractor to receive payment, all Irrigation Trouble Call Report during regular working hours shall be certified and signed by the Engineer or his authorized representative.
 5. ***No additional payment will be made by the State for repairs on equipment based on wear and tear as specified by Section 10.4(C)1. b of the Specifications.***
- b. Trouble Calls During Off-Hours. The term “off-hours” as used in these specifications shall mean midnight to 7:00 a.m. and 3:30 p.m. to midnight, Monday through Friday, and all hours on Saturdays, Sundays and State holidays.
1. The Contractor shall respond within one (1) hour to the job site. The Contractor shall be charged liquidated damages as specified in Section 8.6, Liquidated Damages, if the Contractor fails to respond within the specified time.
 2. The off-hours hourly rate of pay shall be based on the hourly bid rate (Bid items 2 **and/or** 3) of the Contractor’s proposal for regular working hours plus fifty percent (50%) of the Contractor’s hourly bid rate. Work performed during off hours shall be paid by Bid Item No. 7, Overtime Work, of the Proposal Schedule.
 3. Time spent at the job site to complete the repair work during off-hours shall be taken to the closest one-quarter (1/4) of an hour and any fraction of a one-quarter (1/4) of an hour shall be considered a full one-quarter (1/4) of an hour. In any event, the Contractor shall receive a minimum of one (1) hour of pay even if the repair work is completed in less than one (1) hour.
 4. ***The Contractor shall secure the Engineer’s authorization for any repair work.***
 5. Repair works initiated during working off-hours and finished during working hours shall be paid accordingly. That is, off-hours hourly rate shall only apply to repair work performed during off-hours, and regular working hours hourly rate shall apply to repair work performed during regular working hour.
 6. In order for the Contractor to receive payment, all off-hour trouble call tickets shall be certified and signed by the Engineer or his authorized representative.

7. Off-hours hourly rate of pay shall be full compensation for furnishing technical expertise, labor, etc. as specified in Section 10.17 Basis of Payment, of the Specifications, necessary to complete the repair work.
8. *No additional payment will be made by the State for repairs on equipment based on wear and tear as specified by Section 10.4(C)1. b of the Specifications.*

(C) Repairs/Replacement Parts

1. Minor Repair/Replacement Parts
 - a. “Minor Repair/Replacement Parts” shall mean cost of repair and a replacement part is equal to or less than \$200.00.
 - b. Cost of new parts and materials and labor for removing old part(s) and replacing new part(s) for minor repair and replacement based on normal wear and tear and included as part of preventive maintenance and inspection based on industry/manufacturing standards or contractor’s own commercial policies and pricing practices shall be considered incidental to the cost of maintenance and inspection of irrigation equipment in the Proposal Schedule. ***No additional payment will be made by the State.***
 - c. Minor repairs requiring replacement of minor parts will require Engineer’s approval.
2. Major Repairs/Replacement.
 - a. “Major Repairs/Replacement” shall mean repairs that will require a system to be shut down for more than four (4) hours or cost of repair and replacement parts is in excess of \$200.00.
 - b. The Contractor is not authorized to commence on any major repair work in excess of \$2,000.00 without *written authorization* from the Engineer. The Contractor shall immediately notify the Engineer when a major repair/replacement is required or planned. *The Contractor shall submit a written cost estimate for labor, materials and or equipment to the Engineer as expeditious as possible for his approval.* The State reserves the right to solicit competitive bids and have repair work done by the lowest bidder.
 - c. All major repairs/replacement shall be negotiated separately in a manner similar to Section 4.5, Price Adjustment of the Specifications and shall be paid by the corresponding labor hour, Bid Item Nos. 2 and/or 3; or corresponding bid item number: Bid Item No. 6, Replacement Parts; Bid Item No. 7, Overtime Work; and or Bid Item No 8, Technical Support Services of the Proposal Schedule, as applicable.

- d. The Contractor shall be reimbursed for the cost of the new parts including shipping plus fifteen percent (15%) for overhead, profit, taxes and other incidental expenses. The Contractor shall substantiate its charges by submitting original billing as requested by the State.
 - e. Due care will be exercised to prevent physical damage to the equipment.
 - f. The Contractor shall submit a list of parts ordered but not received within thirty (30) days and explain in writing what parts are not received on the first day of each month.
3. **Replacement Parts for Damages Caused by Motorists.** Cost of new parts and materials and labor for removing old part(s) and replacing new part(s) for damages caused by motorists shall be paid by the corresponding labor hour under Irrigation Trouble calls repair work, Regular working hours - per man-hour, **Pump Technician**, Bid Item No. 2, and/or Irrigation Trouble calls repair work, Regular working hours - per man-hour, **Sprinkler Technician**, Bid Item No. 3 and/or allowance under Replacement Parts, Bid Item No. 6, of the Proposal Schedule, as applicable.
4. Replacement Parts/Spare Parts
- a. If parts are not salvable original manufacturer's parts or equivalent will be used for repairs.

(D) Replacement Parts/Spare Parts

- 1. Original manufacturer's parts or equivalent will be used for all repairs.
- 2. The contractor shall stock and maintain spare parts as requested by the State for a dollar value not to exceed Five Hundred Dollars (\$500.00).
- 3. The State will purchase the remaining spare parts from the Contractor at the completion of this project and shall be paid by Bid Item No. 6, Replacement Parts, of the Proposal Schedule.

(E) Fertilizing - All desired vegetation shall be fertilized utilizing liquid fertilizer as specified in paragraph B.9, Appendix A, Irrigation System Maintenance & Inspection Tasks, Frequency and Checklist, of the Appendices to maintain a lush and vigorous appearance. Services shall be paid by Bid Item No. 5, Chlorine and Liquid Fertilizer, of the Proposal Schedule.

Contractor is responsible for damage resulting from over fertilization. During winter months, reduce or omit nitrogen applications for Bermuda grass in cooler and windward areas.

(F) **Manual Watering.** When breakdowns or malfunctions exist, the Contractor shall hand water the same schedule as the irrigation controller to maintain all plant material in a healthy condition unless the Engineer determines otherwise. Do not wait for approval to begin hand watering if it is required to save the plantings. Failure of the irrigation system to provide full and proper coverage shall not relieve the Contractor of the responsibility to provide adequate irrigation. It is the Contractor's responsibility to make sure that the irrigation system is maintained and operates properly. Plants which die due to irrigation failure will be considered to have died due to the contractor's negligence and shall be replaced at the Contractor's expense in the amount as specified in Section 8.6, Liquidated Damages of the Special Provisions.

(G) **Technical Support Services**

1. In order for the Contractor to properly comply with the requirements of this contract, the Contractor shall have the option to secure the Technical Hardware and or manufacturer's representative service(s) upon written request and obtain proper approval from the Engineer.
2. Technical Support Services shall include but not limited to manufacturer or dealer services in the test or repair of the irrigation system. The request shall include the existing condition of the equipment and the Contractor's recommendation as to the necessity for technical support services.
3. Any Manufacturer's representative technical support service, if elected to be used by the Contractor, shall be secured for the term of this maintenance contract and all renewals.
4. Technical support services shall be paid by Bid Item No. 8, Technical Support Services of the Proposal Schedule. Manufacturer's technical support services within the warranty period of equipment shall not be paid for separately but is considered incidental to the purchase of the said equipment.

(H) **Miscellaneous Work.** The State may request the Contractor to provide discretionary services that are mentioned in Section 10.17.B Miscellaneous Work, of the Specifications.

1. Upgrades. Upgrade work requires authorization by the Engineer. Upgrade work may include but is not limited to the following:
 - a. Installation of new controller equipment.
 - b. Replacement of non-operative equipment.
 - c. Enhancing equipment as warranted or needed.
 - d. Install, modify or upgrade devices as needed.
2. In order for the Contractor to commence performance of all miscellaneous work, a Notice to Proceed letter shall be issued by the Engineer. *Refer to Appendix G Sample – Notice to Proceed Letter for Miscellaneous Work, of the Appendices.*

3. Miscellaneous work, if approved by the Engineer, shall be paid by allowance in Bid Item No. 9 *Miscellaneous Work, of the Proposal Schedule and negotiated in accordance with Section 10.17(B) of the Specifications.*

(I) Closing of Lanes/Traffic Control (as applicable)

1. If necessary, the Contractor shall furnish traffic control and closing of lanes, and shall be in accordance with Section 10.11(A)4 Safety Concerns, of the Specifications and *shall be performed by trained and certified personnel only.* Refer to Section 2.1.B.4 of the Special Provisions for the training requirements of personnel involved in traffic control. Pursuant to this section, the Contractor may employ a person or use a sub-contractor who is knowledgeable on traffic control.
2. The Contractor shall coordinate with the Engineer seven (7) working days prior, in writing, prior to the scheduled closing of lane and shall request the approval of the Engineer.
3. Costs for closing of lanes and or traffic control shall be incidental to the cost of maintaining and repairing the irrigation system.
4. Traffic Control Plan.
 - a. All closing of lanes shall require a traffic control plan. The traffic control plan shall be prepared/developed by persons knowledgeable (i.e. trained or certified) about the fundamental principles of traffic control and work activities to be performed. The Engineer reserves the right to require the Contractor to submit a copy of the certificate of training of the person who prepared the traffic control plan. *Preparation of the Traffic Control Plan shall be incidental to the cost of landscaping services, Bid Item No. 1, of the Proposal Schedule.*
 - b. This plan shall be submitted to the Engineer and shall be made part of the approval process as specified in Section 10.4(I)2 of the Specifications.
 - c. Costs for traffic control plan shall be incidental to the cost of maintaining and repairing the irrigation system.
5. Permit for the Occupancy & Use of State Highway Right-Of-Way
 - a. **The Contractor shall submit this application to the Engineer, along with the traffic control plan as mentioned in Section 10.4(I) of the Specifications.**
 - b. This permit shall be made part of the approval process as specified in Section 10.4(I)2 of the Specifications.
 - c. *Refer to Appendix F, Application & Permit for the Occupancy & Use of State Highway Right-Of-Way, of the Appendices.*

6. Do not close traffic lanes or slow down traffic during the peak hours as specified in the Application & Permit for the Occupancy & Use of State Highway Right-Of-Way.

10.5 WARRANTIES

(A) Commercial Warranties

1. The Contractor shall be responsible for exercising all manufacturers' commercial warranties on State-government equipment parts and systems under this contract. The Contractor shall report to the Engineer any difficulty in exercising manufacturer warranties and request assistance when necessary. *The Engineer – Kauai District's representative (Point of Contact) will provide existing copies of warranties, as applicable, to the Contractor prior to the contract notice to proceed date.*
2. The Contractor shall maintain a file of the original warranties on new equipment installed and maintains a list of manufacturer's telephone numbers and points of contact for all warranted equipment. A copy of this list shall be provided to the Engineer – *Kauai District's representative (Point of Contact)* thirty (30) days after the notice to proceed date and whenever new equipment is added or old warranties expire. This file shall be turned over to the Engineer upon completion or termination of this contract. These warranties shall list the "State of Hawaii, Department of Transportation" as the equipment owner.
3. State-government equipment installed by the Contractor that fails within a warranty period due to Contractor's poor workmanship, or by not following the manufacturer's installation, operation and or maintenance instructions shall be replaced or repaired at the Contractor's expense.
4. Labor warranty shall be a full thirty (30) calendar days on all items of equipment provided by the Contractor which period shall commence upon completion and acceptance by the Engineer.

(B) Warranted Equipment

1. Warranted equipment and component parts shall not be repaired, removed or replaced by the Contractor while under warranty by the manufacturer or by the installer.
2. All defects in workmanship or material, defective parts or improper installation found by the Contractor shall be reported in writing to the Engineer. The Contractor shall have the knowledge of the equipment and component that are covered by the original warranty and the duration of the warranty.
3. The Contractor shall perform all preventive maintenance and inspection as prescribed by the manufacturer.

10.6 ADVISORY SERVICES AND SUBCONTRACTORS – All advisory services by foreman or any other Contractor's personnel in performing their work shall be considered as incidental cost to the Contractor's hourly bid rate for regular working hour's trouble calls. No separate payment shall be made therefore.

All specifications and hourly bid rates under this contract shall be applicable to subcontractor(s) should their services be required.

10.7 MISCELLANEOUS REQUIREMENTS

- (A) The Contractor shall clean respective areas after maintenance, repair and inspection operations. Materials and equipment brought in by the Contractor for servicing shall be removed by contractor when work is completed. Equipment that were serviced shall be wiped down and free of oil, grease, dirt and handprints upon completion of service.
- (B) Close doors and turn off lights upon work completion in rooms where services were performed, as applicable.
- (C) Immediately report hazardous conditions and items that requires repair to the Engineer.
- (D) The Contractor shall be held accountable for any damage caused to building surfaces, fixtures, landscaping, pavements or other features resulting from work for this project. Property damaged by action of the Contractor or his employees shall be replaced or repaired to the satisfaction of the Engineer – *Kauai District's representative (Point of Contact)* at the Contractor's expense.

10.8 MATERIALS, SUPPLIES, EQUIPMENT, FACILITIES AND UTILITIES

(A) **Contractor-Furnished Supplies, Material and Equipment.**

- 1. The Contractor shall furnish all necessary supplies, material and equipment that are required to maintain and repair the irrigation system.
- 2. Materials furnished by the Contractor shall be of quality to conform to these specifications.
- 3. The Contractor shall secure continuous irrigation water supply from its current source. Cost of monthly use of irrigation water supply shall be paid by allowance in Bid Item No. 4, Irrigation Water of the Proposal Schedule and shall be negotiated in a manner similar to Section 4.5 Price Adjustment, of the Specifications and shall be **no more than 1.5 x water cost**. The Contractor shall submit to the State the required monthly receipt with his or her monthly invoice.
- 4. Chlorine and Liquid Fertilizer. Cost of Chlorine and Liquid Fertilizer shall be paid by allowance in Bid Item No. 5, Chlorine and Liquid Fertilizer of the Proposal Schedule and shall be negotiated in a manner similar to Section 4.5 Price Adjustment, of the Specifications. The Contractor shall submit to the State the required receipt with his or her monthly invoice.

(B) **State-Furnished Supplies, Material and Equipment, Facilities and Utilities.**

1. The current Motorola Irrinet irrigation System, including all accessories as described in Section 10.1 Description, of the Specifications including accessories.
2. The State will provide electrical power at existing outlets for the Contractor to operate such equipment as necessary in the performance of his/her work.
3. Water, limited to the normal water supply provided in the building, is also available for the Contractor' use while performing maintenance or repair at the baseyard.
4. Keys will not be issued to the Contractor. The State will be responsible for providing access for the contractor to perform contract work. The Contractor shall obtain access through the Engineer.

(C) **Materials.** It is intended that the Contractor shall reuse salvable materials wherever feasible. Any salvable materials damaged through the Contractor's negligence shall be replaced at his expense. Materials will be subject to inspection at any time. Failure of the State's inspector to note faulty material or workmanship during construction will not relieve the Contractor of his responsibility for removing or replacing such materials and restoring the system to working order at his expense.

(D) On slopes where no vehicles traverse, plastic valve boxes are acceptable. On flat areas, concrete valve boxes with metal covers are required.

The Contractor shall start repairing any damages of the sprinkler systems within forty-eight (48) hours of detection or from the time of notification by the State maintenance inspector.

10.9 COORDINATION OF WORK

(A) All work under this contract shall be coordinated with the Engineer or a duly authorized representative. Refer to Section 1.39 Engineer, of the Special Provisions for the definition of Engineer. Contact information is as follows:

Mr. Lawrence Dill District Engineer (DE) – Kauai District Phone: 808-873-3538 Fax: 808-873-3544 Email: Lawrence.J.Dill @hawaii.gov	Point of Contact Mr. Willy Ortal Maintenance Engineer - Kauai District (Authorized Representative of the DE) Phone: 808-241-3032 Fax: 808-241-3011 Email: Willy.S.Ortal@hawaii.gov
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(B) Whenever any work is performed at the Kauai District Office and Baseyard, the Contractor or his employees shall sign in and sign out at the front office.

10.10 HOURS OF OPERATION

- (A) Regular Working Hours. All routine, preventive, maintenance and inspection work shall be performed during “regular working hours” The term “regular working hours” as used in these specifications shall mean 7:00 a.m. to 3:30 p.m., during working days as specified by Section 1.38 Working Day, of the Special Provisions.
- (B) Inclement Weather Schedule. The Contractor shall provide services in all weather conditions unless there is a warning during hurricane, tsunami, or flash flood condition. Maintenance operations shall resume to normal within twenty-four (24) hours after the threat has terminated and roads have been cleared.
- (C) Hurricane Condition/Tsunami/Flash Flood Warning. Hurricane season occurs during the period of June 1st through November 30th of each year. Should the State Civil Defense issues Hurricane, Tsunami or Flash Flood Warning, the Engineer shall immediately notify the Contractor.
- (D) Work Schedule. The Contractor shall bring the irrigation completely functional and up to specifications within thirty (30) days of the contract’s Notice to Proceed date. If the Contractor is unable to bring the project up to specifications within thirty (30) days, he shall request a time extension from the engineer. Failure to bring the project up to specifications or to request a time extension may result in an unsatisfactory rating for this period. It is the Contractor’s responsibility to ensure that adequate labor, equipment, and tools are provided for irrigation maintenance.

The Contractor shall furnish a **monthly schedule** detailing when, where, the number of workers and what type of work the Contractor plans to do for each day of the schedule for a work period of not less than three (3) days per week. The schedule shall be submitted to the Engineer during the Pre-start meeting as specified in Section 10.13 of the Specifications and may be revised by the State at any time. The Contractor shall maintain and revise the work schedule to be current at all times. Progress payments shall be withheld until such time as a satisfactory work schedule is received by the Engineer. The State reserves the right to instruct the Contractor to work in areas other than his scheduled areas if such areas require immediate attention.

Contractor shall employ an English-speaking Lead Irrigation Person on a regular basis to supervise the work. *Refer to Section 2.1.B.2 of the Special Provisions for the required training and certification for the Lead Irrigation Person.*

The Lead Irrigation Person and the Engineer will meet no less than once per month to review the work site to ensure compliance with the contract specifications and standards. At this meeting, this person shall submit a monthly written report listing major accomplishments for the previous month, notable problems, schedule changes and goals and deadlines for the coming month. These meetings shall be documented by the Engineer.

The Engineer reserves the right to disqualify the Lead Irrigation Person based on the work performance anytime during the contract. The Contractor has ten (10) working days to submit a qualified replacement.

10.11 SAFETY

(A) Safety Concerns

1. The Contractor shall observe safety concerns that are mentioned in Section 7.11 Public Convenience and Safety, of the Special Provisions, to the fullest during performance of work.
2. The Contractor and his/her employees shall exercise due care in performing any work. The Contractor and his/her employees maybe subject to slip, trip, fall, vehicular hazards, chemical hazards, noise hazards and other workplace hazards. **The Contractor shall maintain an internal aggressive safety program. Refer to Section 10.12 Submittals/Reports Summary and Section 10.11(D) Safety Plan, of the Specifications for the required Safety Plan.**
3. All methods and practices shall be in accordance with the U.S. Department of Labor (DOL), Occupational Safety and Health Standards, American National Standard Institute (ANSI) Z133.1 – 2012, the Environmental Protection Agency (EPA), health standards and health programs required by Hawaii Administrative Rules § 12-110 and Hawaii Revised Statutes § 396 and other agencies as specified by Section 7.10 Public Convenience and Safety, of the Special Provisions and safety regulations promulgated by local other governmental agencies.
4. All closing of lanes and traffic control and safety measures shall be performed in conformance with the current edition of the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways. *Refer to Section 10.4(N) Closing of Lanes/Traffic Control, of the Specifications for the required training of traffic control personnel, procedures in the approval process for requesting closing of lanes and traffic control.*
- 4a. The contractor is responsible for the work site and the work practices of all employees on the project site and is the controlling, exposing, correcting as well as the creating employer for purposes of this scope of work. The State of Hawaii Department of Transportation monitoring of the work in progress is not representative as the controlling employer for purposes of workplace and work practice safety and health compliance.
5. Contractor shall at all times conduct his work to assure the least possible obstruction to public traffic. The Safety and convenience of the general public and the protection of persons and property is of utmost importance, and the Contractor shall provide appropriate traffic control and safety measures. The Contractor and its employees shall treat members of the public in a fair and polite manner. Workers shall present a professional appearance and conduct themselves in a professional manner at all times.
6. While working in right-of-way areas, all employees shall wear OSHA approved safety equipment, **as applicable**, including but not limited to: head protection, safety hardhat, hearing protection, vest, safety belts, lanyards, fall arrest system,

goggles, gloves, chemical gloves, safety shoes, chain-saw-resistant leg protection, clothing and footwear appropriate to the known hazard and other equipment as required. Vest shall be the appropriate safety apparel that meets current ANSI/ISEA 107 and the U.S. Department of Transportation's MUTCD Section 6D.03. *Cost of employee's personal protective equipments (PPE) shall be incidental to the cost of maintenance and inspection of the irrigation system.*

(B) Hazardous Materials/Environmental Protection.

1. The Contractor shall comply with all Federal, State and local environmental laws and regulations when handling hazardous materials.
2. All work shall be performed in strict compliance with the manufacturer's label and/or Safety Data Sheet (SDS) as applicable and in accordance with State, Federal and local regulations and laws. A copy of the SDS shall be submitted to the Engineer **two days prior to the scheduled use** for his approval prior to use **or immediately notify the Engineer by phone or fax for his verbal approval** in cases of emergency situations which occurs during off hours. A copy of the SDS shall be submitted to the Engineer by close of business the following working day. *Refer to Section 10.12 Submittals/Report Summary, of the Specifications for other miscellaneous submittals.* Contractor employees who are involved in the application of pesticides and herbicides shall complete a video training as specified in Section 10.11(C) 1 of the Specifications. The Contractor at the jobsite shall maintain a copy during handling chemicals. The Contractor is responsible in notifying personnel about the existence of hazardous chemicals in the project area.
3. The Contractor shall immediately contain and clean up the release or spill of hazardous material and shall report the incident to the Engineer.
4. The Contractor shall not allow debris from the irrigation maintenance operation to get into irrigation canals, rivers or any stream.
5. Work shall not cause air or storm water pollution. The Contractor shall be responsible for all hauling and lawful disposal of debris. Any unauthorized or illegal disposal is grounds for termination of the contract.

(C) Mandatory Training

1. Initial and Annual Training. Contractor's employees who are involved in the application of herbicide shall complete a video training before applying herbicide. Retraining shall be repeated annually thereafter. The Contractor shall contact the Engineer for information on mandatory training and upon completion, the Contractor shall submit the training completion report as a part of the submittals as specified in Section 10.12 Submittals/Reports Summary, of the Specifications. Training completion report should contain, as a minimum, name of personnel attending, date, title of video, signature of person administering the training (or official of the firm).

2. Training once every two years. The Contractor and his entire crew who are working on this contract shall attend training once every two years to be conducted by the Department to discuss and train on the 2011 State Highway Manual for Sustainable Landscape Maintenance (HMSLM). The Engineer will notify the Contractor to schedule the training. Training will convene on the 1st and 3rd term of the contract as applicable, or as determined by the Engineer. *Attendees are required to pass a written exam at the end of the training in order to fulfill the requirements of the training.*
3. *Cost of time spent on mandatory training shall be incidental to the unit price of maintaining and repairing the irrigation system.* The run time for the video in Section 10.11.C(1) above is one-half hour and the departmental training in Section 10.11.C(2) will be for approximately two days (per two years).

(D) Safety Plan

1. As a minimum and as applicable, shall contain the following information: project number, project title, contract number, activity description, hazard, action required to remove or mitigate the hazard, special training requirements, engineering controls (i.e. guardrails, barricades, etc.), administrative controls (Standard Operating Procedures, signs, etc.), emergency information, safety equipment checklist & report and required personal protective equipment, required as specified by Section 10.11(A)6 of this section.
2. This plan shall be submitted as specified by Item No. 8, Section 10.12 Submittals/Reports Summary, of the Specifications and by the HMSLM or resubmitted within seven (7) working days prior to commencement of the work when there are revisions. *Refer to Section 1.42 HMSLM, of the Special Provisions for the definition of "HMSLM."* The Contractor shall discuss safety plans in accordance with Section 10.13 Pre-start Meeting, of the Specifications.
3. The Safety Plan shall be prepared/developed/signed by a person who is knowledgeable (i.e. trained and certified) about the fundamental principles of occupational safety and health and work activities to be performed.

During the pre-start meeting, the Contractor shall submit a copy of the certificate of training of the person who prepared the Safety Plan.

The following certificates from the following training sources are acceptable:

- a. Construction Health and Safety Technician from the Board of Safety Professionals.
- b. Specialist in Safety and Health from the OSHA Training Institute
- c. Equivalent certificates from 10.11(D) 3.a and 10.11(D) 3.b above.

TriSafety Consultation and other safety consultants can provide services in the preparation, development and certification of a Safety Plan.

4. *Cost involved in the development and certification of the Safety Plan shall be incidental to the cost of maintenance and inspection of the irrigation system, Bid Item No. 1, of the Proposal Schedule.*

10.11a CONTRACTOR'S RESPONSIBILITY FOR DAMAGE TO PROPERTY – Any damage caused by the Contractor as a result of his or her maintaining of landscaped areas operations including but not limited to damaged plants, broken sidewalk, guardrails, traffic signs, pavement markers, asphalt, concrete swales, curb, rutted lawn, broken water shut-offs, wire damage, building damage, damaged utilities (underground, on ground or overhead) and other non-contractual in the project area whether in public or private property shall be remedied or replaced by the Contractor in accordance with Section 107.12(A) Contractor's Responsibility for Damage to Property, of the Standard Specifications to the satisfaction of the Engineer and/or the injured party.

10.12 SUBMITTALS/REPORTS SUMMARY. The Contractor shall submit the following submittals/reports as a hard copy or in a format as requested by the Engineer.

Item	Submittals/Reports	Reference	Required	Frequency	Submit to
1	Statement of Capabilities including all required attachments	Section 10.2(A) 1 Statement of Capabilities and Section 10.2(B), Schedule of Submitting Required Documents, of the Specifications.	Prior to award.	As revised	Project Manager, Construction and Maintenance Branch, Highways Division.
2	Names, Telephone Number(s) and Adresse(s) of Contact for Contractual issues	Section 10.2(A)1 Statement of Capabilities, Section 10.2(B), Schedule of Submitting Required Documents, Section 10.9 Coordination of Work and Section 10.13 Pre-start Meeting, of the Specifications.	Prior to award. (included in the Statement of Capabilities) and three (3) working days prior to the Notice to Proceed.	As revised	Project Manager, Construction and Maintenance Branch, Highways Division and the Engineer - Kauai District's representative (Point of Contact)

SUBMITTALS/REPORTS SUMMARY (continuation)

Item	Submittals/Reports	Reference	Required	Frequency	Submit to
3	List of personnel employed under the contract along with individual qualifications	Section 10.2(A)1 Statement of Capabilities, Section 10.2(B), Schedule of Submitting Required Documents and Section 10.13 Pre-start Meeting, of the Specifications.	Prior to award and three (3) working days prior to Notice to Proceed date	As revised	Project Manager, Construction and Maintenance Branch, Highways Division and the Engineer - Kauai District's representative (Point of Contact)
4	Routine/preventive Maintenance and Inspection Report/Work Tag	Section 10.4(A) 3 of the Specifications	End of each day or each job whichever is earlier.	As revised	The Engineer - Kauai District's representative (Point of Contact)
5	Work Schedule and Parts requirements	Section 10.4(A) 8 of the Specifications	Seven (7) calendar days after the issuance of the Notice to Proceed.	As revised	The Engineer - Kauai District's representative (Point of Contact)
6	Irrigation Trouble Call Report	Section 10.4(B) of the Specifications	End of each day or each job whichever is earlier.	As revised	The Engineer - Kauai District's representative (Point of Contact)
7	Equipment Warranties	Section 10.5(A) 2 of the Specifications	Thirty (30) days after the notice to proceed date and whenever new equipment is added or old warranties expire	As needed	The Engineer - Kauai District's representative (Point of Contact)

SUBMITTALS/REPORTS SUMMARY (continuation)

Item	Submittals/Reports	Reference	Required	Frequency	Submit to
8	Safety Plan	Section 10.11(D), Section 10.9 Coordination of Work and Section 10.13 Pre-start Meeting, of the Specifications	Three (3) working days prior to the Notice to Proceed.	As revised	Project Manager – Construction and Maintenance Branch and the Engineer - Kauai District's representative (Point of Contact)
9	Traffic Control Plan	Section 10.4(I)3 Traffic Control Plan, of the Specifications	Seven (7) working days prior to the scheduled lane closure.	As required	The Engineer - Kauai District's representative (Point of Contact)
10	Permit for the Occupancy & Use of State Highway Right- Of-Way	Section 10.4(I)5 Permit for the Occupancy & Use of State Highway Right-Of-Way, of the Specifications	Seven (7) working days prior to the scheduled lane closure.	As required	The Engineer - Kauai District's representative (Point of Contact)
11	SDS for chemicals (<i>as applicable</i>)	Section 10.11(B) 2	Two working days prior to use or immediately for emergency situations.	As needed	The Engineer - Kauai District's representative (Point of Contact)
12	Certified Payroll Affidavit	Section 7.8 Labor and Compensation Requirements, of the Special Provisions.	Within seven (7) days after the end of each month. Submitted with the monthly invoice.	Monthly	The Engineer - Kauai District's representative (Point of Contact)

10.13 PRE-START MEETING – Three (3) working days prior to the Notice to Proceed date or earlier, the Contractor shall schedule a pre-start meeting by contacting the Engineer –Kauai District's representative (Point of Contact) at the phone number or email address as specified in Section 10.9 Coordination of Work, of the Specifications. This meeting will include the Engineer, his authorized representative and other personnel as deemed necessary by the Engineer. The Contractor shall include and introduce the main contact person or Crew Supervisor for this project. *Pursuant to Section 10.12 Submittals/Reports Summary, of the Specifications, the Contractor shall be prepared to discuss and submit the specified documents*

that are listed in the table of this section prior to the Notice to Proceed including, but not limited to the following:

- (A) Verification of the quantities of equipment and location.
- (B) Coordination of access to the working areas as applicable.
- (C) List of available State-furnished materials, supplies.
- (D) Verification of quantities in the Proposal Schedule and boundaries of working areas.

10.14 TERM OF CONTRACT – The term of this contract shall be for twelve (12) months beginning from the date indicated on the Notice to Proceed from the State unless renewed as provided for in Section 10.15 Option to Extend Term, of the Specifications.

10.15 OPTION TO EXTEND TERM - This contract may be extended to four (4) additional twelve (12) - month periods without the necessity for re-bidding upon mutual agreement between the State and the Contractor in writing provided the contract price for the extended period shall remain equal to or less than the initial bid price; with adjustments as provided in subsection 10.16, Escalation Clause, however, the entire term of contract, including extensions, shall not exceed sixty (60) months.

10.16 ESCALATION CLAUSE – If, during the life of the contract, the prevailing wage rates for State civil service workers performing similar work are increased or decreased, the State shall automatically adjust the unit prices, Bid Item Nos. 1, 2 and 3 of the Proposal Schedule to match the percentage increase(s) or decrease(s) granted to State civil service workers performing similar work. There will be no prorated adjustments to the actual date of the increase. Price adjustments shall be made only at the time of extension of the contract. However, in the event Section 103.55, Hawaii Revised Statutes, as amended, is repealed or modified so that this section of the statute is no longer applicable to this contract, this paragraph will be voided.

10.17 BASIS FOR PAYMENT - The Contractor's bid price shall be full compensation for furnishing technical expertise as applicable, all labor, materials, tools, equipment, vehicles, communication costs, taxes, insurance, overhead, travel, and incidental costs necessary to maintain and repair the irrigation system as specified in this contract.

Incidental costs include, but not limited to the following:

Item	Reference	Item	Reference
Vehicle logo	Section 2.1(A)8. a of the Special Provisions	Personnel Protective Equipment	Section 10.11.A.6 of the Specifications
Employee shirt or T-shirt	Section 2.1(B)7.a of the Special Provisions	Mandatory training	Section 10.11.C of the Specifications
Traffic control	Section 10.4(I)	Development of a safety plan	Section 10.11.D.3 of the Specifications
Development of a traffic control plan	Section 10.4(I)4 of the Specifications		

(A) Monthly Earnings. Computed as follows:

1. Maintenance and Inspection of Irrigation System (routine/preventive maintenance), **Bid Item No. 1** – monthly earnings shall be per unit bid price as specified in the Proposal Schedule. *Refer to Section 10.4(A) Maintenance and Inspection (routine/preventive), of the Specifications for more information.*
2. Trouble call repair work, regular working hours– per man-hour, *Pump Technician* (**Bid Item No. 2**). Monthly payments to the Contractor will be made on the basis of actual number of services performed and the applicable unit bid prices. *Refer to Section 10.4(B)1.a.2, Repairs/Trouble Call of the Specifications for more information.*
3. Trouble calls repair work, regular working hours– per man-hour, *Sprinkler Technician* (**Bid Item No. 3**). Monthly payments to the Contractor will be made on the basis of actual number of services performed and the applicable unit bid prices. *Refer to Section 10.4(B)1.a.2 of the Specifications for more information.*
4. Irrigation Water (**Bid Item No. 4**). Monthly payments to the Contractor will be made in accordance with Section 10.8(A)3 of the Specifications.
5. Chlorine and Liquid Fertilizer (**Bid Item No. 5**). Monthly payments to the Contractor will be made in accordance with Section 10.4(E) of the Specifications.
6. Replacement Parts (**Bid Item No. 6**) – The Contractor shall be reimbursed for the cost of the new part in accordance with Sections 10.4(C)2.c and 10.4(D) of the Specifications.
7. Overtime Work (**Bid Item No. 7**). The Contractor shall be paid in accordance with Section 10.4(B)1.b, Trouble Call During Off-Hours of the Specifications.
8. Technical Support Services (**Bid Item No. 8**). The Contractor shall be paid in accordance with Section 10.4(G) Technical Support Services, of the Specifications.

(B) Miscellaneous Work (**Bid Item No. 9**) will be used only at the discretion of the Engineer for additional miscellaneous work within the scope of work and within the project area. The amount shall be negotiated in a manner similar to Section 4.5 - PRICE ADJUSTMENT of the Specifications. *Refer to Section 10.4(H) of the Specifications for additional miscellaneous work that the Engineer may task the Contractor.*

(C) Deductions (as applicable)

1. Liquidated Damages – computed as specified in Section 9.4.d.ii of the Special Provisions. The amount shall be retained by the State and shall not be paid to the Contractor. An explanation report with substantiating evidence shall be filed by the Engineer.

2. Retainage - computed as specified in Section 9.2 Retainage/Deduction from Payment, of the Specifications and deducted in accordance with Section 9.4.d.iii of the Special Provisions. *Refer to Section 9.2 Retainage/Deduction from Payment, of the Special Provisions for retainage invoicing procedures.*
- (D) Total Monthly Payments. The total monthly payments payable to the Contractor for maintenance of landscaped areas will be the applicable monthly earnings in Section 10.17(A) Monthly Earnings, of this section plus the applicable miscellaneous work in Section 10.17 (B) Miscellaneous Work, of this section minus the applicable deduction(s) Section 10.17(C) Deductions, of this section.

Refer to Section 9.4 Progress Payments, of the Special Provisions for the required information on monthly invoice.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU, HAWAII

APPENDICES

Appendix A - Irrigation System Maintenance & Inspection Tasks, Frequency and Checklist

Appendix B - Maintenance and Inspection Report/Work Tag

Appendix C - Sample – Irrigation Trouble Call Report

Appendix D– Location Plan, Title Sheet, Standard Plans Summary, General Notes, Legend,
Irrigation Supply Line, Plans, Details, etc. – As-Built (Reduced Scale- partial)

Project No. STP-0700 (43) (Title Sheet)

Project No. STP-0700 (43) (Standard Plans Summary)

Project No. STP-0700 (43) (General Notes)

Project No. STP-0700 (43) (Legend)

Project No. STP-0700 (43) (Irrigation Supply Line Plan

Project No. STP-0700 (43) (Irrigation Supply Line Details)

Project No. STP-0700 (43) (Reservoir Connection Details)

Project No. STP-0700 (43) (Irrigation Pump, Filter and Distribution Facility Plan)

Project No. STP-0700 (43) (Landscape Irrigation Plan)

Project No. STP-0700 (43) (Landscape Irrigation Details)

Project No. STP-0700 (43) (Landscape Irrigation Legend, Notes and Details)

Project No. STP-0700 (43) (Electrical Site Plan, Irrigation Pump Facility)

APPENDICES (continuation)

Project No. STP-0700 (43) (Electrical Plan, Irrigation Pump Facility)

Project No. STP-0700 (43) (Electrical Diagrams Details, Panel Schedule)

Project No. STP-0700 (43) (Electrical Diagram, Irrigation Pump Facility)

Appendix E - Application & Permit for the Occupancy & Use of State Highway Right-Of-Way

Appendix F – Sample – Notice to Proceed letter for Miscellaneous Work

Appendix G - Contractor Performance Rating

Appendix H - Sample - Monthly Invoice

Appendix I - Sample – Certified Payroll Report

Appendix J - Sample - Satisfactory Evidence by Affidavit for Final Payment

Appendix A
IRRIGATION SYSTEM MAINTENANCE & INSPECTION TASKS, FREQUENCY
CHECKLIST

A. Central Control System and Field Control Units Maintenance Schedule:

1. Check Central Computer daily during weekdays checking for alarms and making adjustments as necessary.
2. Check field controls (Scorpions and pump Irrinet) *once a month* or more if necessary.
3. Check the system on site by a Motorola Factory Irrinet Trained Technician *once a month* making adjustments as necessary. Check the Irrinets and Scorpions in the field and Central Computer and FIU Irrinet in the State Office Building once a month.
4. Inspect and check the radio communications between the central control center and the satellites at the central FIU.
5. Make changes to the Programming as required by the State.
6. Additional maintenance tasks, as applicable.

IRRIGATION CONTROLLER *All run times should take into account sprinkler rates, precipitation rates, soil conditions, microclimate conditions, evapotranspiration, and consideration of slope. Before scheduling run times, the site should be "walked" and planted areas inspected to observe plant stress and health. Soil moisture levels should be inspected throughout planted areas, and appropriate adjustments made to the irrigation schedule. Irrigation scheduling will be performed to encourage deep roots, including deep watering through use of multiple repeat cycles. On slopes, short irrigation cycles should be repeated to minimize water runoff. Soil probing shall be used to determine soil moisture depth, overall moisture levels and the need to adjust irrigation schedules. Soils will be allowed to dry to a 50% moisture depletion level between irrigations in order to avoid root-rot and allow adequate air to be present in the soil.*

Irrigation cycles are to run only between the hours of 9:00 p.m. to 6:00 a.m. Watering times should be adjusted, where needed, to eliminate irrigation during heavy commuter hours. A proposed quarterly schedule of watering shall be provided to the Engineer one (1) month after the notice to proceed date. The frequency and duration shall be set to adequately irrigate plants and turf without causing significant surface runoff or ponding. Each time the schedule is changed due to seasons or any other reason, a revised schedule shall be provided to Engineer.

Appendix A
(continuation)

Controller enclosures are to remain locked and vandalism to enclosure shall be repaired within ten business days. Controllers are to be maintained free of insects and geckos. Contractor may employ moth balls. Keep solar-operated controller lenses clean of dirt and debris.

B. Pump Station: Weekly Inspection and Maintenance Schedule:

1. Check for leaks throughout the pump station making repairs and adjustments as necessary.
2. Pre-screen Filters: Check upstream and downstream pressures, removing and cleaning the perforated screen as necessary.
3. Automatic Suction Screen Filter: Manually initiate a flushing cycle and check for proper operation.
4. Automatic Suction Screen Filter: Check for grease on the drive shaft and drive bushing adding grease as necessary.
5. Visually and audibly check operation of booster pumps.
6. Lubricate the frame bearings and motor bearings as recommended by the pump manufacturer.
7. Check pressure-sustaining valve and adjust as necessary.
8. Monitor and replenish chlorine as needed.
9. Monitor and replenish liquid fertilizer as needed.

C. Field Irrigation System:

1. Weekly Inspection and Maintenance Schedule:
 - a. Check for leaks throughout the supply system and repair as necessary.
 - b. Physically check all field satellites to insure that they are operational and no damage has occurred. Control of insects, geckos, etc. in the cabinets of each satellites is essential to maintain the integrity of the control system. Remove any nests which may have been created and clean all surfaces which may have been created and clean all surfaces which have been contaminated.

Appendix A
(continuation)

- c. Check entire system observing noticeable damage to the system, such as damage caused by vehicles, animals or vandalism.
- d. Physically observe each of the conventional or temporary systems, especially those at the intersection of Kapule Highway and Ahukini Road to insure proper operation.
- e. Refer to manufacturers' owner manual for additional requirements.
- f. Additional maintenance tasks:

The Contractor shall check the entire irrigation system weekly for items such as dry spots and missing or malfunctioning irrigation components. Check for leaking valves, water running across pavement, water standing in puddles, or any other condition which hampers the correct operation of the system or the public safety. The Contractor shall carefully observe plant materials for signs of wilting, indicating a lack of water. Plants which die due to irrigation failure will be considered to have died due to the Contractor's negligence and shall be replaced at the Contractor's expense.

2. Monthly Inspection and Maintenance Schedule:

- a. Clean and back flush all drip filters at each point of connection to insure that they are clean and operating properly.
- b. Inspect all air/vacuum relief to insure they are clean and operating properly within each drip and tree section.
- c. Inspect all flush valves within each drip and tree section for proper operation.
- d. Inspect and clean rain sensors at each satellite location where applicable making sure that they are free of leaves, dirt and debris. Check adjustments to insure that they are set to turn off the irrigation system should precipitation exceed $\frac{3}{4}$ of an inch.
- e. Refer to manufacturers' owner's manuals for additional requirements.

Appendix A
(continuation)

f. Supplementary maintenance tasks, as applicable.

- (1) IRRIGATION VALVES. Each valve should be inspected monthly to correct the following conditions: stuck valves, and broken risers, laterals or mains. Contractor shall list and report all irrigation system damages to the Engineer with the cost estimate of repair/replacement. Irrigation system pressure shall be checked and adjusted at least monthly to insure efficient operation of irrigation systems.

On slopes where no vehicles traverse, plastic valve boxes are acceptable. On flat areas, concrete valve boxes with metal covers are required. Contractor shall maintain the bottom of all valves, a minimum 1" above gravel base. Contractor shall remedy all valves not 1" above gravel base by excavating all dirt from valve box to a depth of 4" below the bottom of the valve and installing filter fabric and a 3" layer of number three gravel.

- (2) SPRINKLER HEADS. Inspect all sprinkler heads for misaligned irrigation heads, clogged or obstructed heads, missing or vandalized heads, low-head drainage conditions, overspray onto hardscaped areas, poor coverage or uniformity. If the irrigation is not adequate to provide uniform coverage, the Contractor agrees to upgrade the system to achieve site efficiency. To clear clogs, remove internal assembly, clean screen filter, thread fine wire through orifice of nozzle, and reassemble head. Run test to confirm that clog has been cleared. Do not attempt to clean plastic nozzles by sticking knife blades or wire into the openings. The plastic will be scratched and the pattern will be ruined.

- (3) MONTHLY IRRIGATION REPORT. Develop and maintain a site log, which should contain the following information: monthly water consumption data, broken components, repairs areas of vandalism, and other site information.

- (4) BATTERY POWERED CONTROLLERS/VALVES. Battery powered controllers/valves shall be tested each month to check that the batteries are operating. Dead batteries shall be replaced immediately at the Contractor's cost.

Appendix A
(continuation)

- (5) *RAIN SENSOR. Rain sensor switches prevent irrigation systems from running when it is raining, or when it has recently rained. Maintain rain sensor free of debris and insects on the screen and funnel.*
- (6) *DRIP IRRIGATION. Drip lines and spray heads shall be randomly checked on an ongoing basis such that the entire system is checked each month. Malfunctioning systems will be corrected immediately. Methods of detection include: visual sightings of water on adjacent hardscape and property, soil probing, meter monitoring and specific line observations.*

3. Quarterly Inspection and Maintenance Schedule:

- a. Check the pressure settings on all pressure regulations controls at each valve to insure adequate down stream pressures for all systems.
- b. Check all air relief valves on main transmission line to insure all valves are working properly.
- c. Refer to manufacturers' owners manual for additional requirements.

4. Yearly Maintenance:

- a. Manually operate gates valves all through the system.
- b. Flush ends of supply line.
- c. Check condition of supply line appurtenances and adjust or repair if necessary.

Appendix B

(pursuant to Sections 10.4(A)3 Submittal of Routine/preventive Maintenance and Inspection Report/Work Tag and Item No. 4, Section 10.12, of the Specifications, this report shall be submitted to the Engineer-Kauai District's representative (Point of Contact) at the end of each day or each job whichever comes first.)

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION-KAUAI DISTRICT

Sample - Routine/preventive Maintenance and Inspection Report/Work Tag

Project Nos.: 51BD-01-2018 & 570A-01-2018

Contract No: _____

Project Title: Lihue Gateway Maintenance, Repair and Inspection of Irrigation System, Island of Kauai

Date: _____

Time arrived: _____

Time departed: _____

Equipment (i.e. pump, field irrigation controller, etc.)	Location (i.e. Pump Station, corner of Kapule Highway/Ahukini Road)	Work Schedule (i.e. weekly, quarterly pm, etc.)	Malfunction/Deficiencies	Corrective Action/Remarks

Contractor (name of company): _____

Pump or Sprinkler Technician signature: _____

Printed Name of Pump or Sprinkler Technician: _____

Appendix C
Sample – Irrigation Trouble Call Report

(pursuant to Sections 10.4(B) Trouble Calls/Repairs and Item No. 6, Section 10.13, of the Specifications, this report shall be submitted to the Engineer-Kauai District's representative (Point of Contact) at the end of each day or each job whichever comes first.)

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION-KAUAI DISTRICT

Project Nos.: 51BD-01-2018 & 570A-01-2018 Contract No: _____
Project Title: Lihue Gateway Maintenance, Repair and Inspection of Irrigation System, Island of Kauai

Date (mm/dd/yy): _____ **Time in at jobsite:** _____

Weather: _____ **Time out at jobsite:** _____

Name of Person submitting the Trouble Call: _____

Reported Problem: _____

Work Required to Repair Equipment (explain): _____

Materials/parts or equipment required to repair elevators:

Illustration (or photo) showing repair location:

COMMENTS:

Contractor (name of company): _____

Pump or Sprinkler Technician signature: _____

Printed Name of Pump or Sprinkler Technician: _____

Appendix D

INDEX TO DRAWINGS

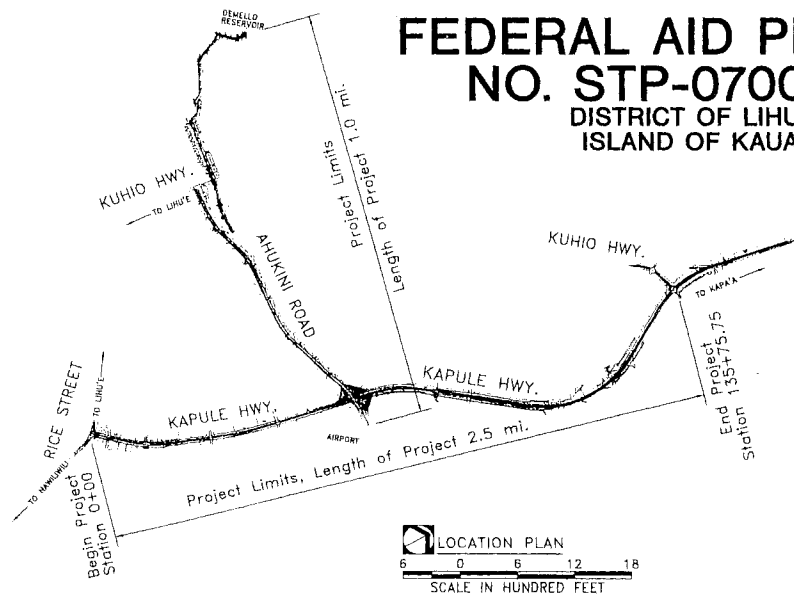
SHEET NO.	DESCRIPTION	DRAWING NO.	SHEET NO.	DESCRIPTION	DRAWING NO.
1	TITLE SHEET	T-1	132	ELECTRICAL PLAN	E-21
2	STANDARD PLANS SUMMARY	C-1	133	IRRIGATION PUMP FACILITY	E-22
3	GENERAL NOTES	C-2	134	ELECTRICAL DIAGRAMS	E-23
4	LEGEND	C-3	135	ELECTRICAL DIAGRAM- IRRIGATION PUMP FACILITY	E-24
5 TO 6	MASS GRADING PLAN	C-4 TO C-5	136	ELECTRICAL SERVICE DETAILS, PANEL SCHEDULE	E-25
7 TO 8	DETAILS	C-6 TO C-7	137	WIRING AND PULLBOX DETAILS	E-26
9	TRAFFIC SIGNING PLAN	C-8	138	LANDSCAPE LIGHTS	E-27
10 TO 11	TRAFFIC SIGN SUMMARY	C-9 TO C-10	139 TO 141	DUCT SECTIONS	E-28 TO E-30
12 TO 14	ENTRY WALL LAYOUT PLAN	LH-1 TO LH-3			
15 TO 16	SIGN WALL SECTIONS	LH-4 TO LH-5			
17 TO 29	IRRIGATION SUPPLY LINE PLAN	S1 TO S13			
30 TO 39	IRRIGATION SUPPLY LINE DETAILS	S14 TO S23			
40	RESERVOIR CONNECTION DETAILS	R1			
41	IRRIGATION PUMP, FILTER AND DISTRIBUTION FACILITY PLAN	P1			
42 TO 46	IRRIGATION PUMP, FILTER AND DISTRIBUTION FACILITY PLAN	P2 TO P6			
47 TO 51	LANDSCAPE LAYOUT PLAN	LA1-01 TO LA1-05			
52 TO 53	LANDSCAPE LAYOUT PLAN	LK1-01 TO LK1-02			
54 TO 56	LANDSCAPE LAYOUT PLAN	LK1-06A TO LK1-07			
57 TO 60	LANDSCAPE LAYOUT PLAN	LK1-10 TO LK1-14			
61	LANDSCAPE LAYOUT PLAN	LK1-15			
62 TO 66	LANDSCAPE IRRIGATION PLAN	LA2-01 TO LA2-05			
67 TO 82	LANDSCAPE IRRIGATION PLAN	LK2-01 TO LK2-15			
83 TO 86	LANDSCAPE IRRIGATION DETAILS	LI2-01 TO LI2-04			
87	LANDSCAPE IRRIGATION LEGEND, NOTES AND DETAILS	LI2-05			
88 TO 92	LANDSCAPE PLANTING PLAN	LA3-01 TO LA3-05			
93 TO 108	LANDSCAPE PLANTING PLAN	LK3-01 TO LK3-15			
109	LANDSCAPE PLANT LIST AND NOTES	LP-1			
110	LANDSCAPE PLANTING DETAILS	LP-2			
111	LANDSCAPE SECTIONS	LP-3			
112	ELECTRICAL SITE LOCATION PLAN	E-1			
113 TO 126	ELECTRICAL SITE PLAN I THROUGH XIV	E-2 TO E-15			
127 TO 129	LANDSCAPE LIGHTING PLAN I THROUGH III	E-16 TO E-18			
130 TO 131	ELECTRICAL SITE PLAN IRRIGATION PUMP FACILITY	E-19 TO E-20			

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	1	141

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII

PLANS FOR
LIHU'E GATEWAY BEAUTIFICATION

FEDERAL AID PROJECT
NO. STP-0700 (43)
DISTRICT OF LIHU'E
ISLAND OF KAUAI



DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII

APPROVED:
Kayla Hyslop 12/23/98
DIR. OF TRANSPORTATION DATE

JULY 31, 1998

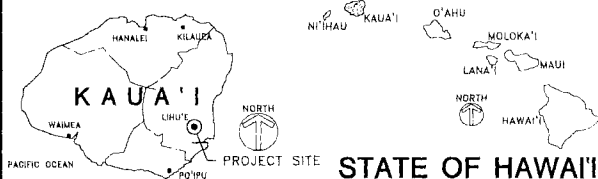
SHEET No. T-1 OF 1 SHEETS

PHILLIPS BRANDT REDDICK
& ASSOCIATES (HAWAII), INC.
DESIGNED BY

FRED REYES
P.S. & E. BY

274-3111
PHONE

JANUARY 1999
DATE



Appendix D (continuation)

STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-070043	1989	2	141

STANDARD PLAN NO.	TITLE	DATE
R-01	Notes and Miscellaneous Details	07/01/86
R-02		
R-03	Typical Structure Excavation and Backfill Pay Limits	07/01/86
R-04		
R-05		
R-06	Concrete Box Girder	07/01/86
R-07	Concrete Box Girder	07/01/86
R-08	Concrete Box Girder	07/01/86
R-09		
R-10		
R-11		
R-12	Prestressed Concrete Pilius	07/16/90
R-13	Prestressed Concrete Pilius	07/16/90

D-01	Chain Link Fence With Toprail	03/06/87
D-02	Chain Link Fence Without Toprail	07/26/90
D-03	Wire Fence With Metal Posts	07/01/86
D-04	Typical Details of Curbs and/or Gutters	07/01/86
D-05	Typical Details of Reinforced Concrete Drop Driveway	07/01/86
D-06	Centerline and Reference Survey Monument	07/01/86
D-07	Street Survey Monument	07/01/86
D-08	Landscape Shrub and Tree Planting	07/01/86
D-09	Field Office	07/01/86
D-10	Field Office	07/01/86
D-11	Project Site Laboratory	07/01/86
D-12	Project Site Laboratory	07/01/86
D-13	Field Office & Project Site Laboratory	07/01/86

H-01	Type A, B, C and D Catch Basin	07/01/86
H-02	Type A1, B1, C1 and D1 Catch Basin	07/01/86
H-03	Type A2, B2, C2 and D2 Catch Basin	07/01/86
H-04	Typical Reinforcing Details for Catch Basins	07/01/86
H-05	Type A, B and C Storm Drain Manhole	07/01/86
H-06	Type D and E Storm Drain Manhole	07/01/86
H-07	Type F Storm Drain Manhole	07/01/86
H-08	Catch Basin and Manhole Casting	07/01/86
H-09	Type A-9 and A-9P Frames and Grates	07/01/86
H-10	Type A-9B Frames and Grates	07/01/86
H-11	Type 61614 and 61214 Grated Drop Inlet	07/01/86
H-12	Type 61616 Grated Drop Inlet	07/01/86
H-13	61214, 61614 & 61616 Steel Frames and Grates	07/01/86
H-14	61214B Steel Frame and Grates	07/01/86
H-15	61614B Steel Frame and Grates	07/01/86
H-16	Concrete and Cement Hubble Masonry Structures	07/16/90
H-17	Inlet Structures	07/16/90
H-18	Flared End Section for Culverts	07/01/86
H-19	Outlet Structures	07/16/90
H-20	Concrete Spillway Inlet	07/01/86
H-21	18" Slotted C.M.P. Drain	07/01/86
H-22	C.M.P. Coupling Details Standard Joint	07/16/90
H-23	Hot Shaped Coupling Band	07/16/90

TE-01	Miscellaneous Sign Details	07/01/86
TE-02	Galvanized Flanged Channel Sign Post Mounting	07/01/86
TE-03	Galvanized Square Tube Sign Post Mounting	07/01/86
TE-04	Regulatory Signs	09/01/87
TE-05	Warning Signs	07/01/86
TE-06	Miscellaneous Signs	07/03/89
TE-07	Reserved	07/01/86
TE-08	Construction Signs	09/01/87
TE-09	Miscellaneous Intersection Signs	03/06/87
TE-10	Reserved	07/01/86
TE-11	Rike Route Sign and Supplementary Plates	07/01/86
TE-12	State Route Marker and Auxiliary Markers	07/01/86
TE-13	Interstate Route Marker	07/01/86
TE-14	State Route Marker and Border Detail for Guide Signs	07/01/86
TE-15	Route Marker Assemblies	07/01/86
TE-16	Miscellaneous Reflector Markers	07/01/86
TE-17	Type II Object Markers	07/01/86
TE-18	Mileposts	07/01/86
TE-19	Reserved	07/01/86
TE-20	Overhead Sign Supports	07/01/86
TE-21	Overhead Sign Support, Box Truss Type, Aluminum	07/01/86
TE-22	Foundation Details and Schedules	07/01/86
TE-23	Supports for Ground Mounted Guide Signs	07/03/89
TE-24	Breakaway Sign Supports for Ground Mounted Guide Signs	07/01/86
TE-25	Laminated Aluminum Sign Panels (Overhead)	07/01/86
TE-26	Laminated Aluminum Sign Panels (Ground Mounted)	07/01/86
TE-27	Solid Aluminum Extruded Sign Panel and Accessory Details	07/01/86
TE-28	Guide Signs Luminaire Mountings	07/01/86
TE-29	Reserved	07/01/86
TE-30	Raised Pavement Markers and Striping	05/09/90
TE-31	Miscellaneous Pavement Markings	05/09/90
TE-32	Miscellaneous Pavement Markings	05/09/90
TE-33	Miscellaneous Pavement Markings	07/03/89
TE-34	Reserved	07/01/86
TE-35	Pavement Alphabets, Numbers & Symbols	07/01/86
TE-36	Pavement Alphabets, Numbers & Symbols	07/01/86
TE-37	Reserved	07/01/86
TE-38	Traffic Signal System Miscellaneous Details	07/03/89
TE-39	Traffic Signal System Miscellaneous Details	07/01/86
TE-40	Loop Detectors	07/03/89
TE-41	Pullboxes	07/01/86
TE-42	Type III Traffic Signal Standard	07/01/86
TE-43	Concrete Pullbox (2' x 3')	07/01/86
TE-44	Reserved	07/01/86

TE-45	Reserved	07/01/86
TE-46	Reserved	07/01/86
TE-47	Reserved	07/01/86
TE-48	Reserved	07/01/86
TE-49	Reserved	07/01/86
TE-50	Metal Guardrail	03/06/87
TE-51	Metal Guardrail	09/01/87
TE-52	Metal Guardrail With Rubrail	07/03/89
TE-53	Metal Guardrail With Rubrail at Obstruction	07/03/89
TE-54	Beam Type Guardrail With Rubrail at Obstruction (Shoulder Installation)	07/03/89
TE-55	Metal Guardrail Connection to Concrete Barrier	07/03/89
TE-56	Concrete Barrier Transition	07/01/86
TE-57	Guardrail Type 3, Three Beam	07/03/89
TE-57A	Guardrail Type 3, Modified Three Beam	07/03/89
TE-58	Approach End Flare, One & Two Way Roadway	07/01/86
TE-59	Trailing End Flare, One & Two Way Roadway	07/03/89
TE-60	Anchor Block Details	07/01/86
TE-61	Breakaway Cable Terminal (BCT)	07/03/89
TE-62	Breakaway Cable Terminal (BCT)	09/01/87
TE-63	Guardrail Type 4 (Rigid Barrier)	09/01/87
TE-64	Portable Concrete Barrier	07/03/89
TE-65	Guardrail Type 4, Miscellaneous	09/01/87
TE-66	Barriercades	07/01/86
TE-67	Deflection & Pavement Markings of Bridges	07/01/86
TE-68	Wheelchair Ramps	07/18/94
TE-69	Wheelchair Ramps	07/18/94

NOTE:
STANDARD PLANS APPLICABLE TO THIS PROJECT ARE INDICATED BY A "•" NEXT TO THE STANDARD PLAN NO. (FOR EXAMPLE: D-07 •)

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STANDARD PLANS SUMMARY	
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT	
Scale: N.T.S.	Date: July 31, 1999
SHEET No. C-1 OF 10 SHEETS	

DESIGNED BY
CHECKED BY
APPROVED BY
DATE
REVISIONS

DATE	REVISION
07/16/94	REVISED TE-68 & TE-69
02/15/91	REVISED H-19
10/16/90	REVISED H-16, H-17, H-22 & H-23
10/26/90	REVISED D-02
07/16/90	REVISED B-12, B-13
03/09/90	REVISED TE-30, TE-31 & TE-32
1/20/89	REVISED TE-06, TE-23, TE-30, TE-31, TE-32, TE-33, TE-34, TE-40, TE-52, TE-54, TE-55, TE-57, TE-59, TE-61, TE-64, TE-68 & TE-69. ADDED TE-57A
09/01/87	REVISED TE-04, TE-06, TE-08, TE-32, TE-51, TE-53, TE-54, TE-55, TE-57, TE-59, TE-62, TE-63, TE-65 & TE-69
03/06/87	REVISED D-01, TE-09, TE-40, TE-50, TE-51, TE-57, TE-59, TE-61, TE-63 & TE-64

Appendix D (continuation)

GENERAL NOTES

1. The scope of work for this project includes:
mass grading, culvert extension,
drainage structures, concrete rubble
masonry walls, irrigation pump facility, irrigation lines,
landscaping, landscaping lighting, entry wall signs,
traffic signs, traffic control, electrical work and
other incidental work.
2. Work on the State Highway travelway, inclusive of paved shoulders,
shall be performed only between the hours of 6:30 a.m.
and 3:30 p.m., Monday through Friday, except holidays, unless
otherwise approved in writing by the District Engineer. Two
lanes of traffic shall remain open at all times, unless otherwise
approved in writing by the District Engineer.
3. The Contractor shall provide, install, and maintain all necessary
signs, lights, flares, barricades, markers, cones, and other
protective facilities, and shall take all necessary precautions
for the protection, convenience, and safety of public traffic.
All such protective facilities and precautions to be taken shall
conform with the "Administrative Rules of Hawaii Governing the
Use of Traffic Control Devices at Work Sites on or Adjacent
to Public Streets and Highways", adopted by the Director of
Transportation, and the current U.S. Federal Highway
Administration "Manual on Uniform Traffic Control Devices for
Streets and Highways, Part V". Standards and Guides for
Traffic Controls for Street and Highway Construction,
Maintenance, Utility and Incident Management Operations".
4. No material and/or equipment shall be stockpiled or otherwise
stored within the highway right-of-way, except at locations
designated in writing and approved by the District Engineer.
5. Compaction tests shall be taken in accordance with the
Specifications for Installation of Miscellaneous Improvements
within State Highways, as follows:
 - a. Subbase: One (1) compaction test per lift per 200
lineal feet of roadway.
 - b. Base Course: One (1) compaction test per lift per 200
lineal feet of roadway.
 - c. One (1) compaction test per lift per 300 lineal feet of trench.
 - d. A copy of the test results shall be submitted to the District
Engineer.
6. Prior to commencing trench excavation work, the Contractor shall
take a profile along the centerline of the proposed utility trench.
This information shall be used in the verification of restoring the
roadway to its original condition. A copy of the profile shall be
submitted to the District Engineer.
7. The Contractor shall provide an adequate and safe non-skid
bridging material, including shoring over trenches in pavement
areas. The bridging shall be able to support all types of
vehicular traffic.
8. Unless otherwise noted, no trench shall be opened more than
300 feet in advance of installed and tested pipeline and/or
ductline.
9. Existing drainage systems shall be functional at all times.
10. The Contractor shall exercise care to minimize damages to
existing highway improvements. All damages shall be repaired
by the Contractor, at his expense, to the satisfaction of the
District Engineer.
11. All regulatory, guide, and construction signs and barricades
shall have a high-intensity reflective background.
12. Driveways shall be kept open unless the owners of the
properties using these rights-of-way are otherwise provided
for satisfactorily.
13. Where pedestrian walkways exist, they shall be maintained in
a safe and passable condition, or other facilities for
pedestrians shall be provided. Passages between walkways at
intersections shall likewise be provided.
14. The Contractor shall reference to the satisfaction of the
District Engineer, all existing traffic signs, posts, and
pavement markings prior to the commencement of
construction. The Contractor shall replace or repair all traffic
signs, posts, and pavement markings disturbed by his activities,
at his expense, unless directed otherwise by the District
Engineer or his representative.
15. The Contractor shall exercise care when performing work in or
adjacent to the State Highway right-of-way. Damages to
existing facilities shall be immediately reported to the respective
utility companies, and/or City or State agencies. The repair
work shall be done at the Contractor's expense.
16. The Contractor shall notify the State Highways' Area Engineer
(214-3111), two (2) weeks prior to commencing work.
17. Traffic signals shall be kept operational during construction,
and if deemed necessary by the District Engineer or his
representative, a temporary vehicle detection device shall be
installed.
18. Construction and restoration of all existing highway facilities
within the State's right-of-way shall be done in accordance
with all applicable sections of the current Standard
Specifications for Road, Bridge and Public Works Construction,
and the Specifications for Installation of Miscellaneous
Improvements within State Highways, of the State Highways
Division.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP UNDERWAY	1998	ADD.3	10

DESIGNER	DATE
CHECKED BY	DATE
APPROVED BY	DATE
CONTRACT NO.	DATE
SHEET NO.	DATE
TOTAL SHEETS	DATE



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION

J. H. M.
Signature

9/1/99	Replaced Sheet 3 with Sheet ADD.3
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GENERAL NOTES	
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT	
Scale: N.T.S.	Date: July 31, 1998
SHEET No. C-2 OF 10 SHEETS	

ADD.3

Appendix D (continuation)

GENERAL NOTES

1. The scope of work for this project includes: mass grading, culvert extension, drainage structures, concrete rubble masonry walls, irrigation pump facility, irrigation lines, landscaping, landscape lighting, entry wall signs, traffic signs, traffic control, electrical work and other incidental work.
2. Work may be performed only between the hours of 6:30 a.m. and 3:30 p.m., Monday through Friday, except holidays, unless otherwise approved in writing by the District Engineer. Two lanes of traffic shall remain open at all times, unless otherwise approved in writing by the District Engineer.
3. The Contractor shall provide, install, and maintain all necessary signs, lights, flares, barricades, markers, cones, and other protective facilities, and shall take all necessary precautions for the protection, convenience, and safety of public traffic. All such protective facilities and precautions to be taken shall conform with the "Administrative Rules of Hawaii Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways", adopted by the Director of Transportation, and the current U.S. Federal Highways Administration "Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI - Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operations".
4. No material and/or equipment shall be stockpiled or otherwise stored within the highway right-of-way, except at locations designated in writing and approved by the District Engineer.
5. Compaction tests shall be taken in accordance with the Specifications for Installation of Miscellaneous Improvements within State Highways, as follows:
 - a. Subbase: One (1) compaction test per lift per 200 lineal feet of roadway.
 - b. Base Course: One (1) compaction test per lift per 200 lineal feet of roadway.
 - c. One (1) compaction test per lift per 300 lineal feet of trench.
 - d. A copy of the test results shall be submitted to the District Engineer.
6. Prior to commencing trench excavation work, the Contractor shall take a profile along the centerline of the proposed utility trench. This information shall be used in the verification of restoring the roadway to its original condition. A copy of the profile shall be submitted to the District Engineer.
7. The Contractor shall provide an adequate and safe non-skid bridging material, including shoring over trenches in pavement areas. The bridging shall be able to support all types of vehicular traffic.
8. Unless otherwise noted, no trench shall be opened more than 300 feet in advance of installed and tested pipeline and/or activities.
9. Existing drainage systems shall be functional at all times.

10. The Contractor shall exercise care to minimize damages to existing highway improvements. All damages shall be repaired by the Contractor, at his expense, to the satisfaction of the District Engineer.
11. All regulatory, guide, and construction signs and barricades shall have a high-intensity reflective background.
12. Driveways shall be kept open unless the owners of the properties using these rights-of-way are otherwise provided for satisfactorily.
13. Where pedestrian walkways exist, they shall be maintained in a safe and passable condition, or other facilities for pedestrians shall be provided. Passages between walkways at intersections shall likewise be provided.
14. The Contractor shall reference to the satisfaction of the District Engineer, all existing traffic signs, posts, and pavement markings prior to the commencement of construction. The Contractor shall replace or repair all traffic signs, posts, and pavement markings disturbed by his activities, at his expense, unless directed otherwise by the District Engineer or his representative.
15. The Contractor shall exercise care when performing work in or adjacent to the State Highway right-of-way. Damages to existing facilities shall be immediately reported to the respective utility companies, and/or City or State agencies. The repair work shall be done at the Contractor's expense.
16. The Contractor shall notify the State Highways' Area Engineer (2/4 311), two (2) weeks prior to commencing work.
17. Traffic signals shall be kept operational during construction, and if deemed necessary by the District Engineer or his representative, a temporary vehicle detection device shall be installed.
18. Construction and restoration of all existing highway facilities within the State's right-of-way shall be done in accordance with all applicable sections of the current standard Specifications for Road, Bridge and Public Works Construction and the Specifications for Installation of Miscellaneous Improvements within State Highways, of the State Highways Division.

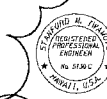
NOTES FOR CONSTRUCTION IN COUNTY RIGHT-OF-WAY

1. A PERMIT SHALL BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF KAUAI, BEFORE WORK ON ANY PORTION OF PUBLIC STREET OR HIGHWAY MAY BEGIN.
2. DRIVEWAYS SHALL BE KEPT OPEN UNLESS OWNERS OF THE PROPERTY USING THESE RIGHTS-OF-WAY ARE OTHERWISE PROVIDED FOR SATISFACTORILY.
3. THE CONTRACTOR SHALL PROVIDE, INSTALL, MAINTAIN ALL NECESSARY SIGNS, LIGHTS, FLARES, BARRICADES, MARKERS, CONES AND OTHER PROTECTIVE FACILITIES AND SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION AND FOR THE CONVENIENCE AND SAFETY OF PUBLIC TRAFFIC. ALL SUCH PROTECTIVE FACILITIES AND PRECAUTIONS TO BE TAKEN SHALL CONFORM WITH "RULES AND REGULATIONS GOVERNING THE USE OF TRAFFIC CONTROL DEVICES AT WORK SITES ON OR ADJACENT TO PUBLIC STREETS AND HIGHWAYS OF THE STATE OF HAWAII" AND U.S. FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" DATED 1988 AND ITS AMENDMENTS.
4. THE CONTRACTOR'S HOURS OF OPERATION SHALL BE BETWEEN 6:00 A.M. AND 3:00 P.M. MONDAY THROUGH FRIDAY EXCEPT ON HOLIDAYS RECOGNIZED BY THE COUNTY OF KAUAI, UNLESS OTHERWISE PERMITTED BY THE DEPARTMENT OF PUBLIC WORKS, COUNTY OF KAUAI. THE CONTRACTOR SHALL ALSO NOTIFY THE VARIOUS BUSINESSES AND PUBLIC THAT WILL BE AFFECTED BY THE DOWNTIME CONSTRUCTION.
5. EMERGENCY ORGANIZATIONS SUCH AS POLICE, FIRE AND AMBULANCE SERVICES SHALL BE NOTIFIED PRIOR TO THE START OF ANY WORK. THIS WILL ALLOW THEM TO ADJUST THEIR ROUTES AND WORK SCHEDULES ACCORDINGLY.
6. THE CONTRACTOR SHALL REFERENCE TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS ALL EXISTING TRAFFIC SIGNS, POSTS, AND PAVEMENT MARKINGS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL REPLACE OR REPAIR ALL TRAFFIC SIGNS, POSTS, AND PAVEMENT MARKINGS DISTURBED BY HIS ACTIVITIES.
7. THE DEPARTMENT OF PUBLIC WORKS SHALL BE CONTACTED AT 48-HOUR ONE WEEK PRIOR TO ANY SIGNING AND STOPPING WORK.
8. DURING WORKING HOURS, THE CONTRACTOR SHALL PROVIDE ONE LANE IN EACH DIRECTION FOR LOCAL TRAFFIC. DURING NON-WORKING HOURS, ALL TRENCHES SHALL BE COVERED WITH A SAFE NON-SKID BRIDGING MATERIAL.
9. THE CONTRACTOR SHALL PROVIDE THE DEPARTMENT OF PUBLIC WORKS WITH A COPY OF THE FINAL AS-BUILT DRAWINGS FOR THE DOWNTIME WORK.
10. WHEN REQUESTED BY THE COUNTY OF KAUAI, AN ADVERTISEMENT WILL BE PLACED IN THE NEWSPAPER BY THE CONTRACTOR FOR ANY LANE CLOSURE. THE ADVERTISEMENT SHALL BE MADE ONE (1) WEEK BEFORE AND ONE (1) WEEK AFTER THE CLOSURE AND SHALL CONTAIN THE FOLLOWING INFORMATION:
 - (a) MAP OF TRAFFIC CHANGE LIMITS;
 - (b) MAP TO SHOW LANE CLOSURE;
 - (c) NOTICE OF STARTING AND ENDING DATES, TIMES, AND DURATION; AND
 - (d) EXPLANATION OF LANE CLOSURE, "NOTICE TO MOTORIST".
 ALSO THE CONTRACTOR WILL BE REQUIRED TO HAVE ANY LANE CLOSURE ANNOUNCED ORALLY OVER THE RADIO TWO (2) DAYS BEFORE THE STARTING DATE UNTIL THE WORK IS COMPLETED. BOTH ADVERTISEMENTS IN THE NEWSPAPER AND OVER THE RADIO SHALL BE PAID FOR BY THE CONTRACTOR.
11. REPAIR OF DAMAGED PAVEMENTS, SIDEWALKS, CURBS, AND SHOULDER SHALL BE INSPECTED AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS. ALL UNAPPROVED WORK SHALL BE CONSIDERED UNACCEPTABLE AND SHALL BE REWORKED AND CORRECTED AS DIRECTED BY THE DEPARTMENT OF PUBLIC WORKS.
12. NO MATERIAL AND/OR EQUIPMENT SHALL BE STOCKPILED OR OTHERWISE STORED WITHIN COUNTY RIGHT-OF-WAY EXCEPT AT LOCATIONS DESIGNATED IN WRITING AND APPROVED BY THE COUNTY ENGINEER.
13. DAMAGED SHOULDER SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITION.
14. ALL CONSTRUCTION WORK IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE PUBLICATIONS "HAWAII STANDARD SPECIFICATIONS FOR ROAD BRIDGE AND PUBLIC WORKS CONSTRUCTION DATED 1994" AND "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DATED 1994". THE STANDARD DETAILS ARE AVAILABLE AT THE COUNTY OF KAUAI ENGINEERING OFFICE.
15. THE CONTRACTOR SHALL REMOVE ALL SILT AND DEBRIS RESULTING FROM HIS WORK AND DEPOSITED IN DRAINAGE FACILITIES, ROADWAYS, AND OTHER AREAS. THE COST INCURRED FOR ANY NECESSARY REMEDIAL ACTION BY THE CHIEF ENGINEER SHALL BE PAYABLE BY THE CONTRACTOR.
16. TEMPORARY RELOCATED REGULATORY AND WARNING SIGNS SHALL BE REINSTALLED AT ITS ORIGINAL LOCATION, WHEN THE CONSTRUCTION IN THE AREA HAS BEEN COMPLETED.
17. THE CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER FOR QUALITY CONTROL. CERTIFICATION FROM THE REGISTERED GEOTECHNICAL ENGINEER SHALL BE SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS AT THE COMPLETION OF THE CONSTRUCTION WORK. THE GEOTECHNICAL ENGINEER SHALL CERTIFY THAT THE CONSTRUCTION WORK MEETS STANDARD SPECIFICATIONS. THE GEOTECHNICAL ENGINEER SHALL ALSO SUBMIT TEST RESULTS AS REQUESTED BY THE DEPARTMENT OF PUBLIC WORKS.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	STP 1000000	1998	C.O. 3A	41

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
COUNTY ENGINEER	DATE

APPROVED FOR WORK WITHIN COUNTY R/W
 COUNTY ENGINEER
 DEPT. OF PUBLIC WORKS, COUNTY OF KAUAI



6-19-00	Added Construction in R.O.W. Notes & County Engineer Signature Block for County Engineer Record
9/1/99	Revised Sheet with Sheet Address
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GENERAL NOTES	
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT	
Scale: N.T.S.	Date: July 31, 1998
SHEET No. C 2 OF 10 SHEETS	

Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700430	1999	4	141

LEGEND

	Reconstruction Areas		Existing Sewer Line
	Cold Planing Areas		Existing Sewer Manhole
	Resurfacing Limits		Adjusted Sewer MH Frame/Cover
	Existing Joint Pole		Existing Sewer Cleanout
	Existing Power Pole		Existing Mailbox
	Existing Guy Pole		Existing Sidewalk
	Existing Electrical Manhole		Existing Highway Lighting Standards
	Existing Electrical Pullbox		Existing Traffic Sign
	Adjusted Electrical Pullbox Frame/Cover		Existing Flashing Light Signal
	Existing Telephone Pole		Existing Guard Rail
	Existing Telephone Manhole		Existing Chain Link Fence
	Existing Telephone Pullbox		Existing Edge Shoulder
	Adjusted Telephone Pullbox Frame/Cover		New Edge Shoulder
	Existing TV Cable Pullbox		Existing Edge Pavement
	Existing Water Meter		New Edge Pavement
	Adjusted Water MH Frame/Cover		Existing A.C. Curb
	Existing Water Valve Box		Existing Traffic Signal Pole
	Adjusted Water Valve Box		Existing Traffic Signal Pullbox
	Existing Fire Hydrant		Adjusted Traffic Signal Pullbox
	Existing Water Line		Existing Highway Right of Way
	Adjusted Subdrain Cleanout		Existing Contour
	Existing Grated Drain Inlet		Finish Contour
	Existing Catch Basin		Finish Grade Elevation
	Existing Storm Drain Manhole		
	Adjusted Storm Drain MH Frame/Cover		
	Existing Drain Line		
	New Drain Line		
	Existing Headwall		
	Existing Swale		

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
IN CHARGE	DATE
APPROVED BY	DATE



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Signature

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LEGEND

LIIUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

Scale: N.T.S. Date: July 31, 1998

SHEET No. C-3 OF 10 SHEETS

Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	17	141

existing 18" gate valve
Reservoir Connection, See Sheet R1

Central Irrigation Pump, Filtration & Distribution Facility, See Sheet P1

STA. 9+00
Begin 30" SDR 17 HDPE

concrete culvert

DeMelo Reservoir

HDPE Supply Line
Install 24" From Road Edge, See Detail (A) (S14)

bottom break

LEGEND

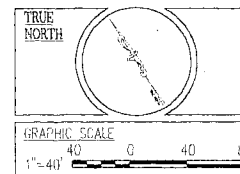
- HDPE SUPPLY LINE
- Irrigation Stub-Out, See Detail (S16)
- ⊗ Field Meter, See Detail (S16)
- ⊗ Supply Line Isolation Gate Valve, See Detail (S17) & (S18)
- ▲ Flush Assembly, See Detail (S19)
- 3' Size Of Stub-Out Or Isolation Gate Valve

- Note: 1) Installation Of Supply Line Must Be Coordinated With Both Landscape Planting & Irrigation Plan.
2) Contractor Is Responsible For Verifying All Locations, Dimensions, Connections, Utilities & Owners In Order To Provide A Finished Working System.
3) Contractor Is Responsible For Surveying And Staking Out Of Pipeline Alignment Along Its Entire Length. Surveying And Stakeout Costs Shall Be Considered To Be Incidental To High Density Polyethylene Irrigation Force Main.

HDPE Supply Line
Install 24" From Road Edge, See Detail (A) (S14)

road edge

MATCHLINE SEE SHEET S2
STATION 7+00

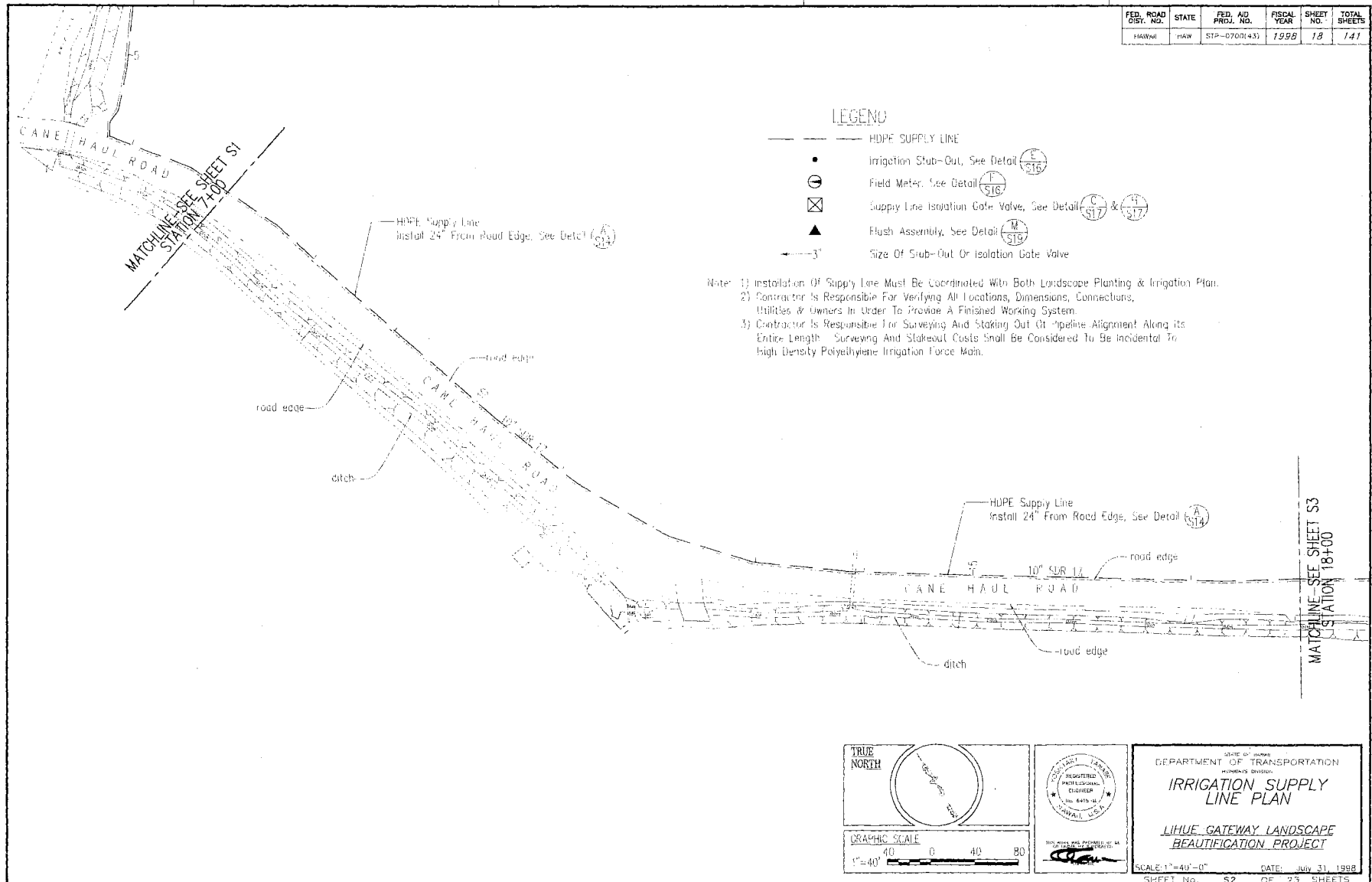


STATE OF HAWAII DEPARTMENT OF TRANSPORTATION ROADWAYS DIVISION	
IRRIGATION SUPPLY LINE PLAN	
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT	
SCALE: 1"=40' 0"	DATE: July 31, 1998
SHEET No. 51	OF 25 SHEETS

DESIGN CHECKED BY	DATE
DRAWN BY	
APPROVED BY	
REVISIONS	
NO. 1	
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NO. 100	

Appendix D (continuation)

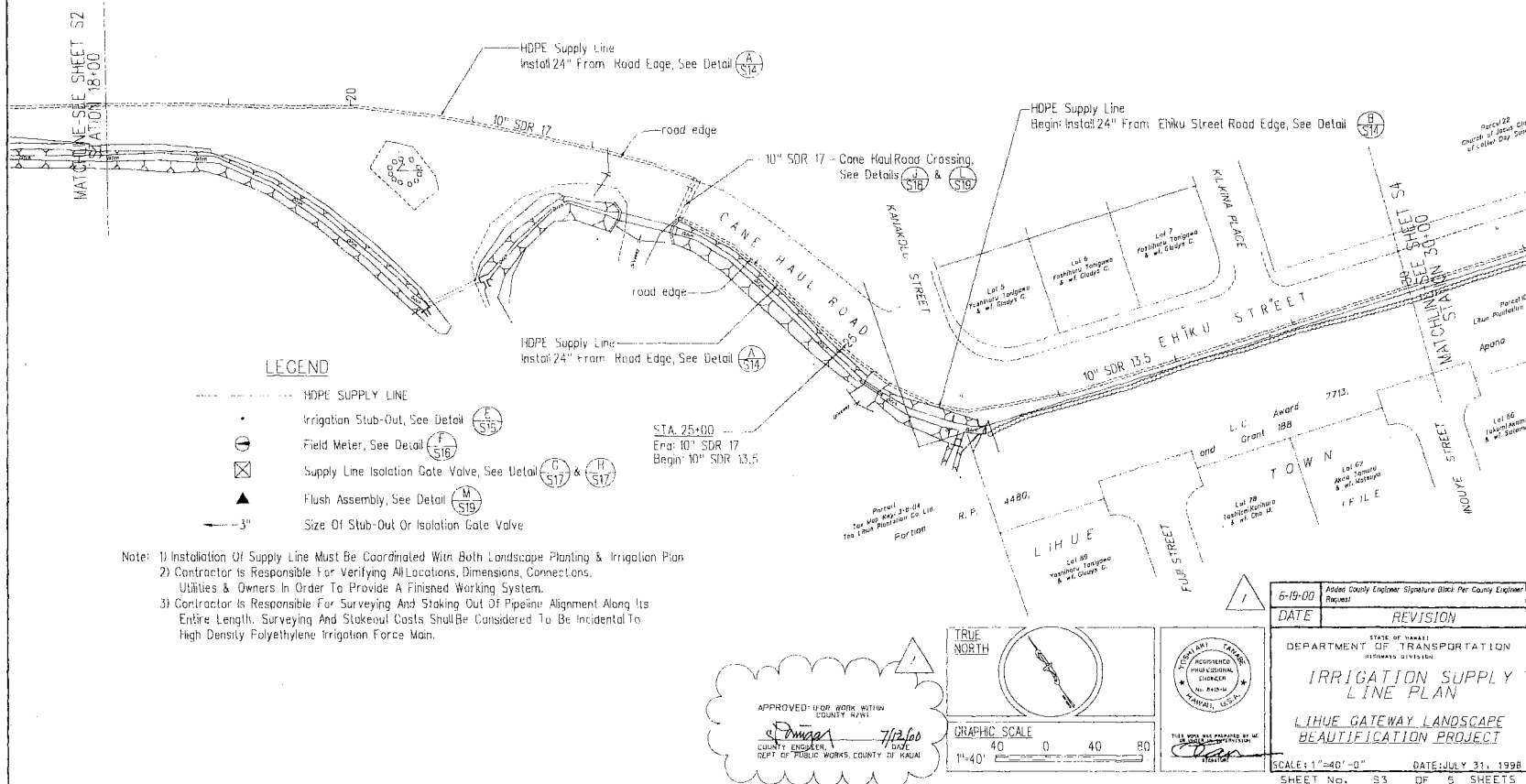
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	STP-07001431	1998	18	141



Appendix D

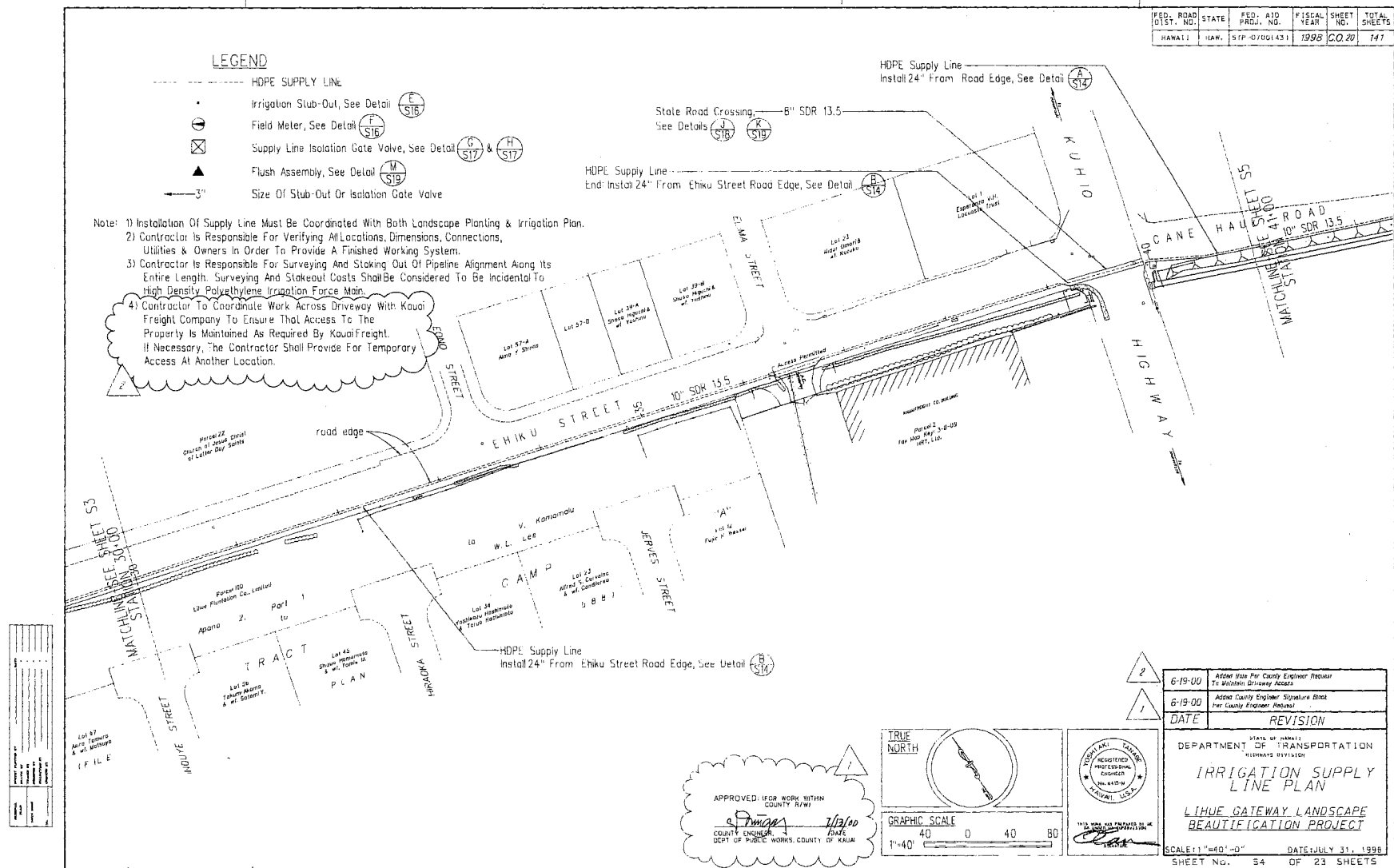
(continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
HAWAII	HAW.	STP-07001431	1998	C.O. 19	141

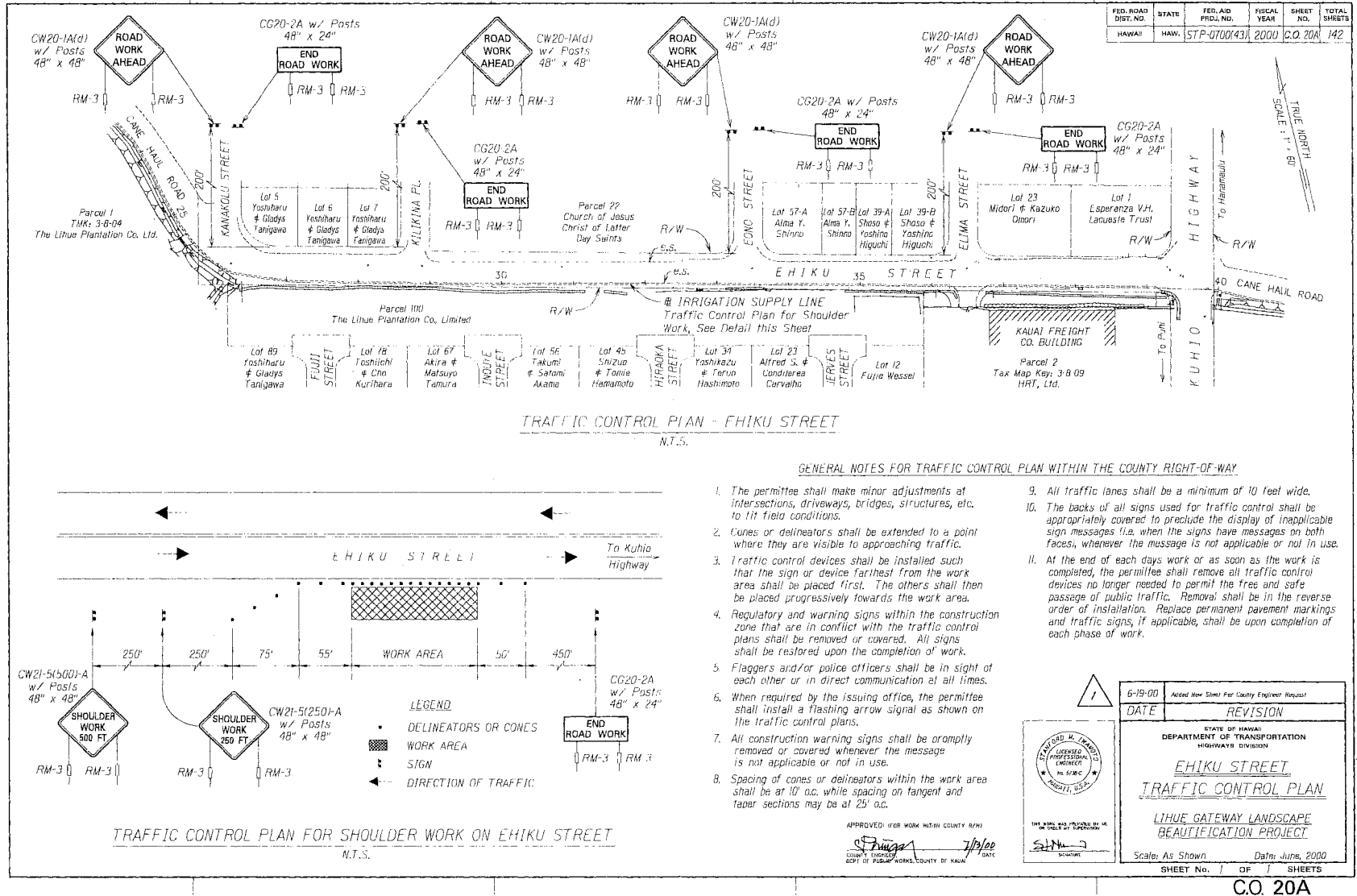


Appendix D

(continuation)

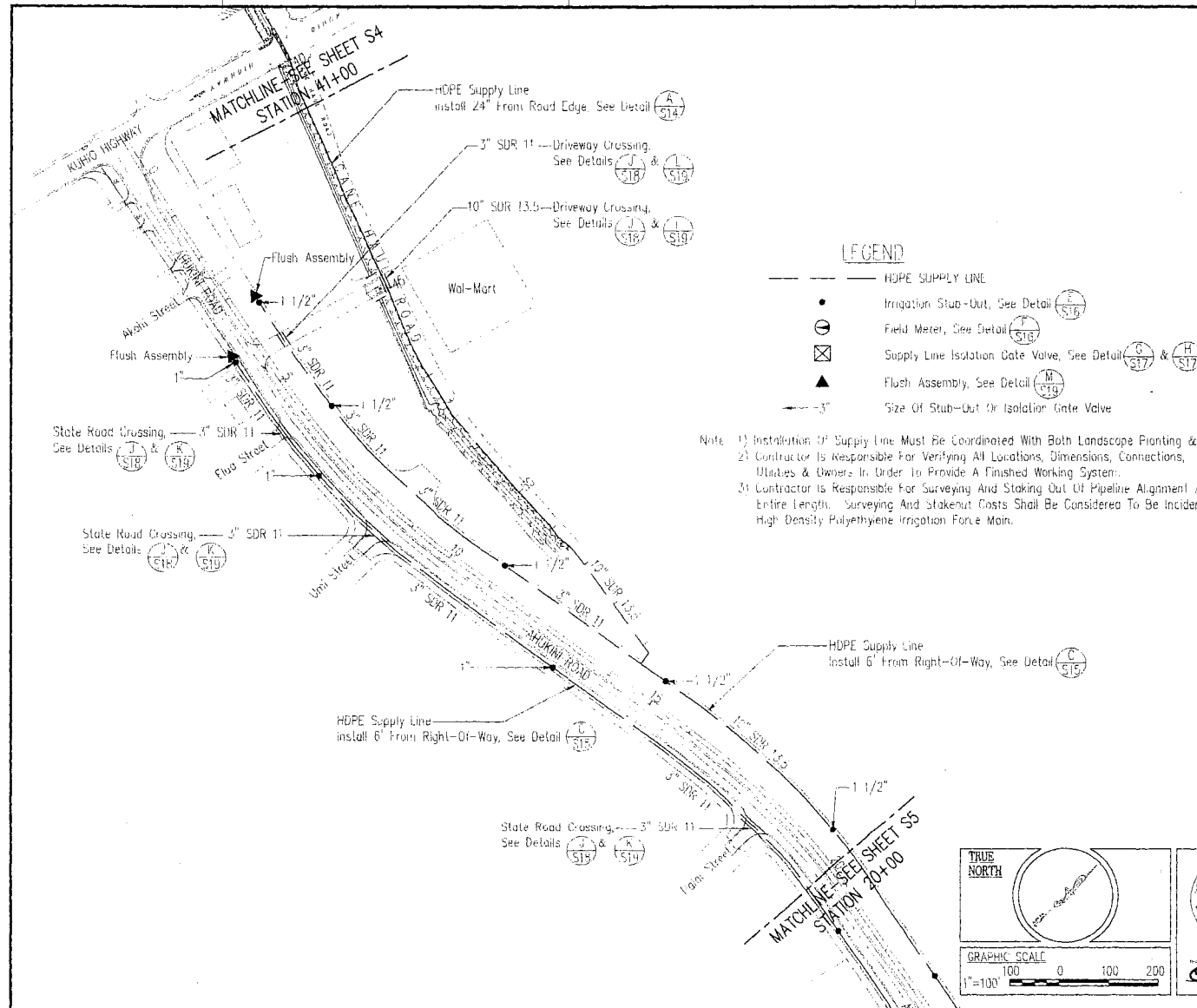


Appendix D (continuation)

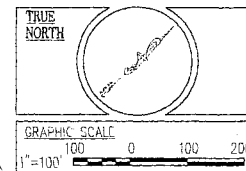


Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	21	141



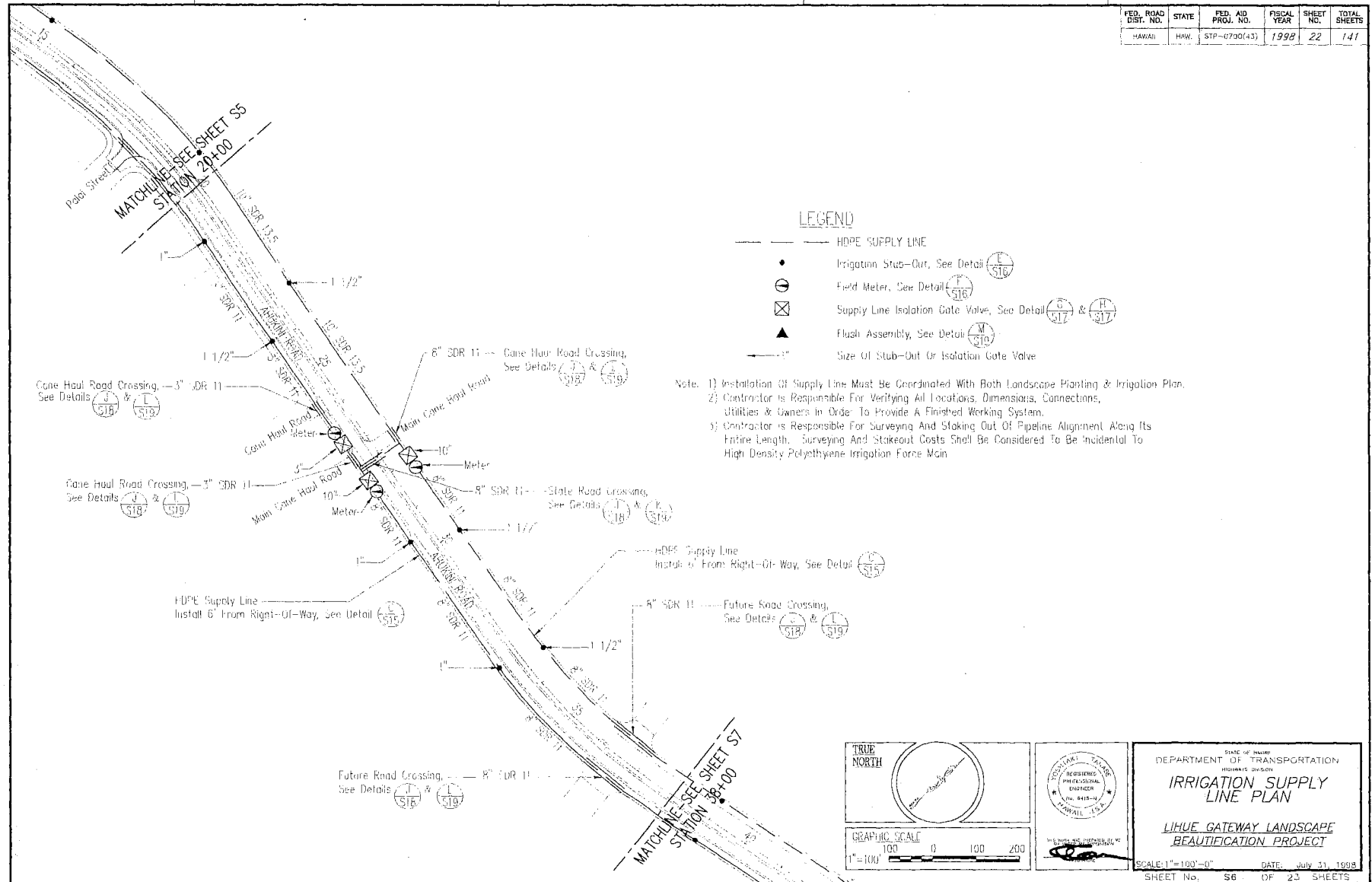
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CHECKED BY	DATE
APPROVED BY	DATE
CONTRACT NO.	
PROJECT NO.	
SHEET NO.	
TOTAL SHEETS	



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
IRRIGATION SUPPLY LINE PLAN
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT
SCALE: 1"=100'-0" DATE: July 31, 1998
SHEET NO. 55 OF 23 SHEETS

Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	22	141



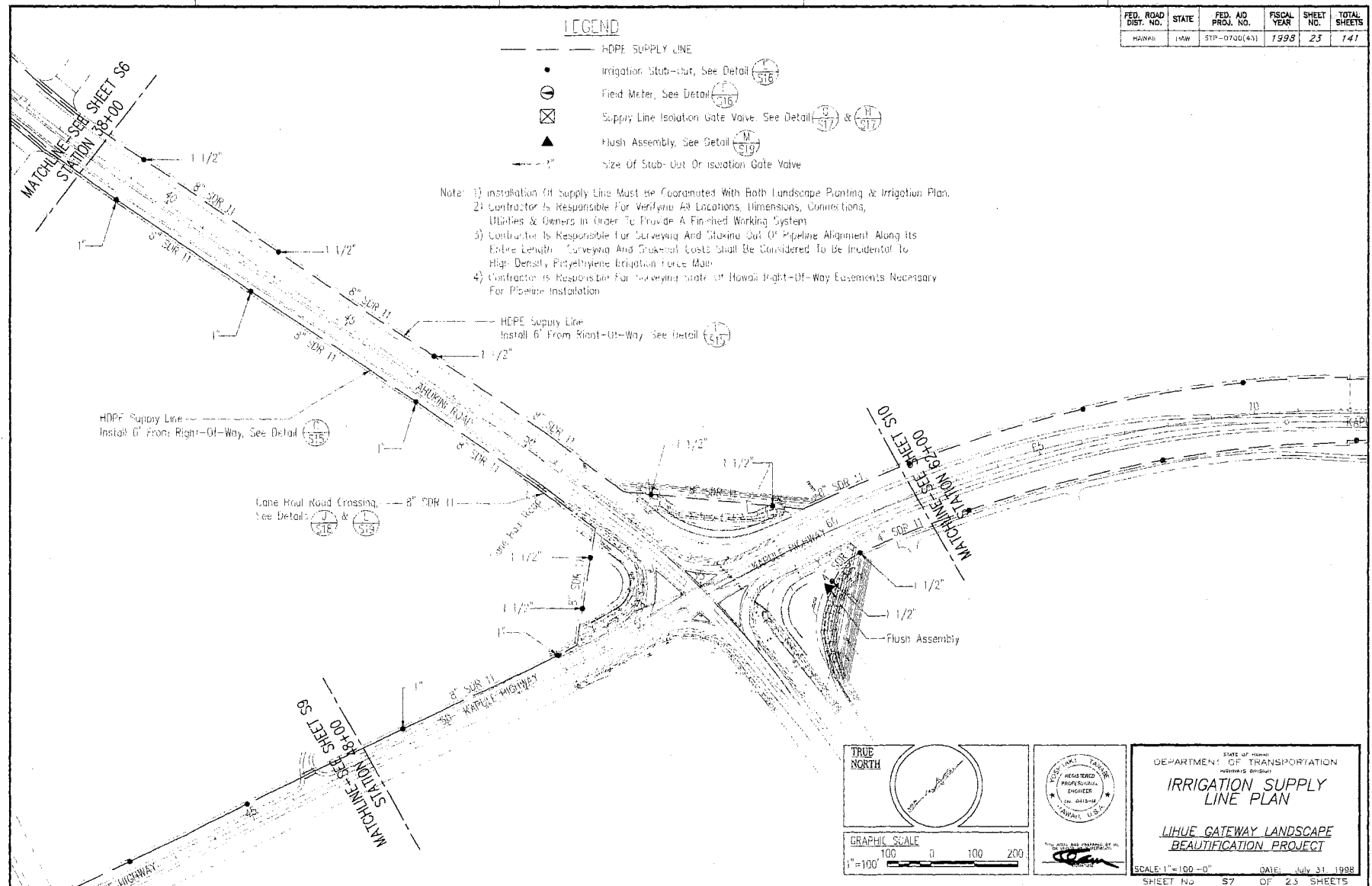
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	1-MW	STP-0700(43)	1993	23	141

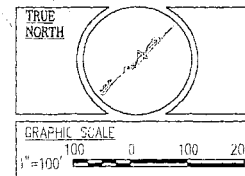
LEGEND

- HDPE SUPPLY LINE
- Irrigation Stub-Out, See Detail (S16)
- ⊙ Field Meter, See Detail (S16)
- ⊗ Supply Line Isolation Gate Valve, See Detail (S17) & (S17)
- ▲ Flush Assembly, See Detail (S18)
- 1" Size Of Stub-Out Or Isolation Gate Valve

Note: 1) Installation Of Supply Line Must Be Coordinated With Both Landscape Planting & Irrigation Plan.
 2) Contractor Is Responsible For Verifying All Locations, Dimensions, Connections, Utilities & Genera In Order To Provide A Finished Working System.
 3) Contractor Is Responsible For Surveying And Staking Out Of Pipeline Alignment Along Its Entire Length. Surveying And Staking Costs Shall Be Considered To Be Incidental To High Density Polyethylene Irrigation Force Main.
 4) Contractor Is Responsible For Surveying And Staking Out Of Highway Right-Of-Way Elements Necessary For Pipeline Installation.



DESIGNED BY	DATE
CHECKED BY	
IN CHARGE	
APPROVED BY	



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
IRRIGATION SUPPLY LINE PLAN
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT
 SCALE: 1"=100'-0" DATE: July 31, 1998
 SHEET NO. S7 OF 23 SHEETS

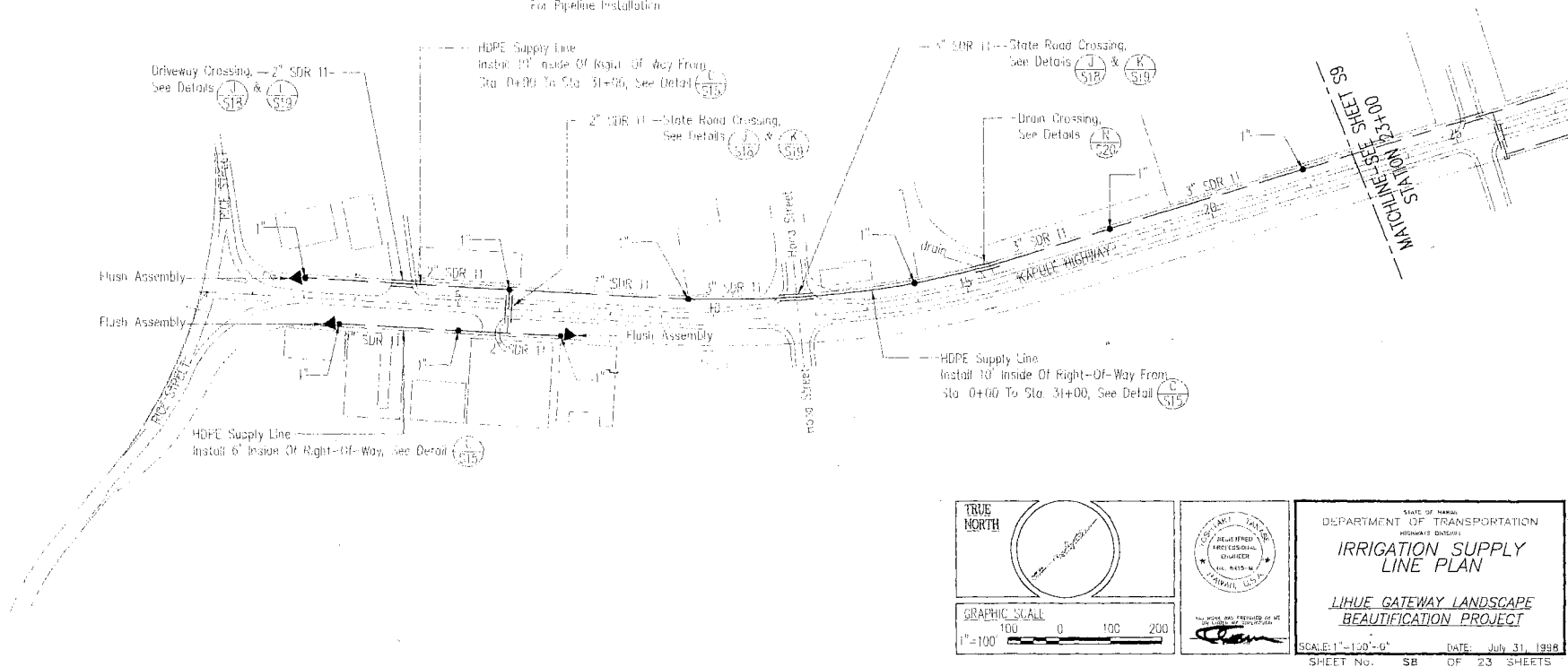
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HA1/A1	HA1	STP-0700(43)	1998	24	141

LEGEND

- | | |
|-------|--|
| ----- | HOPE SUPPLY LINE |
| ● | Isolation Stub-Out, See Detail $\left(\frac{T}{S16}\right)$ |
| ⊗ | Field Meter, See Detail $\left(\frac{T}{S18}\right)$ |
| ⊠ | Supply Line Isolation Gate Valve, See Detail $\left(\frac{G}{S17}\right)$ & $\left(\frac{H}{S17}\right)$ |
| ▲ | Flush Assembly, See Detail $\left(\frac{M}{S19}\right)$ |
| ----- | Size Of Stub-Out Or Isolation Gate Valve |

Note: 1) Installation Of Density Life Must Be Coordinated With Both Landscape Planting & Irrigation Plan.
2) Contractor Is Responsible For Verifying All Locations, Dimensions, Connections, Utilities & Owners As Shown To Provide A Finished Working System.
3) Contractor Is Responsible For Surveying Andinking Out Of Pipeline Alignment Along Its Entire Length. Surveying And Stakeout Posts Shall Be Considered To Be Incidental To High Density Polyethylene Irrigation From Main.
4) Contractor Is Responsible For Surveying State Of Hawaii Right-Of-Way Easements Necessary For Pipeline Installation.



ORIGINAL PLAN	PROPERTY PLOTTED BY	DATE
	TRAINED BY	
NOTE BOOK	DESIGNED BY	
	REVISITING BY	
	CHECKED BY	

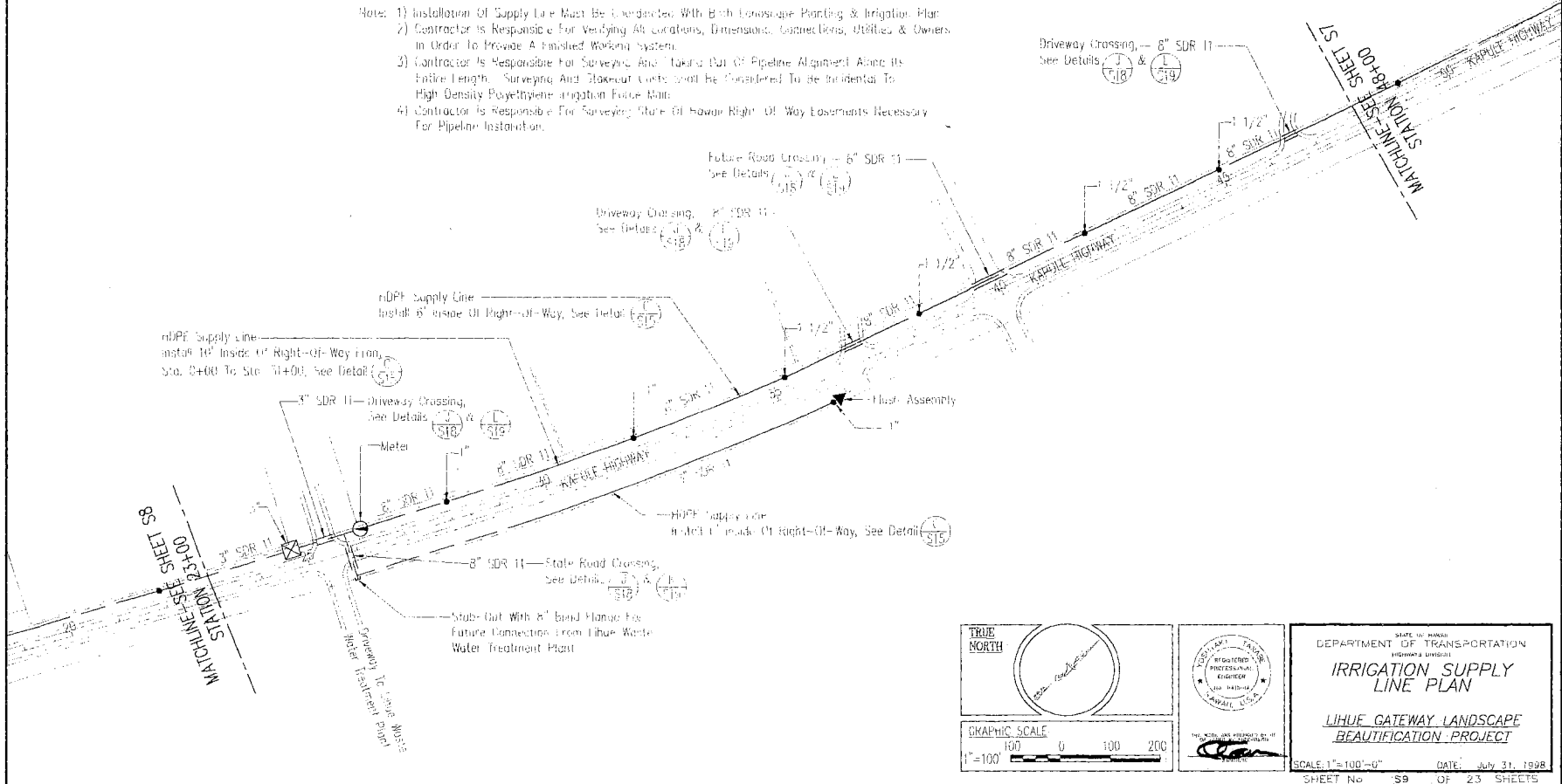
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
112-WAH	HAW.	STP 0700(43)	1998	25	141

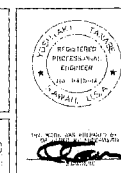
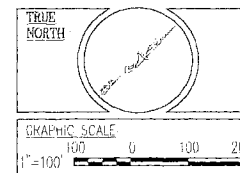
LEGEND

- HDPE SUPPLY LINE
- Irrigation Stub-Out, See Detail (S16)
- ⊕ Field Meter, See Detail (S16)
- ⊗ Supply Line Isolation Gate Valve, See Detail (S17) & (S17)
- ▲ Flush Assembly, See Detail (S19)
- 3" Size Of Stub-Out Or Isolation Gate Valve

- Note: 1) Installation Of Supply Line Must Be Executed With Best Landscape Planting & Irrigation Plan.
 2) Contractor Is Responsible For Verifying All Locations, Dimensions, Connections, Utilities & Owners In Order To Provide A Finished Working System.
 3) Contractor Is Responsible For Surveying And Taking Out Of Pipeline Alignment Along Its Entire Length. Surveying And Stakeout Costs Shall Be Considered To Be Incidental To High Density Polyethylene Irrigation Pipe Main.
 4) Contractor Is Responsible For Surveying Stake Of Easement Right Of Way Easements Necessary For Pipeline Installation.



DESIGNED BY	DATE
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APPROVED BY	



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF ENGINEERING

IRRIGATION SUPPLY LINE PLAN

LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT

SCALE: 1"=100'-0" DATE: July 31, 1998
 SHEET No. 25 OF 23 SHEETS

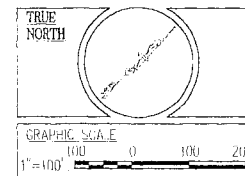
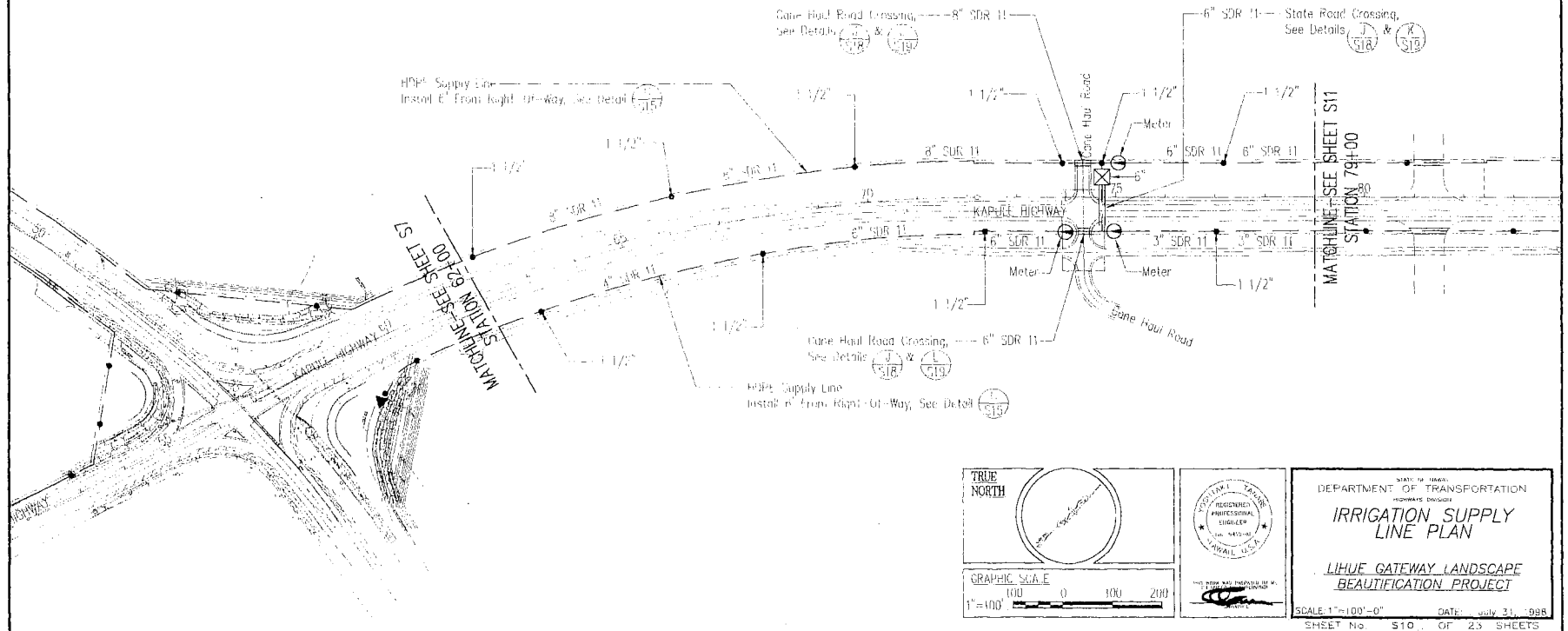
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	26	141

LEGEND

- HDPE SUPPLY LINE
- Irrigation Stub-Out, See Detail (S16)
- Field Meter, See Detail (S16)
- Supply Line Isolation Gate Valve, See Detail (S17) & (S17)
- Flush Assembly, See Detail (S19)
- Size Of Stub-Out Or Isolation Gate Valve

- Note: 1) Installation Of Supply Line Must Be Coordinated With Both Landscape Planting & Irrigation Plan
 2) Contractor is Responsible For Verifying All Locations, Dimensions, Connections, Utilities & Owners in Order To Provide A Finished Working System.
 3) Contractor is Responsible For Surveying And Staking Out Of Pipeline Alignment Along Its Entire Length. Surveying And Stakeout Costs Shall Be Considered to Be Incidental To High Density Polyethylene Irrigation Force Main.
 4) Contractor is Responsible For Surveying State Of Hawaii Right-Of-Way Easements Necessary For Pipeline Installation



STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

IRRIGATION SUPPLY LINE PLAN

LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT

SCALE: 1"=100'-0" DATE: July 31, 1998
 SHEET No. S10 OF 23 SHEETS

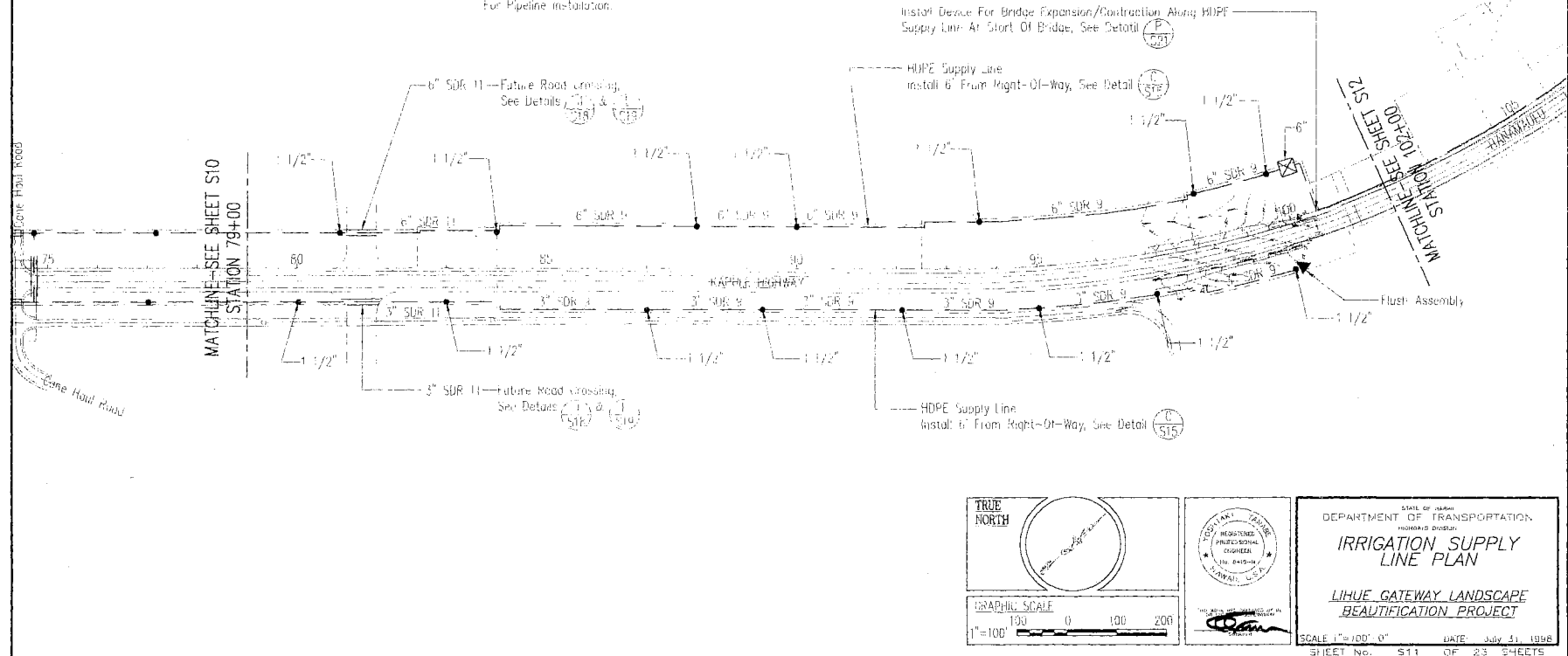
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	STP-0706(47)	1998	27	141

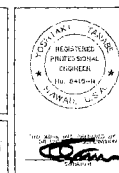
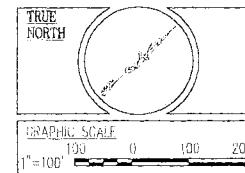
LEGEND

- HDPE SUPPLY LINE
- Irrigation Stub-Out, See Detail (S15)
- ⊗ Field Meter, See Detail (S16)
- ⊗ Supply Line Isolation Gate Valve, See Detail (S17) & (S18)
- ▲ Flush Assembly, See Detail (S19)
- 3" Size Of Stub-Out Or Isolation Gate Valve

- Note:
- 1) Installation Of Supply Line Must Be Coordinated With Both Landscape Planting & Irrigation Plan.
 - 2) Contractor Is Responsible For Verifying All Locations, Dimensions, Corrections, Utilities & Owners In Order To Provide A Finished Working System.
 - 3) Contractor Is Responsible For Surveying And Staking Out Of Pipeline Alignment Along Its Entire Length. Surveying And Stakeout Costs Shall Be Toleranced To Be Incidental To High Density Polyethylene Irrigation Farm Map.
 - 4) Contractor Is Responsible For Surveying State Of Hawaii Right-Of-Way Easements Necessary For Pipeline Installation.



DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU, HAWAII

**IRRIGATION SUPPLY
LINE PLAN**

**LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT**

SCALE: 1"=100'-0" DATE: July 31, 1998
SHEET No. S11 OF 23 SHEETS

Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	28	141

LEGEND

- HDPE SUPPLY LINE
- Irrigation Stub-Out, See Detail (S16)
- ⊙ Field Meter, See Detail (S16)
- ⊗ Supply Line Isolation Gate Valve, See Detail (S17) & (S17)
- ▲ Flush Assembly, See Detail (S19)
- 3" Size Of Stub-Out Or Isolation Gate Valve

- Note: 1) Installation Of Supply Line Must Be Coordinated With Both Landscape Planting & Irrigation Plan.
 2) Contractor Is Responsible For Verifying All Locations, Dimensions, Connections, Utilities & Owners In Order To Provide A Finished Working System.
 3) Contractor Is Responsible For Surveying And Staking Out Of Pipeline Alignment Along Its Entire Length. Surveying And Stakeout Costs Shall Be Considered To Be Incidental To High Density Polyethylene Irrigation Force Main.
 4) Contractor Is Responsible For Surveying State Of Hawaii Right-Of-Way Easements Necessary For Pipeline Installation.

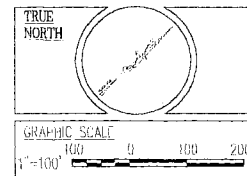
Install Device For Bridge Expansion/Contraction Along HDPE Supply Line At End Of Bridge, See Detail (S21)

HDPE Supply Line Install On West (Maui) Side Of Bridge With Brackets 8' O.C., See Detail (S20)

HDPE Supply Line Install 6' From Right-Of-Way, See Detail (S15)

HDPE Supply Line Install Under Bridge With Brackets 8' O.C., See Detail (S20)

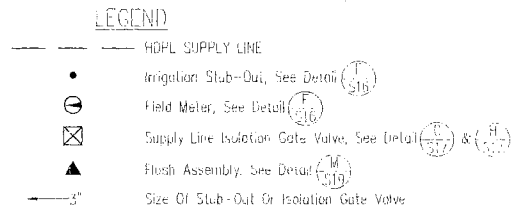
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IN CHARGE	
APPROVED BY	
REVISIONS	



DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
IRRIGATION SUPPLY LINE PLAN
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT
SCALE: 1"=100'-0" DATE: July 31, 1998
SHEET No. S12 OF 23 SHEETS

Appendix D (continuation)

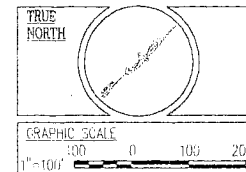
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HAWAII	144A	STP-D76D(43)	1998	29	141



- Note: 1) Installation Of Supply Line Must Be Coordinated With Both Landscape Planning & Irrigation Plan
 2) Contractor Is Responsible For Verifying All Locations, Dimensions, Connections, Utilities & Owners in Order To Provide A Finished Working System
 3) Contractor Is Responsible For Surveying And Staking Out Of Pipeline Alignment Along its Entire Length. Surveying And Stakeout Costs Shall Be Considered To Be Incidental To High Density Polyethylene Irrigation Force Main
 4) Contractor Is Responsible For Surveying State Of Hawaii Right-Of-Way Easements Necessary For Pipeline Installation

HDPE Supply Line
Install 6' From Right-Of-Way, See Detail (S16)

MATCHLINE-SEE SHEET S12
STATION 12+00



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU, HAWAII

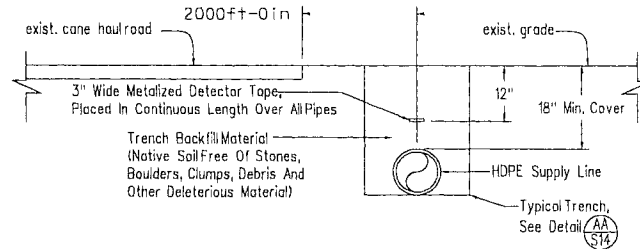
IRRIGATION SUPPLY LINE PLAN

LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT

SCALE: 1"=100'-0" DATE: July 21, 1998
SHEET NO. S13 OF 23 SHEETS

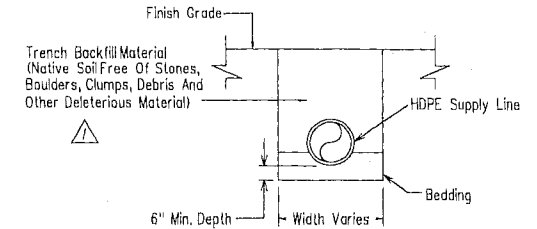
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	PRJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-07001431	1998	ADD.30	141



TYPICAL TRENCH DETAIL ALONG CANE HAUL ROADS, SECTION VIEW
NTS

A
S14

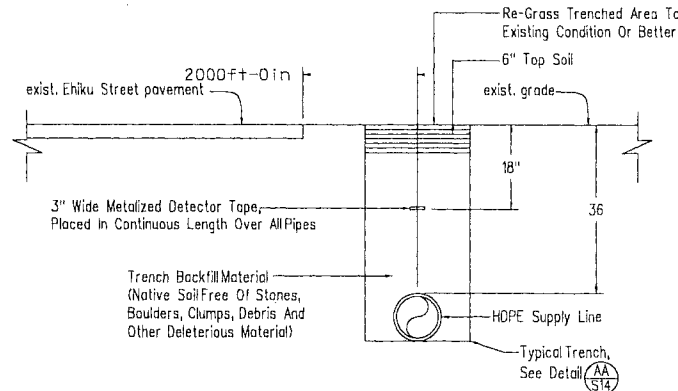


Nominal Pipe OD	Minimum Trench Width
< 3"	12"
3" To 16"	Pipe OD + 12"

Note: Trench Width Should Not Exceed 18" From The Minimum Trench Width.

TYPICAL TRENCH DETAIL,
SECTION VIEW
NTS

AA
S14



Note: 1) Irrigation Contractor Responsible For Surveying All Right Of Way Easements Necessary For Pipeline Installation.
2) Re-Grassing And Grass Establishment Shall Be Considered To Be Incidental To HDPE Irrigation Force Main.
TYPICAL TRENCH DETAIL ALONG EHIKU STREET, SECTION VIEW
NTS

B
S14

9/1/99 Revised Typical Trench Detail.
DATE REVISION



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

IRRIGATION SUPPLY
LINE DETAILS
LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

SCALE: AS SHOWN DATE: JULY 31, 1998
SHEET No. OF SHEETS

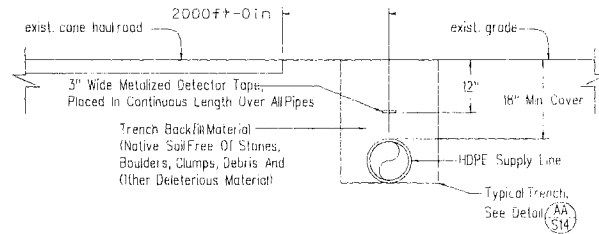
ADD.30

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

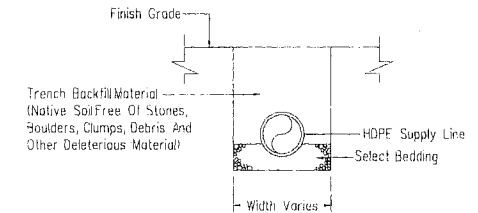
ADD.30

Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-07001A31	1998	CQJ04	141



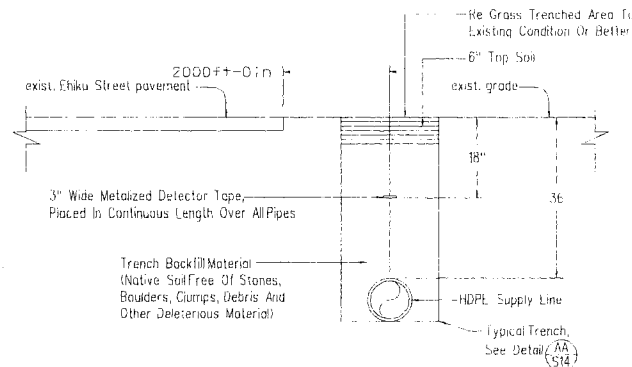
TYPICAL TRENCH DETAIL ALONG CANE HAUL ROADS, SECTION VIEW A
NTS



Nominal Pipe OD	Minimum Trench Width
< 3"	12"
3" To 16"	Pipe OD + 12"

Note: Trench Width Should Not Exceed 18" From The Minimum Trench Width.

TYPICAL TRENCH DETAIL ALONG EHIKU STREET, SECTION VIEW AA
NTS

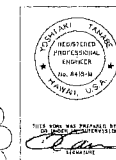


Note: 1) Irrigation Contractor Responsible For Surveying All Right Of Way Easements Necessary For Pipeline Installation.
2) Re-Grassing And Grass Establishment Shall Be Considered To Be Incidental To HDPE Irrigation Force Main.

TYPICAL TRENCH DETAIL ALONG EHIKU STREET, SECTION VIEW B
NTS

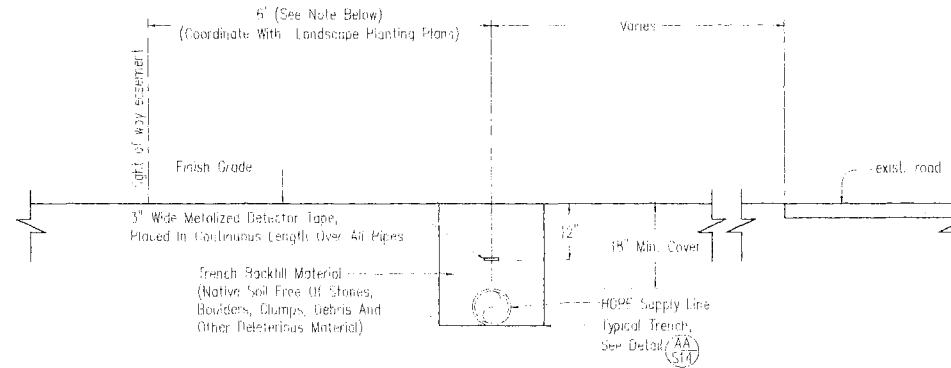
6-19-00	Initial County Engineer Signature Block For County Engineer Review
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HAWAIIAN DIVISION	
IRRIGATION SUPPLY LINE DETAILS	
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT	
SCALE: AS SHOWN	DATE: JULY 31, 1998
SHEET No. S14	OF 23 SHEETS

APPROVED: JOHN WATTS, COUNTY ENGINEER
COUNTY ENGINEER
DEPT. OF PUBLIC WORKS, COUNTY OF KAUAI
7/13/98



Appendix D (continuation)

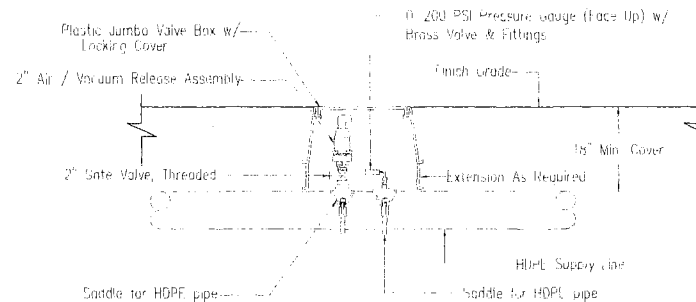
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	31	141



- Note: 1) Irrigation Contractor Responsible For Surveying All Right Of Way Easements Necessary For Pipeline Installation.
2) Install HDPE Supply Line 10' (Not 6') Inside Of Right Of Way On West (Maui) Side Of Kapule Highway From Sta. 0+00 To Sta. 51+00

TYPICAL TRENCH DETAIL ALONG AHUKINI ROAD & KAPULE HIGHWAY, SECTION VIEW C
S15

NTS



- Note: 1) Air / Vacuum Release Assemblies required At High Spots Along The Supply Line.
2) Install Air / Vacuum Release Assembly In Stainless Steel Locking Enclosure For Above Grade Installation, See Detail N
S20
3) Install Marker 24\"/>

TYPICAL AIR / VACUUM RELEASE ASSEMBLY, ELEVATION VIEW D
S15

NTS

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
REVIEWED BY	DATE
DATE	DATE

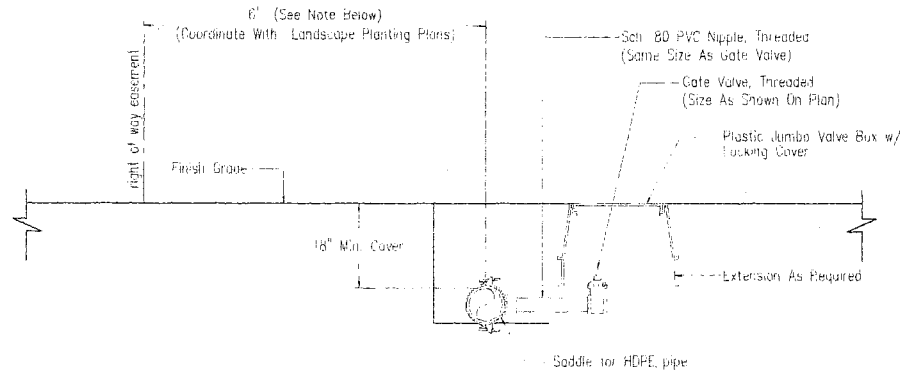


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**IRRIGATION SUPPLY
LINE DETAILS**
**LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT**

SCALE: AS SHOWN DATE: July 31, 1998
SHEET No. S15 OF 25 SHEETS

Appendix D (continuation)

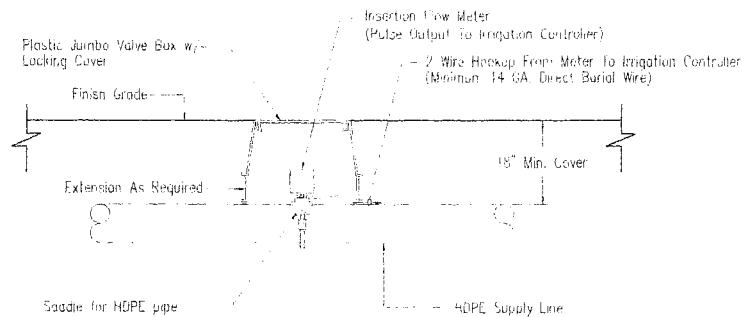
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	32	141



- Note: 1) Irrigation Contractor Responsible For Surveying All Right Of Way Easements Necessary For Pipeline Installation
2) Install HDPE Supply Line 10' (Not 6') Inside Of Right-Of-Way On West (Maui) Side Of Kapolei Highway From Sta. 0+00 To Sta. 31+00.

TYPICAL IRRIGATION STUB-OUT DETAIL, ELEVATION VIEW E
S16

NTS



- Note: 1) Install Meter 10 Pipe Diameters Down Stream & 5 Pipe Diameters Up Stream From Any Fittings.
2) Contractor Responsible For Wiring Connection From Meter To Irrigation Controller
3) Install Marker 24\"

TYPICAL FIELD METER ASSEMBLY, ELEVATION VIEW F
S16

NTS

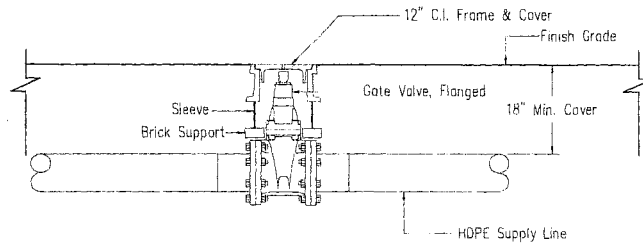


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**IRRIGATION SUPPLY
LINE DETAILS**
**LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT**

SCALE: AS SHOWN DATE: July 31, 1998
SHEET No. S16 OF 23 SHEETS

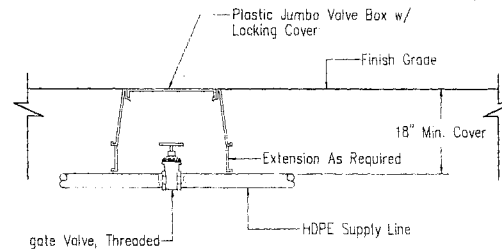
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1999	33	141



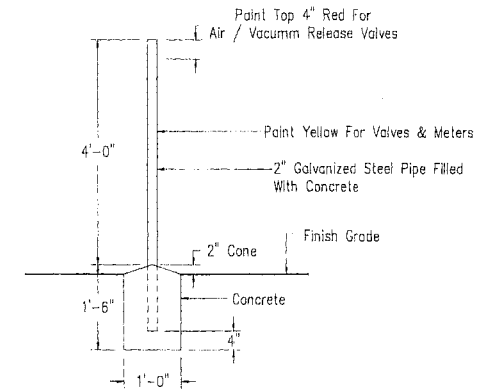
- Note: 1) Install Air / Vacuum Release Assembly On Down Stream Side Of Gate Valve, See Detail S17
 2) Install Marker 24" From Valve, See Detail S17

TYPICAL SUPPLY LINE ISOLATION GATE VALVE
(4" & LARGER) ASSEMBLY DETAIL, ELEVATION VIEW G
 NTS S17



- Note: 1) Install Air / Vacuum Release Assembly On Down Stream Side Of Gate Valve, See Detail S17
 2) Install Marker 24" From Valve, See Detail S17

TYPICAL SUPPLY LINE ISOLATION GATE VALVE
(3" & SMALLER) ASSEMBLY DETAIL, ELEVATION VIEW H
 NTS S17



TYPICAL MARKER DETAIL, ELEVATION VIEW I
 NTS S17

DESIGNED BY	DATE
CHECKED BY	DATE
IN CHARGE	DATE
QUANTITY BY	DATE
PRICE MAN.	DATE
REVISIONS	

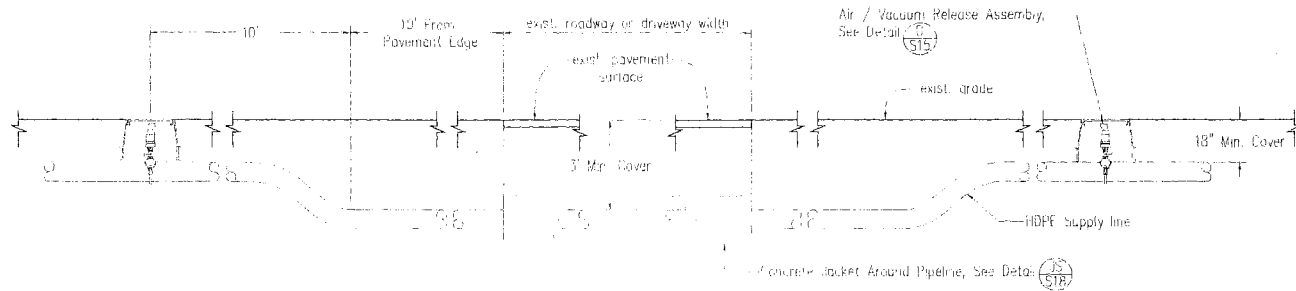


STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
**IRRIGATION SUPPLY
 LINE DETAILS**
LIHUE GATEWAY LANDSCAPE
 BEAUTIFICATION PROJECT

SCALE: AS SHOWN DATE: July 31, 1998
 SHEET No. S17 OF 23 SHEETS

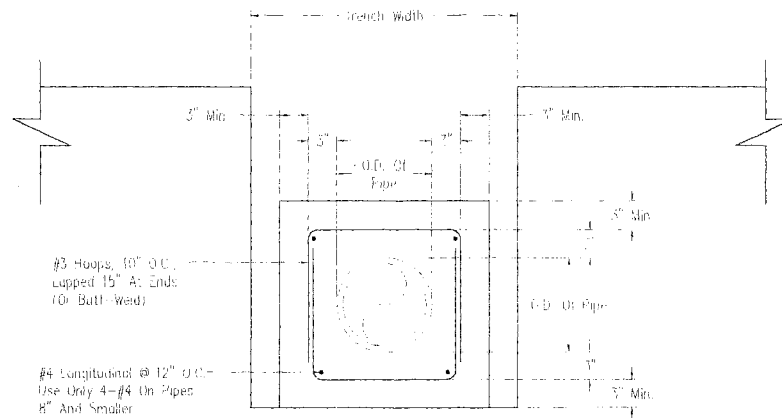
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	S-P-0700(43)	1998	34	141



- 1) Install Ductile Iron Pipe For Pipeline Under Pavement Sections Of State Highway
- 2) Furnishing Of Materials And Installation Of Concrete Jacket Including Joints on Steel And Ductile Iron Pipe In Acceptable Lengths And Final Position As Approved By The Engineer, Shall Be Considered incidental To High Density Polyethylene Irrigation Lateral Main

TYPICAL ROAD & DRIVEWAY CROSSING DETAIL, ELEVATION VIEW



TYPICAL DETAIL OF CONCRETE JACKET, SECTION VIEW (JS
N'S S18)



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
*Highways Division

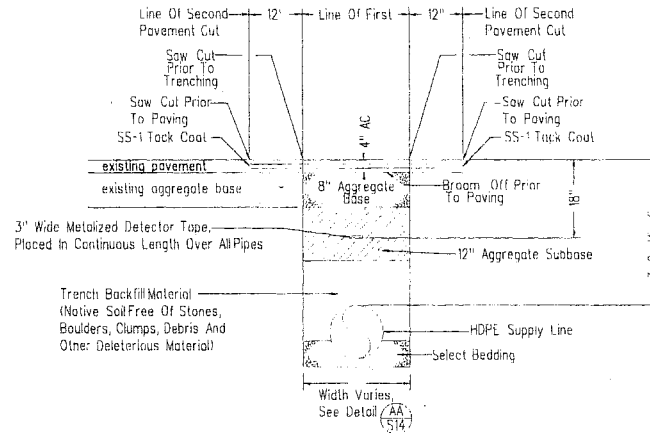
IRRIGATION SUPPLY LINE DETAILS

LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

SCALE: AS SHOWN DATE: July 31, 1998
SHEET No. 518 OF 23 SHEETS

Appendix D (continuation)

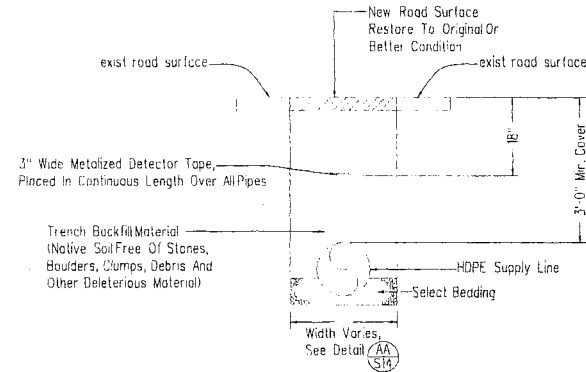
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-07001431	1998	C.O. 35	141



- Note: 1) Refer To State & County Guidelines For Proper Installation.
2) The Contractor Has The Option Of Employing Trenchless Technology For Crossing Under Roads.
3) Install Ductile Iron Pipe For Pipeline Under Pavement Sections Of State Highways.

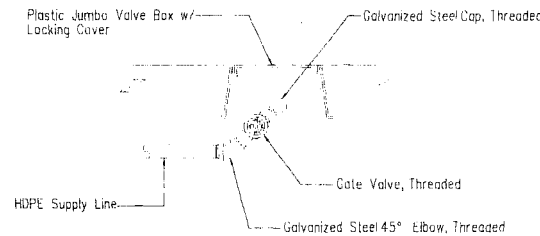
TYPICAL ROAD CROSSING DETAIL, SECTION VIEW K

S19



TYPICAL DRIVEWAY, CANE HAUL ROAD & FUTURE ROAD CROSSING DETAIL, SECTION VIEW L

S19

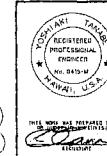


- Note: 1) Line Size Fittings For 2" & 3" Supply Line.
2) Reduce Fitting Size To 2" For 4" Supply Line.

TYPICAL FLUSH ASSEMBLY DETAIL, ELEVATION VIEW M

S19

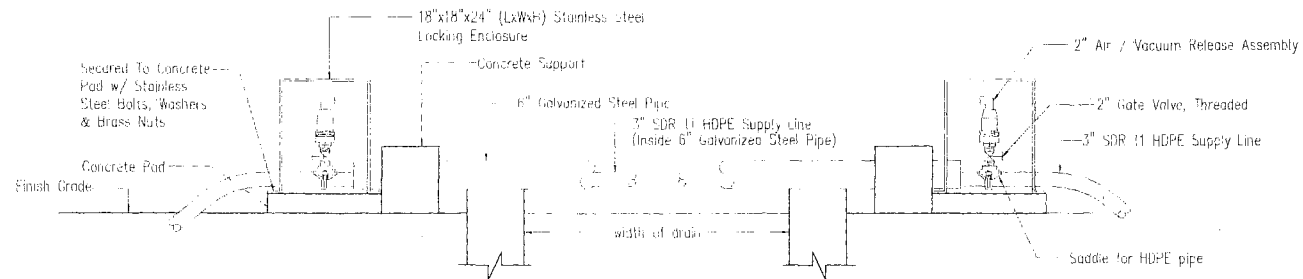
APPROVED FOR WORK WITHIN COUNTY LIMITS
DATE 7/13/00
COUNTY ENGINEER
DEPT. OF PUBLIC WORKS, COUNTY OF HAWAII



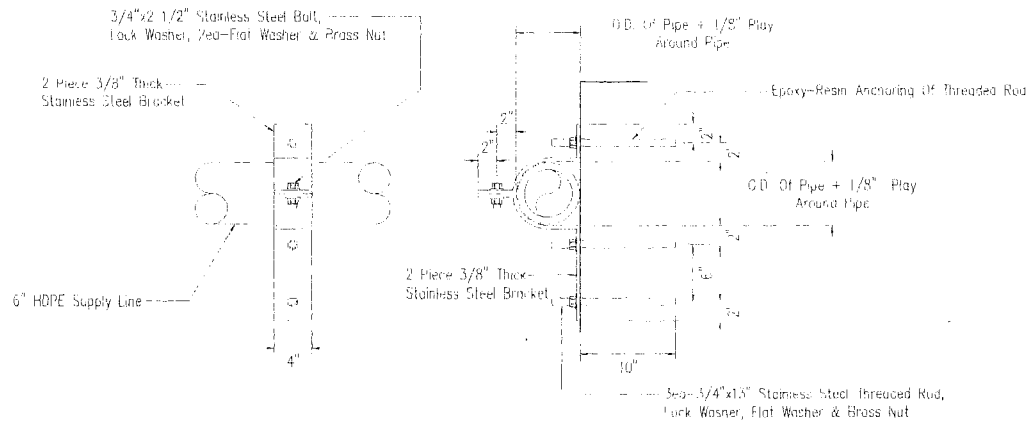
6-19-00	Added County Engineer Signature Box Per County Engineer Request
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
IRRIGATION SUPPLY LINE DETAILS	
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT	
SCALE: AS SHOWN	DATE: JULY 31, 1998
SHEET NO. 519	OF 23 SHEETS

Appendix D
(continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	SIP-0700(13)	1998	36	141



DRAIN CROSSING SUPPORT DETAIL (N)
NTC S20



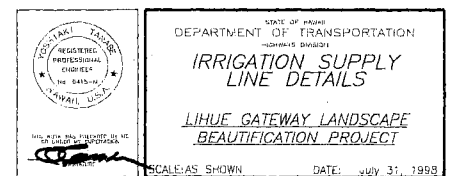
FRONT VIEW

SECTION VIEW

Note: Install Brackets 8'-0" O.C. Along The West (Mauka) Side Of Hanalei Bridge

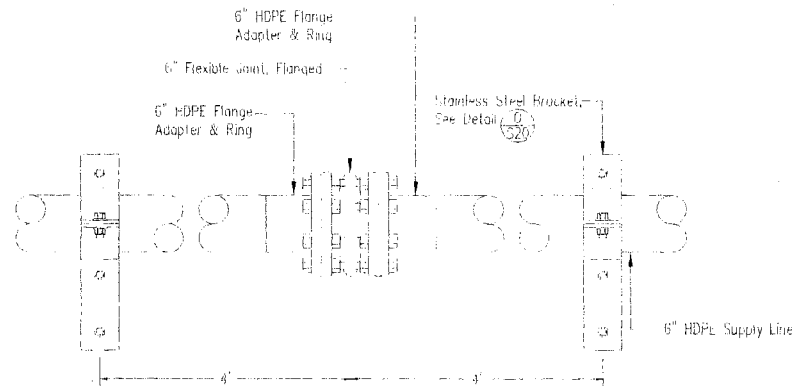
TYPICAL 6" HDPE SUPPLY LINE BRACKET DETAIL

ORIGINAL PLAN	SUBJECT PLOTTED ON DRAWN BY DESIGNED BY QUANTIFIED BY CHECKED BY	DATE
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Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	37	141



TYPICAL DEVICE FOR BRIDGE EXPANSION / CONTRACTION DETAIL
ELEVATION VIEW (P S21)

NTS

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
IN CHARGE	
PROJECT NO.	
DATE	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

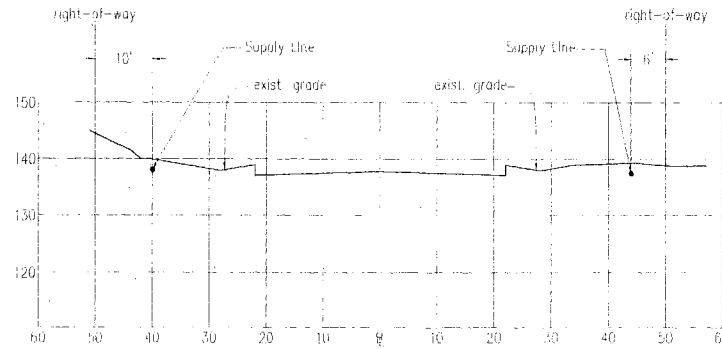
**IRRIGATION SUPPLY
LINE DETAILS**

**LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT**

SCALE AS SHOWN DATE: July 31, 1998
SHEET No. S21 OF 23 SHEETS

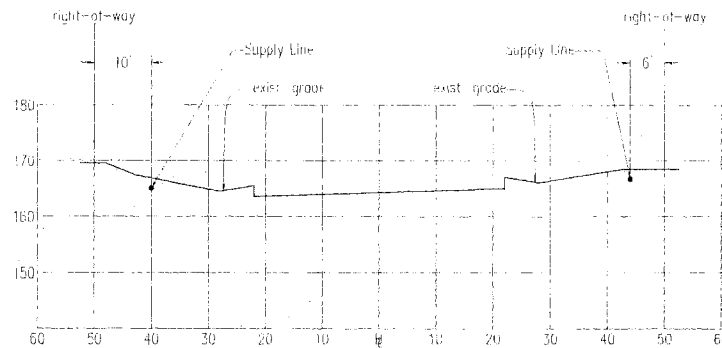
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(45)	1998	38	141



CROSS SECTION OF KAPULE HIGHWAY @ STA. 5+00

SCALE: HORIZ. 1"=10'
VERT. 1"=10'



CROSS SECTION OF KAPULE HIGHWAY @ STA. 30+00

SCALE: HORIZ. 1"=10'
VERT. 1"=10'

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
REVISIONS	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
Highways Division

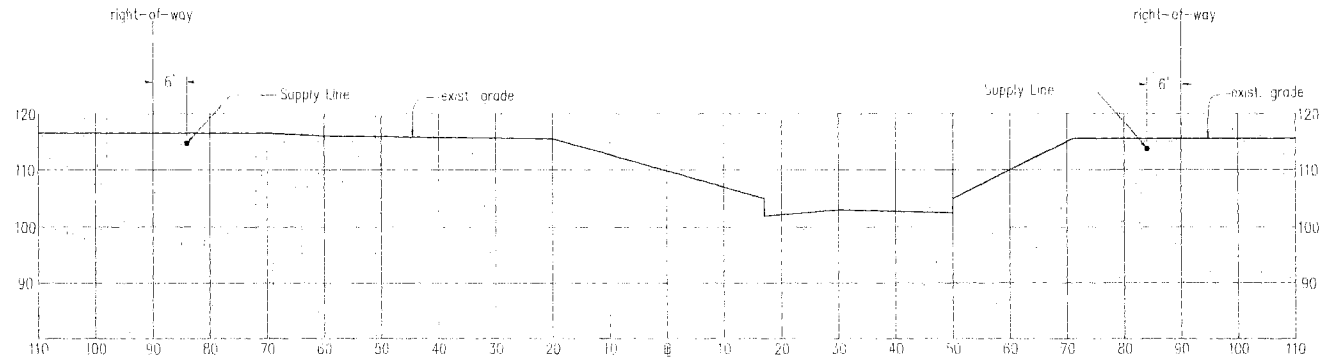
IRRIGATION SUPPLY
LINE DETAILS

LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

SCALE: AS SHOWN
SHEET No. 522 OF 23 SHEETS
DATE: July 31, 1998

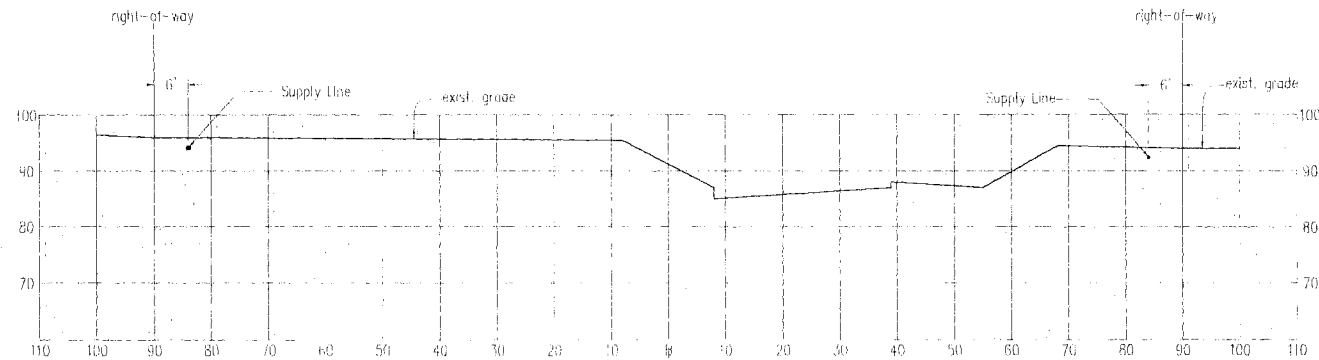
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	39	141



CROSS SECTION OF KAPULE HIGHWAY @ STA. 90+00

SCALE: HORIZ. 1"=10'
VERT. 1"=10'



CROSS SECTION OF KAPULE HIGHWAY @ STA. 115+50

SCALE: HORIZ. 1"=10'
VERT. 1"=10'

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
REVISIONS	
1. SITE SPEC	
2. SITE SPEC	
3. SITE SPEC	
4. SITE SPEC	
5. SITE SPEC	
6. SITE SPEC	
7. SITE SPEC	
8. SITE SPEC	
9. SITE SPEC	
10. SITE SPEC	



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

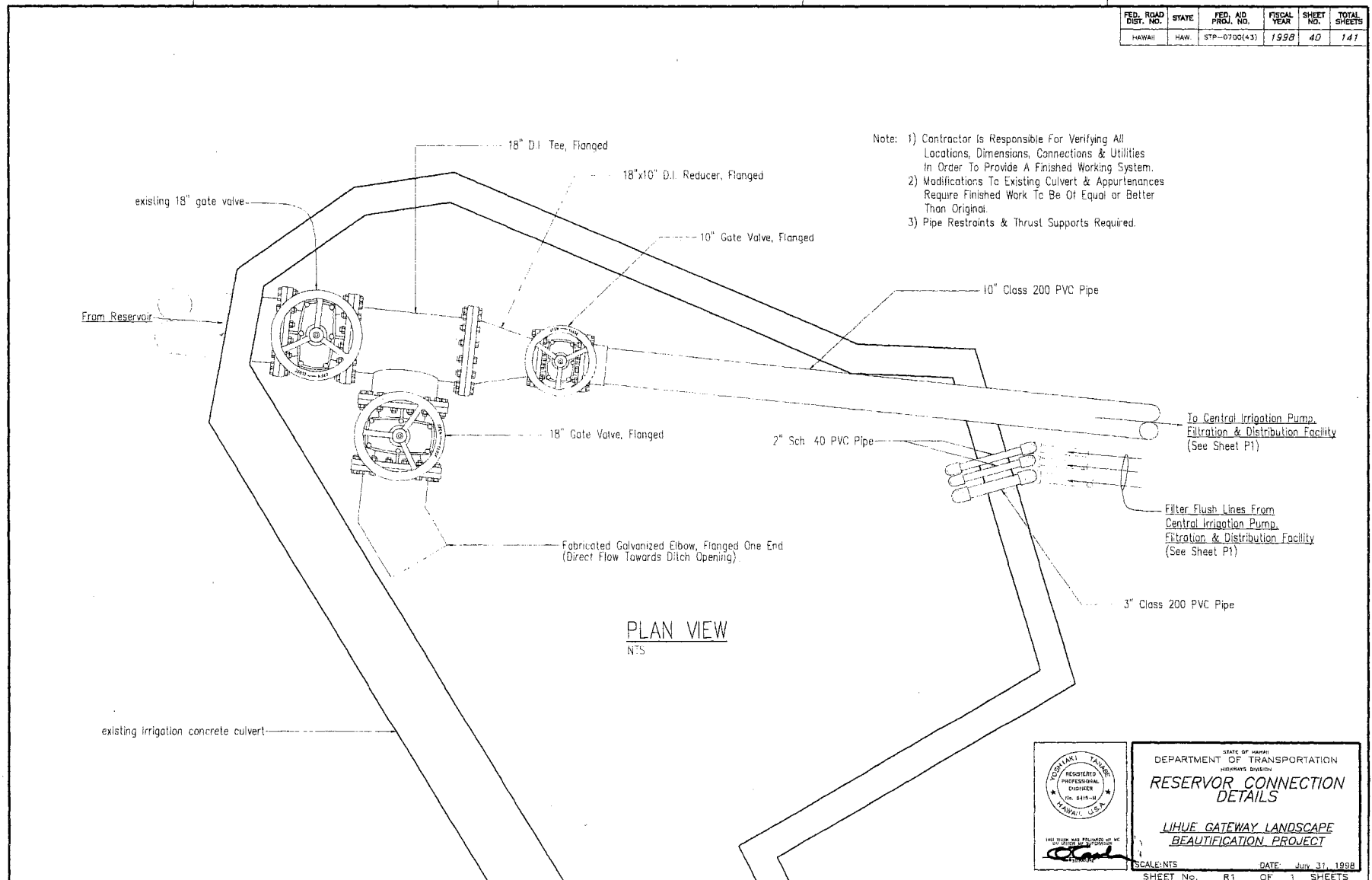
IRRIGATION SUPPLY
LINE DETAILS

LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

SCALE: AS SHOWN DATE: July 31, 1998
SHEET No. S23 OF 23 SHEETS

Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	40	141



DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
SCALE	DATE
BY	DATE
DATE	DATE



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

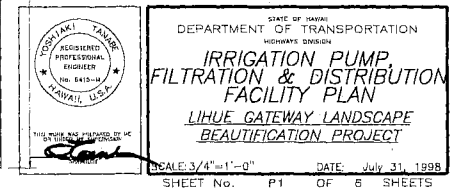
RESERVOIR CONNECTION DETAILS

LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT

SCALE: NTS DATE: July 31, 1998
SHEET No. R1 OF 1 SHEETS

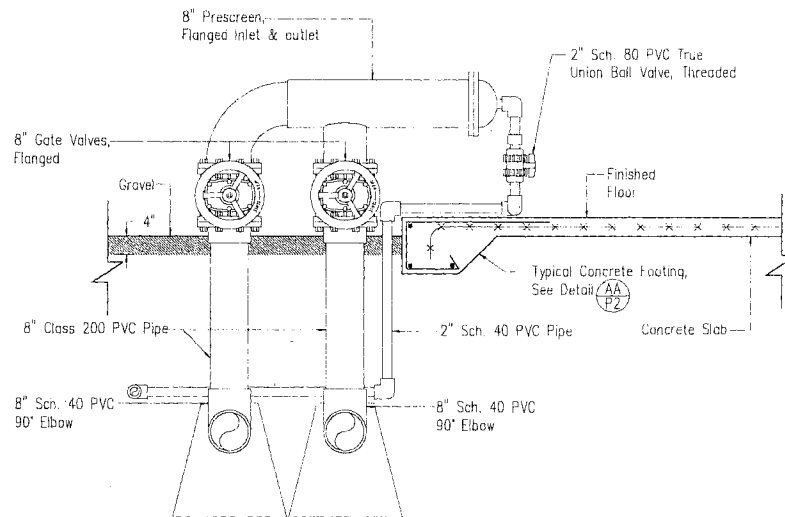
Appendix D

(continuation)

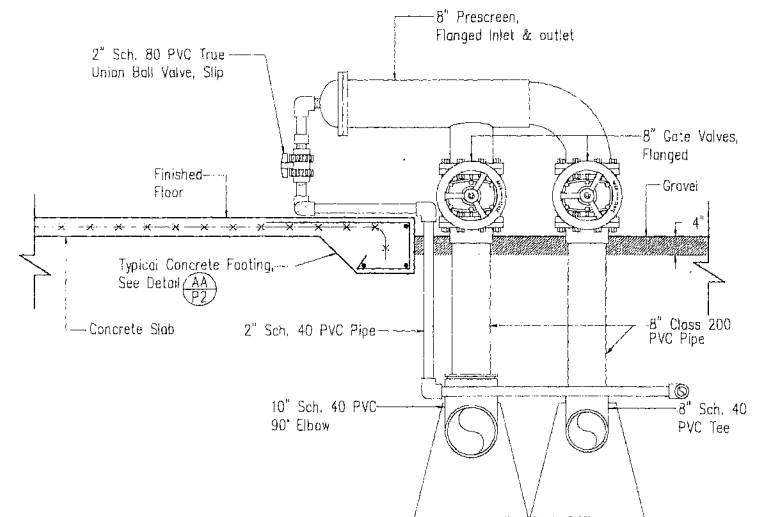


Appendix D (continuation)

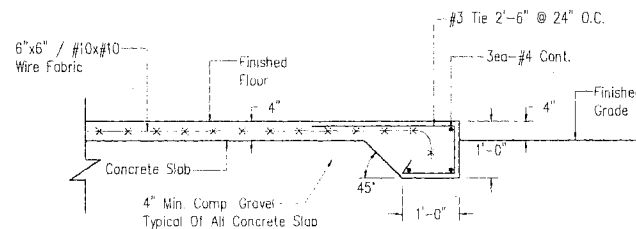
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	STP-0700(43)	1998	42	141



PRESCREEN #1 DETAIL, ELEVATION VIEW (A)
Scale: 1"=1'-0" (P2)



PRESCREEN #2 DETAIL, ELEVATION VIEW (B)
Scale: 1"=1'-0" (P2)



FOOTING DETAIL, ELEVATION VIEW (AA)
Scale: 1"=1'-0" (P2)

- Notes:
- 1) All PVC Pipe Class 200 Unless Noted.
 - 2) All PVC Fittings Sch. 40 Unless Noted.
 - 3) Pipe Restraints & Thrust Supports Required.
 - 4) Subsurface Conduits Required For All Electrical & Chlorine.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HAWAIIAN DIVISION

**IRRIGATION PUMP,
FILTRATION & DISTRIBUTION
FACILITY DETAILS**

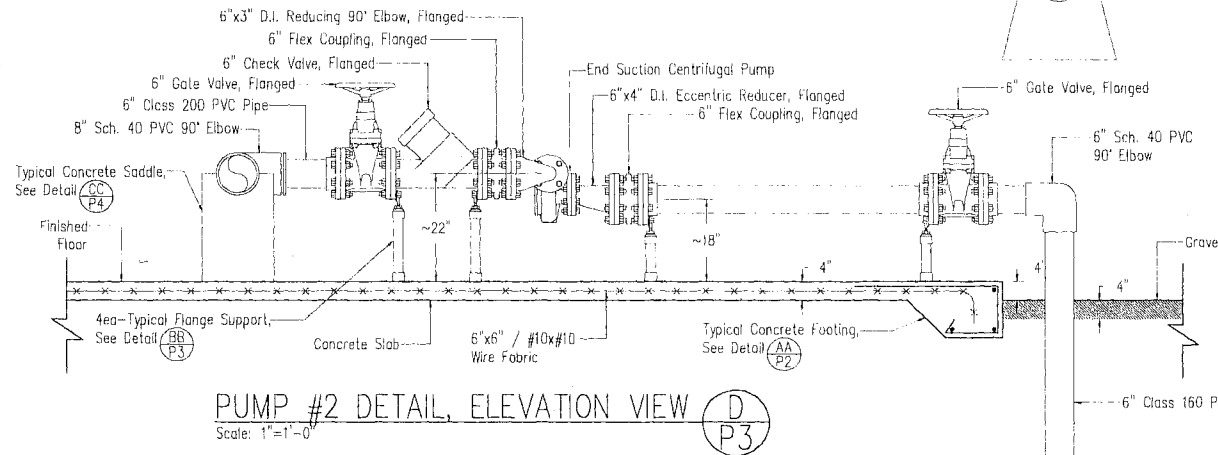
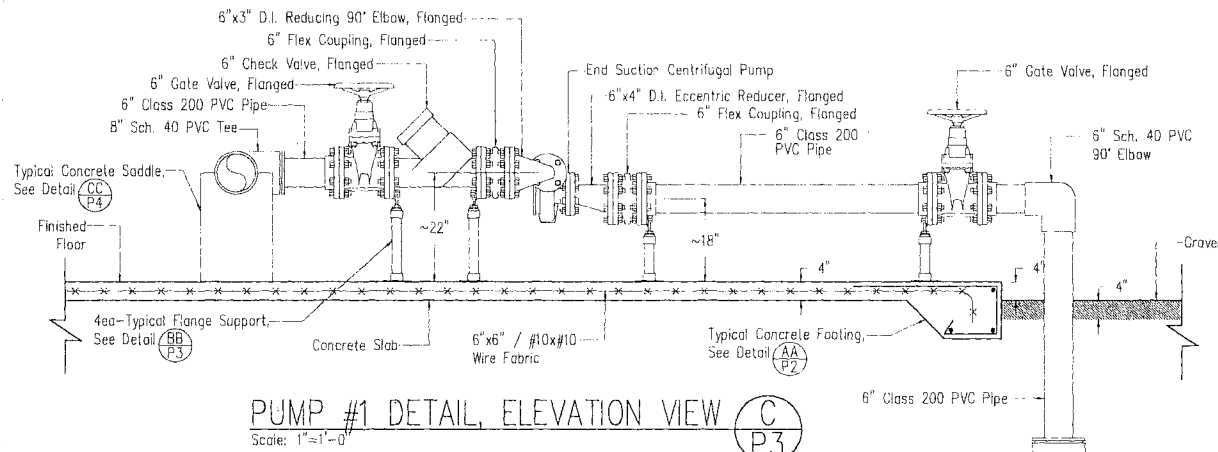
**LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT**

SCALE: 1"=1'-0" DATE: July 31, 1998
SHEET No. P2 OF 6 SHEETS

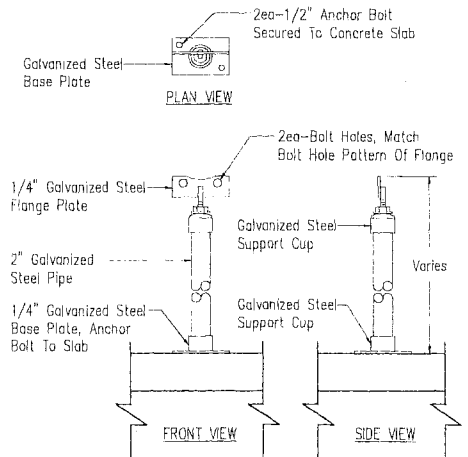
DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
QUANTITY BY	DATE
NOTED BY	DATE

Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	51P-0750(43)	1998	43	141



- Notes:
- 1) All PVC Pipe Class 200 Unless Noted.
 - 2) All PVC Fittings Sch. 40 Unless Noted.
 - 3) Pipe Restraints & Thrust Supports Required.
 - 4) Subsurface Conduits Required For All Electrical & Chlorine.



Note: Fabricate & Weld To Provide Proper Support & Stability

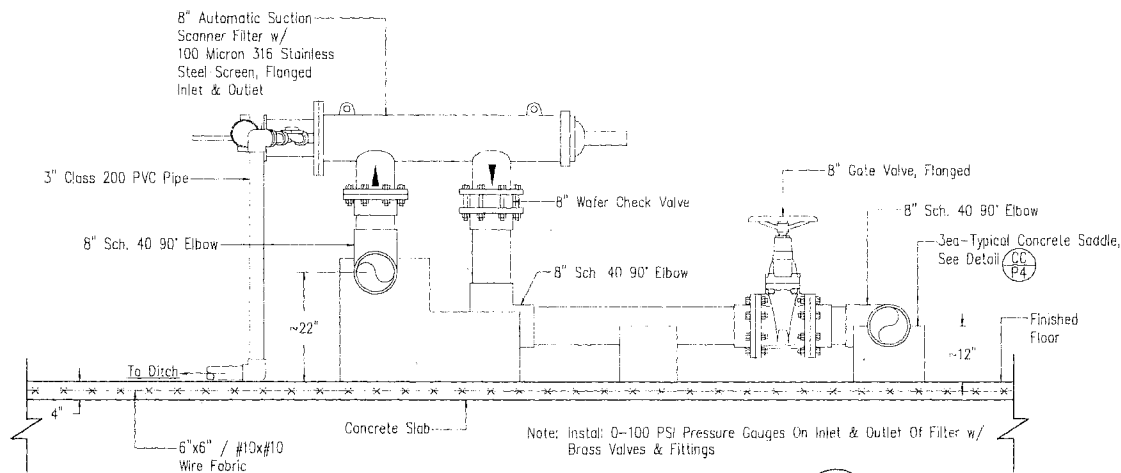


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
ROADWAYS DIVISION
**IRRIGATION PUMP,
FILTRATION & DISTRIBUTION
FACILITY DETAILS**
**LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT**

SCALE: 1"=1'-0" DATE: July 31, 1998
SHEET No. P3 OF 6 SHEETS

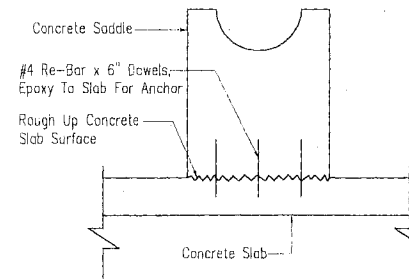
(continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	44	141



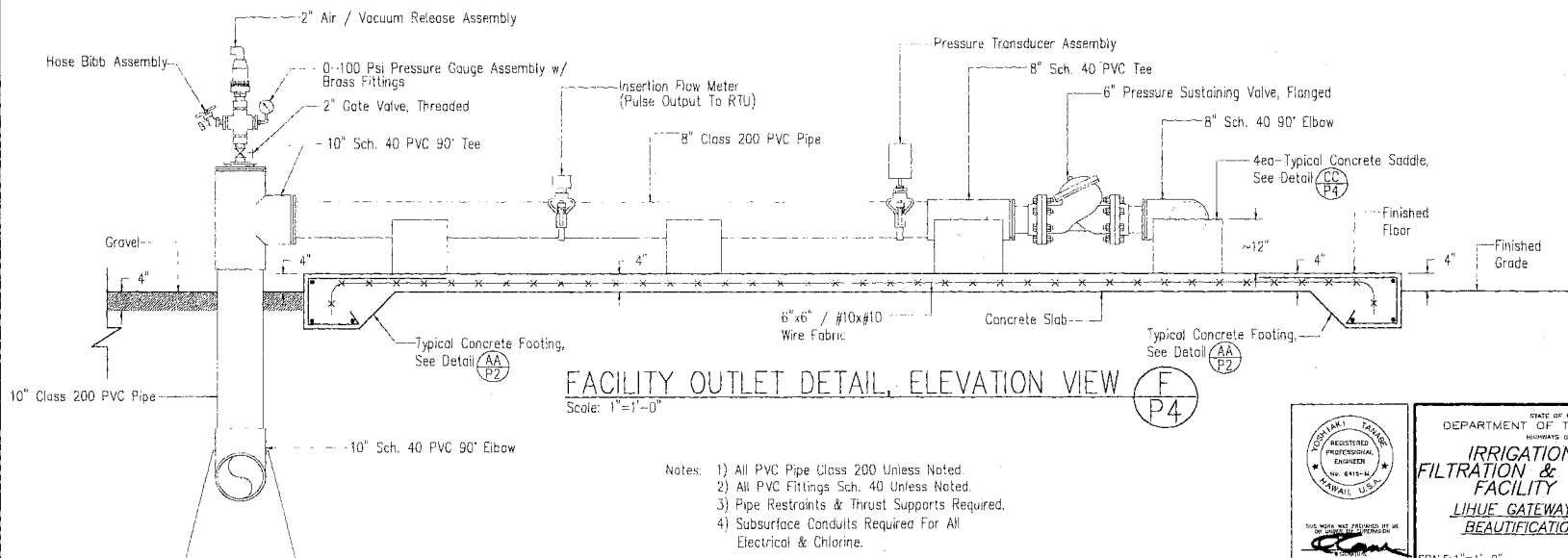
FILTER DETAIL, ELEVATION VIEW

Scale: $1'' = 1' - 0''$



TYPICAL CONCRETE SADDLE
DETAIL, ELEVATION VIEW (C)

NTS



FACILITY OUTLET DETAIL, ELEVATION VIEW

Scale: 1" = 1'-0"

- Notes: 1) All PVC Pipe Class 200 Unless Noted.
2) All PVC Fittings Sch. 40 Unless Noted.
3) Pipe Restraints & Thrust Supports Required.
4) Subsurface Conduits Required For All
Electrical & Chlorine.

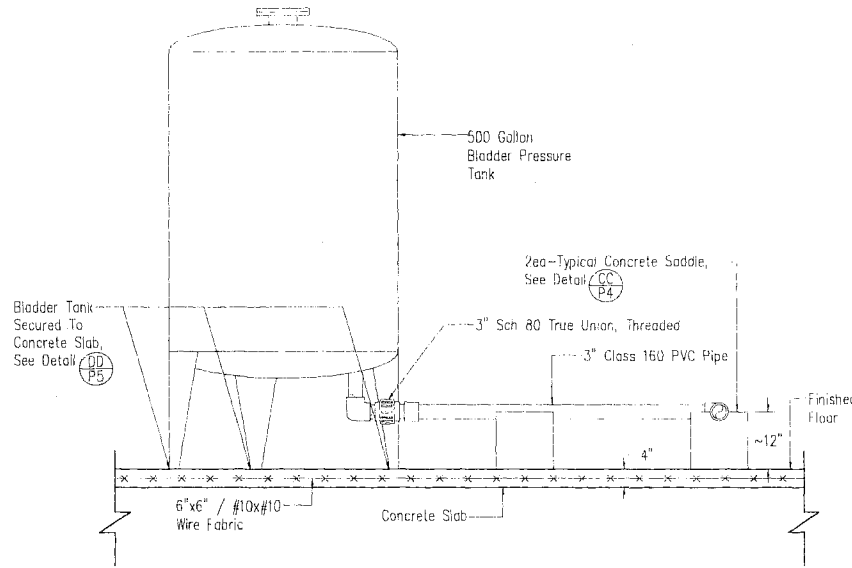


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
IRRIGATION PUMP,
FILTRATION & DISTRIBUTION
FACILITY DETAILS
LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

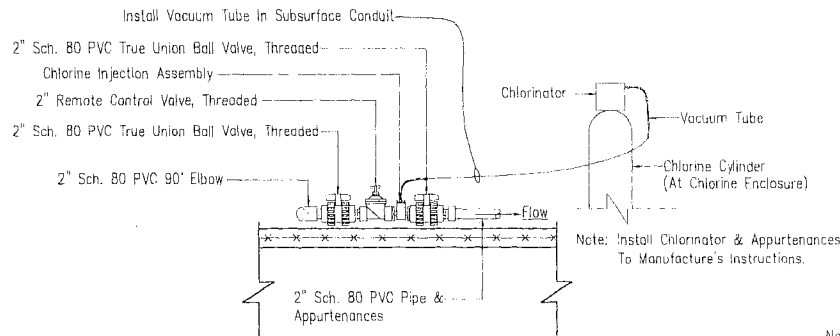
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SHEET No. P4 OF 6 SHEETS

Appendix D (continuation)

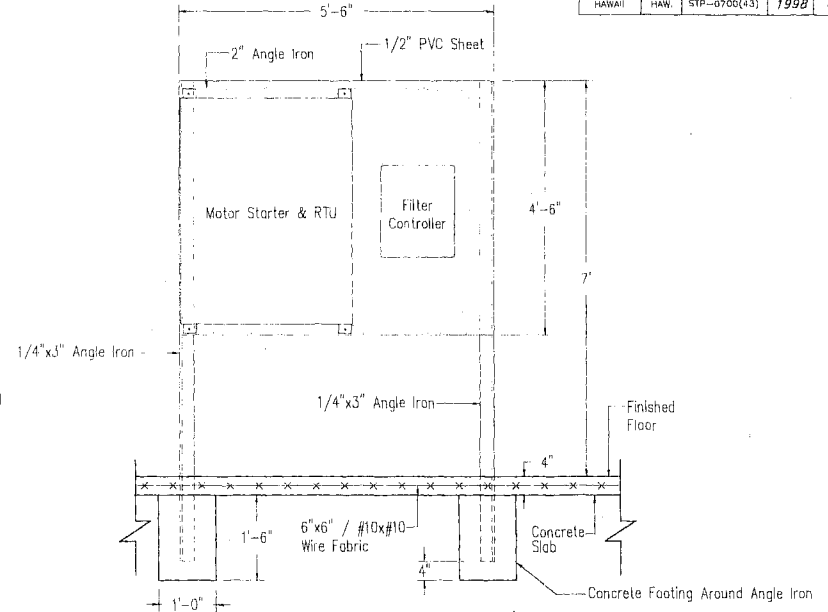
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	45	141



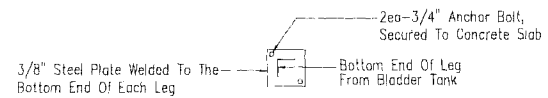
BLADDER TANK DETAIL, ELEVATION VIEW (G)
Scale: 1"=1'-0" (P5)



CHLORINE INJECTION DETAIL, ELEVATION VIEW (I)
NTS (P5)

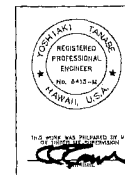


CONTROL PANEL DETAIL, ELEVATION VIEW (H)
Scale: 1"=1'-0" (P5)



BLADDER TANK BASE PLATE
DETAIL, PLAN VIEW (DD)
NTS (P5)

- Notes:
- 1) All PVC Pipe Class 200 Unless Noted.
 - 2) All PVC Fittings Sch. 40 Unless Noted.
 - 3) Pipe Restraints & Thrust Supports Required.
 - 4) Subsurface Conduits Required For All Electrical & Chlorine.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**IRRIGATION PUMP
FILTRATION & DISTRIBUTION
FACILITY DETAILS**

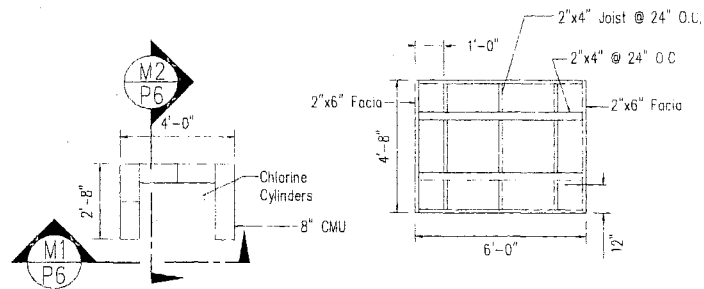
**LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT**

SCALE: 1"=1'-0" DATE: July 31, 1998
SHEET NO. P5 OF 6 SHEETS

DESIGNED BY	DATE
DRAWN BY	
CHECKED BY	
IN CHARGE	
APPROVED BY	

Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	46	141

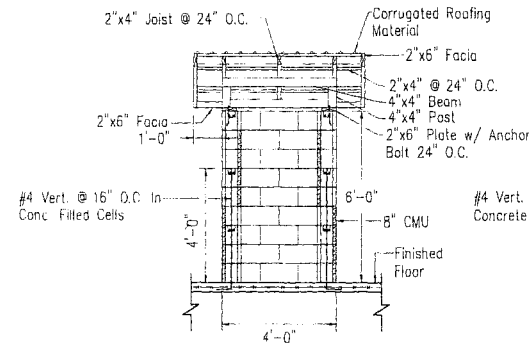


PLAN VIEW

ROOF DETAIL

CHLORINE ENCLOSURE DETAIL

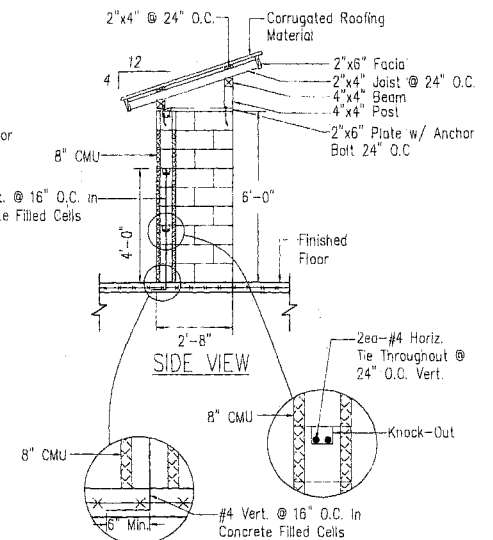
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FRONT VIEW

CHLORINE ENCLOSURE DETAIL

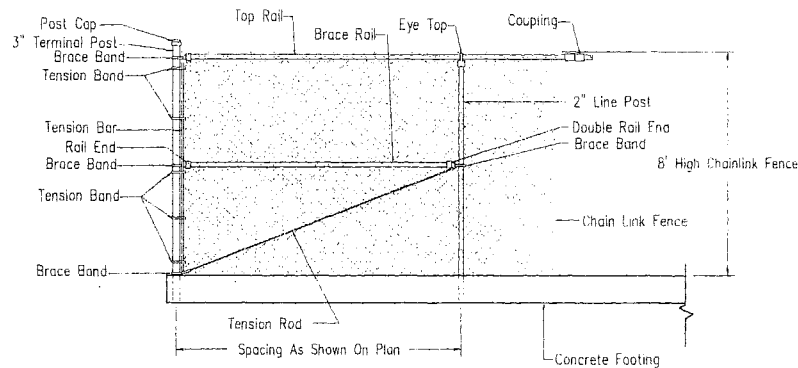
SCALE: 1/2"=1'-0"



SIDE VIEW

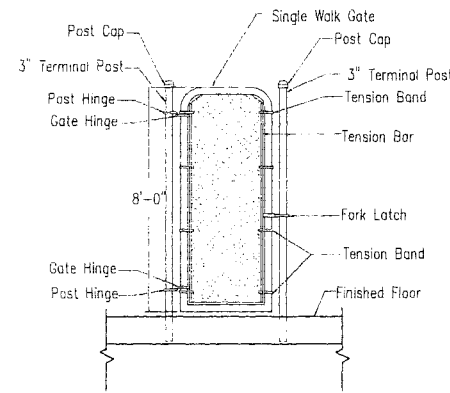
CHLORINE ENCLOSURE DETAIL

SCALE: 1/2"=1'-0"



CHAIN LINK FENCE DETAIL, ELEVATION VIEW

SCALE: 1/2"=1'-0"



CHAIN LINK GATE DETAIL

SCALE: 1/2"=1'-0"

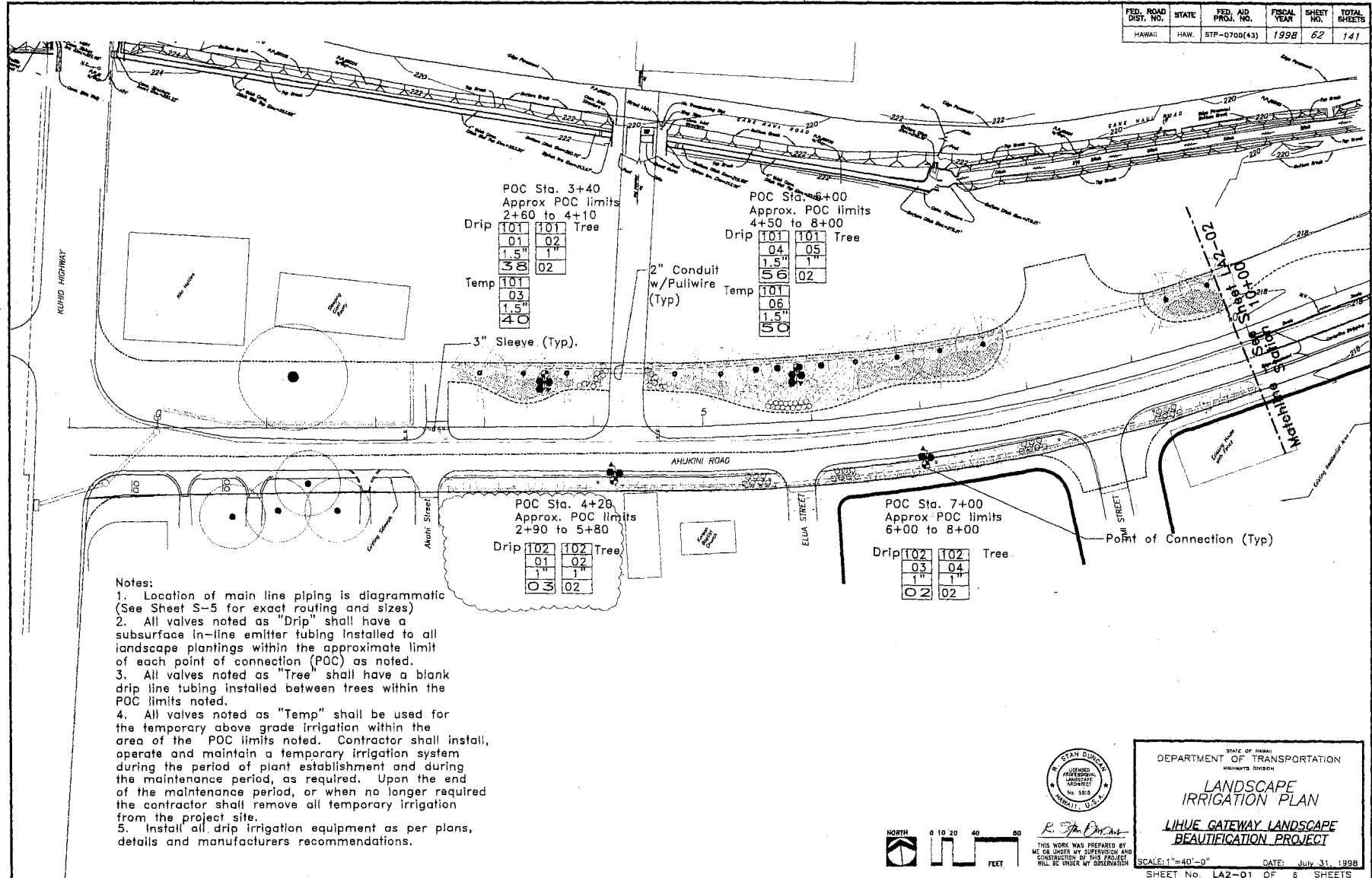
DESIGNED BY	CHERRY LARSEN, INC.
DRAWN BY	CHERRY LARSEN, INC.
CHECKED BY	CHERRY LARSEN, INC.
IN CHARGE BY	CHERRY LARSEN, INC.



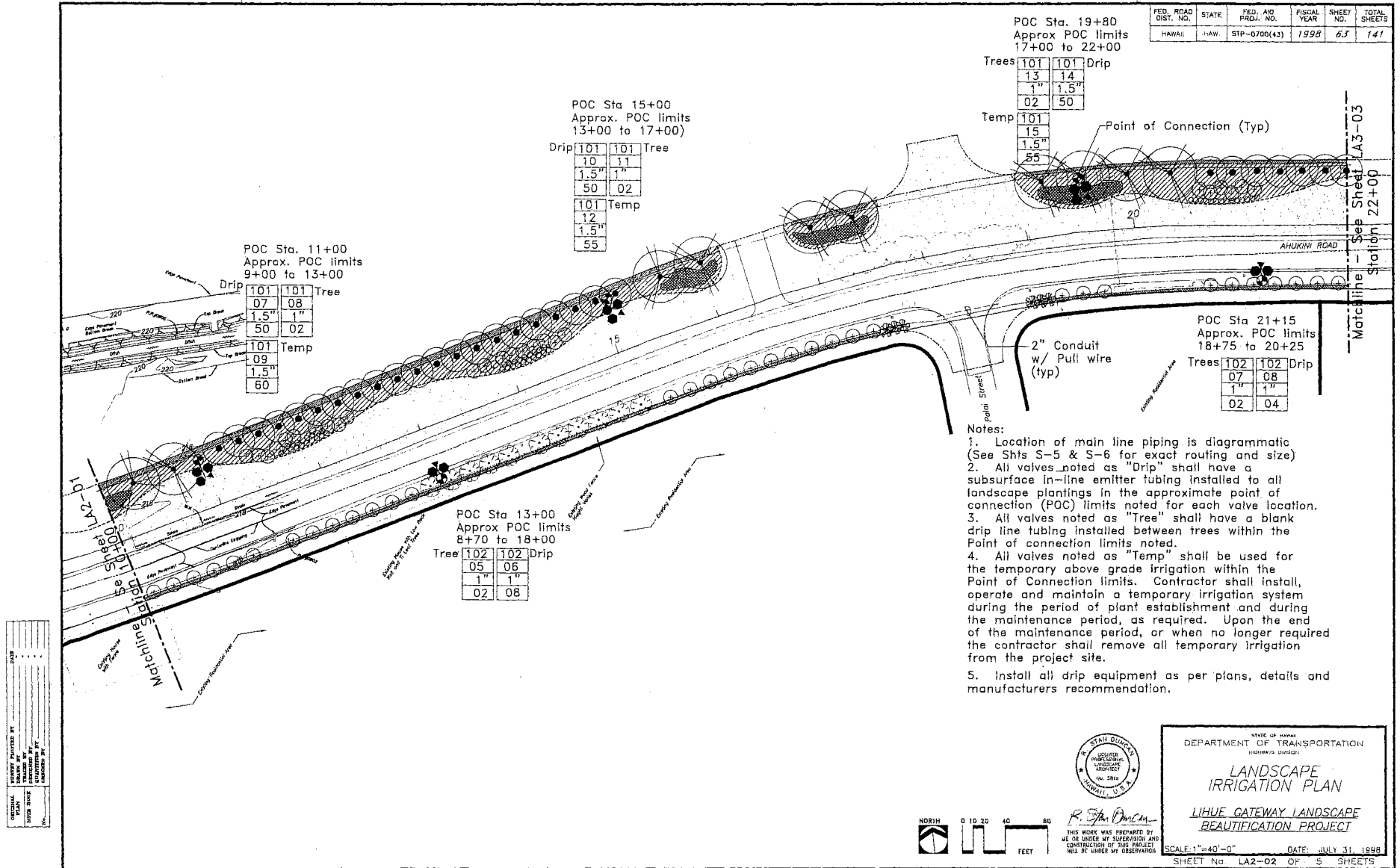
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
IRRIGATION PUMP FILTRATION & DISTRIBUTION FACILITY DETAILS LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT
SCALE: 1/2"=1'-0" DATE: July 31, 1998
SHEET No. P6 OF 6 SHEETS

Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	62	141



Appendix D (continuation)



Appendix D (continuation)

1. Location of main line piping is diagrammatic (See Sheet S-6 for exact routing and sizes)
2. All valves noted as "Drip" shall have a subsurface in-line emitter tubing installed to all landscape plantings within the approximate limit of each point of connection (POC) as noted.
3. All valves noted as "Tree" shall have a blank drip line tubing installed between trees within the POC limits noted.
4. All valves noted as "Temp" shall be used for the temporary above grade irrigation within the area of the POC limits noted. Contractor shall install, operate and maintain a temporary irrigation system during the period of plant establishment and during the maintenance period, as required. Upon the end of the maintenance period, or when no longer required the contractor shall remove all temporary irrigation from the project site.
5. Install all irrigation equipment as per plans, details and manufacturers recommendations.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	64	141

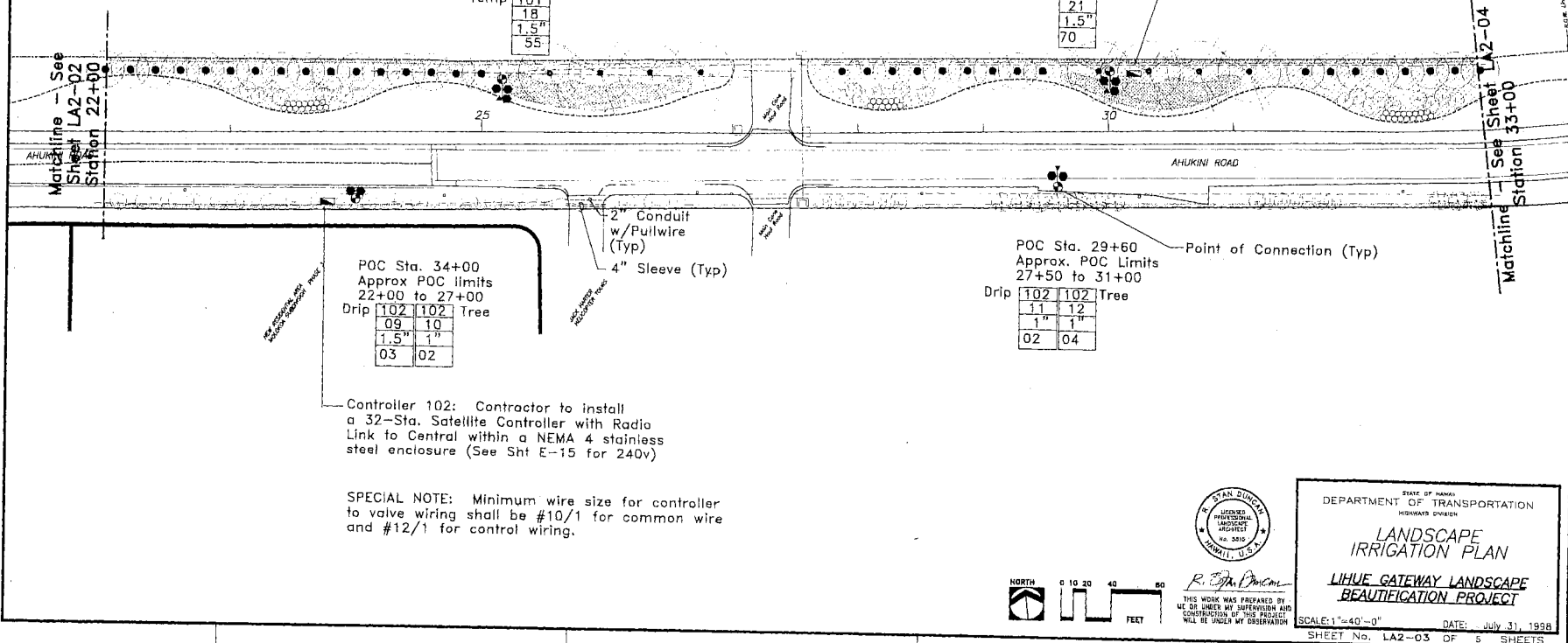
POC Sta. 25+10
Approx POC limits
22+00 to 27+00
Drip [101] [101] Tree

Drip	101	101	Tree
	16	17	
	1.5"	1"	
	50	02	
Temp	101		
	18		
	1.5"		
	55		

POC Sta. 30+00
Approx POC limits
27+00 to 31+00

Drip	101	101
	19	20
	1.5"	1"
	60	02
Temp	101	
	21	
	1.5"	
	70	

Controller 101: Contractor to install a 32-Sta. Satellite Controller with Radio Link to Central within a NEMA 4 stainless steel enclosure (See Sht E-15 for 240v)



SPECIAL NOTE: Minimum wire size for controller to valve wiring shall be #10/1 for common wire and #12/1 for control wiring.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPE
IRRIGATION PLAN

LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

SCALE: 1"=40'-0" DATE: July 31, 1999
SHEET No. LA2-03 OF 5 SHEETS

Appendix D (continuation)

Notes:

1. Location of main line piping is diagrammatic (See Sheet S-6 & S-7 for exact routing and sizes)
2. All valves noted as "Drip" shall have a subsurface in-line emitter tubing installed to all landscape plantings within the approximate limit of each point of connection (POC) as noted.
3. All valves noted as "Tree" shall have a blank drip line tubing installed between trees within the POC limits noted.
4. All valves noted as "Temp" shall be used for the temporary above grade irrigation within the area of the POC limits noted. Contractor shall install, operate and maintain a temporary irrigation system during the period of plant establishment and during the maintenance period, as required. Upon the end of the maintenance period, or when no longer required the contractor shall remove all temporary irrigation from the project site.
5. Install all irrigation equipment as per plans, details and manufacturers recommendations

POC Sta. 33+40
Approx. POC Limits
31+00 to 36+00

Drip	101	101	Tree
	22	23	
	1.5"	1"	
	35	02	
Temp	101		
	24		
	1.5"		
	45		

POC Sta. 33+15
Approx. POC Limits
31+00 to 36+00

Drip	102	102	Tree
	13	14	
	1"	1"	
	03	02	

POC Sta. 39+00
Approx POC limits
37+00 to 41+00

Drip	101	101	Tree
	25	26	
	1.5"	1"	
	46	02	
Temp	101		
	27		
	1.5"		
	55		

POC Sta. 39+00
Approx. POC Limits
36+00 to 41+00

Drip	102	102	Tree
	15	16	
	1"	1"	
	03	02	

POC Sta. 43+00
Approx. POC limits
41+00 to 45+00

Drip	101	101	Tree
	28	29	
	1.5"	1"	
	50	02	
Temp	101		
	30		
	1.5"		
	60		

POC Sta. 43+00
Approx. POC limits
41+00 to 45+00

Drip	102	102	Tree
	17	18	
	1"	1"	
	04	02	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	65	141

Matchline - See Sheet LA2-03
Station 33+00

2" Conduit
w/ Pull Wire
(Typ)



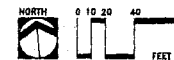
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPE
IRRIGATION PLAN

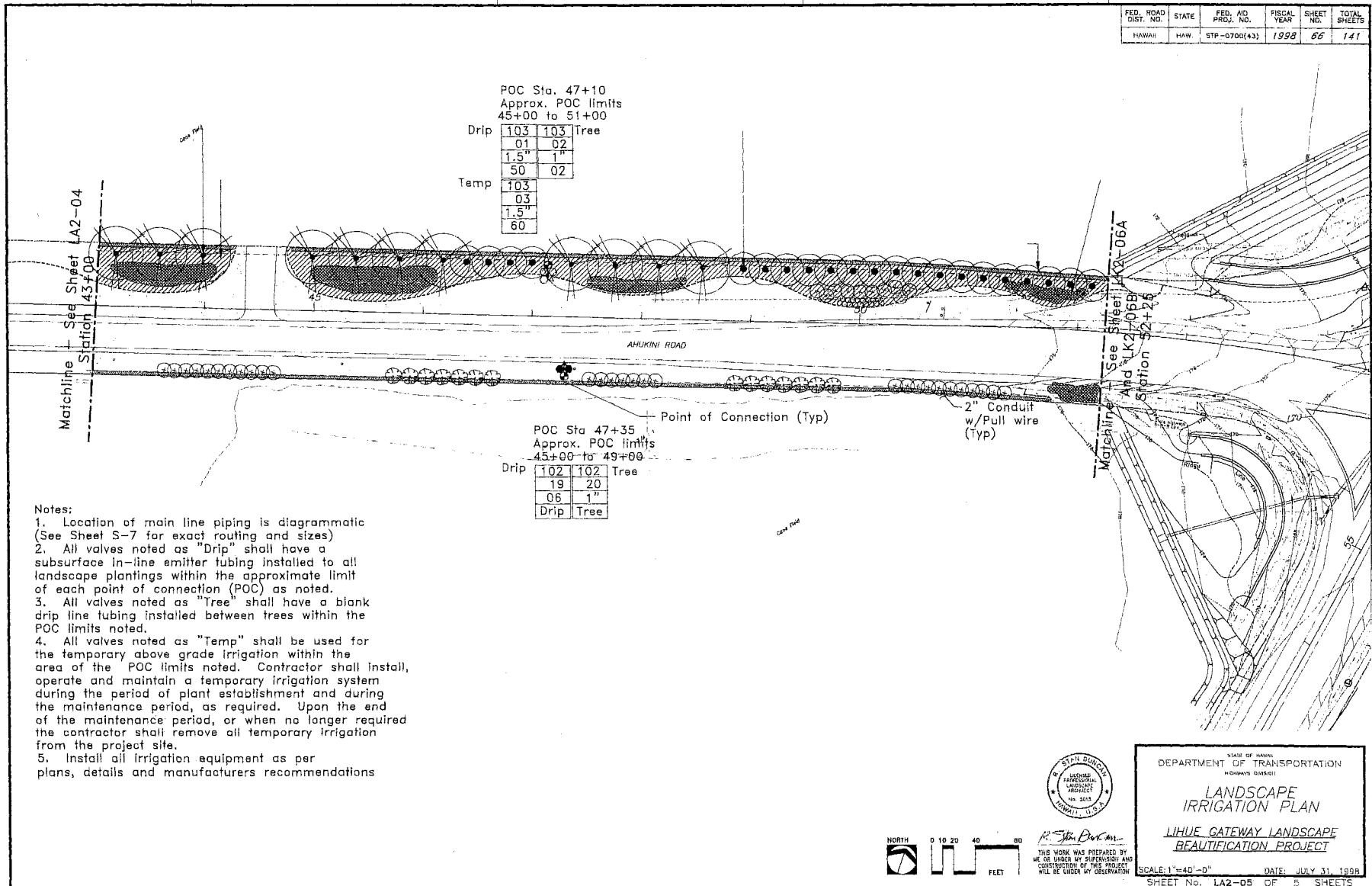
LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

SCALE: 1"=40'-0" DATE: JULY 31, 1998
SHEET No. LA2-04 OF 6 SHEETS



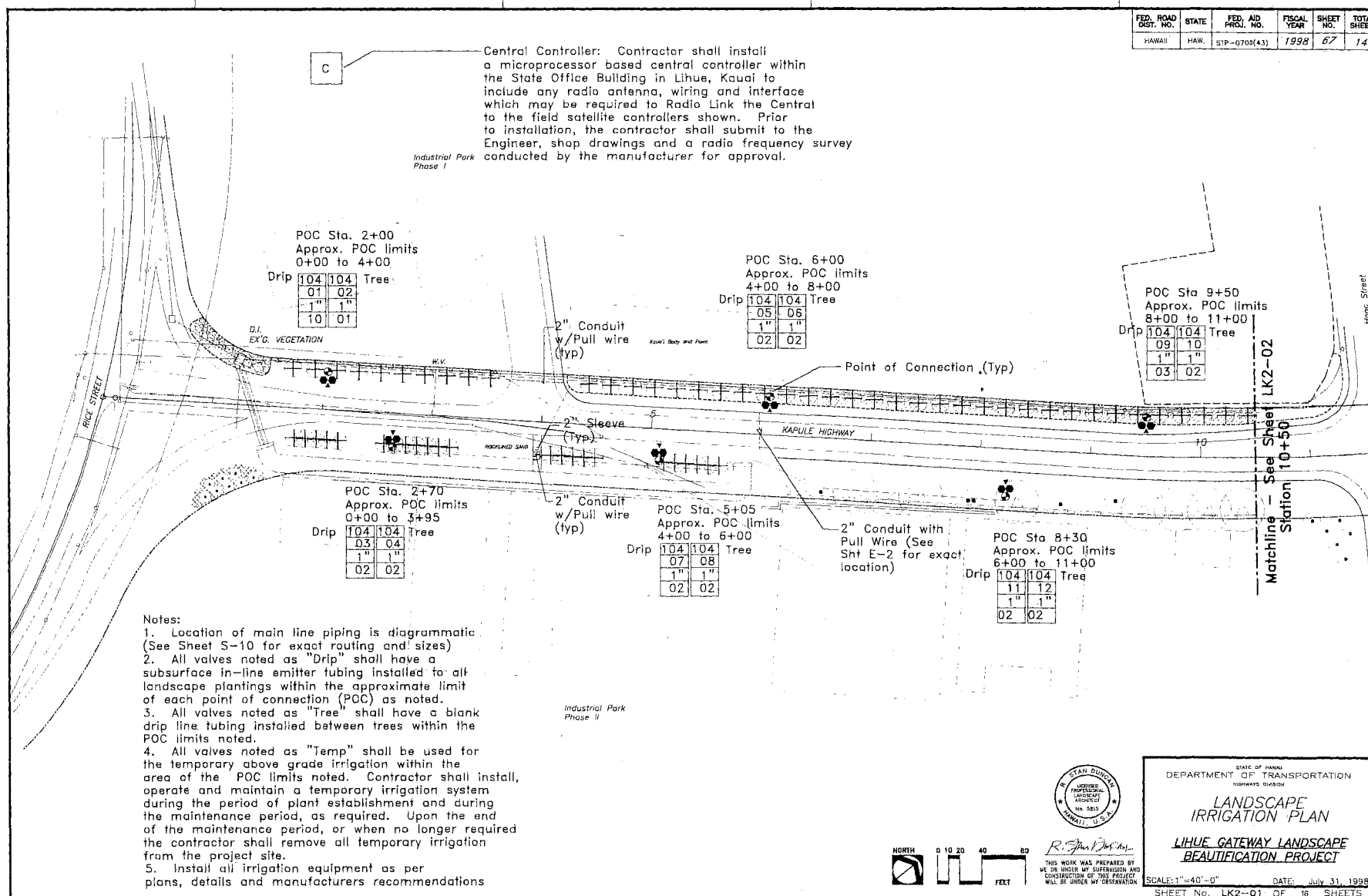
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	66	141

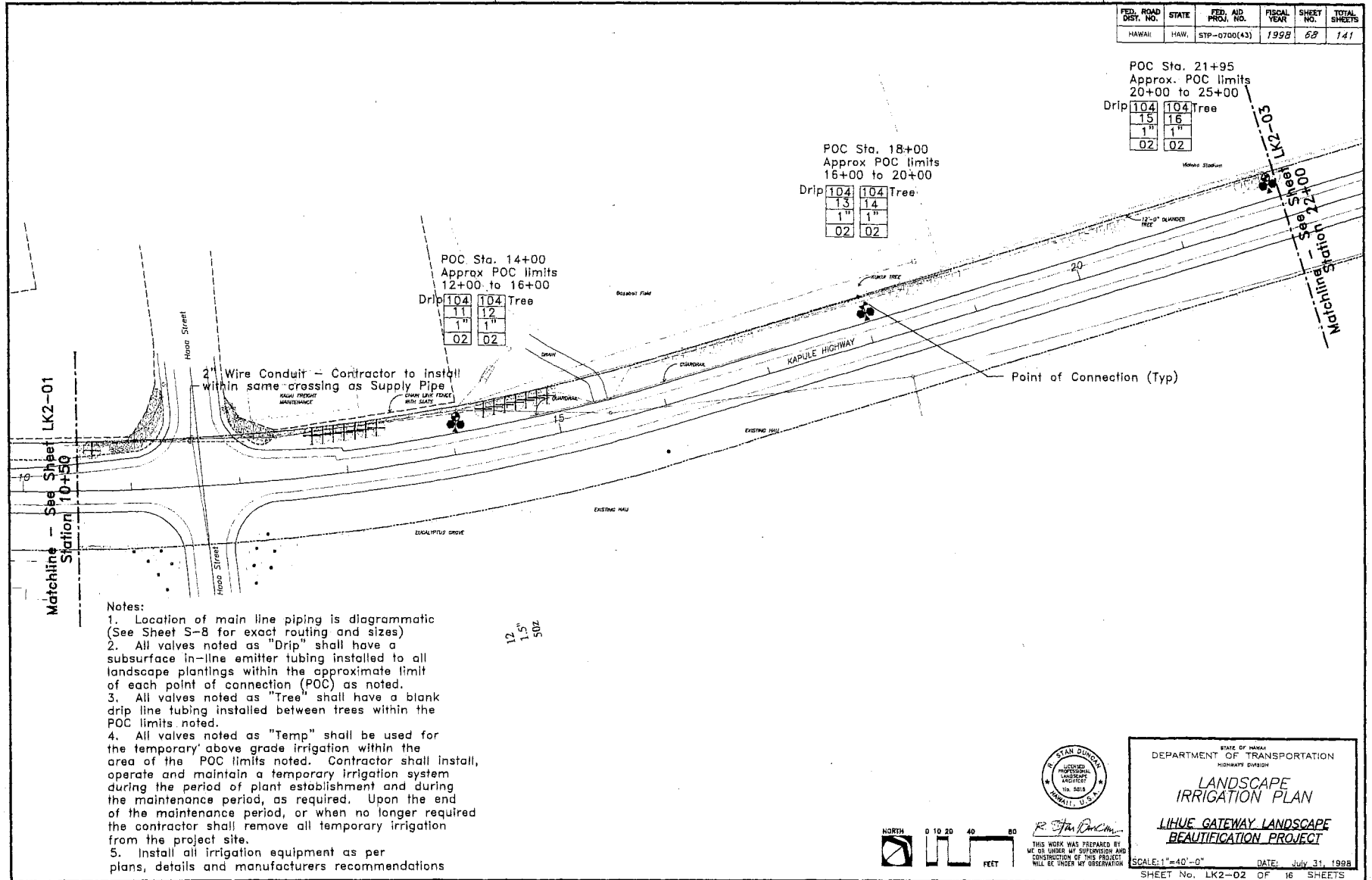


Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	51P-0705(43)	1998	67	141



Appendix D (continuation)



Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0705(43)	1998	69	141

SPECIAL NOTE: Minimum wire size for controller to valve wiring shall be #10/1 for common wire and #12/1 for control wiring.

Controller 104: Contractor to install a 32-Sta. Satellite Controller with Radio Link to Central within a NEMA 4 stainless steel enclosure (See Sht E-3 for 240v)

POC Sta. 28+00
Approx. POC limits
25+50 to 30+00

Drip	104	104	Tree
	17	18	
	1" 1"		
	04	02	

POC Sta. 32+00
Approx. POC limits
30+00 to 33+50

Drip	104	104	Tree
	19	20	
	1" 1"		
	04	02	

Matchline - See Sheet LK2-02
Station 22+00

Matchline - See Sheet LK2-04
Station 33+00

2" Conduit w/pullwire
Install within same crossing
as Supply piping (typ).

Point of Connection (Typ)

Notes:

1. Location of main line piping is diagrammatic (See Sheet S-9 for exact routing and sizes)
2. All valves noted as "Drip" shall have a subsurface in-line emitter tubing installed to all landscape plantings within the approximate limit of each point of connection (POC) as noted.
3. All valves noted as "Tree" shall have a blank drip line tubing installed between trees within the POC limits noted.
4. All valves noted as "Temp" shall be used for the temporary above grade irrigation within the area of the POC limits noted. Contractor shall install, operate and maintain a temporary irrigation system during the period of plant establishment and during the maintenance period, as required. Upon the end of the maintenance period, or when no longer required the contractor shall remove all temporary irrigation from the project site.
5. Install all irrigation equipment as per plans, details and manufacturers recommendations



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPE
IRRIGATION PLAN

LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT



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SCALE: 1"=40'-0" DATE: July 31, 1998
SHEET No. LK2-03 OF 18 SHEETS

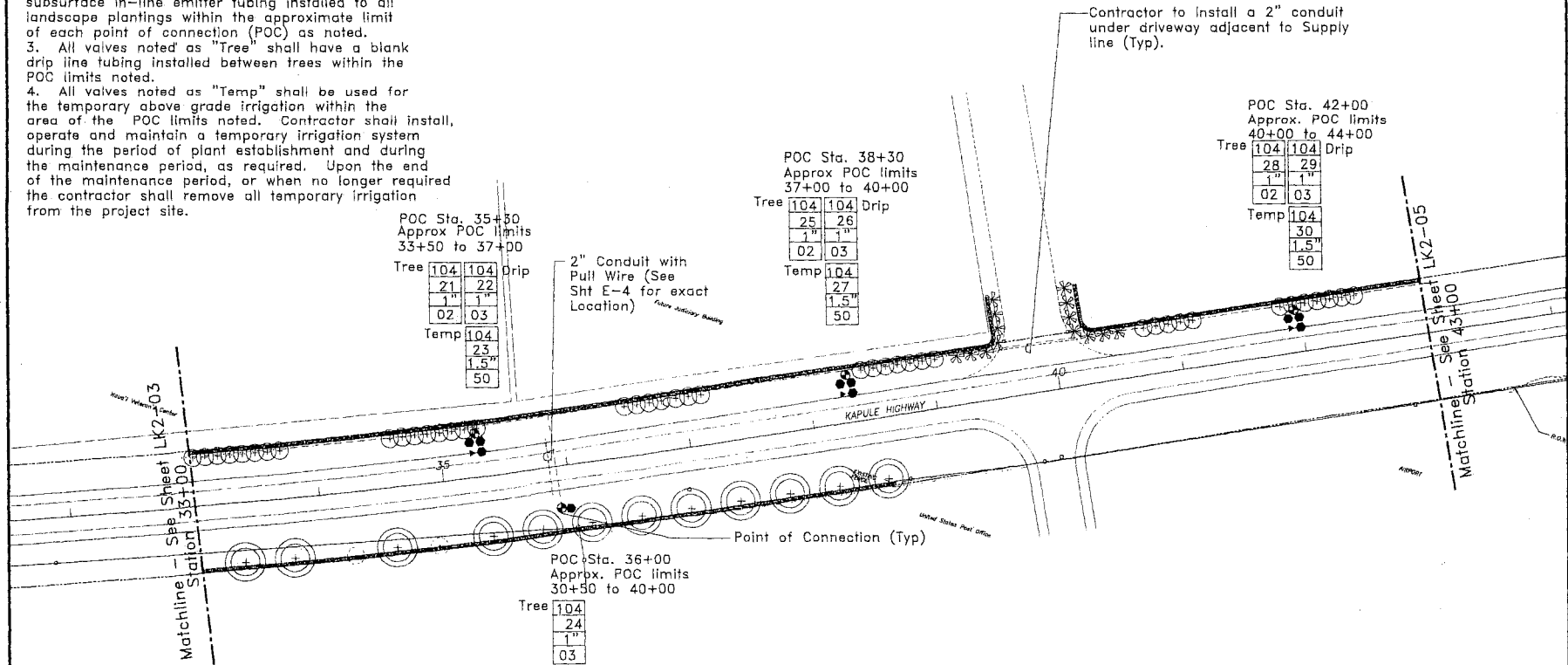
Appendix D (continuation)

Notes:

1. Location of main line piping is diagrammatic (See Sheet S-9 for exact routing and sizes)
2. All valves noted as "Drip" shall have a subsurface in-line emitter tubing installed to all landscape plantings within the approximate limit of each point of connection (POC) as noted.
3. All valves noted as "Tree" shall have a blank drip line tubing installed between trees within the POC limits noted.
4. All valves noted as "Temp" shall be used for the temporary above grade irrigation within the area of the POC limits noted. Contractor shall install, operate and maintain a temporary irrigation system during the period of plant establishment and during the maintenance period, as required. Upon the end of the maintenance period, or when no longer required the contractor shall remove all temporary irrigation from the project site.

5. Install all irrigation equipment as per plans, details and manufacturers recommendations

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1999	70	141



DESIGNED BY	DATE
CHECKED BY	
APPROVED BY	
DATE	



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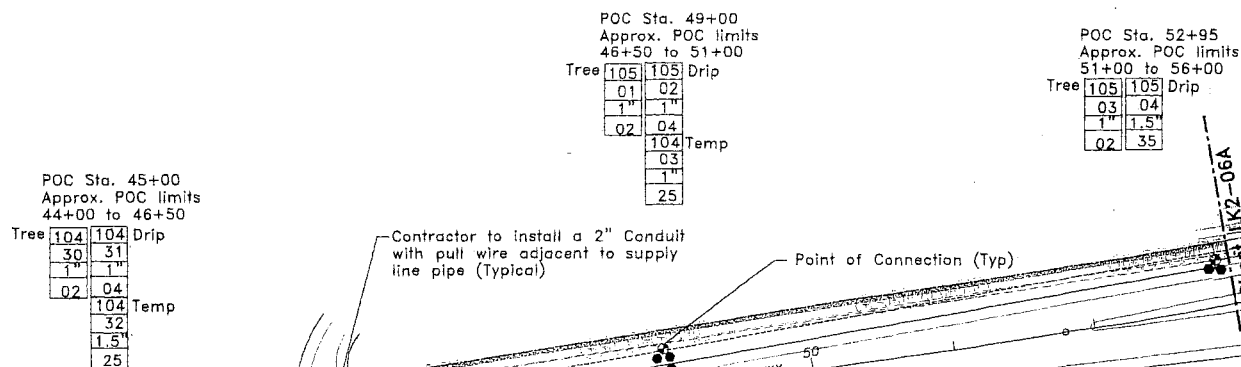


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
LANDSCAPE IRRIGATION PLAN
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT

SCALE: 1"=40'-0" DATE: JULY 31, 1998
SHEET No. LK2-04 OF 16 SHEETS

Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	51P-0700(43)	1998	71	141



- Notes:
1. Location of main line piping is diagrammatic (See Sheet S-9 & S-10 for exact routing and sizes)
 2. All valves noted as "Drip" shall have a subsurface in-line emitter tubing installed to all landscape plantings within the approximate limit of each point of connection (POC) as noted.
 3. All valves noted as "Tree" shall have a blank drip line tubing installed between trees within the POC limits noted.
 4. All valves noted as "Temp" shall be used for the temporary above grade irrigation within the area of the POC limits noted. Contractor shall install, operate and maintain a temporary irrigation system during the period of plant establishment and during the maintenance period, as required. Upon the end of the maintenance period, or when no longer required the contractor shall remove all temporary irrigation from the project site.
 5. Install all irrigation equipment as per plans, details and manufacturers recommendations



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPE IRRIGATION PLAN

LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT

SCALE: 1"=40'-0" DATE: JULY 31, 1998
SHEET No. LK2-05 OF 16 SHEETS

Appendix D (continuation)

Notes:

1. Location of main line piping is diagrammatic (See Sheet S-10 for exact routing and sizes)
2. All valves noted as "Drip" shall have a subsurface in-line emitter tubing installed to all landscape plantings within the approximate limit of each point of connection (POC) as noted.
3. All valves noted as "Tree" shall have a blank drip line tubing installed between trees within the POC limits noted.

Tree Drip System
to Sta. 49+00

Drip 103 To Sta. 49+00

31
1.5
40

L_Rotor 103 103 S_Spray

07	08
1.5	1.5
60	38

Controller 103: Contractor to install a 32-Sta. Satellite Controller with Radio Link to Central within a NEMA 4 Stainless Steel enclosure. (See Sht E-6, for 240v)

103	S_Rotor
06	
1.5	
39	

103	103	L_Rotor
05	09	
1.5	1.5	
50	54	

4. All valves noted as "Temp" shall be used for the temporary above grade irrigation within the area of the POC limits noted. Contractor shall install, operate and maintain a temporary irrigation system during the period of plant establishment and during the maintenance period, as required. Upon the end of the maintenance period, or when no longer required the contractor shall remove all temporary irrigation from the project site.
5. Install all irrigation equipment as per plans, details and manufacturers recommendations

2" Conduit with Pull Wire
(See Sht E-6 for exact location)

Saw cut existing paving and install new lateral within a 6" sleeve, Sch. 80. See pavement restoration detail on Sheet B.

KAPULE HIGHWAY

SPECIAL NOTE: Minimum wire size for controller to valve wiring shall be #10/1 for common wire and #12/1 for control wiring.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	72	141

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

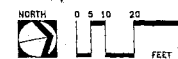
LANDSCAPE IRRIGATION PLAN

LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT

SCALE: 1"=20'-0" DATE: JULY 31, 1998
SHEET No. LK2-06A OF 16 SHEETS

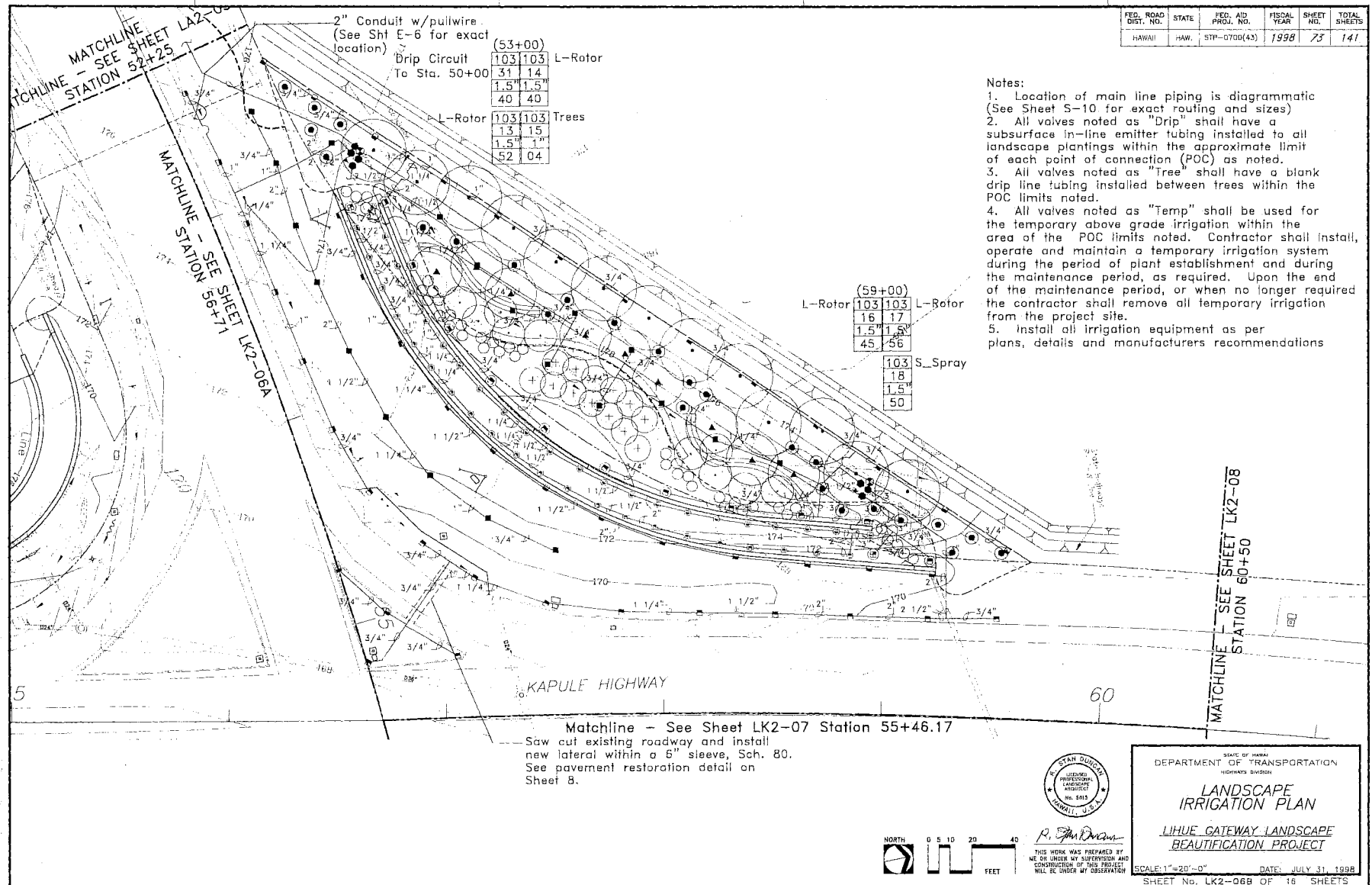


R. St. Onan
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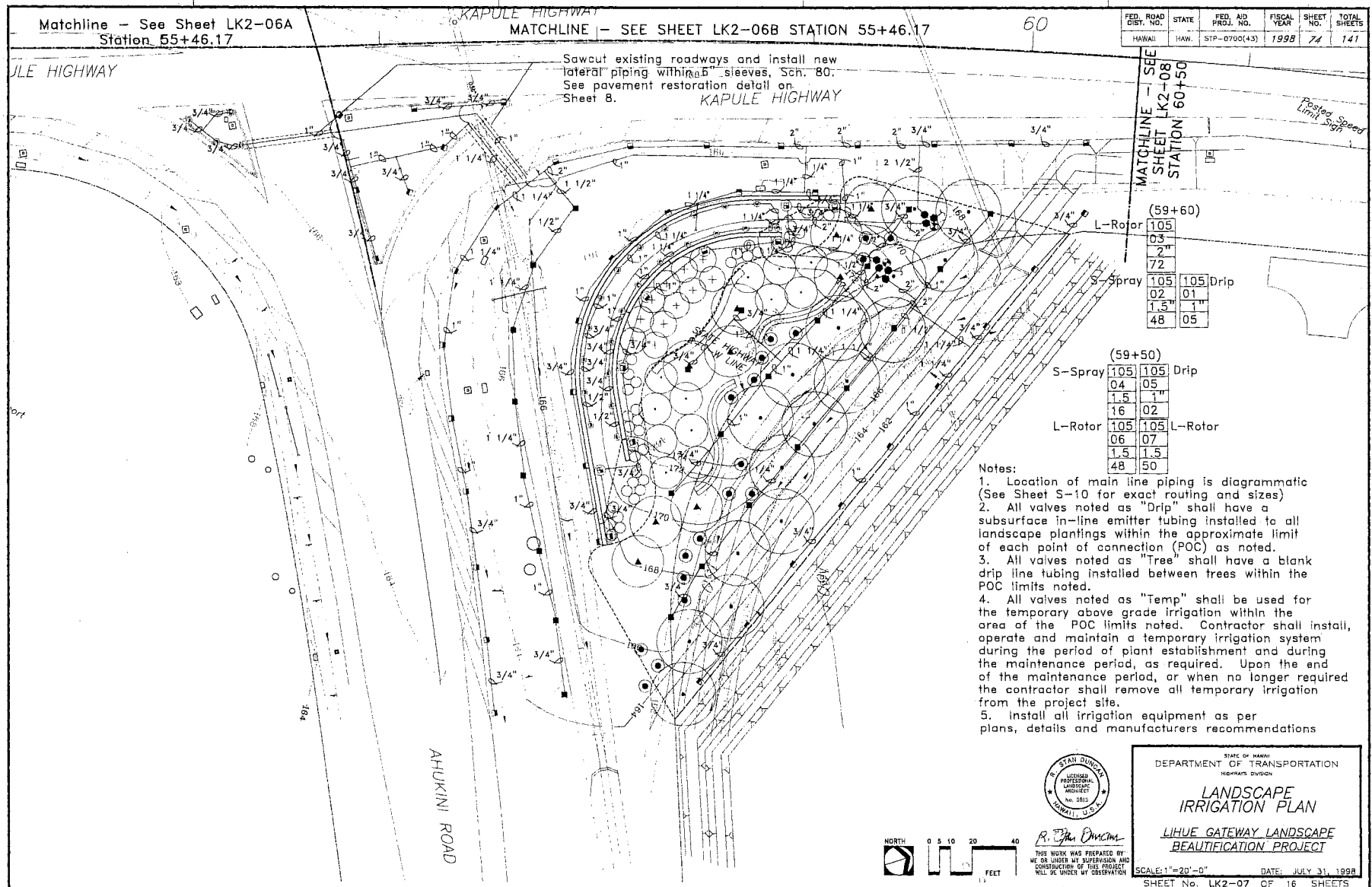


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DRAWN BY	DATE
CHECKED BY	DATE
IN CHARGE	DATE

Appendix D (continuation)

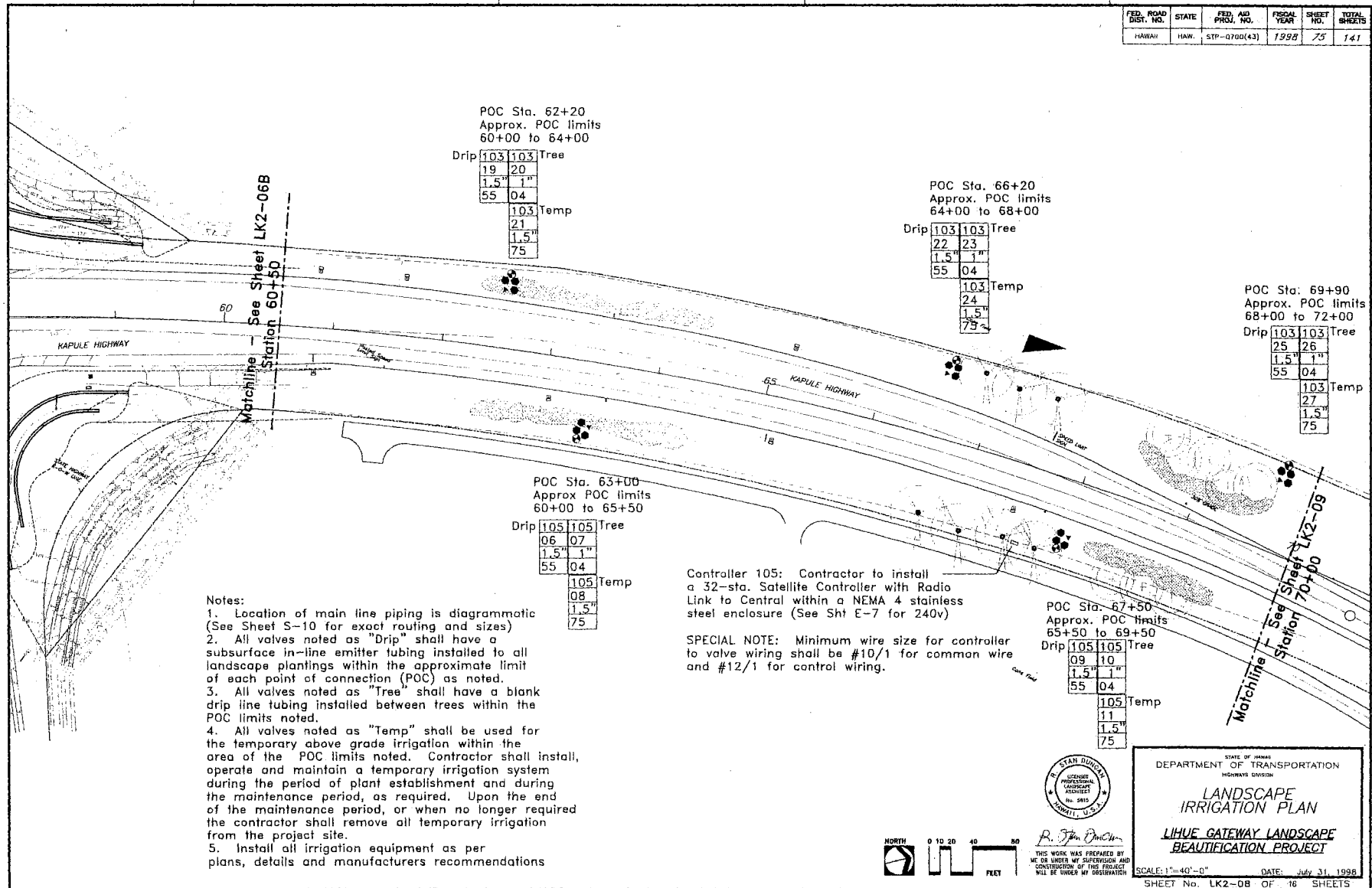


Appendix D (continuation)



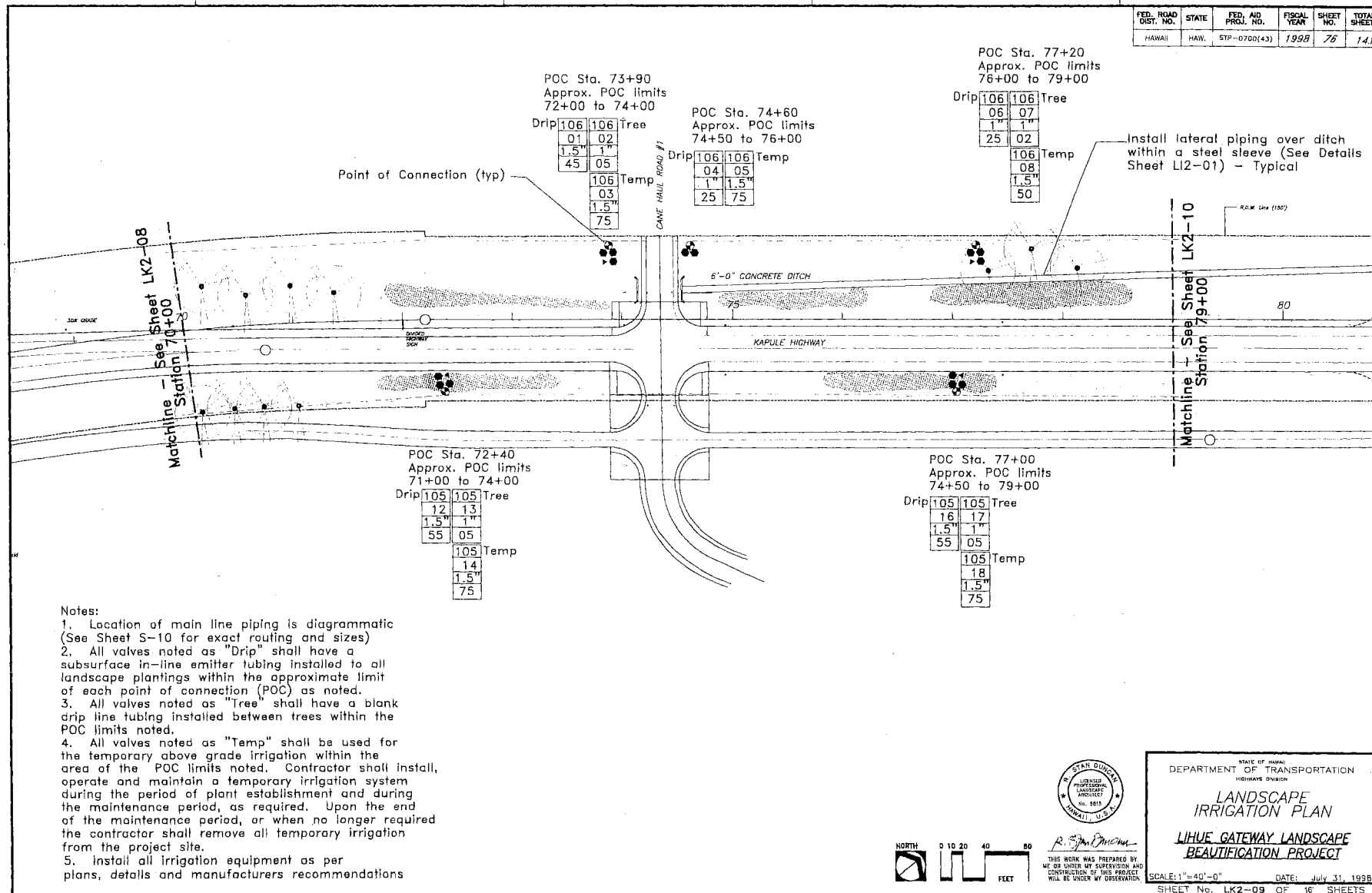
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-G700(43)	1998	75	141

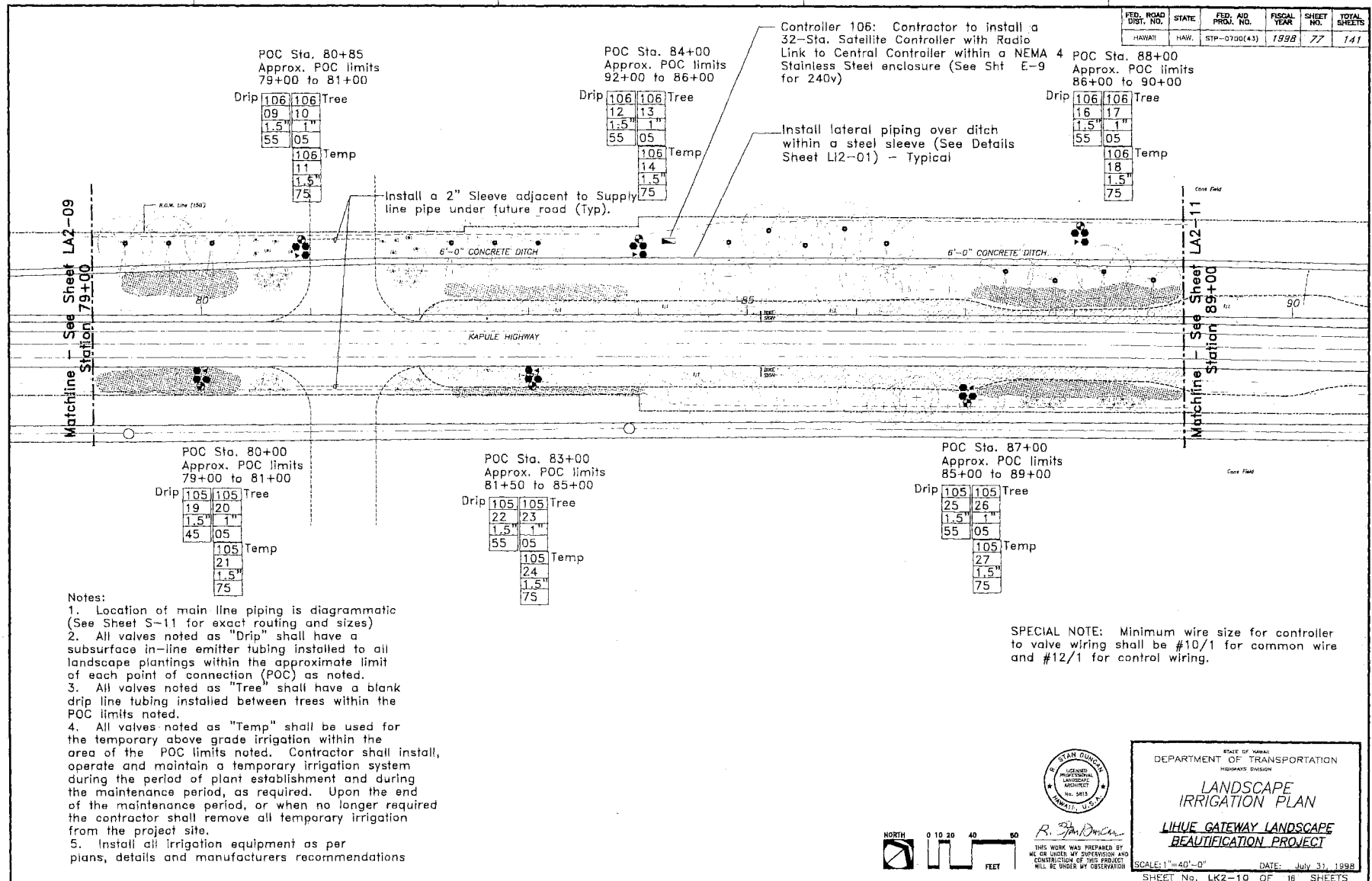


Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	76	141

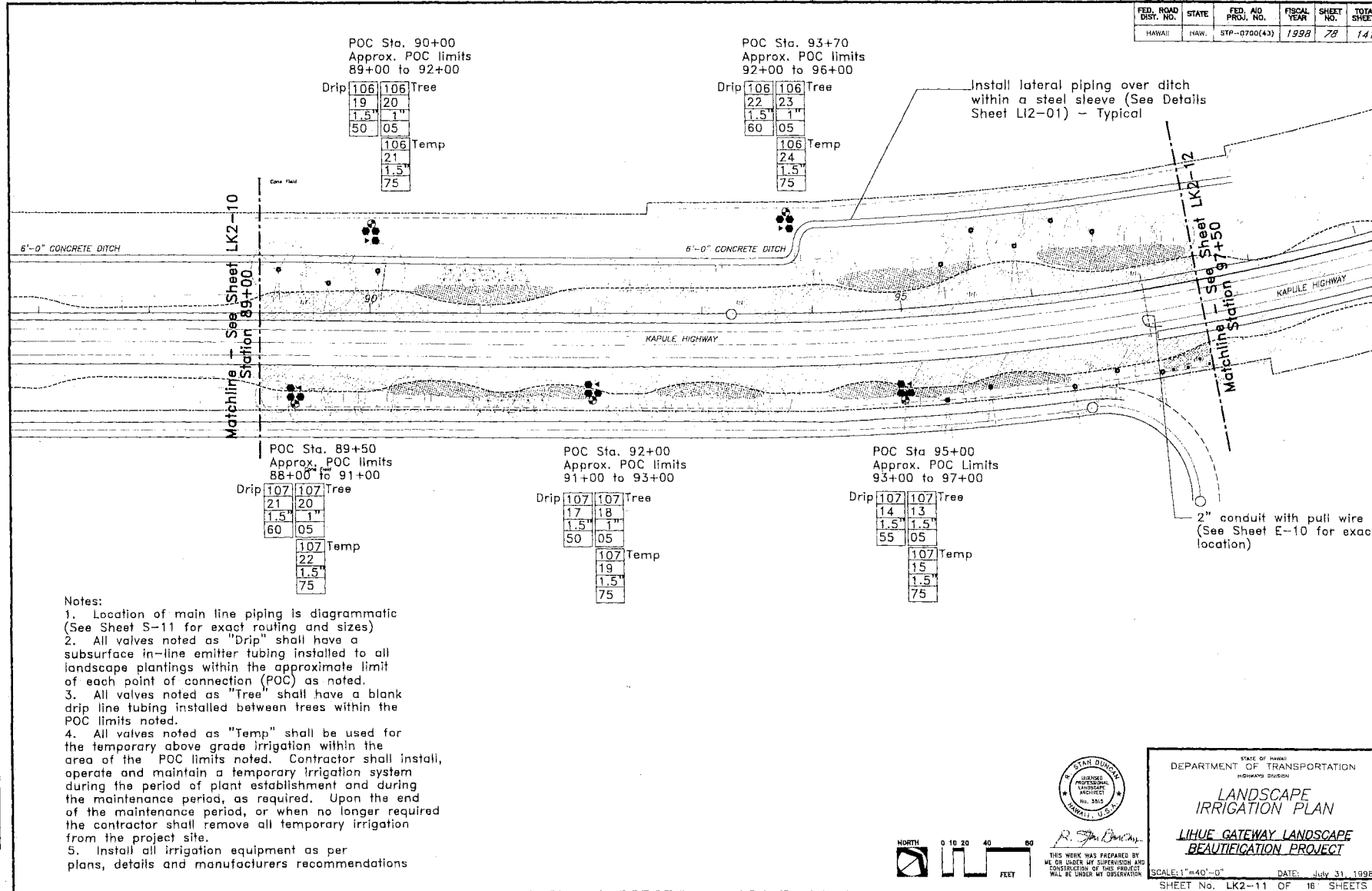


Appendix D (continuation)



Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	78	141



Appendix D (continuation)

SPECIAL NOTE: Minimum wire size for controller to valve wiring shall be #10/1 for common wire and #12/1 for control wiring.

Install lateral piping over ditch within a steel sleeve (See Details Sheet LT2-04) - Typical

Controller 107: Contractor to install a 32-Station Satellite Controller with Radio Link to Central within a NEMA 4 Stainless Steel enclosure (See Sht E-11 for 240v)

POC Sta. 98+00
Approx. POC limits
96+00 to 99+00

Drip	107	107	Temp
05	04		
1.5"	1.5"		
50	75		

POC Sta. 98+50
Approx. POC limit
99+00 to 101+00

Drip	107	107	Tree
01	02		
1.5"	1"		
50	05		

Matline - See Sheet LK2-11
Station 97+50

KAPULE HIGHWAY

Additional Information
See Sheet LK2-13 For Station 101+00

Notes:

1. Location of main line piping is diagrammatic (See Sheet S-11 for exact routing and sizes)
2. All valves noted as "Drip" shall have a subsurface in-line emitter tubing installed to all landscape plantings within the approximate limit of each point of connection (POC) as noted.
3. All valves noted as "Tree" shall have a blank drip line tubing installed between trees within the POC limits noted.
4. All valves noted as "Temp" shall be used for the temporary above grade irrigation within the area of the POC limits noted. Contractor shall install, operate and maintain a temporary irrigation system during the period of plant establishment and during the maintenance period, as required. Upon the end of the maintenance period, or when no longer required the contractor shall remove all temporary irrigation from the project site.
5. Install all irrigation equipment as per plans, details and manufacturers recommendations

POC Sta. 97+80
Approx. POC limits
97+00 to 99+00

Drip	107	107	Temp
10	11		
1.5"	1"		
50	05		

POC Sta. 99+50
Approx. POC limits
99+00 to 101+00

Drip	107	107	Tree
07	08		
1.5"	1"		
50	05		

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	79	141

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CHECKED BY	DATE
APPROVED BY	DATE
IN CHARGE	DATE
PROJECT NO.	DATE
SHEET NO.	DATE
TOTAL SHEETS	DATE



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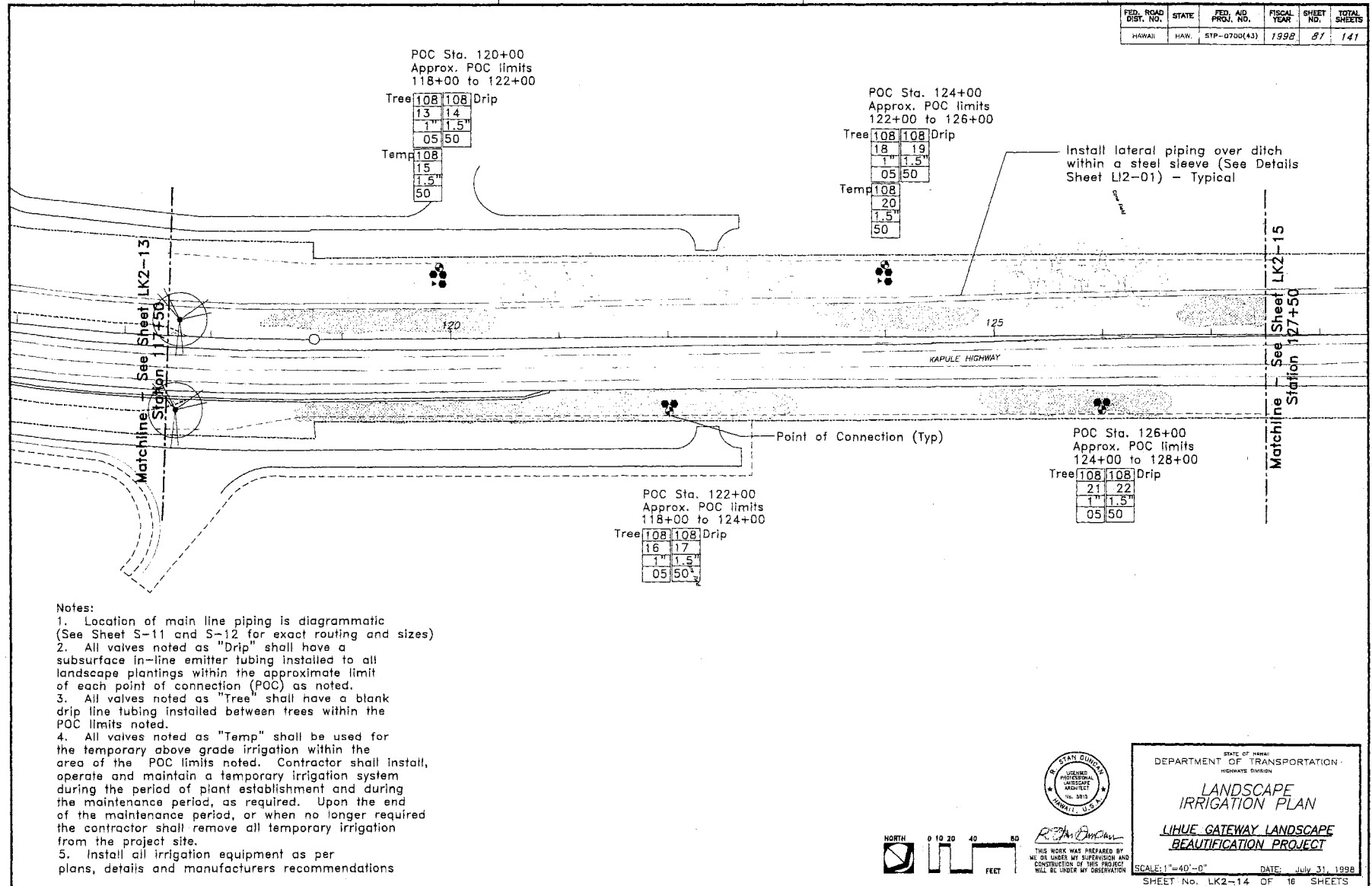
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPE
IRRIGATION PLAN

LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

SCALE: 1"=20'-0" DATE: July 31, 1998
SHEET No. LK2-12 OF 16 SHEETS

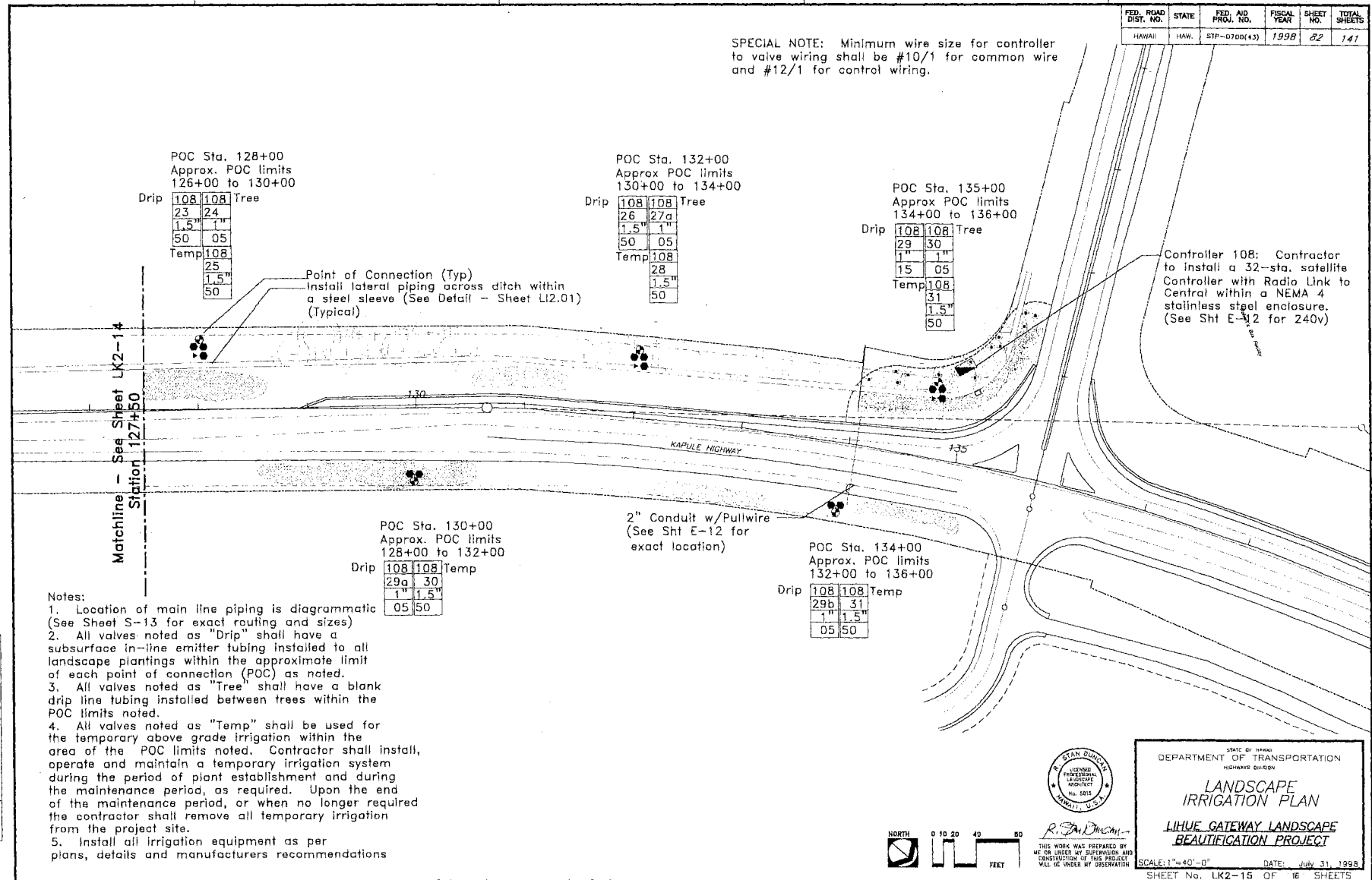
Appendix D (continuation)



Appendix D (continuation)

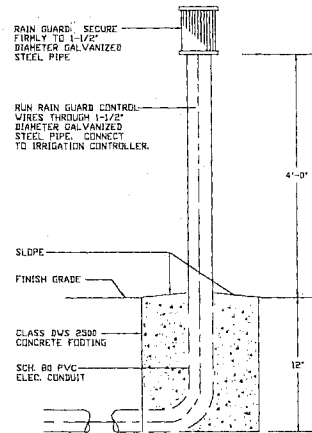
SPECIAL NOTE: Minimum wire size for controller to valve wiring shall be #10/1 for common wire and #12/1 for control wiring.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	82	141



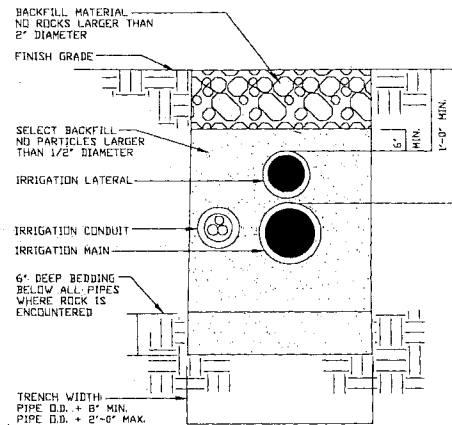
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	83	141



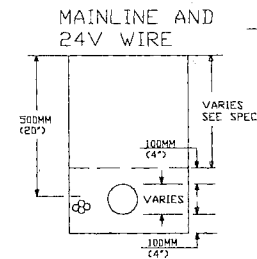
RAIN SENSOR DETAIL

No Scale

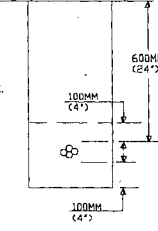


DRIVEWAY & SIDEWALK CROSSING DETAIL

No Scale

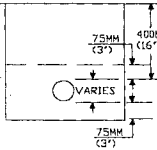


24V WIRE



COMMON TRENCH

LATERAL



BACKFILL SHALL BE INSTALLED IN LIFTS AS INDICATED, BUT NOT EXCEEDING 150MM (6") AND COMPACTED FIRMLY AROUND THE PIPE.

INSTALL ALL PIPE PER MANUFACTURER'S RECOMMENDATIONS AND ASTM STANDARD D 2774

INSTALL ALL 120V/240V WIRING PER LOCAL CODES AND SPECIFICATIONS.

MIN. TRENCH WIDTH DETERMINED BY MAINTAINING A MIN. OF 250MM (10") ON BOTH SIDES OF PIPE. COMMON TRENCH REQUIRES A MIN. OF 50MM (2") ON BOTH SIDES OF PIPE. COMMON TRENCH REQUIRES A MIN. OF 50MM (2") SEPERATION BETWEEN PIPES AS DETAILED.

INSTALL ALL COMMUNICATION AND COMPUTER SIGNAL WIRE PER MANUFACTURER'S SPECIFICATIONS.

TAPE A LOOSE 500MM (18") LOOP IN ALL WIRING AT ALL DIRECTIONAL CHANGES GREATER THAN 30 DEGREES. UNTAPE AFTER ALL CONNECTIONS ARE COMPLETED.

TAPE AND BUNDLE ALL WIRE AT 3 METER (10'-0") MAXIMUM INTERVALS.

INSTALL ALL 24 V. WIRE BY DIRECT BURIAL.

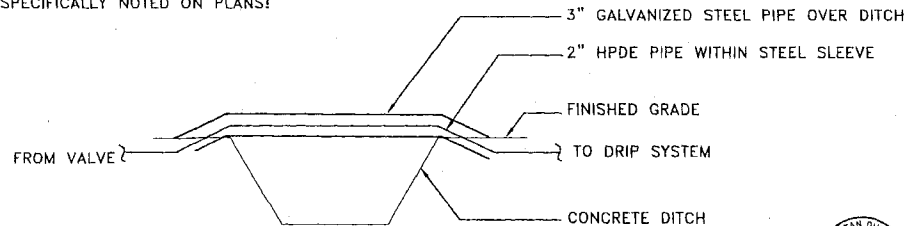
TRENCH DEPTH OF COVER CHART

METRIC SIZE	DEPTH OF COVER (MIN. COVER OVER PIPE) SIZE	IPS
<75MM	400MM (16")	<3"
100-150MM	600MM (24")	4"-6"
200-300MM	750MM (30")	8"-12"
350	900MM (36")	14"
24V WIRING	450MM (18")	
120V/240V WIRING	600MM (24")	

TRENCH DETAIL (NON-DRIP ONLY)

No Scale

NOTE: IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ALL SLEEVES AND CONDUITS AS SHOWN OR AS REQUIRED UNLESS SPECIFICALLY NOTED ON PLANS!



SLEEVE/RACEWAY OVER CONCRETE DITCH

No Scale



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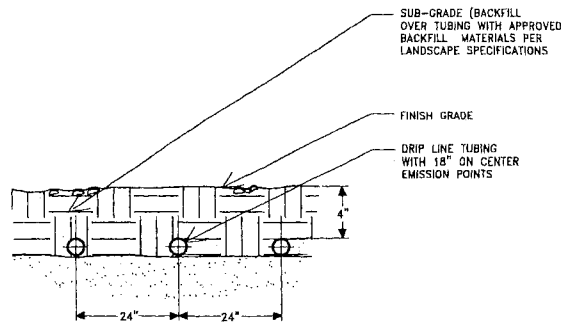
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LANDSCAPE IRRIGATION DETAILS

LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT

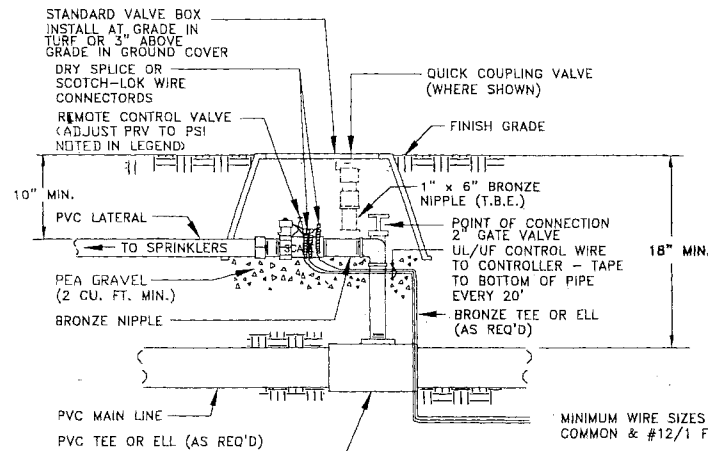
SCALE: No Scale DATE: July 31, 1998
SHEET No. L12-01 OF 6 SHEETS

Appendix D (continuation)

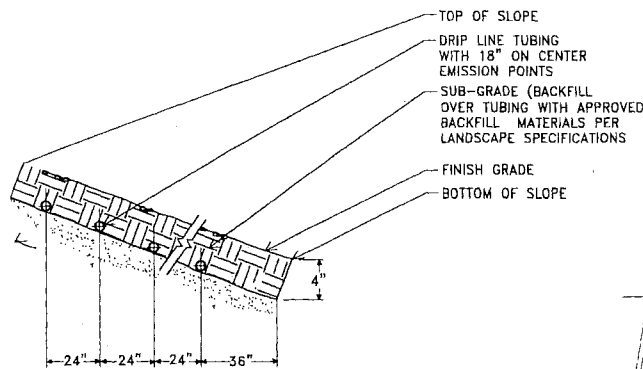
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	84	141



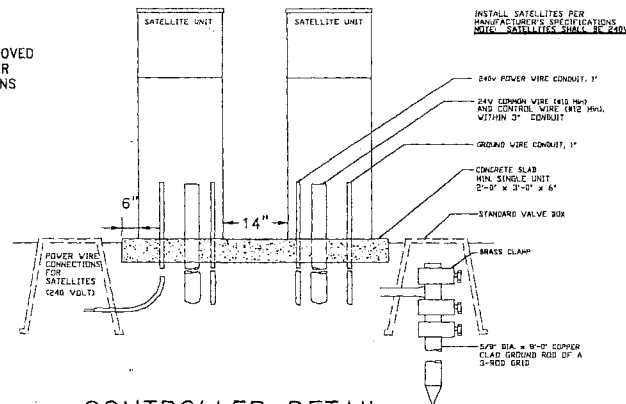
SUBGRADE DETAIL
(FLAT - NO SLOPE)
NO SCALE



REMOTE CONTROL VALVE DETAIL
NO SCALE



SUBGRADE DETAIL
(SLOPE)
NO SCALE



CONTROLLER DETAIL
NO SCALE

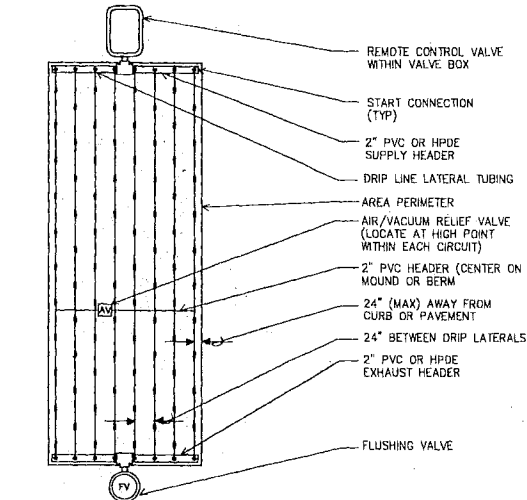


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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
LANDSCAPE IRRIGATION DETAILS	
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT	
SCALE: No Scale	DATE: July 31, 1998
SHEET No. 112-03 OF 5 SHEETS	

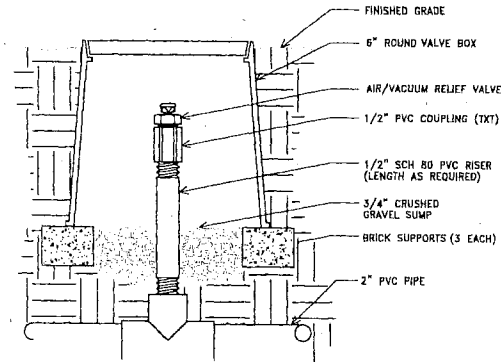
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	85	141



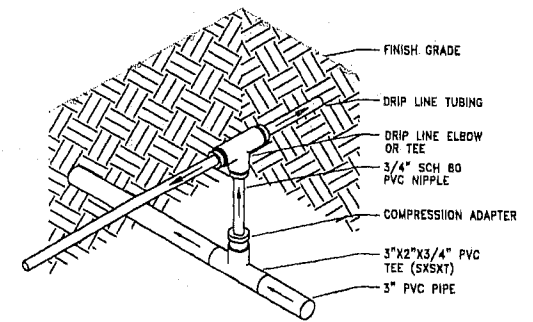
END FEED LAYOUT

SCALE



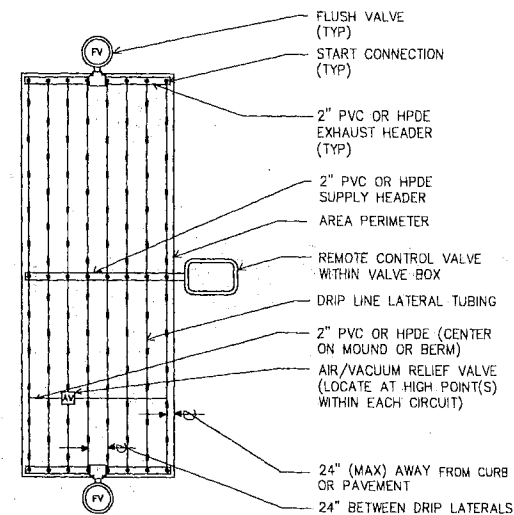
AIR/VACUUM RELIEF DETAIL

SCALE



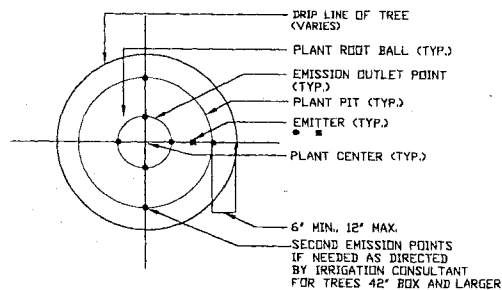
START CONNECTION DETAIL

SCALE



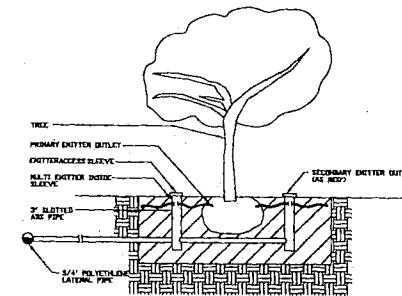
CENTER FEED

SCALE



TREE EMITTER DETAIL

SCALE



ELEVATION VIEW

DRIP LINE	DISTANCE FROM TRUNK		EMITTER TYPE
	1st EMIT TUBE	2nd EMIT TUBE	
1 GAL.	12"	--	4-1 GPM
24"	18"	--	4-1 GPM
30"	21"	--	4-1 GPM
36"	24"	--	4-1 GPM
42"	12"	27"	8-1 GPM
48"	12"	30"	8-1 GPM
54"	15"	33"	8-1 GPM
60"	18"	36"	8-1 GPM
72"	20"	42"	8-1 GPM



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

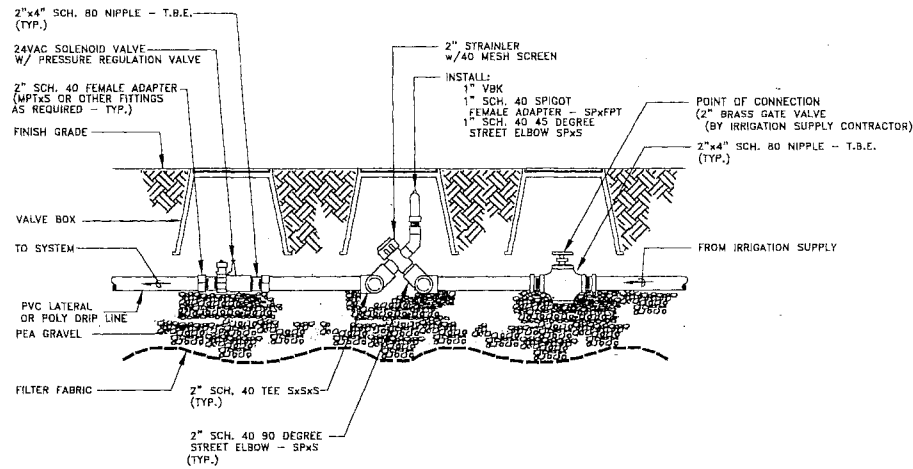
LANDSCAPE IRRIGATION DETAILS

LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT

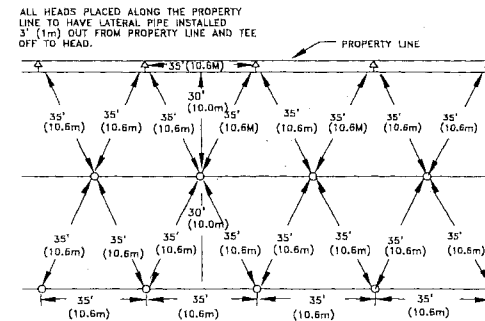
SCALE: No Scale DATE: July 31, 1998
SHEET No. LIZ-03 OF 5 SHEETS

Appendix D (continuation)

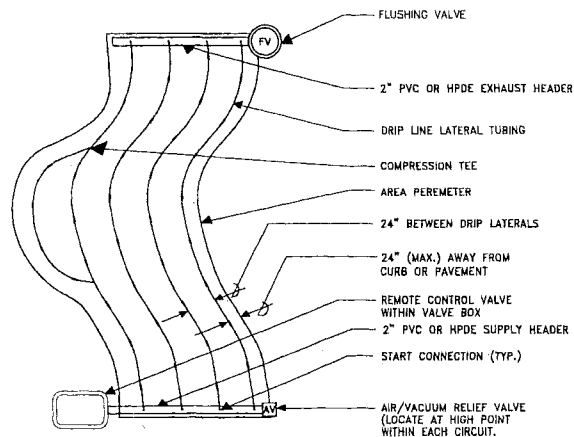
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700(43)	1998	86	141



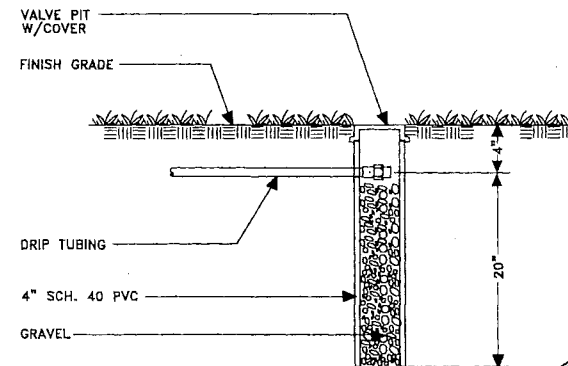
POINT OF CONNECTION DETAIL
NO SCALE



TEMPORARY IRRIGATION SPACING DETAIL
NO SCALE



IRREGULAR LAYOUT DETAIL
NO SCALE



FLUSH VALVE DETAIL
NO SCALE

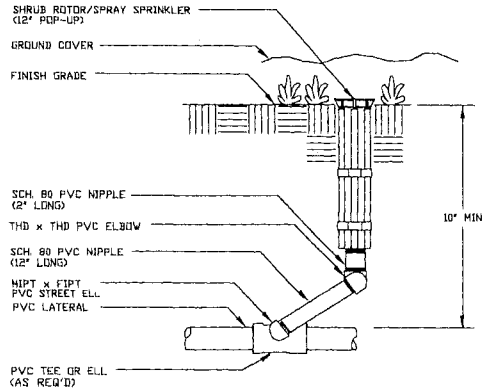


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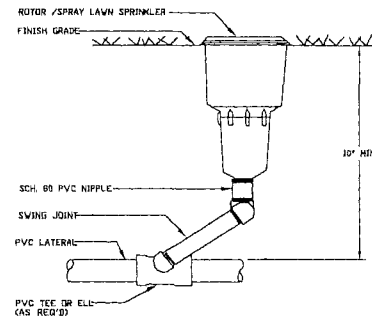
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
LANDSCAPE IRRIGATION DETAILS	
LIHUE GATEWAY LANDSCAPE BEAUTIFICATION PROJECT	
SCALE: No Scale	DATE: July 31, 1998
SHEET No. U2-04 OF 5 SHEETS	

Appendix D (continuation)

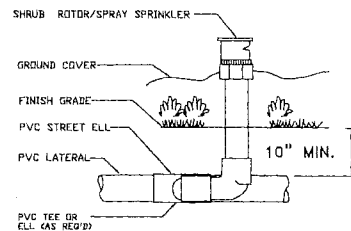
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ETP-0700(43)	1998	87	141



SHRUB ROTOR/SPRAY SPRINKLER
NO SCALE



LAWN ROTOR/SPRAY SPRINKLER
NO SCALE



ROTOR/SPRAY SPRINKLER ON RISER
NO SCALE

IRRIGATION LEGEND	
SYMBOL	DESCRIPTION OF EQUIPMENT
	CENTRAL COMPUTER CONTROL SYSTEM WITH RADIO LINK COMMUNICATION BETWEEN CENTRAL AND FIELD SATELLITE CONTROLLERS, TO INCLUDE ALL WIRING, RADIO ANTENNAS, SOFTWARE AND RELATED EQUIPMENT AS RECOMMENDED BY THE MANUFACTURER AFTER A SITE SURVEY BY THE MANUFACTURER. SYSTEM SHALL BE OF THE SAME BRAND AS SATELLITE CONTROLLERS.
	RAIN BIRD MAXICOM WITH CCU-28 INTERFACE OR RAIN MASTER EVOLUTION DX2 W/EV-RAD-BY OR MOTOROLA SCADA WITH RTU OR ACCEPTABLE EQUAL TO BE LOCATED WITHIN THE STATE OF HAWAII OFFICE COMPLEX IN LIHUE, KAUAI, HI
	FIELD SATELLITE CONTROLLER WITHIN A NEMA 4 ENCLOSURE - 240V. SATELLITE SHALL BE CAPABLE OF STAND-ALONE OPERATION AS WELL AS OPERATION VIA THE CENTRAL, TO INCLUDE ALL RELATED INTERFACES AS REQUIRED
	RAIN BIRD ESP-32-SAT-LINK-SS WITH DEC-PUL RAIN MASTER DX36-PS WITH DX-D3 SENSOR OR MOTOROLA SCORPIO V2 WITH SENSOR BOARD
	REMOTE CONTROL VALVE WITH SELF-CLEANING FEATURE, PRESSURE REGULATION DEVICE AND LOW-FLOW CAPABILITY (SIZE AS SHOWN)
	RAIN BIRD MODEL XXX-PESB-PRS-B BERMAD KXY-220-SS, HARDIE 703-X-XX OR ACCEPTABLE EQUAL
	FLOW SENSOR (TO BE INSTALLED BY SUPPLY PIPE CONTRACTOR - IRRIGATION CONTRACTOR TO WIRE TO NEAREST SATELLITE CONTROLLER'S SENSOR BOARD (OR DECODER) IF RAIN BIRD
	IN-LINE DRIP EMITTER TUBING WITH TREFLAN, NON-PRESSURE COMPENSATING, 1.04 GPH, 18" SPACING BETWEEN EMITTERS, 24" SPACING BETWEEN ROWS, TORO DL2000 RDH-4-18-10 WITH ROOTGUARD, DRIP-IN, GEOFLOW, NETAFIM OR ACCEPTABLE EQUAL - SEE DETAILS
	BLANK POLY DRIP TUBING FOR TREE SYSTEMS ONLY TORO MODEL A710, DRIP-IN GEOFLOW, NETAFIM OR ACCEPTABLE EQUAL - SEE DETAILS
	POINT OF CONNECTION TO IRRIGATION SUPPLY PIPE TO INCLUDE 2" GATE VALVE PROVIDED BY IRRIGATION SUPPLY PIPE CONTRACTOR. THE IRRIGATION CONTRACTOR SHALL PROVIDE A 40 MESH WYE STRAINER (2"), CRISWOLD 2265 OR EQUAL, PRESSURE REGULATION VALVE (SET 55 PSI) WITHIN A JUMBO VALVE BOX PRIOR TO THE INSTALLATION OF THE REMOTE CONTROL VALVES

VALVE LEGEND

101	CONTROLLER NO.
1	STATION NO.
1.5"	VALVE SIZE
50	GPM

IRRIGATION LEGEND				
SYMBOL	ANGLE	MANUFACTURER/CATALOG NUMBER	GPM	PSI
	90°	SHRUB-TYPE ROTARY SPRINKLER WITH 1/2" POP-UP RISER, CHECK VALVE AND RECLAIMED WATER COVER (HUNTER PGI-ARV-XX, TORO S700HP-XC-CKLV-XX, RAIN BIRD T12XC-T40-XX-NP OR ACCEPTABLE EQUAL)	1.20	50
	180°	ADJUSTABLE PART CIRCLE	2.00	50
	360°	FULL CIRCLE	4.20	50
	90°	LAWN-TYPE ROTARY SPRINKLER WITH 1/2" POP-UP RISER, CHECK VALVE AND RECLAIMED WATER COVER (HUNTER PGI-ARV-XX, TORO S700C-XC-CKLV-XX, RAIN BIRD T12XC-T40-XX-NP OR ACCEPTABLE EQUAL)	1.20	50
	180°	ADJUSTABLE PART CIRCLE	2.00	50
	360°	FULL CIRCLE	4.20	50
	90°	SHRUB SPRAY TYPE 12" HIGH POP SPRINKLER WITH CHECK VALVE, MATCHED PRECIPITATION RATE NOZZLES AND PRESSURE REGULATION FEATURES	0.85	30
	120°	THIRD CIRCLE-STANDARD	1.10	30
	180°	HALF CIRCLE - STANDARD	1.65	30
	240°	TWO-THIRD - STANDARD	2.30	30
	270°	THREE-QUARTER - STANDARD	2.60	30
	360°	FULL CIRCLE - STANDARD	3.60	30
	SST	SIDE-STRIP - STANDARD	1.20	30
	90°	LAWN SPRAY TYPE 4" POP-UP SPRINKLER WITH CHECK VALVE, MATCHED PRECIPITATION RATE NOZZLES AND PRESSURE REGULATION FEATURES	0.85	30
	120°	THIRD CIRCLE-STANDARD	1.10	30
	180°	HALF CIRCLE - STANDARD	1.65	30
	240°	TWO-THIRD - STANDARD	2.30	30
	270°	THREE-QUARTER - STANDARD	2.60	30
	360°	FULL CIRCLE - STANDARD	3.60	30
	SST	SIDE-STRIP - STANDARD	1.20	30



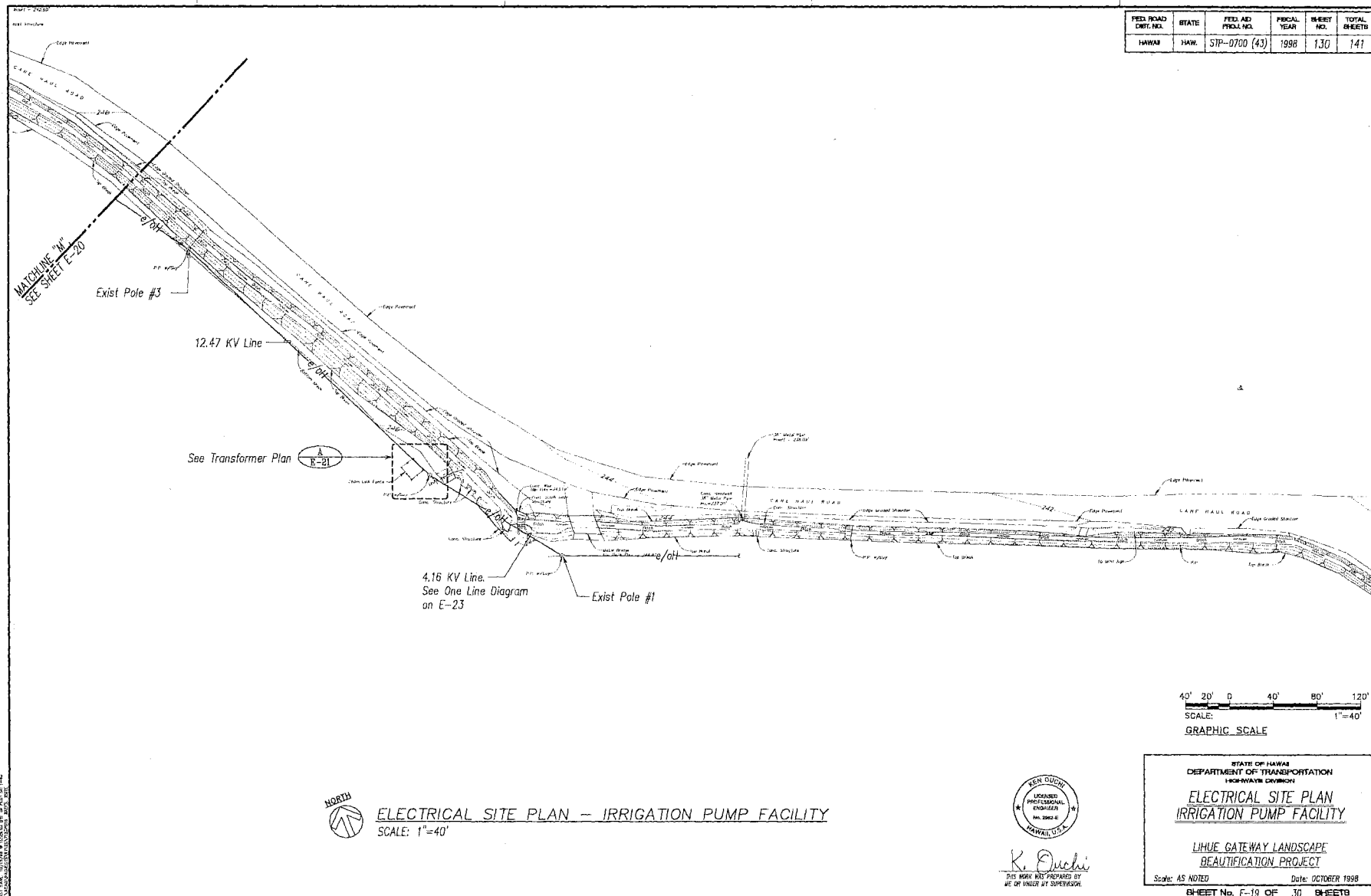
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
LANDSCAPE IRRIGATION LEGEND
NOTES AND DETAILS
LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

SCALE: No Scale DATE: July 31, 1998
SHEET No. 112-05 OF 6 SHEETS

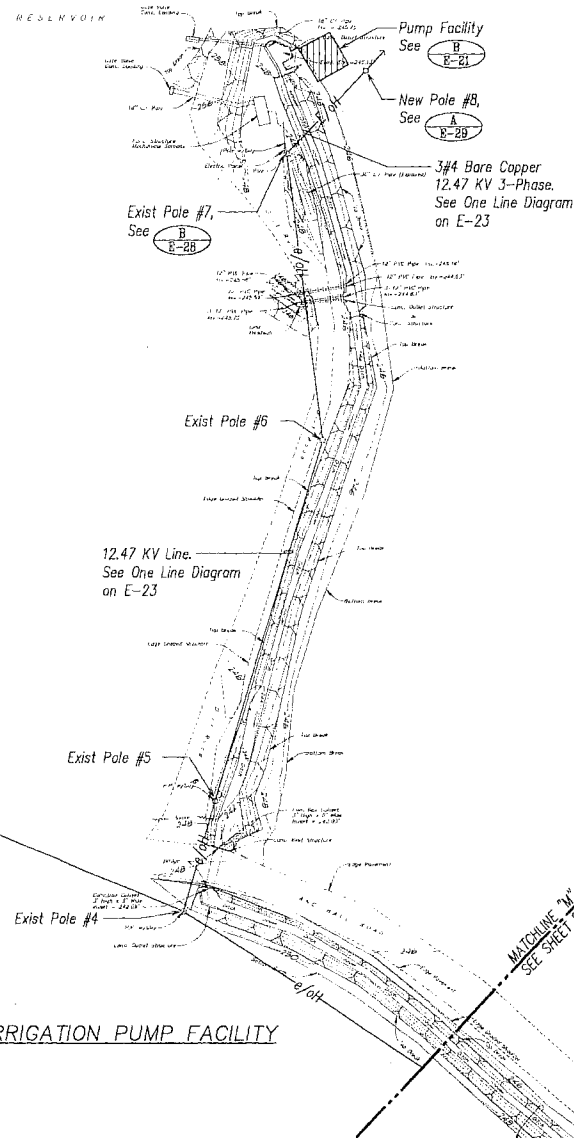
Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700 (43)	1998	130	141

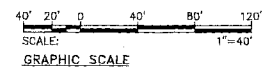


Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700 (43)	1988	31	141



ELECTRICAL SITE PLAN - IRRIGATION PUMP FACILITY
SCALE: 1"=40'



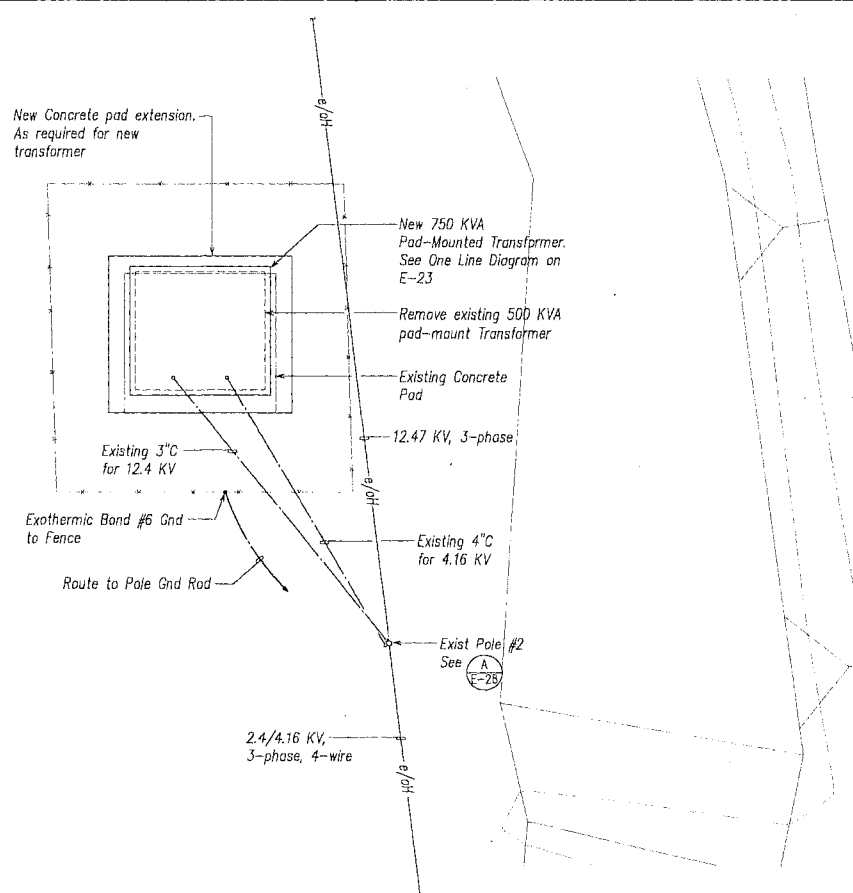
K. Ouchi
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**ELECTRICAL SITE PLAN
IRRIGATION PUMP FACILITY**
LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

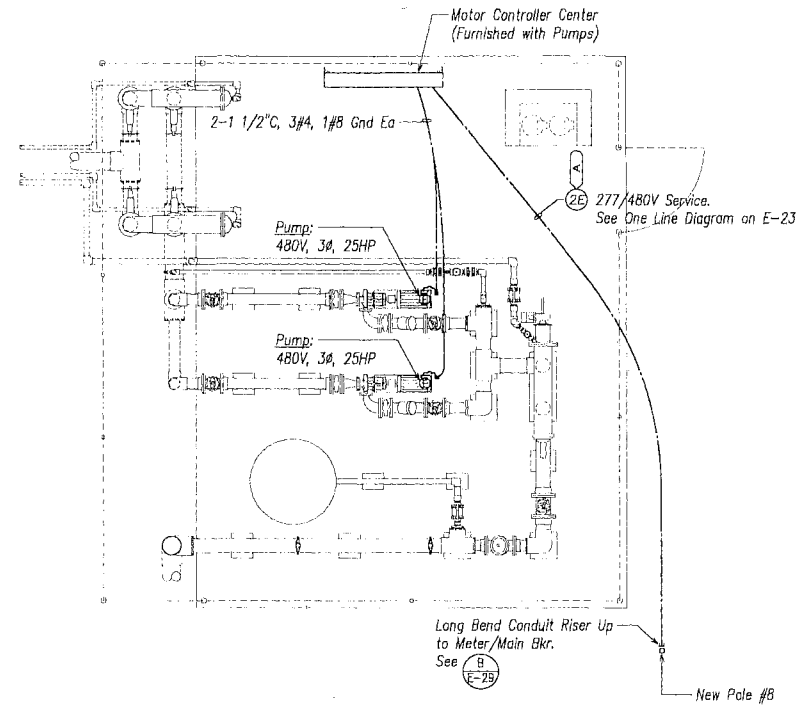
Scale: AS NOTED Date: OCTOBER 1988
SHEET No. E-20 OF 30 SHEETS

Appendix D (continuation)

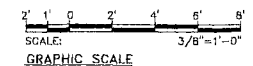
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0700 (43)	1998	132	141



A TRANSFORMER FACILITY ELECTRICAL PLAN
E-21 SCALE: 3/8"=1'-0"



B PUMP FACILITY ELECTRICAL PLAN
E-21 SCALE: 3/8"=1'-0"



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

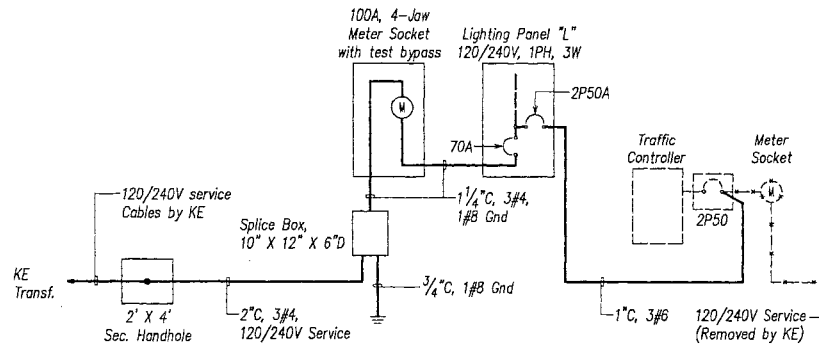
ELECTRICAL PLANS
IRRIGATION PUMP FACILITY

LILUUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

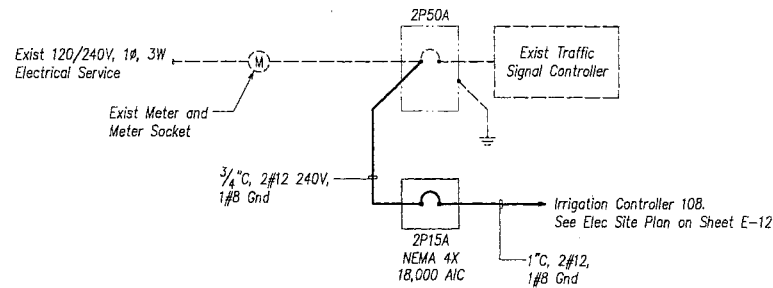
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SHEET No. E-21 OF 30 SHEETS

Appendix D (continuation)

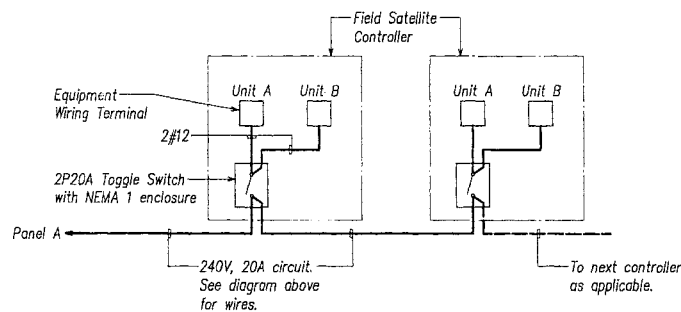
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	SIP-0700 (43)	1998	133	141



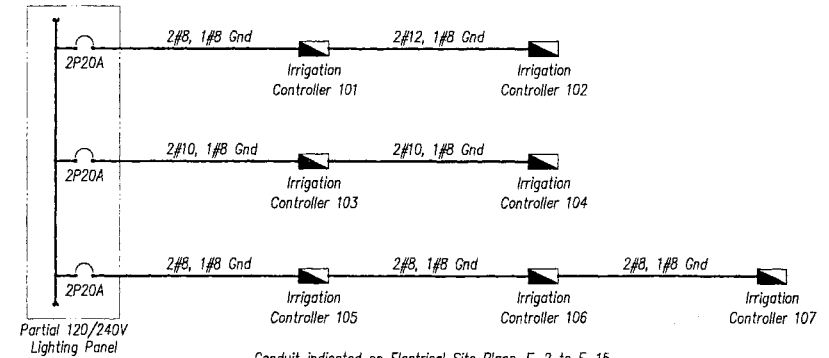
LANDSCAPE LIGHTING PANEL SERVICE DIAGRAM



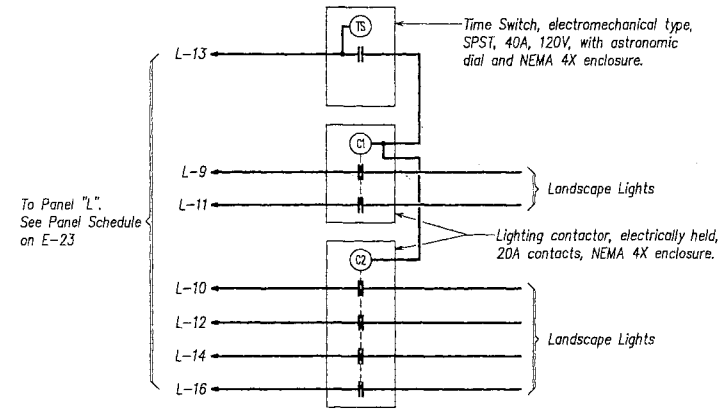
IRRIGATION CONTROLLER SERVICE DIAGRAM



TYPICAL IRRIGATION CONTROLLER CIRCUIT DIAGRAM



IRRIGATION CONTROLLER CIRCUITS DIAGRAM



LIGHTS CONTROL DIAGRAM

APPROVED BY:
Robert A. Santiago
KAIWA ELECTRIC
DATE: 2-18-99

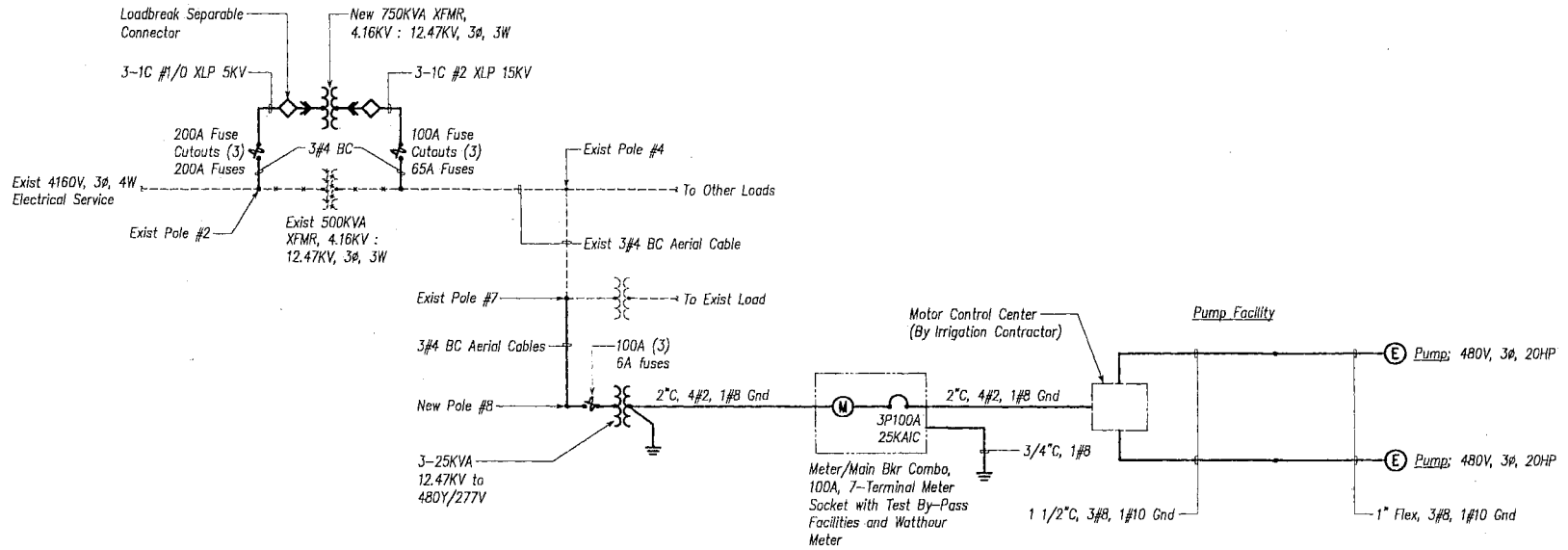
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ELECTRICAL DIAGRAMS

LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT
Scale: AS NOTED Date: OCTOBER 1998
SHEET No. E-22 OF 30 SHEETS



Appendix D (continuation)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	STP-0700 (43)	1998	134	141



ELECTRICAL ONE-LINE DIAGRAM

DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
QUANTITY BY	DATE
NOTED BY	DATE

LAST NAME, FIRST NAME & TITLE OF THE PREPARED BY



K. Ouchi
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ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL DIAGRAM
IRRIGATION PUMP FACILITY

LIHUE GATEWAY LANDSCAPE
BEAUTIFICATION PROJECT

Scale: AS NOTED Date: OCTOBER 1998

SHEET No. E-23 OF 30 SHEETS

Appendix E

APPLICATION & PERMIT FOR THE OCCUPANCY & USE OF STATE HIGHWAY RIGHT-OF-WAY

POLICE CHECKLIST: ITEMS 1 THRU 5.

Application Date _____, 20 _____

Pursuant to the provisions of Chapter 264, Hawaii Revised Statutes as amended, application is hereby made to perform the following work activity or event upon the state highway described below and at the location(s) specified and at no other place, activity or event.

1. Name of Highway _____ Route #/Section _____

2. Location or limits on said highway _____

3. Description of work, activity or event to be performed

() Engineering Survey () Maintenance () Inspection () Landscaping () Other

4. Dates between which work, activity or event to be performed: _____

5. General Conditions

- a. No digging or disturbing of the highway will be permitted under this permit.
- b. The work, activity or event may be performed only during off-peak hours unless otherwise approved in writing. Peak hours are from 6:00 AM to 8:30 AM and from 3:00 PM to 6:00 PM, Monday through Friday excluding State Holidays.
- c. All lanes shall be open to traffic during the hours from 6:00 AM to 8:30 AM, during the hours of 3:00 PM to 6:00 PM, and when no work is being done under this permit. Only one lane traffic may be closed at any other time unless otherwise approved in writing.
- d. Parking permitted only in designated areas for vehicles actively engaged in, or loading or unloading materials for, the specified work, activity or event. Unattended vehicles will not be permitted.

6. Special Conditions and/or Restrictions _____

7. Submittals required

- a. () Traffic Control Plan (whenever there are lane closures)
- b. () Approved Landscaping Plan: It is agreed that upon the final acceptance of the approved landscape work by the State, all improvements placed on said premises shall be and remain of the State and may be removed or otherwise disposed of by the State at any time.
- c. Proof of State Indemnity
 Certificate of Insurance naming State of Hawaii as an additional insured, having minimum coverages for Bodily Injury or Death Per Person; Bodily Injury or Death Per Accident; and Property Damages Per Accident of:
 () \$100,000, \$300,000 and \$50,000 respectively; or
 () combined single limit of \$500,000.
 () Certificate attached or with Permit No. _____
 () Federal Non-Liability Clause (See Item 11 on the back of this permit)
 () Waived
- d. () Permit Fee \$_____ (make check payable to Dept. of Transportation, State of Hawaii)

The applicant hereby agrees that any agreement heretofore made or hereafter to be made, and the covenants and conditions stated on the reverse side hereof shall be binding upon him, his heirs, personal representatives, successors, contractors and assigns.

APPLICANT: _____
(Name of owner whether individual firm, partnership, corporation, governmental agency, etc.)

ADDRESS: _____

TELEPHONE NO.: _____

(Print name & Title of Applicant or Authorized Rep.)

(Signature)

PERMIT NO. _____ DATE _____, 20 _____

Permission to perform the above described work, activity or event at the location(s) stated and between the dates set forth in said application is hereby granted. The applicant shall notify the issuing office in writing at least 24 hours before commencing work.

Director of Transportation or his Authorized Representative

Appendix F
Sample – Notice to Proceed Letter for Miscellaneous Work

(pursuant to Section 10.4(H) of the Specifications, this Notice to Proceed Letter is required prior to commencing performance of all Miscellaneous Work)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
KAUAI DISTRICT
1720 HALEUKANA STREET
LIHUE, HAWAII 96766

Landscape Irrigation Maintenance Services
1234 Any Street
Honolulu, Hawaii 12345

Gentlemen:

Subject: Lihue Gateway Maintenance, Repair and Inspection of Landscape Irrigation System,
Island of Kauai, Project No. 51BD-01-2018 & 570A-01-2018,
Contract No. _____

In accordance to Section 10.4(H) Miscellaneous Work, of the Specifications, you are hereby given notice to proceed with miscellaneous work at the agreed upon price of \$2,000.00, including State tax, to install new controller equipment located at the corner of Kapule Highway and Ahukini Road.

The funds will be paid from the “Allowance” for “Miscellaneous Work”, Bid Item No. 9, of the Proposal Schedule.

Sincerely,

Lawrence Dill
Kauai District Engineer

Enclosure (attach price quotation, etc.)

PROJECT NO.: _____ DATE: _____

PROJECT TITLE: _____ CONTRACT NO.: _____

CONTRACTOR: _____

ITEM	FACTOR	RATING		REMARKS
		SATIS FACTORY	UNSATIS FACTORY	
	MANAGEMENT			
1	Cooperation			
2	Channel of Communication			
3	Timely Payroll Submittal			
4	Insurance is adequate & Timely			
	FIELD SERVICE			
5	Sprinkler Repair and Maintenance			
6	Watering			
7	Debris Pick Up			
8	Traffic Control and Safety			
9	Overall Work Quantity			
10	Character of Maintenance Staff			
11	Equipment & Tool Adequacy			

51BD-01-2018 & 570A-01-2018
G-1

2/18/18

Appendix H
Sample – Monthly Invoice

(pursuant to Item No. 10, Section 10.12 Submittal/Report Summary, of the Specifications, all invoices submitted by the Contractor shall be accompanied by certified payroll affidavit.)

Landscape Irrigation Maintenance Services

1234 Any Street, Honolulu, Hawaii 12345 Phone: (808)123-1234 Fax: (808)123-1235 Email: name@email.com

Bill To: District Engineer- Kauai District
Highways Division
Department of Transportation
1720 Haleukana Street
Lihue, Hawaii 96766

Date: _____
Invoice No.: _____
Contract No: _____
Project No: 51BD-01-18C & 570A-01-18C

Project Title: Lihue Gateway Maintenance, Repair and Inspection of Landscape Irrigation System,
Island of Kauai

Periods covered by this invoice: June 22, 2018 to July 21, 2018 *(full month pay period, head-to-tail format, first pay period from the NTP date to the following month similar to this sample)*

Bid Item No.	Description	Qty	Unit	Unit Price	Amount
1	Maintenance, Repair and Inspection of Irrigation System (routine preventive)	1	Month	\$ _____	\$ _____
2	Trouble call repair, regular working hours work - per man-hour, Pump Technician	8	Man-hour	\$ _____	\$ _____
4	Irrigation Water		Allowance	\$ _____	\$ _____
6	Replacement Parts		Allowance	\$ _____	\$ _____
9	Miscellaneous Work		Allowance	\$ _____	\$ _____
Subtotal					\$ _____
Less Liquidated Damages per Section 8.6 Liquidated Damages, of the Special Provisions					\$ _____
Subtotal					\$ _____
Less 5% Retainage per Section 9.2 Retainage/ Deduction from Payment, of the Specifications. <i>Refer to Section 9.2 of the Special Provisions for information on how to obtain payment for the total retainage amount.</i>					\$ _____
Total Amount Due					\$ _____

Pursuant to Section 9.4 Progress Payments, of the Specifications and Section 9.4.e of the Special Provisions, I certify that services requested under the contract have been performed by *Landscape Irrigation Maintenance Services* according to the contract.

First J. Name
President, Landscape Irrigation Maintenance Services

Appendix I

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
Public Works Division

CERTIFIED PAYROLL REPORT

DAGS.ECP v1.0_06/10

REPORT SUBMISSION DATE: 26-Aug-05

Name is of: Contractor: ☐

Subcontractor: ☐

☐ THIS IS AN AMENDED FORM
PAYMENTS MADE ON SAME DAY TO ALL EMPLOYEES

NAME:

PAYROLL NO.	FOR WEEK ENDING	PROJECT AND LOCATION										PROJECT NO.	VENDOR CODE										
34	June 29, 2005	CHERRY COURTHOUSE, FIX ROTTEN TREES										99-99-9999	000003-98										
NAME OF EMPLOYEE	NO. OF WITHHOLDINGS EXEMPTIONS	WORK CLASSIFICATION (Refer to Class Title, Section 2.9 of the Special Provisions)	OT, CR, ST.	DAY AND DATE							TOTAL HOURS	RATE OF PAY	GROSS AMOUNT EARNED	TOTAL DEDUCTIONS						NET WAGES PAID FOR WEEK	DATE PAID TO EMPLOYEE		
				S	M	T	W	TH	F	S				FICA	FED. WITH- HOLDING TAX	STATE WITH- HOLDING TAX	MEDICARE	OTHER DEDUC.	TOTAL DEDUCT				
				HOURS WORKED EACH DAY																			
Jack Sprat		Runner		S	7.00	7.00	7.00	7.00	8.00	8.00	8.00	9.00	53.00	\$30.00	\$1,590.000	\$3.00	\$2.00	\$2.00	\$1.00	\$2.00	\$10.00	\$4,100.000	17-Jun-05
				O	8.00	8.00	8.00	8.00	8.00	8.00	8.00	56.00	\$45.00	\$2,520.000									
				T	15.00	15.00	15.00	15.00	16.00	16.00	17.00	109.00		\$4,110.000									
Leap Frog		Jumper		S	2.00			6.00			4.00	12	\$20.00	\$240.000	\$4.00	\$5.00	\$6.00	\$6.00	\$3.00	\$24.00	\$216.000		
				O								0	\$30.00	\$0.000									
				T	2.00	0.00	0.00	6.00	0.00	0.00	4.00	12.00		\$240.000									
				S								0		\$0.000						\$0.00	\$0.000		
				O								0	\$0.00	\$0.000									
				T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		\$0.000									
				S								0		\$0.000						\$0.00	\$0.000		
				O								0	\$0.00	\$0.000									
				T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		\$0.000									
				S								0		\$0.000						\$0.00	\$0.000		
				O								0	\$0.00	\$0.000									
				T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		\$0.000									
				S								0		\$0.000						\$0.00	\$0.000	27-Jan-05	
				O								0	\$0.00	\$0.000									
				T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		\$0.000									
				S								0		\$0.000						\$0.00	\$0.000		
				O								0	\$0.00	\$0.000									
				T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		\$0.000									
				S								0		\$0.000						\$0.00	\$0.000		
				O								0	\$0.00	\$0.000									
				T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		\$0.000									
				S								0		\$0.000						\$0.00	\$0.000		
				O								0	\$0.00	\$0.000									
				T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		\$0.000									
				S								0		\$0.000						\$0.00	\$0.000		
				O								0	\$0.00	\$0.000									
				T	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		\$0.000									

Appendix J
Sample – Satisfactory Evidence by Affidavit for Final Payment

(pursuant to Section 9.5.B of the Specifications, the Contractor must submit this affidavit to the Department in order for the Final Payment to be made)

Landscape Irrigation Maintenance Services

1234 Any Street, Honolulu, Hawaii 12345 Phone: (808)123-1234 Fax: (808)123-1235 Email: name@email.com

Date:

State of Hawaii
Department of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813-5097

Dear Sir/Madam:

Pursuant to Section 9.5.B of the Specifications, I hereby certify that all debts resulting from Contract No. _____, Project Nos. 51BD-01-18C & 570A-01-18C, Project Title: Lihue Gateway Maintenance, Repair and Inspection of Landscape Irrigation System, Island of Kauai, have been fully paid or satisfactorily secured.

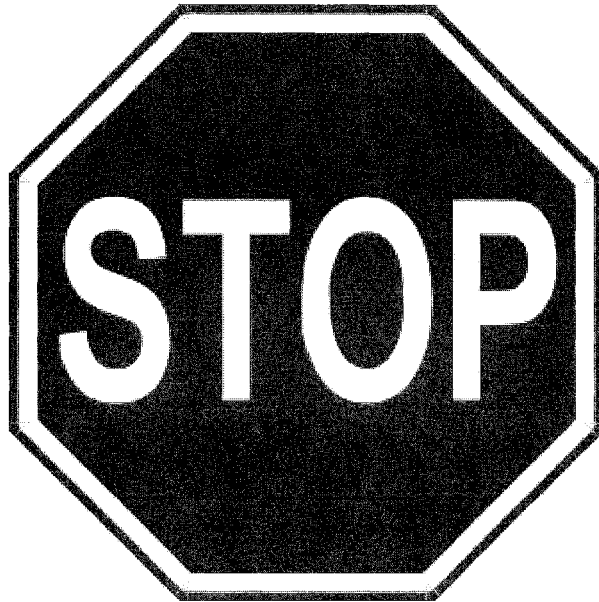
Cordially,

First J. Name
President
Landscape Irrigation Maintenance Services

Subscribed and sworn to me
this _____ day of _____, 2018.

Notary Public, First Judicial Circuit,
State of Hawaii

My Commision Expires: _____



*The bidder shall refer to Section 10.2(B) Schedule of Submitting Required Documents, of the Specifications **and be familiar with the requirements** prior to submitting his or her bids. The bidder, **starting with the lowest bidder**, is required to submit specific documents prior to award.*

***Failure by the bidder to submit.** The bidder maybe considered non-compliant with the requirements of the Special Provisions and the Specifications if the bidder fails to submit the documents to the Project Manager no later than **seven (7) working days** from the date of request (date of receipt of the written request) from the State. This failure may result in an adverse decision of an award by the Department of Transportation.*

HAWAII DEPARTMENT OF TRANSPORTATION

HONOLULU, HAWAII

PROPOSAL

PROPOSAL TO THE STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECT: LIHUE GATEWAY MAINTENANCE, REPAIR AND
INSPECTION OF LANDSCAPE IRRIGATION SYSTEM,
ISLAND OF KAUAI.

PROJECT NO: 51BD-01-2018 & 570A-01-2018

COMPLETION TIME: Twelve (12) months from date indicated in the Notice to
Proceed from the Department with the options to extend as
specified in Section 10.15 of the Specifications.

LIQUIDATED DAMAGES: Refer to Section 8.6 Liquidated Damages, of the Special
Provisions. Refer to Section 10.1(C) 1 Basis for Payment,
of the Specifications for applicable deductions for
incomplete work.

**NOTE: NO BID, PERFORMANCE AND PAYMENT BONDS
ARE REQUIRED FOR THIS PROJECT**

Director of Transportation
AliiAIMoku Hale
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Sir:

The undersigned bidder declares the following:

1. It has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal.
2. It has not been assisted or represented on this matter by any individual who has, in a State capacity, been involved in the subject matter of this contract within the past two years.
3. It has not and will not, either directly or indirectly offered or given a gratuity (i.e. an entertainment or gift) to any State or County employee to obtain a contract or favorable treatment under a contract.

The undersigned bidder further agrees to the following:

1. If this proposal is accepted, it shall execute a contract with the Department to provide all necessary labor, machinery, tools, equipment, apparatus and any other means of construction, to do all the work and to furnish all the materials specified in the contract in the manner and within the time therein prescribed in the contract, and that it shall accept in full payment therefore the sum of the unit and/or lump sum prices as set forth in the attached proposal schedule for the actual quantities of work performed and materials furnished and furnish satisfactory security in accordance with Section 103D-324, Hawaii Revised Statutes, within 10 days after the award of the contract or within such time as the Director of Transportation may allow after the undersigned has received the contract documents for execution, and is fully aware that non-compliance with the aforementioned terms will result in the forfeiture of the full amount of the bid guarantee required under Section 103D-323, Hawaii Revised Statutes.

2. That the quantities given in the attached proposal schedule are approximate only and are intended principally to serve as a guide in determining and comparing the bids.
3. That the Department does not either expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work, or to omit portions of the work, as may be deemed necessary or advisable by the Director of Transportation, and that all increased or decreased quantities of work shall be performed at the unit prices set forth in the attached proposal schedule except as provided for in the specifications.
4. In case of a discrepancy between unit prices and the totals in said Proposal Schedule, the unit prices shall prevail.
5. Agrees to begin work within 10 working days after the date of notification to commence with the work, which date is in the notice to proceed, and shall finish the entire project within the time prescribed.
6. The Director of Transportation reserves the right to reject any or all bids and to waive any defects when in the Director's opinion such rejections or waiver will be for the best interest of the public.

Receipt is hereby acknowledged and complete examination is hereby expressly guaranteed of the following listed items: the specifications, the notice to bidders, the special provisions, if any, the proposal, the plans, if any, and the contract form.

The undersigned acknowledges receipt of any addendum, issued by recording in the space below the date of receipt.

Addendum No. 1 _____

Addendum No. 3 _____

Addendum No. 2 _____

Addendum No. 4 _____

The undersigned hereby certifies that the bid prices contained in the attached proposal schedule have been carefully checked and are submitted as correct, final and are net prices.

Bidder

By _____
Authorized Signature

Title

Business Address

Business Telephone

Date

Contact Person and Phone Number
(If different from above.)

NOTE:

If bidder is a CORPORATION, the legal name of the corporation shall be set forth above, the corporate seal affixed, together with the signature(s) of the officer(s) authorized to sign contracts on behalf of the corporation. Please attach to this page current (not more than six months old) evidence of the authority of the officer(s) to sign on behalf of the corporation.

If bidder is a PARTNERSHIP, the true name of the partnership shall be set forth above with the signature(s) of the general partner(s) authorized to sign contracts on behalf of the partnership. Please attach to this page current (not more than six months old) evidence of the authority of the partner(s) to sign on behalf of the partnership.

If bidder is an INDIVIDUAL, the bidder's signature shall be placed in the space provided therefore on page PF-4.

If signature is by an agent, other than an officer of a corporation or a partner of a partnership, a POWER OF ATTORNEY must be on file with the Department prior to the opening of bids or submitted with the bid; otherwise, the bid may be rejected as irregular and unauthorized.

PROPOSAL SCHEDULE
FOR
LIHUE GATEWAY
MAINTENANCE, REPAIR AND INSPECTION OF LANDSCAPE IRRIGATION SYSTEM
PROJECT NO. 51BD-01-2018 & 570A-01-2018
ISLAND OF KAUAI

Bid Item No.	Item Description	Qty (a)	Unit	Unit Price (b)	Amount (a) x (b)
1	Maintenance and Inspection of Irrigation System (routine/preventive) <i>(refer to Appendix D of the Appendices and Section 10.4(A) of the Specifications)</i>	12	Month	\$ _____	\$ _____
2	Irrigation Trouble call repair work, Regular working hours - per man-hour, Pump Technician <i>(refer to Section 10.4(B).a.2 and 10.4(B)1. b.2 of the Specifications)</i>	100	Man-hour	\$ _____	\$ _____
3	Irrigation Trouble call repair work, Regular working hours - per man-hour, Sprinkler Technician <i>(refer to Section 10.4(B).a.2 and 10.4(B)1. b.2 of the Specifications)</i>	100	Man-hour	\$ _____	\$ _____
4	Irrigation Water <i>(refer to Section 10.8(A)3 of the Specifications)</i>		Allowance	Allowance	\$ <u>25,000.00</u>
5	Chlorine & Liquid Fertilizer <i>(refer to Section 10.8(A)4 of the Specifications)</i>		Allowance	Allowance	\$ <u>5,000.00</u>
6	Replacement Parts <i>[Refer to Section 10.4(C) of the Specifications]</i>		Allowance	Allowance	\$ <u>10,000.00</u>
7	Overtime Work <i>[Refer to Section 10.4(C) of the Specifications]</i>		Allowance	Allowance	\$ <u>1,000.00</u>
8	Technical Support Services <i>(refer to Section 10.4(G) of the Specifications)</i>		Allowance	Allowance	\$ <u>1,000.00</u>
9	Miscellaneous Work <i>(refer to Section 10.4(H) of the Specifications)</i>		Allowance	Allowance	\$ <u>50,000.00</u>
TOTAL (For comparison of bids, sum of items 1 through 9)					\$ _____

Notes. Bidders shall refer to the following notes.

PROPOSAL SCHEDULE
FOR
LIHUE GATEWAY
MAINTENANCE, REPAIR AND INSPECTION OF LANDSCAPE IRRIGATION SYSTEM
PROJECT NO. 51BD-01-2018 & 570A-01-2018
ISLAND OF KAUAI

Notes.

1. *The bidder shall refer to Section 10.2(B) Schedule of Submitting Required Documents prior to submitting his or her bids.*

***Failure by the bidder to submit.** The bidder maybe considered non-compliant with the requirements of the Special Provisions and the Specifications if the bidder fails to submit the documents to the Project Manager no later than **seven (7) working days** from the date of request (date of receipt of the written request) from the State. This failure may result in an adverse decision of an award by the Department of Transportation.*

2. **Bidder shall make no changes to the items.** Pursuant to the Hawaii Administrative Rule § 3-122-97(b) (2) (B), bids submitted with changes to the item(s) are considered rejectable bids.

3. **Any bid item lacking a price disqualifies the bidder and shall be grounds for rejection of bids.**

4. **In case of a discrepancy between unit prices and the totals in said Proposal Schedule, the unit prices shall prevail.** Refer to pages PF-2 and PF-3 of the Proposal Schedule for other conditions that the bidder should agree with. To obtain the extension amount, the bidder shall use the formula as provided in this Proposal Schedule, column (a) multiplied by column (c).

5. Bidder's bid price shall be inclusive of all direct and indirect costs as specified in Section 10.17 Basis of Payment, of the Specifications.

- 5a. The number of hours of irrigation trouble call repair work, Bid Item Nos. 2 and/or 3 is an estimate for bidding purposes only. Payments to the Contractor will be made on the basis of actual number of performances and the unit bid price. Refer to 10.17(A)2 and 3 Basis of Payment, of the Specifications.

6. This project requires a Safety Plan in accordance with Section 10.12(C) Safety Plan, of the Specifications.

7. **Prior to commencing with the work, the successful Bidder is required to submit a Certificate of Insurance.** Refer to Section 7.8 Insurance, of the Specifications for more information.

8. Closing of lanes and traffic control shall be performed in accordance with Section 10.4(I) Closing of Lanes/Traffic Control, of the Specifications. Subcontracting work like traffic control shall be in accordance with Section 8.2 Subcontracting, of the Special Provisions and approval process shall be in accordance with Section 2.1.B.4.b of the Special Provisions.

PROPOSAL SCHEDULE
FOR
LIHUE GATEWAY
MAINTENANCE, REPAIR AND INSPECTION OF LANDSCAPE IRRIGATION SYSTEM
PROJECT NO. 51BD-01-2018 & 570A-01-2018
ISLAND OF KAUAI

Notes (continuation)

9. This project requires a Safety Plan in accordance with Section 10.11(I), Safety Plan; Traffic Control Plan for all lane closures in accordance with Section 10.4(I) 4 and Permit for the Occupancy & Use of State Highway Right-Of-Way in accordance with Section 10.4(I) 5 of the Specifications.

Refer to Sections 2.1.B.2.c of the Special Provisions for the required minimum number of CLT-Exterior Irrigation per two (2) awarded landscaping contracts.

10. Irrigation system is **currently one hundred (100%)** percent operational.
11. By submitting a proposal, the Bidder acknowledges he has read and understands all the provisions of the Special Provisions and the Specifications and is fully aware of all the conditions to be encountered in performing the work.

DEPARTMENT OF TRANSPORTATION

HONOLULU, HAWAII

F O R M S

Contents:

Sample Contract

Certificate for Performance of Services

CONTRACT

THIS AGREEMENT, made this _____ day of _____, by and between the STATE OF HAWAII, by its Director of Transportation, hereinafter referred to as "STATE", and «CONTRACTOR», «STATE OF INCORPORATION» whose business/post office address is «ADDRESS», hereinafter referred to as "CONTRACTOR";

WITNESSETH: That for and in consideration of the payments hereinafter mentioned, the CONTRACTOR hereby covenants and agrees with the STATE to furnish, perform and/or deliver and pay for all labor, supplies, materials, equipment and services called for in

“«PROJECT NAME AND NO»”,

or such a part thereof as shall be required by the STATE, the total amount of which labor, supplies, materials, equipment and services shall be computed at the unit and/or lump sum prices set forth in the attached proposal schedule and shall be the sum of «BASIC»--
--DOLLARS (\$«BASIC NUMERIC») as follows:

TOTAL FOR COMPARISON OF BIDS\$«BASIC_NUMERIC»

which sum shall be provided from State funds, all in accordance with the specifications, the special provisions, if any, the notice to bidders, the instructions to bidders, the proposal and plans, if any, for «PROJECT_NO_ONLY», on file in the office of the Director of Transportation. These documents, together with all alterations, amendments, and additions thereto and deductions therefrom, are attached hereto or incorporated herein by reference and made a part of this contract.

The CONTRACTOR hereby covenants and agrees to furnish, perform and/or deliver all labor, supplies, materials, equipment and services as provided herein for a period of «WORKING_DAYS» from the date indicated in the Notice to Proceed from the State, with an option to extend for FOUR (4) additional ONE (1) YEAR periods subject to the terms specified in Section «SECTION_REFERENCING_OPTION_YEAR» of the Specifications. The total term of this contract shall not exceed FIVE (5) YEARS.

For and in consideration of the covenants, undertakings and agreements of the CONTRACTOR herein set forth and upon the full and faithful performance thereof by the CONTRACTOR, the STATE hereby agrees to pay the CONTRACTOR the sum of «BASIC»----DOLLARS (\$«BASIC_NUMERIC») in lawful money, such payment to be made, subject to such additions hereto or deductions therefrom heretofore or hereafter made, in the manner and at the time prescribed in the specifications and this contract.

An additional sum of «EXTRAS»----DOLLARS (\$«EXTRA_NUMERIC») is hereby provided for extra work and shall be provided from State funds.

The CONTRACTOR further agrees to execute the attached Certification of Compliance for Final Payment form prior to payment of the final payment by the STATE.

All words used herein in the singular shall extend to and include the plural. All

words used in the plural shall extend to and include the singular. The use of any gender shall extend to and include all genders.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be duly executed the day and year first above written.

STATE OF HAWAII

Director of Transportation

«CONTRACTOR»

(Seal)

Signature*

Title

*Signatures must be acknowledged
by a notary public.

CERTIFICATE FOR PERFORMANCE OF SERVICES

The undersigned bidder does hereby certify that in performing the services required for the LIHUE GATEWAY MAINTENANCE, REPAIR AND INSPECTION OF LANDSCAPE IRRIGATION SYSTEM, PROJECT NO. 51BD-01-2018 & 570A-01-2018, ISLAND OF KAUAI, it will fulfill the following conditions:

1. All applicable laws of the Federal and State governments relating to workers compensation, unemployment compensation, payment of wages, and safety will be fully complied with; and
2. The services to be rendered shall be performed by employees paid at wages or salaries not less than the wages paid to public officers and employees for similar work, with the exception of professional, managerial, supervisory, and clerical personnel who are not covered by Section 103-55, HRS.

I understand that failure to comply with the above conditions during the period of the contract shall result in cancellation of the contract, unless such noncompliance is corrected within a reasonable period as determined by the Director of Transportation. Payment in the final settlement of the contract or the release of bonds, if applicable, or both shall not be made unless the Director of Transportation has determined that the noncompliance has been corrected; and

I further understand that all payments required by Federal and State laws to be made by employers for the benefit of their employees are to be paid in addition to the base wage required by Section 103-55, HRS.

DATED at Honolulu, Hawaii, this ____ day of _____.

Name of Corporation, Partnership, or Individual

Signature and Title of Signer

Subscribed and sworn before me this __ day of _____.

Notary Public, _____ Judicial Circuit, State of Hawaii
My Commission Expires: _____