

INVITATION FOR BIDS

VILLAGES OF KAPOLEI DEDICATION KAIAM AVENUE ROADWAY REHABILITATION PROJECT – PHASE I

Kapolei (Ewa), Oahu, Hawaii

HHFDC BID NO. 22-009-K85-S

OCTOBER 2022

PREPARED BY:

**Hawaii Housing Finance and Development Corporation
State of Hawaii**

TABLE OF CONTENTS

Job No. 22-009-K85-S

PART I – BIDDING AND CONTRACT REQUIREMENTS

TABLE OF CONTENTSTC-1 to TC-3
NOTICE TO BIDDERS NTB-1 to NTB-2
INSTRUCTIONS TO BIDDERS..... I-1 to I-21
MANDATORY SUBMITTALS A-1 to A-2
FORM OF BID P-1 to P-18
STATEMENT OF BIDDER'S CONTRACTOR EXPERIENCE SBCE-1 to SBCE-2
FORM OF NON-DEFAULT AFFIDAVIT 1
FORM OF NON-COLLUSIVE AFFIDAVIT 1
FORM OF NON-GRATUITY AFFIDAVIT 1
CERTIFICATION OF COMPLIANCE WITH HRS 103B, EMPLOYMENT OF STATE
RESIDENTS ON CONSTRUCTION PROCUREMENT CONTRACTS 1 to 2
FORM OF CONTRACT FC-1 to FC-8
SPECIAL CONDITIONS 1 to 8
103D GENERAL CONDITIONS 1 to 16
HHFDC GENERAL CONDITIONS 1 to 92

PART II – GENERAL REQUIREMENTS

- 1.01 – GENERAL PROVISIONS
- 1.02 – DESCRIPTION OF WORK AREAS
- 1.03 – WORK COVERED BY THE CONTRACT DOCUMENTS
- 1.04 – GENERAL REQUIREMENTS
- 1.05 – TIME OF COMPLETION
- 1.06 – CONTINGENCY
- 1.07 – PROJECT MANAGEMENT AND COORDINATION
- 1.08 – CONSTRUCTION PROGRESS DOCUMENTATION
- 1.09 – EXECUTION REQUIREMENTS

PROJECT FIGURES

PART III – TECHNICAL SPECIFICATIONS

- SP 3 – STANDARD SPECIFICATIONS
- SP 4 – STANDARD DETAILS
- SP 12 – ROADWAY EXCAVATION
- SP 31 – AGGREGATE BASE COURSE
- SP 33 – ASPHALT SURFACE TREATMENT
- SP 35 – ASPHALT CONCRETE PAVEMENT (STATE MIX NO. IV)
- SP 36 – ADJUSTMENT OF EXISTING UTILITY STRUCTURES TO FINISHED GRADE
- SP 41 – CONCRETE CURB AND GUTTER
- SP 42 – CONCRETE SIDEWALK
- SP 43 – DEFECTIVE CONCRETE REPAIRS
- SP 61 – PAVEMENT MARKERS, STRIPING AND MARKINGS
- SP 62 – VEHICLE DETECTOR LOOP
- SP 64 – DIRECTIONAL, REGULATORY AND WARNING SIGNS
- SP 100 – GEOGRID
- SP 101 – WOVEN GEOTEXTILE
- SP 104 – COLD PLANING
- SP 105 – DRIP PANS
- SP 106 – AEROSOL SPRAY PAINT
- SP 107 – ASPHALT REMOVAL IN GUTTERS
- SP 108 – ARBORICULTURAL WORK, INCLUDING TREE TRIMMING, ROOT PRUNING AND TREE PROTECTION MEASURES
- SP 150 – EXISTING UTILITIES
- SP 151 – DESCRIPTION OF WORK
- SP 152 – ADDITIONAL WORK
- SP 153 – DELETION OF WORK
- SP 160 – SURVEYS AND CONSTRUCTION STAKES, LINES AND GRADE
- SP 170 – CERTIFICATION OF COMPLIANCE
- SP 180 – LIQUIDATED DAMAGES
- SP 181 – AS-BUILT DRAWINGS
- SP 190 – PRESS RELEASE
- SP 191 – PROTECTION AND CONTROL OF PEDESTRIANS AND VEHICULAR TRAFFIC
- SP 192 – PRIOR NOTICE OF REMOVAL OF SURFACE ENCROACHMENT
- SP 193 – NOTIFICATION OF PROPERTY OWNERS AFFECTED BY THE PROJECT
- SP 194 – PERMITS AND REGULATIONS

PART III – TECHNICAL SPECIFICATIONS (CONTINUED)

- SP 195 – ENVIRONMENTAL POLLUTION CONTROL
ENVIRONMENTAL POLLUTION CONTROL - (SWPPP DRAFT BOUND
SEPARATELY)
- SP 198 – SAFETY PRECAUTION AND PROTECTION OF PROPERTY
- SP 199 – CONSTRUCTION AREA APPEARANCE
- SP 204 – ARCHAEOLOGICAL MONITORING

PART IV – APPENDIX

- HAWAII STATE HOLIDAYS
- ESTIMATE FOR CHANGE ORDER
- FIELD ORDER
- SUPPLEMENTAL CONTRACT FORM
- PAYMENT PROGRESS SCHEDULE “BREAKDOWN”
- CONTRACTOR’S CERTIFICATION OF PAYMENT
- CERTIFICATION OF COMPLIANCE FOR FINAL PAYMENT
- CONTRACTOR’S WAIVER AND RELEASE OF LIEN
- CERTIFICATION OF COMPLIANCE FOR EMPLOYMENT OF STATE RESIDENTS
- CERTIFICATION OF COMPLIANCE WITH HRS 396-18, SAFETY AND HEALTH PROGRAMS
- DIRECTIONS FOR PREPARATION OF BOND AND BOND FORMS
- CERTIFIED PAYROLL AFFIDAVIT FORMS

END OF SECTION

NOTICE TO BIDDERS
(Chapter 1030, HRS)

Sealed bids will be received by the Hawaii Housing Finance and Development Corporation (HHFDC) online at the Hawaii State eProcurement (HlePRO) system website (<https://hiepro.ehawaii.gov>), no later than 2:00 p.m., **November 21, 2022** for KAI AU AVENUE ROADWAY REHABILITATION PROJECT- PHASE I, JOB NO. 22-009-K85-S to provide repair, reconstruction and rehabilitation of road pavement, curb and gutters, catch basins, and traffic signs and posts, as outlined in the Invitation For Bids.

Beginning **October 10, 2022**, the INVITATION FOR BIDS will be available on the HlePRO website and may be examined by vendors who have a valid registered account in HlePRO. **Registration on HlePRO is required to view the solicitation and submit a response.** Bids that are: (1) not submitted on HlePRO, (2) not submitted on the required form, or (3) otherwise do not meet the bid requirements, will not be accepted or considered for award.

HHFDC may reject any and all bids and may waive any bid defects whenever HHFDC deems such action is in the best interest of the State. Award will be made to the responsible bidder offering the lowest responsive bid and shall be determined by HHFDC in its sole discretion.

A Pre-Bid Teleconference will be held on **October 24, 2022** at 10:00 a.m. Attendance at the Pre- Bid Teleconference is not mandatory but strongly recommended. To join the meeting, use the meeting link or call-in number below:

Pre-Bid Teleconference Meeting Meeting ID: 374 656 977 909 Passcode: dqdrPP Download Teams Join on the web	1-213-267-3760 Phone Conference ID: 779 637 588# (Click link or call number above and enter Conference ID when prompted)
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Site visits will be held on **October 28, 2022**, at 10:00 a.m. Bidders are strongly encouraged to visit the project site to familiarize themselves with existing conditions and the extent of services required in the scope of services.

Bidders must possess a General Contractor's A license and a valid State of Hawaii General Excise Tax License to be eligible to bid. All bids shall include the State General Excise Tax of 4.712%.

This solicitation will result in a contract for **construction**. Therefore, bid security of at least five percent (5%) of the bid amount is required for bids exceeding \$25,000. Contract performance and payment bonds shall be required for contracts exceeding \$25,000. **This solicitation is subject to the availability of funds.**

The successful bidder must provide proof of compliance with section 103D-310(c), Hawaii Revised Statutes (HRS), in order to receive a contract award of \$2,500 or more. The Hawaii Compliance Express (HCE) system expedites the ability to furnish proof of compliance by providing an online "Certificate of Vendor Compliance" for a business entity. Bidders are strongly recommended to register with HCE as soon as possible so they are able to furnish proof of compliance with their bids. For more information, visit: <https://vendors.ehawaii.gov/>.

Questions, requests or discoveries relating to this bid solicitation must be submitted **on HlePRO** using the Questions and Answers function no later than 2:00 p.m. **November 3, 2022**.

Persons requiring special needs/auxiliary aids (e.g. sign language, large print or other media) for this INVITATION FOR BIDS may contact the Solicitation Contact(s), Claude Allen, at 587-0524.

HAWAII HOUSING FINANCE AND DEVELOPMENT
CORPORATION

Date Oct 5, 2022

Francis Paul Keeno
Francis Paul Keeno, Procurement Officer

Legal Ad Date: October 10, 2022

INSTRUCTIONS TO BIDDERS

1.0 GENERAL

1.1 Definitions.

- 1.1.1 AG: State of Hawaii Attorney General.
- 1.1.2 Bid Form: Form of Bid, which is used to submit pricing information.
- 1.1.3 Bidder or Offeror: Any individual, partnership, firm, corporation, joint venture, or other entity submitting directly or through a duly authorized representative or agent, a bid for the good, service, or construction contemplated.
- 1.1.4 Bid Documents: IFB Instructions, Specifications, any general and special provisions and applicable attachments and exhibits, and all other documents that are part of this IFB.
- 1.1.5 Contract: Form AG-003 Contract for Goods and Services based on Competitive Sealed Bids.
- 1.1.6 Contract Documents: The Contract, amendments (which pertain to the Contract Documents), Contractor's bid documents (including appropriate accompanying bid documentation and post bid documentation) when attached as an exhibit to the contract, the Notice to Proceed, the Bonds, the bid documents, change orders, field orders, any written order for changes and interpretations and clarifications issued on or after the effective date of the contract.
- 1.1.7 Contractor: The Offeror that enters into a Contract with HHFDC as a result of this IFB.
- 1.1.8 DHHL: Department of Hawaiian Home Lands
- 1.1.9 GET: General Excise Tax.
- 1.1.10 HCE: Hawaii Compliance Express.
- 1.1.11 HHFDC: Hawaii Housing Finance & Development Corporation, 677 Queen Street, Suite 300, Honolulu, Hawaii 96813.
- 1.1.12 HAR: Hawaii Administrative Rules.
- 1.1.13 HRS: Hawaii Revised Statutes.
- 1.1.14 IFB: Invitation for Bids No. **22-009-K85-S** (This Invitation for Bids).
- 1.1.15 STATE: State of Hawaii, HHFDC.

- 1.1.16 HOPA: Head of the Purchasing Agency (typically, the HHFDC Executive Director).
- 1.1.17 Procurement Officer: The HHFDC Executive Director or designee.
- 1.1.18 Solicitation Documents: Synonymous with Bid Documents.

1.2 General Requirements

Bidder shall review all Bid Documents including but not limited to any General Requirements, General Conditions, Special Conditions, and Technical Specifications included in the bid packet to ensure Bidder is familiar with all requirements of the project.

1.3 Solicitation Schedule; Solicitation Contact; Availability of Bid Documents

1.3.1 Solicitation Schedule

The schedule provided below is subject to change at the discretion of HHFDC.

IFB Advertised	October 10, 2022
Pre-Bid Teleconference	October 24, 2022
Project Site Visit	October 28, 2022
Deadline for Questions or Clarification Requests	November 3, 2022
HHFDC Response Date for Questions or Clarifications	November 10, 2022
Bids Due and Opened	November 21, 2022
Estimated Notice of Intent to Award	December 5, 2022
Estimated Contract Start Date	January 30, 2023

1.3.2 Solicitation Contact

The Contact person(s) for this solicitation is:

Claude Allen, Project Coordinator
 Email: claudio.w.allen.jr@hawaii.gov

1.3.3 Availability of Bid Documents

This solicitation is being conducted on the State of Hawaii eProcurement system (HlePRO).

- 1.3.3.1 Bidders must access the Bid Documents on the HlePRO website, located at <https://hiepro.ehawaii.gov/>, and all responses to the IFB must be submitted on HlePRO.
- 1.3.3.2 To view the details of the solicitation and submit a response, bidders must be registered in HlePRO.
- 1.3.3.3 Once bidder is registered, bidder must login to respond to solicitation.
- 1.3.3.4 Only responses made through HlePRO will be accepted for this solicitation.
- 1.3.3.5 Awards made for this solicitation, if any, shall be done through the HlePRO system and shall therefore be subject to a mandatory .75% (.0075) transaction fee, not to exceed \$5,000 for the total contract term. This transaction fee shall be based on the total sales made against this contract, payable to Hawaii Information Consortium, LLC (HIC), the vendor administering HlePRO.

HIC shall invoice the vendor directly for payment of transaction fees. Payment must be made to HIC within thirty (30) days from receipt of invoice. HIC is an intended third-party beneficiary of transaction fees, which are used to fund the operation, maintenance, and future enhancements of the HlePRO system.

1.4 Pre-bid Meeting and Site Visit(s)

When specified in the NOTICE TO BIDDERS, all prospective bidders and other interested parties are invited to attend an initial pre-bid meeting and any accompanying site visit(s).

1.4.1 General

- 1.4.1.1 Attendance at pre-bid meetings and site visits is strongly encouraged, but not mandatory.
- 1.4.1.2 Failure to attend the pre-bid meeting(s) and site visit(s) for a project DOES NOT absolve the bidder from its responsibilities. Verbal responses and discussions may occur during the course of the pre-bid meeting or site visit and shall not be considered to alter any information in the solicitation documents.

1.5 Bidder Qualifications

- 1.5.1 Only bidders with the required Contractor's license(s) are eligible to submit a Bid.

- 1.5.2 Bidders (Contractors) shall be incorporated or organized under the laws of the State or be registered to do business in the State as a separate branch or division that is capable of fully performing under the contract. The following definitions are used in the solicitation documents.
- 1.5.2.1 Hawaii Business §3-122-112 HAR: A bidder who is registered and incorporated or organized under the laws of the State is a “Hawaii Business” and eligible for an award.
- 1.5.2.2 Compliant non-Hawaii Business §3-122-112 HAR: A bidder not incorporated or organized under the laws of the State, but is registered to do business in the State and complies with or is exempt from the requirements of §3-122-112 HAR, is a “Compliant Non-Hawaii Business” and eligible for an award.
- 1.5.2.3 Non-compliant Bidder: If a bidder is a non-Hawaii business and is not registered with the DCCA Business Registration Division (BREG) or cannot comply with §3-122-112 HAR, then the bidder is non-compliant and is ineligible for an award.

1.5.3 Disqualification

Any persons, firm or corporation 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 any payment owed to the State of Hawaii or any of its political subdivisions or is in default of any obligation to the State of Hawaii or to all or to any of its political subdivisions, including default as a surety or failure to perform faithfully and diligently on any previous contract with the HHFDC, may be disqualified.

1.5.4 Permanent Office Location

Bidder shall have a permanent office location from where he/she conducts business and where he/she will be accessible to telephone calls regarding this contract. An answering service is acceptable provided a response is made within four (4) hours of the initial call from the Contract Administrator.

- 1.5.5 Bidder shall have adequate equipment and capacity to perform and complete the work specified herein within the period specified. It is expressly understood that, for any contract arising out of this IFB, breach of this section shall be a material breach of contract.

1.5.6 Responsibility of Bidder

- 1.5.6.1 Pursuant to Section 103D-310(c), HRS, all offerors, upon award of contract, shall comply with all laws governing entities doing business in the State, including, but not limited to: Chapter 237, tax clearance; Chapter 383, unemployment insurance; Chapter 386, workers' compensation; Chapter 392, temporary disability insurance; and Chapter 393, prepaid health care. Bidders shall produce documents to the procuring officer to demonstrate compliance with this subsection. Any Offeror making a false affirmation or certification under this subsection shall be suspended from further offerings or awards pursuant to section 103D-702. The Procurement Officer shall verify compliance with this subsection for all contracts awarded pursuant to section 103D-302.

Hawaii Compliance Express. Hawaii Compliance Express (HCE) is an electronic system that allows business entities to quickly and easily demonstrate compliance with applicable laws. It is an online system that replaces the necessity of obtaining paper compliance certificates from the State Department of Taxation, Federal Internal Revenue Service, Department of Labor and Industrial Relations, and Department of Commerce and Consumer Affairs.

Offerors are strongly encouraged to register with HCE at <https://vendors.ehawaii.gov> prior to submitting an offer. The annual registration fee is around \$12.00 and the 'Certificate of Vendor Compliance' issued by HCE is accepted as proof of compliance for award, execution of the contract, and final payment.

Timely Registration on HCE. Offerors are advised to register on HCE as soon as possible to ensure proof of compliance is available at the time of award.

- 1.5.6.2 The procurement officer shall make a determination of responsibility or non-responsibility of bidder or prospective bidder based on available information.
- 1.5.6.3 If the procurement officer requires additional information, the bidder or prospective bidder may be required to provide follow-up information requested by HHFDC.
- 1.5.6.3.1 The requested information shall be furnished upon request within two (2) working days or as otherwise determined by the procurement officer.
- 1.5.6.3.2 Failure to furnish the requested information within the time allowed may be grounds for determination of non-responsibility.

1.6 Addenda and Clarifications.

- 1.6.1 HHFDC may periodically issue addenda and bid clarifications which provide additional information or alter the plans and specifications.
- 1.6.2 HHFDC will make addenda and bid clarifications available to Bidders via the means indicated in the NOTICE TO BIDDERS for pickup of the solicitation documents. Bidders are responsible for the information contained in the addenda and bid clarifications whether or not the bidder receives the addenda or clarifications.
- 1.6.3 Bidders discovering an ambiguity, inconsistency, or error when examining the solicitation documents or the site and bidders with questions or clarification requests shall transmit said discoveries, questions, and/or requests via the questions and answers feature in HlePRO by the date specified in the NOTICE TO BIDDERS, as amended by any addenda.
- 1.6.4 Requests that are not transmitted or otherwise communicated in writing directly to the Solicitation Contact will not be considered to be transmitted to HHFDC and may not be addressed.
- 1.6.5 Questions received after the time specified in the NOTICE TO BIDDERS, as amended by any addenda, will not be answered. Only responses to questions addressed by formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 1.6.6 Requests for Substitution will only be considered prior to bid opening. If allowed, requests of this nature must be submitted before the deadline specified for this purpose in the NOTICE TO BIDDERS.

2.0 BID REQUIREMENTS

- 2.1 Bidder shall complete, sign, and submit to HHFDC, in the manner indicated in the NOTICE TO BIDDERS, the required forms and items specified in the solicitation documents before the bid due date. Refer to the MANDATORY SUBMITTALS on Page A-1 for a complete list of forms required to be submitted with the bid. Bidders must also comply with any supplemental instructions contained within the solicitation documents. **Any bidder failing to meet this requirement may be deemed non-responsive and will not be considered for award.**

A checklist is provided below for Bidder's convenience, but it does not excuse Bidder from submitting any required documents and items specified in the solicitation documents.

- Bid Form (and all forms attached thereto)
- Bid Security (Surety Bid Bond – Bond A), if applicable
- Non-Default Affidavit
- Non-Collusive Affidavit
- Non-Gratuity Affidavit
- Certification of Compliance for Employment of State Residents
- Certification of Compliance with HRS 396-18, Safety and Health Program
- Statement of Bidder’s Experience
- Optional submittal for Apprenticeship preference
- Any other forms specified in the Solicitation Documents

2.2 Form of Bid.

Bidder shall complete, sign and submit the Form of Bid (“Bid Form”) using Bidder’s exact legal name as registered with the Hawaii State Department of Commerce and Consumer Affairs (DCCA), if applicable.

2.2.1 The bid form shall be completed, signed, and submitted electronically on HlePRO. Scanned copies of the signed bid documents will be accepted. If unsigned, the bid will be automatically rejected unless accompanied by other material containing a signature indicating the Bidder’s intent to be bound.

2.2.2 The bidder who submits the lowest responsive bid must submit the complete original bid, with the original bid bond, if required, so that it is received within five working days from the notification of intent to award, or as otherwise specified by HHFDC. Failure to timely submit the original signed bid documents may result in rejection of the bid.

2.2.3 Tax Liability. Work to be performed under this solicitation is a business activity taxable under Chapter 237, HRS, and vendors are advised that they are liable for the Hawaii General Excise Tax (GET). If a bidder is a person exempt by the HRS from paying the GET and therefore not liable for the taxes on this solicitation, bidder shall state its tax exempt status and cite the HRS chapter or section allowing the exemption.

For evaluation purposes, pursuant to Chapter 103D-1008, HRS, the bidder's tax-exempt price shall be increased by the applicable retail rate of general excise tax and the applicable use tax. For competitive sealed bids, the lowest responsive, responsible bidder, taking into consideration the above increase, shall be awarded the contract, but the contract amount of any contract awarded shall be the amount of the price offered and shall not include the amount of the increase.

2.2.4 Failure to complete and provide all information requested on the Form of Bid may result in automatic bid rejection.

2.2.5 Bid Schedule(s).

Bidder shall completely fill out this section on the Bid Form and enter the cost for the Base Bid, Multi-Term Bid, Variable Quantities Unit Prices and Alternates when provided. Bidder shall tabulate the Base Bid, Multi-Term Bid, Variable Quantities Unit Prices and Allowances when provided, and the Bidders shall then enter the Total Bid. BE SURE TO ENTER THE TOTAL BID PRICE IN WORDS AND NUMERALS on page P-1 of the Form of Bid.

2.2.5.1 If provided, bidder shall fill in total costs for each alternate.

2.2.5.2 All bid amounts shall include the State GET of 4.712%.

2.2.6 Acknowledgment of Liquidated Damages.

Bidder shall acknowledge that it understands and agrees to the provisions for liquidated damages specified in the bid and contract documents by signing and submitting the acknowledgment form included in the Form of Bid.

2.2.7 Wage Certificate.

Contractors and subcontractors shall pay all mechanics and laborers employed on the job the minimum prevailing wages for the corresponding work classifications as determined by the Director of the Department of Labor and Industrial Relations (DLIR) pursuant to Chapter 104, HRS. Bidder shall indicate that bidder has included the applicable wage rates into the bid to compensate employees for work performed under the awarded contract by certifying to such on the Wage Certificate included in the Bid Form

During the contract period, a certified copy of each weekly payroll shall be submitted to HHFDC within seven (7) calendar days after the end of each weekly payroll period. The contractor shall be responsible for the timely submission of certified copies of payrolls of all subcontractors. The certification shall affirm that payrolls are correct and complete, that the wage rates contained therein are not less than the applicable rates, and that the classifications set forth for each laborer and mechanic conform with the work they performed. If certified payrolls are not submitted on a timely basis, or if HHFDC finds that any laborer or mechanic employed on the job has been or is being paid less than the applicable prevailing wages, HHFDC may withhold payment or terminate the contract.

2.2.8 Listing of Joint Contractors and Subcontractors.

2.2.8.1 Bidder shall complete the "Joint Contractors or Subcontractors List". It is the sole responsibility of the bidder to review the requirements of this project and determine the appropriate specialty Contractor's licenses that are required to

complete the project. Failure of the bidder to provide the correct names, license number, and specialty Contractor's nature of work to be performed, may cause the bid to be rejected.

- 2.2.8.2 Bidder agrees the completed listing of joint Contractors or Subcontractors is required for the project and that the bidder, together with the listed joint Contractors and Subcontractors, have all the specialty Contractor's licenses to complete the work. The bidder shall be solely responsible for verifying that its joint contractor or subcontractor has a proper, valid, active, and non-suspended license at the time the bid is submitted and ensuring that all work is performed by a properly licensed contractor.
- 2.2.8.3 Based on the Hawaii Supreme Court's January 28, 2002 decision in Okada Trucking Co., Ltd. v. Board of Water Supply, et al., 97 Hawaii 450 (2002), the bidder as a general Contractor ('A' or 'B' license) is prohibited from undertaking any work solely or as part of a larger project, which would require the bidder ('A' or 'B' general Contractor) to act as a specialty ('C' license) Contractor in any area in which the bidder ('A' or 'B' general Contractor) has no specialty Contractor's license. Although the 'A' and 'B' Contractor may still bid on and act as the "Prime Contractor" on an 'A' or 'B' project (See, HRS §444-7 for the definitions of an "A" and "B" project), respectively, the 'A' and 'B' Contractor may only perform work in the areas in which they have the appropriate Contractor's license. The bidder ('A' or 'B' general Contractor) must have the appropriate 'C' specialty Contractor's licenses either obtained on its own, or obtained automatically under HAR §16-77-32.
- 2.2.8.4 General Engineering 'A' Contractors automatically have these 'C' specialty Contractor's licenses: C-3, C-9, C-10, C-17, C-24, C-31a, C-32, C-35, C-37a, C-37b, C-38, C-43, C-49, C-56, C-57a, C-57b, and C-61.
- 2.2.8.5 General Building 'B' Contractors automatically have these 'C' specialty Contractor's licenses: C-5, C-6, C-10, C-12, C-24, C-25, C-31a, C-32a, C-42a, and C-42b.
- 2.2.8.6 Instructions to complete the Joint Contractors or Subcontractors List:
 - 2.2.8.6.1 Provide the complete firm name of the joint Contractor or subcontractor in the respective. Describe the specialty Contractor's nature and scope of work to be performed for this project. List

the license number and specialty classification number of the joint Contractor or subcontractor.

2.2.8.6.2 List only one joint Contractor or Subcontractor per required specialty Contractor's classification, unless the nature of work to be performed by each such joint contractor is both distinct and separate, i.e. two C-13 contractors are listed but one has the responsibility for AC control and the other for AC power.

2.2.8.6.3 For projects with alternate(s), use the same form to list any alternate joint Contractors and/or subcontractors but indicate their status by marking "Alternate" in parentheses next to the name of the joint Contractor or subcontractor, i.e., Name (Alternate).

2.2.8.7 Note that the HHFDC General Conditions section 5.13.6 establishes a minimum of 20% of work which must be done by Contractor on its own without subcontracting.

2.2.9 Bidder Information Form

Bidder shall completely fill out and submit the Bidder Information Form included in the Form of Bid. Bidder shall indicate if it is a "Hawaii Business" or a "Compliant Non-Hawaii Business" in section 2 of the Bidder Information Form.

2.3 Bid Security (Surety Bid Bond – Bond A)

Bid security is required under the provisions of Subchapter 24, HAR 3-122, for bids amounting to \$25,000 or more.

2.3.1 Bid security, when required, shall be in an amount equal to at least five (5) percent of the base bid and additive alternates or as required by terms of federal funding.

2.3.1.1 If bidder fails to accompany its offer with conforming bid security, when required, the offer shall then be deemed nonresponsive in accordance with the definition of "responsive bidder or offeror" in section 3-120-2.

2.3.1.2 If an offer does not comply with the bid security requirements, as specified in the HAR, the offer shall be rejected as nonresponsive, unless the failure to comply is determined by the chief procurement officer, the head of the purchasing agency, or a designee of either officer, to be non-substantial in accordance with HAR 3-122-223(d).

- 2.3.2 All bid securities, except those of the four (4) lowest bidders, will be returned following the close of the solicitation and review of the bids. The retained bid securities of the four lowest bidders will be returned within five (5) working days following the complete execution of the contract.
- 2.3.3 Acceptable bid security and accompanying documentation shall contain original signatures signed in ink and be limited to the following:
 - 2.3.3.1 Surety bonds underwritten by a company licensed to issue bonds in this State; or
 - 2.3.3.2 Legal tender of the United States; or
 - 2.3.3.3 A certificate of deposit; credit union share certificate; or cashier's, treasurer's, teller's, or official check drawn by, or a certified check accepted by a bank, a savings institution, or credit union insured by the FDIC or the NCUA, and payable at sign or unconditionally assigned to the procurement officer advertising for offers. These instruments may be utilized only to a maximum of \$200,000. If the requirement amount totals over \$100,000, more than one instrument not exceeding \$100,000 each and issued by different financial institutions shall be accepted.

All documentation provided to the purchasing agency shall contain the original signatures signed in ink. **If electronic responses are required**, scanned copies of the signed bid documents will be accepted; provided that the four (4) lowest bidders must submit the complete original bid bond within five (5) working days from the bid opening date. Failure to timely submit the original signed bid security documents may result in rejection of the bid.

- 2.3.4 Prior to award. If a low bidder withdraws its bid after bid opening but before contract award for a reason other than those permitted by the HHFDC General Conditions, 3.3, then HHFDC shall be entitled to retain as damages the amount established as bid security, and may take all appropriate actions to recover the damages sum from the property or third-party obligations deposited as bid security.

2.4 Form of Non-Default Affidavit.

Bidder shall sign and submit with its bid the Form of Non-Default Affidavit, attesting that Bidder is not in arrears in any payment owed to the State of Hawaii or is not in default of any obligations to the State of Hawaii, including default as a surety or failure to perform faithfully and diligently any previous contract with the State.

2.5 Form of Non-Collusive Affidavit.

Bidder shall sign and submit with its bid the Form of Non-Collusive Affidavit, in accordance with §3-122-192, HAR, declaring that the price submitted for this bid is independently arrived at without collusion.

2.6 Form of Non-Gratuity Affidavit.

Bidder shall sign and submit with its bid the Form of Non-Gratuity Affidavit, attesting that Bidder has not given or made any agreement to give any HHFDC employee, the employee's relatives or agents any gifts of money or otherwise, or anything of value; has not been influenced by any HHFDC employee, the employee's relatives or agents in the renting or purchasing of any equipment or supplies of any nature whatsoever.

2.7 Certification of Compliance for Employment of State Residents

Bidder shall certify, in accordance with HRS 103B, as amended by Act 192, SLH 2011, that Bidder is in compliance with HRS 103B by employing a workforce of which not less than eighty percent are Hawaii residents. Prior to an award of a contract, the Bidder may withdraw its bid without penalty if the Bidder finds that it is unable to comply with this subsection.

The eighty percent requirement shall be determined by dividing the total number of hours worked on a contract by residents, by the total number of hours worked by all employees of the contractor in the performance of the contract. Hours worked for any subcontractor of the contractor shall count towards the calculation for purposes of this subsection. The hours worked by employees within shortage trades, as determined by DLIR, shall not be included in the calculations for purposes of this requirement.

2.8 Certification of Compliance with HRS 396-18, Safety and Health Programs.

Bidders submitting a bid in excess of \$100,000 shall certify, in accordance with HRS 396-18, that Bidder's organization will have a written safety and health plan for this project that will be available and implemented by the date when onsite construction starts. Bidder may obtain the requirements for the safety plan from the Department of Labor and Industrial Relations, Occupational, Safety and Health Division (HIOSH).

2.9 Statement of Bidder's Contractor Experience.

Bidder shall complete and submit with its bid the Statement of Bidder's Contractor Experience to assist HHFDC in determining if bidder is responsible and has adequate qualifications and capacity to perform the work.

2.10 Allowances.

If applicable to this project, bidder shall include in its total lump sum (base) bid price all cash allowances that are itemized in the Bid Schedule on the Form of Bid. Unless otherwise provided in the contract documents, the bidder shall include costs for unloading and handling materials and equipment at the site, labor, installation costs, overhead, profit, coordination, insurance and other incidental expenses in the lump sum bid price and not in the allowance.

2.10.1 For testing and inspection allowances, the allowance costs shall include the cost of engaging testing agencies, actual tests and inspections and reporting results. Allowance does not include incidental labor required to assist the testing agency or costs for retesting if previous tests and inspection result in failure.

2.11 Variable Quantities Unit Prices.

If applicable to this project, bidder shall include in its total lump sum (base) bid price a total cost for Variable Quantities Unit Prices (VQUP) that are described in the bid package. Bidder shall complete the VQUP schedule by extending costs for unit prices, subtotals and totals. The unit costs provided shall include all materials, labor, tools and equipment required to install the work complete, in addition to all charges for overhead, coordination, profit, insurance, and other incidental expenses. Bidder shall make sure to enter the variable quantities unit prices total amount in the Form of Bid.

2.12 Alternates.

If applicable to this project, bidder shall include its total cost(s) in the Form of Bid for the alternates that are described on the drawings. Bidder must completely fill in the cost for each listed alternate. Where the respective alternate's work will be performed at no cost to the State, bidder shall fill in '\$0.00' as the cost. **If the cost for any alternate is left blank, the Form of Bid will be rejected as an irregular bid.**

2.12.1 For the purposes of evaluating the bid, the alternates are listed in the Form of Bid in the order of precedence from highest (listed first) to lowest for additive alternates and from lowest (listed first) to highest for deductive alternates.

2.13 Preference

If applicable to this project, preferences are considered when evaluating bids to determine the ranking of the respective bidders. The award of the contract will be in the amount of the bid exclusive of any preference adjustments.

2.14 Recycled Product Preference.

A recycled product preference of at least 5 percent of the price of the item may be available.

If applicable to this project, the “Recycled Product Schedule” will be included in the Form of Bid. All bidders, either proposing or not proposing to use the recycled product preference, shall complete and submit the Recycled Product Schedule. If choosing to use a recycled product, enter the respective costs for the recycled product; otherwise, enter the cost for the non-recycled product. Make sure a cost is entered for each listed product. Each product cost shall be complete, including jobsite delivery and applicable taxes.

2.14.1 For each recycled product the bidder chooses to use, the bidder shall include in its bid package the complete “Certification of Recycled Content Form” (SPO-Form 8) along with all supporting information. If the preference applies, a sample of the certification form will be included in the Form of Bid.

2.14.2 The “Recycled Product Schedule” shows the percent preference used for each listed recycled product.

2.15 Apprenticeship Agreement Preference.

2.15.1 **If applicable to this project**, any bidder seeking the preference must be a party to an apprenticeship agreement registered with the DLIR at the time the bid is submitted for each apprenticeable trade the bidder will employ to construct the project. “Employ” means the employment of a person in an employer-employee relationship.

2.15.1.1 The apprenticeship agreement shall be registered with the DLIR and conform to the requirements of Hawaii Revised Statutes Chapter 372.

2.15.1.2 Subcontractors do not have to be a party to an apprenticeship agreement for the bidder to obtain the preference.

2.15.1.3 The bidder is not required to have apprentices in its employ at the time the bid is submitted to qualify for the preference.

2.15.2 Self Certification.

A bidder seeking the preference must identify each apprenticeable trade the bidder will employ to perform the work by completing the *Certification of Bidder’s Participation - Form 1* available from the Hawaii Department of Labor and Industrial Relations, Workforce Development Division. “Apprenticeable trade” shall have the same

meaning as “apprenticeable occupation” pursuant to Hawaii Administrative Rules (HAR) §12-30-5.

2.15.3 The *Certification of Bidder’s Participation – Form 1*.

2.15.3.1 The *Certification of Bidder’s Participation - Form 1* shall be authorized by an apprenticeship sponsor listed on the DLIR list of registered apprenticeship programs. “Sponsor” means an operator of an apprenticeship program and in whose name the program is approved and registered with the DLIR pursuant to HAR §12-30-1.

2.15.3.2 The authorization shall be an original signature by an authorized official of the apprenticeship sponsor. The completed *Certification of Bidder’s Participation - Form 1* for each trade must be submitted with the bid. A facsimile or copy is acceptable to be submitted with the bid, however the signed original must be submitted within five (5) working days of the bid open date. If the signed original is not received within this timeframe, the preference may be denied. Previous certifications shall not apply.

2.15.3.3 When filling out the *Certification of Bidder’s Participation - Form 1*, the name of Apprenticeable Trade and Apprenticeship Sponsor must be the same as recorded in the List of Construction Trades in Registered Apprenticeship Programs that is posted on the State DLIR website. “Registered apprenticeship program” means a construction trade program approved by and registered with the DLIR pursuant to HAR §12-30-1 and §12-30-4.

2.15.3.4 The *Certification of Bidder’s Participation - Form 1* and the List of Construction Trades in Registered Apprenticeship Programs is available on the DLIR website at:
<http://labor.hawaii.gov/wdd/files/2012/12/Form-1-Certification-of-Bidders-Participation.pdf>

2.15.4 Upon receiving the Self Certification and Certification of Bidder’s Participation - Form 1, the Procurement Officer will verify that the apprenticeship program is on the List of Construction Trades in Registered Apprenticeship Programs and that the form is signed by an authorized official of the Apprenticeship Program Sponsor. If the programs and signature are not confirmed by the DLIR, the bidder will not qualify for the preference.

2.15.5 If the bidder is certified to participate in an apprenticeship program for each trade which will be employed by the bidder for the project, a preference will be applied to decrease the bidder’s bid amount by five (5) percent for evaluation purposes.

2.15.6 Should the bidder qualify for other preferences, all applicable preferences shall be applied to the bid price.

3.0 SUBMISSION OF BID

3.1 Bid Due Date. All bids shall be received at the location indicated in the Notice to Bidders no later than the date and time indicated in the NOTICE TO BIDDERS, as amended by any addenda to this IFB. **Late bids shall not be considered.**

3.2 Bid Security. Bids exceeding \$25,000 must be accompanied by original bid security, signed in ink, and furnished in accordance with section 2.3 of these Instructions.

Bids that do not include bid security shall be deemed non-responsive and not considered for award.

3.3 Bid Samples. Bid samples or descriptive literature should not be submitted unless expressly requested and, regardless of any attempt by bidder to condition the bid, unsolicited bid samples or descriptive literature which are submitted at the bidder's risk will not be examined or tested, and will not be deemed to vary any of the provisions of the Information for Bid.

4.0 MODIFICATION AND WITHDRAWAL OF BIDS

4.1 Pre-opening modification or withdrawal of offer. Bids may be modified or withdrawn prior to the established due date as follows:

4.1.1 Modification of bids

4.1.1.1 A written notice accompanying the actual modification received by HHFDC, stating that a modification to the bid or proposal is submitted; or

4.1.1.2 A facsimile or electronic notice accompanying the actual modification submitted either by facsimile machine, electronic mail, or an electronic procurement system pursuant to section 3-122-9, HAR, to HHFDC; provided if other than through an electronic system, offeror submits the actual written notice and modification within two working days of receipt of the facsimile or the electronic transmittal.

4.1.2 Withdrawal of bids

4.1.2.1 A written notice received in the office designated in the solicitation; or

4.1.2.2 A notice by facsimile machine or other electronic method pursuant to section 3-122-9, HAR, to the office designated in the solicitation.

4.2 Late withdrawal or modification. A late withdrawal or modification will not be accepted unless such withdrawal or modification is made in accordance with section 3-122-31, HAR.

5.0 RECEIPT AND OPENING OF BIDS

5.1 All bids shall be received and opened at the location no later than the date and time indicated in the NOTICE TO BIDDERS, as amended by any addenda to this IFB. All bid documents shall be submitted to HlePRO. **Late bids will not be considered.**

6.0 EVALUATION CRITERIA

6.1 Evaluating Bids.

6.1.1 Chapter 103D, HRS, which provides for preferences, shall apply.

6.1.1.1 The total lump sum bid price is adjusted to reflect the applicable preferences.

6.1.1.2 The total lump sum base bid price and alternates will be adjusted to reflect the applicable preferences.

6.1.2 Evaluating Bids with Alternates:

6.1.2.1 Project control budget is established prior to the submission of bids.

6.1.2.2 If there is more than one alternate for a project, the State will determine the precedence of the alternates for each project prior to the submission of bids.

6.1.2.3 Prior to opening bids, the State will announce the project control budget. All bids will be evaluated on the basis of the same alternate item.

6.1.2.4 After adjusting for applicable preferences, the alternates, in their precedence order, are added to the total lump sum base bid price. This (these) sum(s) is (are) compared to the project control budget, and must be within the project control budget.

6.1.2.5 If adding another alternate would make the aggregate amount exceed the project control budget for all bidders, that alternate will be skipped and the next alternate will be added, provided

an award might be made within the project control budget. This procedure will continue, until adding any remaining alternates will result in the aggregate total amount for all the bidders to exceed the project control budget, or until no additional alternates remain.

- 6.1.3 The project will be evaluated based on the adjusted bid price. The bidder with the lowest aggregate amount, within the project control budget (after application of the various preferences), for the total lump sum base bid plus the alternates in their precedence order, is the “Low Bidder” for that project and is designated for award.

7.0 AWARD OF CONTRACT

7.1 Award, if made, shall be on a Total Bid basis to the lowest responsive and responsible Bidder whose bid (including any alternates which may be selected) meets the requirements and criteria set forth in the solicitation documents, subject to availability of funds.

- 7.1.1 The lowest responsive Bidder shall, at the time of award, be compliant with all laws governing entities doing business in the State in accordance with section 103D-310(c), HRS. If a Bidder is not compliant at the time of award, the Bidder may not receive the award. Refer to section 1.5.6.

7.2 In the event the Total Bid exceeds the project control budget, the HHFDC reserves the right to make an award to the apparent Low Bidder if additional funds are available or by reducing the scope of work through negotiation.

7.3 Additional Requirements for Bids with Alternates.

After determining the designated Low Bidder for the project, an award may be made on the amount of the Low Bidder’s total lump sum base bid alone or on any combination of alternates exclusive of any preferences. The combination of alternates may include substituting any of the alternates that were included in the designated Low Bidder’s aggregate price with an alternate that was not included, provided:

- 7.3.1 It is in the best interest of the State,
- 7.3.2 Funds are available at the time of award, and
- 7.3.3 The combination of the Total Bid plus alternate(s) does not change the established Low Bidder for the project.

7.4 In evaluating bids, HHFDC shall consider the qualifications of bidders, whether or not the bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested on the offer form(s) or otherwise by the IFB.

7.5 HHFDC may conduct such investigations as HHFDC deems necessary to assist in the evaluation of any bid and to establish the responsibility, qualifications and financial ability of bidders to perform the work in accordance with the Contract to HHFDC's satisfaction within the prescribed time.

7.6 Other Conditions for Award

- 7.6.1 HHFDC reserves the right to reject any or all bids, including, without limitation, bids that are non-responsive or that were submitted by non-responsive or unqualified bidders, and waive any defects if the Procurement Officer believes the rejection or waiver is in the best interest of the State.
- 7.6.2 HHFDC may hold all bids up to 60 calendar days from the date bids were opened. Unless otherwise required by law, bids may not be withdrawn without penalty.
- 7.6.3 The award of the contract is conditioned upon funds made available for the project (or projects if applicable).
- 7.6.4 Any agreement or contract is subject to approval by the Department of the Attorney General, and the approval of the Governor, as required by statute, regulation, rule, order, or other directive.

7.7 Refer to the FORM OF CONTRACT for contract and compliance requirements.

8.0 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

8.1 It is the responsibility of each Bidder before submitting a Bid:

- 8.1.1 To examine thoroughly the Contract Documents and other related data identified in the solicitation documents.
- 8.1.2 To attend any scheduled pre-bid meeting and visit the site to become familiar with and satisfy Bidder as to the work requirements and general, local and site conditions that may affect cost, progress, performance, or furnishing of the Work.
- 8.1.3 To consider federal, state, and local laws and regulations that may affect cost, progress, performance, or furnishing of the Work.
- 8.1.4 To study and carefully correlate Bidder's knowledge and observations with the Contract Documents and such other related data.
- 8.1.5 To promptly notify HHFDC of all conflicts, errors, ambiguities, or discrepancies which Bidder has discovered in or between the Contract Documents and other such related documents.

9.0 SUBSTITUTE MATERIALS

9.1 Within 15 days after the date of intent to award, if material and color samples are required, the contractor shall notify HHFDC of any potential change in material and color samples used for the job. Delays resulting from failure to notify HHFDC of intended changes to material and color samples in a timely manner, as required, will not be considered justifiable reasons for extension of contract time.

10.0 CONFIDENTIAL INFORMATION

10.1 If a person believes that any portion of a bid, proposal, offer, specification, protest, or correspondence contains information that should be withheld as confidential, then the Procurement Officer named in this IFB should be so advised in writing and provided with justification to support the confidentiality claim. Price is not considered confidential and will not be withheld.

10.2 An Offeror shall request in writing nondisclosure of designated trade secrets or other proprietary data considered confidential. Such data shall accompany the proposal, be clearly marked, and shall be readily separable from the proposal in order to facilitate eventual public inspection of the non-confidential portion of the proposal.

10.3 Pursuant to HAR Section 3-122-58, the head of the purchasing agency or designee shall consult with the Attorney General and make a written determination in accordance with HRS Chapter 92F. If the request for confidentiality is denied, such information shall be disclosed as public information, unless the person appeals the denial to the Office of Information Practices in accordance with HRS Section 92F-42(12).

11.0 CANCELLATION OF BID PROCESS

The solicitation may be cancelled or the bids may be rejected, in whole or in part, at HHFDC's sole discretion when in the best interest of HHFDC, as provided in §3-122-95 through §3-122-97, HAR.

12.0 CONTRACT TERM

Refer to the Form of Bid for information about the contract term and any extensions.

13.0 CONTRACT SECURITY (PERFORMANCE AND PAYMENT BONDS)

13.1 Performance and payment bonds are required for contracts that equal or exceed \$25,000. Bonds shall be furnished on forms provided by HHFDC.

13.2 Refer to the HHFDC General Conditions, 3.7, for specific bond requirements.

14.0 GUARANTY OF WORK

Bidder agrees to guaranty all work under the Contract for the period(s) stipulated in the Contract Documents from the project acceptance date.

If any unsatisfactory condition or damage develops within the time of this guaranty due to materials or workmanship that are deficient, inferior, or not in accordance with the contract, the Contractor shall, when notified by the State, immediately place such guaranteed work in a condition satisfactory to the State and make repairs of all damage to the buildings, equipment and grounds made necessary in fulfillment of the guaranty. Everything necessary for the fulfillment of any guaranty shall be done without any expense to the State. It is understood that the performance and payment bond furnished by the Contractor under the Contract may be used to secure performance of Contractor's guaranty.

15.0 CONTRACT DOCUMENTS

It is understood and agreed that the following documents, and any amendments or addenda thereto, comprise the Contract and are fully a part of the Contract as though attached hereto or set forth at length herein: (1) Contractor's accepted bid; (2) General Conditions (AG-008); (3) HHFDC General Conditions; (4) Drawings; (5) Specifications, including the Notice to Bidders, Instructions to Bidders, and Special Conditions, Addenda, Bid Clarifications, if any; (6) Combination Performance and Labor and Material Payment Bond; and (7) the Contract for Goods and Services Based on Competitive Sealed Bids.

16.0 ENTIRE AGREEMENT

The Contract is the entire agreement between parties, and no alterations, changes, or additions thereto shall be made, except in writing approved by the parties.

17.0 SPECIAL LEGAL REQUIREMENTS

Nondiscrimination - No person performing work under this Contract, including any subcontractor, employee, or agent of the Contractor, shall engage in any discrimination that is prohibited by any applicable federal, state, or county law.

18.0 OTHER CONDITIONS

By submitting a bid, Bidder acknowledges and agrees to comply with all requirements, terms, conditions, provisions, and certifications specified in the solicitation and Contract Documents.

END OF INSTRUCTIONS

MANDATORY SUBMITTALS

Submitted as Part of Bid

- | | | |
|----|---|----------------------|
| 1) | Form of Bid | P-1 to P-18 |
| 2) | Statement of Bidder's Experience | SBCE-1 to SBCE-2 |
| 3) | Surety Bid Bond Form (Bid Security) | B-1 to B-2 |
| 4) | Non-Default Affidavit | NDA-1 |
| 5) | Non-Collusive Affidavit | NCA-1 |
| 6) | Non-Gratuity Affidavit | NGA-1 |
| 7) | Certification of Compliance for Employment of State Residents | ESR-1 |
| 8) | Certification of Compliance with HRS 396-18, Safety
and Health Program | CSHP-1 |
| 9) | [OPTIONAL] Apprenticeship Agreement Preference Form | [Provided by Bidder] |

Submitted Prior to Award of Contract

- | | | |
|----|--|----------------------|
| 1) | Valid Tax Clearance Certificate | [Provided by Bidder] |
| 2) | Certificate of Good Standing | [Provided by Bidder] |
| 3) | Certificate of Compliance (LIR#27) | [Provided by Bidder] |

*NOTE: In lieu of submitting items 1-3 above, Contractor shall utilize the Hawaii Compliance Express (HCE) system online at <https://vendors.ehawaii.gov/hce> and submit a "Certificate of Vendor Compliance" to meet the requirement of Hawaii Revised Statutes (HRS), Section 103D-301(c), and Hawaii Administrative Rules (HAR), Section 3-122-112.

Submitted with Contract

- | | | |
|----|--|----------------------|
| 1) | Form of Contract | Multiple Forms |
| 2) | Contractor's Corporate Resolution | [Provided by Bidder] |
| 3) | Certificate of Insurance (with HHFDC and State of Hawaii named
as Additionally Insured) | [Provided by Bidder] |
| 4) | HCE Certificate of Vendor Compliance or equivalent docs | [Provided by Bidder] |
| 5) | Performance and Payment Bonds | [Contact HHFDC] |

Submitted Within 10 Days After Contract Execution

- | | | |
|----|--|----------------------|
| 1) | Schedule of Submittals | [Provided by Bidder] |
| 2) | Schedule of Values (Payment Progress Schedule Breakdown) | See Appendix |
| 3) | List of Supervisory Personnel and Emergency Contact List | [Provided by Bidder] |
| 4) | Labor Standards Exhibits | See Appendix |

Submitted During Contract Period

- | | | |
|----|--|----------------------|
| 1) | Certified Payrolls & Exhibits (All Contractors/Subcontractors) | [Contact HHFDC] |
| 2) | Work Schedule / Construction Progress Schedule | [Provided by Bidder] |
| 3) | Notice for Final Inspection | [Provided by Bidder] |
| 4) | Lien Release Forms | See Appendix |

(Continued on next page)

- 5) Overtime/Holiday/Weekend Notification [Provided by Bidder]
- 6) Inspection Reports [See Appendix]
- 7) Payment Requests [Provided by Bidder]

NOTE: Notice for Final Inspection must be turned in sixteen (16) days prior to Final Inspection

Submitted at Closing

- 1) Substantial Completion Notification [Provided by Bidder]
- 2) Final Pay Request [Provided by Bidder]
- 3) Final Certified Payroll Records & Exhibits [Contact HHFDC]
- 4) Certificate of Compliance For Final Payment
 (Reference §3-122-112,HAR) See Appendix
- 5) Non-Gratuity Affidavit NGA-1
- 6) HCE Certificate of Vendor Compliance [Provided by Bidder]
- 7) Certificate of Compliance for Employment of State Residents ESR-1
- 8) Certificate of Release from each subcontractor [Provided by Bidder]
- 9) Evidence that the Contractor paid or secured claims for persons,
 firms or corporations who have done work or supplied
 materials, tools, equipment, machinery or other services ...[Provided by Bidder]

NOTE: Submit the above, only if it applies to this contract.

The sum necessary to meet the claims of the State may be retained from the sums due the Contractor, until said claims have been fully and completely discharged or satisfied.

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

Notice for Subcontractors:

- 1) Certified Payrolls – All Subcontractors & Lower Subcontractor [Contact HHFDC]

END OF SECTION

FORM OF BID

FOR FURNISHING LABOR AND MATERIALS REQUIRED FOR

KAI AU AVENUE ROADWAY REHABILITATION PROJECT - PHASE I

Tax Map Key: 1-9-1-016:073; 1-9-1-119:125; 1-9-1-016:118; 1-9-1-091:169

JOB NO. 22-009-K85-S

To: Francis Paul Keeno
Procurement Officer
Hawaii Housing Finance and Development Corporation (HHFDC)
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

1. The undersigned Bidder, hereby acknowledges visiting or otherwise familiarizing itself with the site of work, being familiar with the conditions under which the work is to be performed and reading the specifications and other solicitation and contract documents relating to Job No. 22-009-K85-S, KAI AU AVENUE ROADWAY REHABILITATION PROJECT – PHASE I. The undersigned Bidder hereby proposes to furnish all labor, materials, equipment, tools, transportation, permits, incidentals and supplies required to complete the project in full accordance with the contract documents for the following price(s) in the form of a Grand Total Bid amount noted below (which includes the Hawaii General Excise Tax of four and seven twelve percent (4.712%)).

GRAND TOTAL BID:

_____ DOLLARS (\$ _____).

BID SCHEDULE

Item No.	Estimated Quantities	Description	Unit Price	Total
1.	3,442	Repaving of Kaiiau Avenue inclusive of removal and installation of pavement markers, striping and markings, installation and removal of temporary pavement markings, cold planing and disposal of existing pavement, recompact existing aggregate base course, tack coat, hot mix asphalt, removal and installation of vehicle detector loops, adjustment of existing utilities to finished grade, adjustment of existing street monuments to finished grade, asphalt surface treatment, necessary permits and all incidentals, in place complete. Unit: Ton	\$ _____	\$ _____
2.	L.S.	As-Built Drawings Unit: Lump Sum		\$ _____
Total Items 1 through 2, inclusive				\$ _____
HHFDC: Kaiiau Ave – Pae Ko Gardens Section (Sta 0+50 to 9+00) & Kaiiau Ave – Iwalani Section (Sta 24+91 to 43+26)				
3.	16	Reconstruction of concrete sidewalks, inclusive of demolition and removal & disposal of existing sidewalk culvert and debris, preparation of subgrade, placement of select borrow, installation of 4-inch topsoil & grassing to match existing, replacement of section of sidewalk, construction of joints, coordination with various utility companies and government agencies, surface finishes and all incidentals, in place complete. Unit: Sq. Ft.	\$ _____	\$ _____

Item No.	Estimated Quantities	Description	Unit Price	Total
4.	60	Reconstruction of reinforced concrete curb, inclusive of saw cutting, removal and disposal of existing curb and debris, replacement of damaged sections of curb, recompaction of existing select borrow subbase course, add and compaction of aggregate base course, expansion joints, surrounding area restoration, and all incidentals, in place complete.	\$ _____	\$ _____
		Unit: Lin. Ft.		
5.	242	Reconstruction of concrete curb and gutter, inclusive of saw cutting, removal and disposal of existing curb and gutter and debris, replacement of damaged sections of curb and gutter, recompaction of existing select borrow subbase course, add and compaction of aggregate base course, expansion joints, surrounding area restoration, and all incidentals, in place complete.	\$ _____	\$ _____
		Unit: Lin. Ft.		
6.	50	Reconstruction of concrete curb , inclusive of saw cutting, removal and disposal of existing curb and gutter and debris, replacement of damaged sections of curb and gutter, recompaction of existing select borrow subbase course, add and compaction of aggregate base course, expansion joints, surrounding area restoration, and all incidentals, in place complete.	\$ _____	\$ _____
		Unit: Lin. Ft.		

Item No.	Estimated Quantities	Description	Unit Price	Total
7.	2	Tree Root Pruning and Canopy Pruning Unit: Each	\$ _____	\$ _____
8.	3	Traffic signs, including brackets, installation of new signs, and all incidentals, in place complete. Unit: Each	\$ _____	\$ _____
9.		Repair Of Catch Basins		
9A.	1	Catch Basin A – Defective Concrete Repair Unit: Sq. Ft.	\$ _____	\$ _____
9B.	L.S.	Catch Basin B - Reconstruct catch basin curb Unit: Lump Sum		\$ _____
9F.	L.S.	Catch Basin F - Reconstruct catch basin curb Unit: Lump Sum		\$ _____
9G.	L.S.	Catch Basin G - Reconstruct catch basin top slab and curb, including reinforced sidewalk reconstruction at catch basin Unit: Lump Sum		\$ _____
9J.	7	Catch Basin J – Defective Concrete Repair Unit: Sq. Ft.	\$ _____	\$ _____
9K.	10	Catch Basin K – Defective Concrete Repair Unit: Sq. Ft.	\$ _____	\$ _____
9L.	4	Catch Basin L - Defective Concrete Repair Unit: Sq. Ft.	\$ _____	\$ _____
9M.	2	Catch Basin M - Defective Concrete Repair Unit: Sq. Ft.	\$ _____	\$ _____

Item No.	Estimated Quantities	Description	Unit Price	Total
9N.	10	Catch Basin N - Defective Concrete Repair Unit: Sq. Ft.	\$ _____	\$ _____
9P.	6	Catch Basin P - Defective Concrete Repair Unit: Sq. Ft.	\$ _____	\$ _____
9Q.	3	Catch Basin Q - Defective Concrete Repair Unit: Sq. Ft.	\$ _____	\$ _____
9U.	L.S.	Catch Basin U - Reconstruct catch basin curb Unit: Lump Sum		\$ _____
9T.	L.S.	Catch Basin T - Reconstruct catch basin top slab and curb, including reinforced sidewalk reconstruction at catch basin Unit: Lump Sum.		\$ _____
9Y.	L.S.	Catch Basin Y - Reconstruct catch basin top slab and curb, including reinforced gutter and sidewalk reconstruction at catch basin Unit: Lump Sum		\$ _____
9AA.	9	Catch Basin AA - Defective Concrete Repair Unit: Sq. Ft.	\$ _____	\$ _____
Catch Basin Subtotal				\$ _____
Total Items 3 through 9, inclusive				\$ _____

Item No.	Estimated Quantities	Description	Unit Price	Total
DHHL: Kaiiau Ave – Maluohai Section (Sta 9+00 to 24+91)				
10.	155	Reconstruction of concrete curb and gutter, inclusive of saw cutting, removal and disposal of existing curb and gutter and debris, replacement of damaged sections of curb and gutter, recompaction of existing select borrow subbase course, add and compaction of aggregate base course, expansion joints, surrounding area restoration, and all incidentals, in place complete. Unit: Lin. Ft.	\$ _____	\$ _____
11.	3	Tree Root Pruning and Canopy Pruning Unit: Each	\$ _____	\$ _____
12.	2	Traffic signs, including brackets, installation of new signs, and all incidentals, in place complete. Unit: Each	\$ _____	\$ _____
Total Items 10 through 12, inclusive				\$ _____

Item No.	Estimated Quantities	Description	Unit Price	Total
Additional Work Items (See Section SP 152 for Additional Work Description and Payment Requirements)				
13.	700	Additional Aggregate Base Course Unit: Cu. Yd.	\$ _____	\$ _____
14.	700	Additional Unclassified Excavation for Reconstruction of Pavement Areas Unit: Cu. Yd.	\$ _____	\$ _____
15.	100	Subgrade Treatment with Cement Unit: Sq. Yd.	\$ _____	\$ _____
16.	5	Additional Street Survey Monument Frame and Cover, Including Adjustment Unit: Each	\$ _____	\$ _____
17.	9	Additional Geogrid (Material Only). Unit: Roll	\$ _____	\$ _____
18.	3,100	Additional Geogrid Placement (Installation). Unit: Sq. Yd.	\$ _____	\$ _____
19.	13	Additional Woven Geotextile. (Material Only). Unit: Roll	\$ _____	\$ _____
20.	3,100	Additional Woven Geotextile Placement (Installation). Unit: Sq. Yd.	\$ _____	\$ _____
21.	Allowance	Additional Water Pollution, Dust, and Erosion Control Unit: Allowance		\$ <u>10,000.00</u>
22.	F.A.	Additional Traffic Control Devices Unit: F.A.		\$ <u>10,000.00</u>

Item No.	Estimated Quantities	Description	Unit Price	Total
23.	Allowance	Additional Police Officers Unit: Allowance		\$ <u>10,000.00</u>
24.	Allowance	Additional Arboricultural work. Unit: Allowance		\$ <u>20,000.00</u>
25.	Allowance	Archaeological monitoring and Archaeological-related work Unit: Allowance		\$ <u>20,000.00</u>
26.	L.S.	Mobilization Unit: Lump Sum		\$ <u>65,728.00</u>
27.	Allowance	Contingency Unit: Allowance		\$ <u>100,000.00</u>
Total Sum (Additional Work), Items 13 through 27, inclusive				\$ _____
Total Sum, Items 1 through 27, inclusive				\$ _____

GRAND TOTAL BID (Item No. 1 through Item No. 27 of the Bid) (which includes the State of Hawaii General Excise Tax of four and one-half percent and markup (4.712%)):

_____ DOLLARS (\$ _____).

2. **Contract Term.** The time of completion for this project shall be approximately **180** calendar days from the date of commencement indicated in the Notice to Proceed. HHFDC may extend the contract term by no more than **180** calendar days at its sole discretion. Any extension of the Contract time shall be mutually agreed upon in writing in the form of a supplemental agreement executed prior to contract expiration.
3. The Bidder shall complete this Bid for all the itemized line items in this Bid. If any or all of itemized line items are removed from the executed contract, the contract time and the contract cost will be adjusted accordingly.
4. In submitting this Bid, it is understood that the award of contract will be made to the lowest responsive and responsible bidder for the GRAND TOTAL BID, subject to the availability of funds.
5. Failure to complete this Bid in its entirety may cause the bid to be considered non-responsive and may result in rejection of this Bid.
6. By submitting this Bid, the undersigned also agrees and/or attests to the following:
 - (a) Bidder is registered and/or licensed to do business in the State of Hawaii and will pay such taxes on all sales made to the State of Hawaii.
 - (b) The information provided by the bidder is accurate to the best of bidder's knowledge and its contracting officer is authorized to contract on behalf of the firm and confirm the stated information.
7. The undersigned also agrees as follows:
 - (a) That the estimated quantities in this Bid are approximate only and are subject to increase or decrease.
 - (b) To complete the work whether the estimated quantities are increased or decreased at the unit prices stated in this Bid.

- (c) That the estimated quantities in this Bid are only for the purpose of comparing bids offered for the work on a uniform basis, and that the undersigned is satisfied with and will at no time dispute the estimated quantities as a means of comparing the bids.
- (d) To make no claim for anticipated profit or loss of profit because of a difference between the quantities of the various classes of work done or the material and equipment actually installed and the estimated quantities.
- (e) That if the UNIT PRICE multiplied by the estimated quantity does not equal the total price of any item in this Bid, the correct total price of the item shall be the amount arrived at by multiplying the UNIT PRICE by the estimated quantity.
- (f) That for UNIT PRICE items, payment will be made only for the actual number of units completed at the UNIT PRICE.
- (g) That the UNIT PRICE for each item in this Bid includes the cost of all materials, equipment, labor and all other incidental work required for the completion of the work.
- (h) That the basis of comparison will be the Bid.
- (i) That all bids submitted include the State of Hawaii general excise tax of four and one-half percent and markup (4.712%).
- (j) That allowance work will be paid for on a cost-plus twenty percent (20%) for overhead and profit, for work done by the Contractor's own forces, and cost-plus ten percent (10%) for overhead and profit, for work done by the Contractor's subcontractor. Furthermore, the HHFDC may require the Contractor to submit invoices, receipts and/or other information as needed.
- (k) That the liquidated damages for every calendar day of delay in the completion of the work shall be **\$1,000.00** per day as specified in the "Liquidated Damages" section of the Special Conditions.
- (l) Bidder declares that its firm was not assisted or represented by an individual who has, in a State capacity, been involved in this project or this proposed contract in the past two consecutive years.
- (m) That HHFDC reserves the right, in its sole discretion, to reject any or all bids.
- (n) That this Bid may not be withdrawn without penalty for up to sixty (60) calendar days subsequent to the opening of bids unless otherwise required by law.

- (o) That upon acceptance of this Bid, the undersigned will enter into, execute and deliver a contract in the prescribed form by HHFDC, and current state and federal tax clearances within ten (10) days after the contract is presented to the undersigned for signature or within such further time as the Procurement Officer may allow.
 - (p) That by submitting this Bid, the undersigned is declaring that if awarded a contract, the undersigned will comply with Section 11-355, Hawaii Revised Statutes, which prohibits campaign contributions from State and County government contractors during the term of their contract, where the contractor is paid with funds appropriated by a legislative body.
8. Pursuant to section 103D-310(c), HRS, all offerors, upon award of contract, shall comply with all laws governing entities doing business in the State, including HRS Chapters 237, 383, 386, 392, and 393. Offerors shall produce documents to the procuring officer to demonstrate compliance with this subsection. Any offeror making a false affirmation or certification under this subsection shall be suspended from further offerings or awards pursuant to section 103D-702, HRS. The procuring officer shall verify compliance with this subsection.
9. The following documents shall be attached to this Bid:
- (a) An affidavit in proof that the undersigned is not in default of any contract with the State of Hawaii.
 - (b) An affidavit in proof that the undersigned has not entered into any collusion with any other person with respect to the submission of this Bid or any other bid for the work.
 - (c) An affidavit in proof that the undersigned has not given or made any agreement to give any gift or gratuity in any form whatsoever to any employee of HHFDC, the employee's relatives or agents.
 - (d) Certification for Safety and Health Programs for Offers in excess of \$100,000, certifying that the undersigned will have a written safety and health plan for this project.
 - (e) Statement of Bidder's Contractor Experience.
 - (f) A valid and Current Hawaii Compliance Express (HCE) Certificate of Vendor Compliance or ALL of the following items below:
 - Current tax clearances from the Director of the Department of Taxation and the Internal Revenue Service.

- Certificate of Good Standing from the Department of Commerce and Consumer Affairs.
- Certificate of Compliance from the Department of Labor and Industrial Relations.

10. By submission of this offer, the Bidder certifies that it has indicated all apprenticeable trades it will employ for this project (excluding subcontractors) by listing all the applicable trades below:

Bidder **must** submit a complete, valid Form1 for each apprenticeable trade indicated above to qualify for the preference.

11. If this solicitation is being conducted on HlePRO, bidder agrees that awards made for this solicitation, if any, shall be done through the HlePRO system and shall therefore be subject to a mandatory .75% (.0075) transaction fee, not to exceed \$5,000 for the total contract term. This transaction fee shall be based on the total sales made against this contract, payable to Hawaii Information Consortium, LLC (HIC), the vendor administering HlePRO. HIC shall invoice the vendor directly for payment of transaction fees. Payment must be made to HIC within thirty (30) days from receipt of invoice. HIC is an intended third-party beneficiary of transaction fees, which are used to fund the operation, maintenance and future enhancements of the HlePRO system.
12. Bid samples or descriptive literature should not be submitted unless expressly requested and, regardless of any attempt by bidder to condition the bid, unsolicited bid samples or descriptive literature which are submitted at the bidder's risk will not be examined or tested, and will not be deemed to vary any of the provisions of the IFB.
13. Bidder shall designate those portions of the offer that contain trade secrets or other proprietary data that are to remain confidential, subject to HAR 3-122-30(c) and (d); and the material designated as confidential shall be readily separable from the bid in order to facilitate public inspection of the non-confidential portion of the bid.

- 14. This is an electronic procurement. Bids will be submitted online through HlePRO. Within five (5) working days from the notification of intent to award, the lowest responsive, responsible Bidder shall submit the signed original offer, with the original bid bond, as applicable. If bidder fails to comply with this requirement, the procurement officer may reject the electronically submitted bid.
- 15. Receipt of the following addenda (if any) issued by the HHFDC is acknowledged by the date(s) of receipt indicated below:

Addendum No. 1 _____ Addendum No. 2 _____

Addendum No. 3 _____ Addendum No. 4 _____

It is understood that failure to receive any such Addendum shall not relieve the Bidder from any obligation of this Proposal.

OFFICIAL ADDRESS

FIRM NAME: _____

 By: _____
 Title: _____
 Date: _____

ACKNOWLEDGEMENT OF LIQUIDATED DAMAGES

Project: Kaiiau Avenue Roadway Rehabilitation Project – Phase I
Kapolei (Ewa), Oahu, Hawaii

This is to certify that the undersigned understands and agrees to the provisions for liquidated damages contained in the bid to which this acknowledgement is attached, and that submittal of a bid constitutes acceptance of the provision and amount of liquidated damages for delay that shall be assessed at \$1,000 per calendar day.

By: _____

Firm: _____

Date: _____

Failure to submit this form with the bid may be cause for the rejection of bid.

WAGE CERTIFICATE

Project: Kaiiau Avenue Roadway Rehabilitation Project – Phase I

The undersigned bidder certifies that in performing the services required for the above project, the services will be performed under the following conditions:

- a. 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. Any construction repair work performed in excess of \$2,000 will require that employees be paid per Chapter 104, Hawaii Revised Statutes, Wages and Hours of Employees on Public Works.

- b. The published Hourly Wage Rate Schedule may be obtained from the Department of Labor and Industrial Relations web site below:

<https://labor.hawaii.gov/wsd/prevailing-wages-wage-rate-schedule/>

By: _____

Firm: _____

Date: _____

Failure to submit this form with the bid may be cause for the rejection of the bid.

LISTING OF JOINT CONTRACTORS AND SUBCONTRACTORS

The following shall be attached to and be considered a part of the bid:

The bidder certifies that the following is a complete listing of all joint contractors or subcontractors covered under Hawaii Revised Statutes, Chapter 444, who will be engaged by the bidder on this Project to perform the nature and scope of work indicated pursuant to Hawaii Revised Statutes, section 103D-302 and understands that failure to comply with this requirement shall be just cause for rejection of the bid.

The bidder further understands that only those joint contractors or subcontractors listed shall be allowed to perform work on this Project and that all other work necessary shall be performed by the bidder with his own employees. If no joint contractor or subcontractor is listed, it shall be construed that all the work shall be performed by the bidder with his own employees.

All bidders must be sure that they possess and that the subcontractors listed in the proposal possess all the necessary specialty licenses needed to perform the work for this project. The bidder shall be solely responsible for assuring that all specialty licenses required to perform the work are set forth in his bid.

(Complete Firm Name and Contractor's License No. and indicate whether Joint Contractor or Subcontractor)

Name of Joint Contractor or Subcontractor	Nature and Scope of Work	License Number and Specialty Classification Number

**CERTIFICATION OF COMPLIANCE
WITH HRS 396-18, SAFETY AND HEALTH PROGRAMS**

SUBJECT: Kaiiau Avenue Roadway Rehabilitation Project – Phase I
JOB NO. 22-009-K85-S

This is to certify that the undersigned will comply with the requirements of HRS § 396-18, as follows:

- (A) Pursuant to HRS § 396-18, all bids and proposals in excess of \$100,000 shall include a signed certification from the bidder that a written safety and health plan for the job will be available and implemented by the notice to proceed dates of the project. The written safety and health plan shall include:
 - 1) A safety and health policy statement reflecting management commitment;
 - 2) A description of the safety and health responsibilities of all levels of management and supervisors on the job, and a statement of accountability appropriate to each;
 - 3) The details of:
 - a. The mechanism for employee involvement in job hazard analysis;
 - b. Hazard identification, including periodic inspections and hazard correction and control;
 - c. Accident and “near-miss” investigations; and
 - d. Evaluations of employee training programs.
 - 4) A plan to encourage employees to report hazards to management as soon as possible and to require management to address these hazards promptly; and
 - 5) A certification by a senior corporate or company manager that the plan is true and correct.

- (B) Failure to submit the required certification may be grounds for disqualification of the bid.

- (C) Failure to have available on site or failure to implement the written safety and health plan by the project’s Notice to Proceed Dates shall be considered willful noncompliance and be sufficient grounds to disqualify the award and terminate the contract.

BIDDER: _____

BY: _____

Signature of Person Authorized to Sign This Bid

Please Print

NAME: _____

TITLE: _____

DATE: _____

Failure to submit this form with the bid may be cause for the rejection of the bid.

Statement of Bidder's Contractor Experience

(Prime Bidder)

All questions 1 through 15 must be answered and the data given must be clear and comprehensive. This statement must be notarized. If necessary, add separate sheets for questions marked by an asterisk (*).

1. Name of bidder.
2. License number(s).
3. Permanent main office address.
4. When organized.
5. Where incorporated.
6. How many years have you been engaged in the contracting business under your present firm name?
7. *Contracts on hand: (Schedule these, showing gross amount of each contract and the approximate anticipated dates of completion.)
8. *General character of work performed by your company.
9. *Have you ever failed to complete any work awarded to you? If so, where and why?
10. *Have you ever defaulted on a contract?
11. *List the more important projects recently completed by your company, stating approximate cost for each, and the month and year completed.
12. *List your major equipment available for this project.
13. *Experience in work similar in importance to this project. List References and phone numbers.
14. Will you, upon request fill out a detailed qualification statement and furnish any other information that may be required by the Hawaii Housing Finance and Development Corporation?

**CERTIFICATION OF COMPLIANCE
WITH HRS 103B, EMPLOYMENT OF STATE RESIDENTS ON
CONSTRUCTION PROCUREMENT CONTRACTS**

**SUBJECT: KAIAU AVENUE ROADWAY REHABILITATION PROJECT – PHASE I
IFB No. 22-009-K85-S**

JOB NO. 22-009-K85-S

This is to certify that the undersigned will comply with the requirements of HRS Chapter 103B, as follows:

- (A) Pursuant to HRS § 103B-2, Chapter 103B shall apply to all construction procurements under HRS Chapter 103D and any subcontract of \$50,000 or more in connection with any general contract otherwise covered by Chapter 103B.
- (B) Pursuant to HRS § 103B-2, a contractor awarded a construction procurement contract under HRS Chapter 103D, and any of its subcontractors awarded \$50,000 or more in connection with the general contract, shall ensure that Hawai'i residents compose not less than eighty per cent of the workforce employed to perform the contract on a particular construction project, as follows:
 - (1) The eighty per cent requirement shall be determined by dividing the total number of hours worked on a contract by residents, by the total number of hours worked by all employees of the contractor in the performance of the contract.
 - (2) Hours worked for any subcontractor of the contractor shall count towards the calculations to meet the requirement.
 - (3) The hours worked by employees within shortage trades, as determined by the department of labor and industrial relations, shall not be included in the calculations to meet the requirement.
- (C) Certification of compliance with this chapter shall be made under oath by an officer of the general contractor and applicable subcontractor to the procurement officer with the notice of completion of the contract.
- (D) Failure to comply with HRS Chapter 103B shall result in sanctions against the contractor and subcontractor(s), as follows:
 - (1) With respect to the general contractor, withholding of final payment on the contract until the contractor complies; or
 - (2) With respect to the general contractor and subcontractor, proceedings for debarment or suspension of the contractor or subcontractor under HRS § 103D-702.

BIDDER: _____

BY: _____
Signature of Person Authorized to Sign This Bid

Please Print

NAME: _____

TITLE: _____

DATE: _____

Failure to submit this form with the bid may be cause for the rejection of the bid.



STATE OF HAWAII
CONTRACT FOR GOODS OR SERVICES
BASED UPON
COMPETITIVE SEALED BIDS

This Contract, executed on the respective dates indicated below, is effective as of _____, _____, between _____,
(Insert name of state department, agency, board or commission)
 State of Hawaii ("STATE"), by its _____,
(Insert title of person signing for State)
 (hereafter also referred to as the HEAD OF THE PURCHASING AGENCY or designee ("HOPA")), whose address is _____
 _____ and _____
 ("CONTRACTOR"), a _____,
(Insert corporation, partnership, joint venture, sole proprietorship, or other legal form of the Contractor)
 under the laws of the State of _____, whose business address and federal and state taxpayer identification numbers are as follows: _____

RECITALS

A. The STATE desires to retain and engage the CONTRACTOR to provide the goods or services, or both, described in this Contract and its attachments, and the CONTRACTOR is agreeable to providing said goods or services, or both.

B. The STATE has issued an invitation for competitive sealed bids, and has received and reviewed bids submitted in response to the invitation.

C. The solicitation for bids and the selection of the CONTRACTOR were made in accordance with section 103D-302, Hawaii Revised Statutes ("HRS"), Hawaii Administrative Rules, Title 3, Department of Accounting and General Services, Subtitle 11 ("HAR"), Chapter 122, Subchapter 5, and applicable procedures established by the appropriate Chief Procurement Officer ("CPO").

D. The CONTRACTOR has been identified as the lowest responsible and responsive bidder whose bid meets the requirements and criteria set forth in the invitation.

E. Pursuant to _____,
(Legal authority to enter into this Contract)
 the STATE is authorized to enter into this Contract.

F. Money is available to fund this Contract pursuant to:
 (1) _____
(Identify state sources)
 or (2) _____
(Identify federal sources)
 or both, in the following amounts: State \$ _____
 Federal \$ _____

NOW, THEREFORE, in consideration of the promises contained in this Contract, the STATE and the CONTRACTOR agree as follows:

1. Scope of Services. The CONTRACTOR shall, in a proper and satisfactory manner as determined by the STATE, provide all the goods or services, or both, set forth in the Invitation for Bids number _____ ("IFB") and the CONTRACTOR'S accepted bid ("Bid"), both of which, even if not physically attached to this Contract, are made a part of this Contract.
2. Compensation. The CONTRACTOR shall be compensated for goods supplied or services performed, or both, under this Contract in a total amount not to exceed _____

_____ DOLLARS

(\$ _____), including approved costs incurred and taxes, at the time and in the manner set forth in the IFB and CONTRACTOR'S Bid.

3. Time of Performance. The services or goods required of the CONTRACTOR under this Contract shall be performed and completed in accordance with the Time of Performance set forth in Attachment-S3, which is made a part of this Contract.

4. Bonds. The CONTRACTOR is required to provide or is not required to provide: a performance bond, a payment bond, a performance and payment bond in the amount of _____ DOLLARS (\$ _____).

5. Standards of Conduct Declaration. The Standards of Conduct Declaration of the CONTRACTOR is attached to and made a part of this Contract.

6. Other Terms and Conditions. The General Conditions and any Special Conditions are attached to and made a part of this Contract. In the event of a conflict between the General Conditions and the Special Conditions, the Special Conditions shall control. In the event of a conflict among the documents, the order of precedence shall be as follows: (1) this Contract, including all attachments and addenda; (2) the IFB, including all attachments and addenda; and (3) the CONTRACTOR'S Bid.

7. Liquidated Damages. Liquidated damages shall be assessed in the amount of _____ DOLLARS (\$ _____) per day, in accordance with the terms of paragraph 9 of the General Conditions.

8. Notices. Any written notice required to be given by a party to this Contract shall be (a) delivered personally, or (b) sent by United States first class mail, postage prepaid. Notice to the STATE shall be sent to the HOPA'S address indicated in the Contract. Notice to the CONTRACTOR shall be sent to the CONTRACTOR'S address indicated in the Contract. A notice shall be deemed to have been received three (3) days after mailing or at the time of actual receipt, whichever is earlier. The CONTRACTOR is responsible for notifying the STATE in writing of any change of address.

IN VIEW OF THE ABOVE, the parties execute this Contract by their signatures, on the dates below, to be effective as of the date first above written.

STATE

(Signature)

(Print Name)

(Print Title)

(Date)

CONTRACTOR

(Name of Contractor)

(Signature)

(Print Name)

(Print Title)

(Date)

CORPORATE SEAL
(If available)

APPROVED AS TO FORM:

Deputy Attorney General

* Evidence of authority of the CONTRACTOR'S representative to sign this Contract for the CONTRACTOR must be attached.



STATE OF HAWAII

CONTRACTOR'S ACKNOWLEDGMENT

STATE OF _____)
) SS.
_____ COUNTY OF _____)

On this _____ day of _____, _____ before me appeared
_____ and _____, to me
known, to be the person(s) described in and, who, being by me duly sworn, did say that he/she/they is/are
_____ and _____ of
_____, the
CONTRACTOR named in the foregoing instrument, and that he/she/they is/are authorized to sign said
instrument on behalf of the CONTRACTOR, and acknowledges that he/she/they executed said
instrument as the free act and deed of the CONTRACTOR.

(Notary Stamp or Seal)

(Signature)

(Print Name)

Notary Public, State of _____

My commission expires: _____

Doc. Date: _____ # Pages: _____

Notary Name: _____ Circuit _____

Doc. Description: _____

(Notary Stamp or Seal)

Notary Signature _____ Date _____

NOTARY CERTIFICATION



STATE OF HAWAII
CONTRACTOR'S
STANDARDS OF CONDUCT DECLARATION

For the purposes of this declaration:

"Agency" means and includes the State, the legislature and its committees, all executive departments, boards, commissions, committees, bureaus, offices; and all independent commissions and other establishments of the state government but excluding the courts.

"Controlling interest" means an interest in a business or other undertaking which is sufficient in fact to control, whether the interest is greater or less than fifty per cent (50%).

"Employee" means any nominated, appointed, or elected officer or employee of the State, including members of boards, commissions, and committees, and employees under contract to the State or of the constitutional convention, but excluding legislators, delegates to the constitutional convention, justices, and judges. (Section 84-3, HRS).

On behalf of _____, CONTRACTOR, the undersigned does declare as follows:

1. CONTRACTOR is* is not a legislator or an employee or a business in which a legislator or an employee has a controlling interest. (Section 84-15(a), HRS).
2. CONTRACTOR has not been represented or assisted personally in the matter by an individual who has been an employee of the agency awarding this Contract within the preceding two years and who participated while so employed in the matter with which the Contract is directly concerned. (Section 84-15(b), HRS).
3. CONTRACTOR has not been assisted or represented by a legislator or employee for a fee or other compensation to obtain this Contract and will not be assisted or represented by a legislator or employee for a fee or other compensation in the performance of this Contract, if the legislator or employee had been involved in the development or award of the Contract. (Section 84-14 (d), HRS).
4. CONTRACTOR has not been represented on matters related to this Contract, for a fee or other consideration by an individual who, within the past twelve (12) months, has been an agency employee, or in the case of the Legislature, a legislator, and participated while an employee or legislator on matters related to this Contract. (Sections 84-18(b) and (c), HRS).

CONTRACTOR understands that the Contract to which this document is attached is voidable on behalf of the STATE if this Contract was entered into in violation of any provision of chapter 84, Hawaii Revised Statutes, commonly referred to as the Code of Ethics, including the provisions which are the source of the declarations above. Additionally, any fee, compensation, gift, or profit received by any person as a result of a violation of the Code of Ethics may be recovered by the STATE.

* Reminder to Agency: If the "is" block is checked and if the Contract involves goods or services of a value in excess of \$10,000, the Contract must be awarded by competitive sealed bidding under section 103D-302, HRS, or a competitive sealed proposal under section 103D-303, HRS. Otherwise, the Agency may not award the Contract unless it posts a notice of its intent to award it and files a copy of the notice with the State Ethics Commission. (Section 84-15(a), HRS).

CONTRACTOR

By _____
(Signature)

Print Name _____

Print Title _____

Name of Contractor _____

Date _____



STATE OF HAWAII
SCOPE OF SERVICES

The CONTRACTOR shall provide all services set forth in the Bidding Documents (Invitation For Bids No. _____) and the CONTRACTOR's BID, both of which are incorporated herein by reference and made a part of the Contract. The CONTRACTOR's BID shall include all bid items described in the Form of Bid, pages P-1 through P-____, as submitted by the CONTRACTOR on the Bid Opening date.

SAMPLE



STATE OF HAWAII

COMPENSATION AND PAYMENT SCHEDULE

- A. The CONTRACTOR shall be compensated for services performed under this Contract in a total amount not to exceed _____ (\$_____), which includes the 4.712% State General Excise Tax and markup, as set forth in the Invitation for Bids and CONTRACTOR's bid. Any additional State General Excise taxes shall be at the sole expense of the CONTRACTOR.

- B. PAYMENT. Payment for work performed by the CONTRACTOR shall be made in accordance with paragraph 17 of the 103D General Conditions and Article 8 of the HHFDC General Conditions.

An original invoice referencing the contract number and describing the specific deliverable for which payment is being requested shall be directed to the HHFDC Section/Branch within 30 days from delivery of goods and/or services:

Project/Contract Manager
Hawaii Housing Finance and Development Corporation
Development Section
677 Queen Street, Suite 300
Honolulu, Hawaii 96813

Contractor shall be paid upon acceptance of the deliverable, and receipt and approval of the invoice, by HHFDC. Payment shall be made to:

Accounts Receivable
Contractor Name
Contractor Payment Address



STATE OF HAWAII

TIME OF PERFORMANCE

- A. NOTICE TO PROCEED. The CONTRACTOR shall not commence any work under this Agreement prior to receipt from the STATE of a Notice to Proceed.
- B. COMMENCEMENT OF THE WORK. The CONTRACTOR shall commence work under this Agreement on the date indicated in the STATE's Notice to Proceed.
- C. DURATION. The time of completion for all the work described in the Form of Bid shall be within _____ calendar days after the date of commencement indicated in the Notice to Proceed. Any extension of time or implementation of the option period will require written approval of the STATE as stated in Paragraph 19 of the 103D General Conditions.
- D. TERMINATION FOR CONVENIENCE. The Contract may be terminated at any time pursuant to the Termination for Convenience clause set forth in paragraph 14 of the General Conditions of the Contract. The STATE shall give written notice of the termination to the CONTRACTOR at least thirty (30) days prior to the effective date of such termination.
- E. LIQUIDATED DAMAGES. Liquidated damages shall be assessed in the amount of _____ DOLLARS (\$ _____) per calendar day, in accordance with the term of paragraph 9 in the 103D General Conditions and the Special Conditions.



STATE OF HAWAII

CERTIFICATE OF EXEMPTION FROM CIVIL SERVICE

1. By Heads of Departments Delegated by the Director of the Department of Human Resources Development (“DHRD”).*

Pursuant to a delegation of the authority by the Director of DHRD, I certify that the services to be provided under this Contract, and the person(s) providing the services under this Contract are exempt from the civil service, pursuant to § 76-16, Hawaii Revised Statutes (HRS).

(Signature)

(Date)

(Print Name)

(Print Title)

* This part of the form may be used by all department heads and the heads of attached agencies to whom the Director of DHRD expressly has delegated authority to certify § 76-16, HRS, civil service exemptions. The specific paragraph(s) of § 76-16, HRS, upon which an exemption is based should be noted in the contract file. If an exemption is based on § 76-16(b)(15), the contract must meet the following conditions:

- (1) It involves the delivery of completed work or product by or during a specific time;
(2) There is no employee-employer relationship; and
(3) The authorized funding for the service is from other than the "A" or personal services cost element.

NOTE: Not all attached agencies have received a delegation under § 76-16(b)(15). If in doubt, attached agencies should check with the Director of DHRD prior to certifying an exemption under § 76-16(b)(15). Authority to certify exemptions under §§76-16(b)(2), and 76-16(b)(12), HRS, has not been delegated; only the Director of DHRD may certify §§ 76-16(b)(2), and 76-16(b)(12) exemptions.

2. By the Director of DHRD, State of Hawaii.

I certify that the services to be provided under this Contract, and the person(s) providing the services under this Contract are exempt from the civil service, pursuant to §76-16, HRS.

(Signature)

(Date)

(Print Name)

(Print Title, if designee of the Director of DHRD)



STATE OF HAWAII
SPECIAL CONDITIONS

1. Under ARTICLE 1 – DEFINITIONS of the HHFDC GENERAL CONDITIONS, delete the term PROJECT ENGINEER and substitute it with CONTRACTING OFFICER. Also references in the technical specifications to OFFICER-IN-CHARGE shall mean CONTRACTING OFFICER.
2. Under ARTICLE 2 – PROPOSAL REQUIREMENTS AND CONDITIONS of the HHFDC GENERAL CONDITIONS, modify Section 2.1.1 NOTICE OF INTENTION TO BID, by renaming it to Section 2.1.1 STANDARD QUALIFICATION QUESTIONNAIRE and by deleting subsections 2.1.1.1 through 2.1.1.5 and 2.1.2.6.
3. Under ARTICLE 4 – SCOPE OF WORK of the HHFDC GENERAL CONDITIONS, modify subsection 4.2.4 CHANGE ORDERS by adding the following paragraph:

“4.2.4.3 §3-125-4 (2), HAR (2009), as amended, Adjustments of price or time for performance, is hereby incorporated by reference.”
4. Under ARTICLE 4 – SCOPE OF WORK of the HHFDC GENERAL CONDITIONS, modify section 4.4 PRICE ADJUSTMENT by adding a new subsection 4.4.2 and modify section 4.5 ALLOWANCES FOR OVERHEAD AND PROFIT, by deleting subsections 4.5.1.1, 4.5.1.2 and 4.5.1.3 and substituting subsections 4.5.1.1, 4.5.1.2 and 4.5.1.3 as follows:

“4.4.2 Cost or Pricing Data – Contractor shall provide and certify cost or pricing data for any price adjustment to a contract involving aggregate increases and decreases in costs plus applicable profits expected to exceed \$100,000. The certified cost or pricing data shall be subject to the provisions of HAR chapter 3-122, subchapter 15.

4.5.1.1 For the Contractor, for any work performed by its own labor forces, twenty percent (20%) of the direct cost;

4.5.1.2 For each subcontractor involved, for any work performed by its own forces, twenty percent (20%) of the direct cost;

4.5.1.3 For the Contractor or any subcontractor, for work performed by their subcontractors, ten percent (10%) of the amount due the performing subcontractor.”
5. Under ARTICLE 5-CONTROL OF WORK of the HHFDC GENERAL CONDITIONS, modify section 5.13 SUBCONTRACTS, by deleting the subsection 5.13 and related paragraphs and substitute the following new subsection 5.12 and related paragraphs:

“5.13 SUBCONTRACTS – Nothing contained in the contract documents shall create a contractual relationship between the State and any subcontractor. The contractor may subcontract a portion of the work but the contractor shall remain responsible for the work that is subcontracted.



STATE OF HAWAII
SPECIAL CONDITIONS

5.13.1 Replacing Subcontractors – Contractors may enter into subcontracts only with subcontractors listed in the offer form. The contractor will be allowed to replace a listed subcontractor if the subcontractor:

5.13.1.1 Fails, refuses or is unable to enter into a subcontract consistent with the terms and conditions of the subcontractor’s offer presented to the contractor; or

5.13.1.2 Becomes insolvent; or

5.13.1.3 Has any license or certification necessary for performance of the work suspended or revoked; or

5.13.1.4 Has defaulted or has otherwise breached the subcontract in connection with the subcontracted work; or

5.13.1.5 Agrees to be substituted by providing a written release; or

5.13.1.6 Is unable or refuses to comply with other requirements of law applicable to contractors, subcontractors and public works projects.

5.13.2 Notice of Replacing Subcontractor – The Contractor shall provide a written notice to the Contracting Officer when it replaces a subcontractor, including in the notice, the reasons for replacement. The Contractor agrees to defend, hold harmless, and indemnify the Department against all claims, liabilities, or damages whatsoever, including attorney’s fees, arising out of or related to the replacement of a subcontractor.

5.13.3 Adding Subcontractors - The Contractor may enter into a subcontract with a subcontractor that is not listed in the offer form only after this contract becomes enforceable.

5.13.4 Subcontracting – Contractor shall perform with its own organization, work amounting to not less than twenty (20%) of the total contract cost, exclusive of costs for materials and equipment the Contractor purchases for installation by its subcontractors, except that any items designated by the Department in the contract as “specialty items” may be performed by a subcontractor and the cost of any such specialty items so performed by the subcontractor may be deducted from the total contract cost before computing the amount of work required to be performed by the Contractor with its own organization.”

6. Under ARTICLE 5-CONTROL OF WORK of the HHFDC GENERAL CONDITIONS, modify section 5.5 SHOP DRAWINGS AND OTHER SUBMITTALS by replacing subsection 5.5.1.3 in its entirety with the following paragraph:

“No shop drawing shall be smaller than 11" x 17" nor larger than 22" x 34". At the determination of the Contracting Officer, each sheet of drawings for the submittal shall consist of either (1) reproducible transparency and three xerographic prints; or (2) six xerographic prints.”



STATE OF HAWAII
SPECIAL CONDITIONS

7. Under ARTICLE 6 – CONTROL OF MATERIALS AND EQUIPMENT of the HHFDC GENERAL CONDITIONS, modify Section 6.3 SUBSTITUTION OF MATERIALS AND EQUIPMENT AFTER BID OPENINGS, by renaming it to Section 6.3 SUBSTITUTION AFTER CONTRACT AWARD and by deleting subsections 6.3.1 through 6.3.3 and related paragraphs, and substitute the following two new subsections 6.3.1 and 6.3.2 and related paragraphs:

“6.3.1 Materials, equipment, articles and systems noted on the drawings and specifications, establish a standard of quality, function, performance or design requirements and shall not be interpreted to limit competition. Should trade names, makes, catalog numbers or brand names be specified, the contractor shall infer that these items indicate the quality, style, appearance or performance of the material, equipment, article, or systems to be used in the project. The contractor is responsible to use materials, equipment, articles or systems that meet the project requirements. Unless specifically provided otherwise in the contract documents, the contractor may, at its option, use any material, equipment, article or system that, in the judgement of the Contracting Officer, is equal to that required by the contract documents.

6.3.1.1 If after installing a material, equipment, article or system a variance is discovered, the contractor shall immediately replace the material, equipment, article or system with one that meets the requirements of the contract documents.

6.3.2 Substitution after Contract Award. Subject to the Contracting Officer’s determination; material, equipment, article or system with a variant feature(s) may be allowed as a substitution, provided it is in the State’s best interest. The State may deny a substitution; and if a substitution is denied, the contractor is not entitled to any additional compensation or time extension.

6.3.2.1 The Contractor shall include with the submittal, a notification that identifies all deviations or variances from the contract documents. The notice shall be in a written form separate from the submittal. The variances shall be clearly shown on the shop drawing, descriptive sheet, and material sample or color sample; and the Contractor shall certify that the substitution has no other variant features. Failures to identify the variances are grounds to reject the related work or materials, notwithstanding that the Contracting Officer accepted the submittal. If the variances are not acceptable to the Contracting Officer, the contractor will be required to furnish the item as specified on the contract documents at no additional cost or time.

6.3.2.2 Acceptance of a variance shall not justify a contract price or time adjustment unless the Contractor requests an adjustment at the time of submittal and the adjustments are explicitly agreed to in writing by the Contracting Officer. Any request shall include price details and proposed scheduling modifications. Acceptance of a variance is subject to all contract terms, and is without prejudice to all rights under the surety bond.



STATE OF HAWAII
SPECIAL CONDITIONS

6.3.2.3 The Contractor can recommend improvements to the project, for materials, equipment, articles, or systems by means of a substitution request, even if the improvements are at an additional cost. The Contracting Officer shall make the final determination to accept or reject the Contractor's proposed improvements. If the proposed material, equipment, article or system cost less than the specified item, the Department will require a sharing of cost similar to value engineering to be implemented. State reserves its right to deny a substitution; and if a substitution is denied, the Contractor is not entitled to additional compensation or time extension."

8. Under ARTICLE 8 – MEASUREMENT AND PAYMENT of the HHFDC GENERAL CONDITIONS, modify Section 8.5 PROMPT PAYMENT (§3-125-23 HAR), by adding the following paragraph:

"8.5.7 The penalty section in §3-125-23(3), HAR (2009), is hereby incorporated by reference."

9. Liquidated Damages shall be one thousand (\$1,000.00) dollars per day pursuant to Section 7.26 of the HHFDC General Conditions.

10. Wages and Hours. The wage rate schedule is not physically enclosed in the bid documents. However, the wage rate schedule is incorporated herein by reference and made part of the Bid and Contract Documents. The bidder must obtain and use the latest minimum rates ten (10) days prior to the date set for the opening of bids. All applicable work pursuant to Chapter 104, HRS shall comply with the wage rate schedule. The wage rate schedule may be obtained from the Department of Labor and Industrial Relations website: <http://labor.hawaii.gov/rs/home/wages/72-2/>.

11. INSURANCE. The CONTRACTOR agrees to secure and maintain during all times that the CONTRACTOR is engaged in performing the CONTRACTOR's duties and obligations, pursuant to this Agreement the following insurance:

- A. Commercial General Liability including but not limited to automobile liability or Comprehensive General Liability insurance for bodily injury and property damage liability covering all of the operations of the CONTRACTOR, including but not limited to automobile liability and contractual liability specifically covering liability assumed herein in forms satisfactory to the STATE and with limits of liability, which shall not be less than the following:

\$1,000,000	bodily injury or personal injury per occurrence;
\$1,000,000	automobile liability per accident;
\$1,000,000	property damage per occurrence;
\$2,000,000	combined single limit per occurrence; and
\$2,000,000	yearly aggregate.



STATE OF HAWAII
SPECIAL CONDITIONS

B. The CONTRACTOR shall furnish the STATE with certificates of such above-described insurance with the following endorsements noted thereon:

- 1) For Commercial General Liability or Comprehensive General Liability only:
 - (a) “Thirty (30) days prior written notice of cancellation, non-renewal or change in the policy shall be given to the STATE.”
 - (b) “The STATE and the HHFDC shall be included by specific endorsements as additional insured parties.”
 - (c) In the event of claims being made by one insured for which another insured is, or may be liable, the policy shall cover such insured against whom a claim is made or may be made in the manner as if separate policies had been issued to each hereunder.
 - (d) The policy shall be primary and any insurance carried by the STATE shall be excess, but only with respect to all operations of the insured. Any other insurance, which the STATE may have to insure loss, shall not contribute to a loss to which the insurance provided hereunder is applicable so long as such loss is due solely to all operations of the insured.
- 2) In the event of any reduction or exhaustion of the aggregate annual limits of liability, the CONTRACTOR shall immediately obtain additional insurance to replenish the limits of liability provided in this Agreement.
- 3) The CONTRACTOR shall immediately provide written notice to the STATE should any of the insurance policies evidenced on its Certificate of Insurance form be cancelled, limited in scope, or not renewed upon expiration.
- 4) Furthermore, each insurance policy shall contain the following clauses:
 - (a) The State of Hawaii is added as an additional insured as respects to operations performed for the State of Hawaii.
 - (b) It is agreed that any insurance maintained by the State of Hawaii will apply in excess of, and not contribute with, insurance provided by this policy.

12. Employment of State Residents Requirements – HRS Chapter 103B as amended by Act 192, SLH 2011

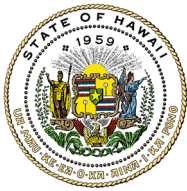
A. Definitions

- 1) “Contract” means contracts for construction under 103D, HRS.
- 2) “Contractor” has the same meaning as in Section 103D-104, HRS, provided that “contractor” includes a subcontractor where applicable.



STATE OF HAWAII
SPECIAL CONDITIONS

- 3) “Construction” has the same meaning as in Section 103D-104, HRS.
 - 4) “General Contractor” means any person having a construction contract with a governmental body.
 - 5) “Procurement Officer” has the same meaning as in Section 103D-104, HRS.
 - 6) “Resident” means a person who is physically present in the State of Hawaii at the time the person claims to have established the person’s domicile in the State of Hawaii and shows the person’s intent to make Hawaii the person’s primary residence.
 - 7) “Shortage trade” means a construction trade in which there is a shortage of Hawaii residents qualified to work in the trade as determined by the Department of Labor and Industrial Relations.
- B. A Contractor awarded a contract shall ensure that Hawaii residents comprise not less than 80% of the workforce employed to perform the contract work on the project. The 80% requirement shall be determined by dividing the total number of hours worked on the contract by Hawaii residents, by the total number of hours worked on the contract by all employees of the Contractor in the performance of the contract. The hours worked by any Subcontractor of the Contractor shall count towards the calculation for this section. The hours worked by employees within shortage trades, as determined by the Department of Labor and Industrial Relations (DLIR), shall not be included in the calculation of this section.
- C. Prior to award of a contract, an Offeror/Bidder may withdraw an offer/bid without penalty if the Offeror/Bidder finds that it is unable to comply with HRS Chapter 103B as amended by Act 192, SLH 2011.
- D. Prior to starting any construction work, the Contractor shall submit the subcontract dollar amount for each of its Subcontractors.
- E. The requirements of this section shall apply to any subcontract of \$50,000 or more in connection with the Contractor; that is, such Subcontractors must also ensure that Hawaii residents comprise not less than 80% of the Subcontractor’s workforce used to perform the subcontract.
- F. The Contractor and any Subcontractor whose subcontract is \$50,000 or more shall comply with the requirements of HRS Chapter 103B as amended by Act 192, SLH 2011.
- 1) Certification of compliance shall be made in writing under oath by an officer of the General Contractor and applicable Subcontractors and submitted with the final payment request.



STATE OF HAWAII
SPECIAL CONDITIONS

- 2) The certification of compliance shall be made under oath by an officer of the company by completing a “Certification of Compliance for Employment of State Residents” form and executing the Certificate before a licensed notary public.
- 3) In addition to the certification as indicated above, the Contractor and Subcontractors shall maintain records such as certified payrolls for laborers and mechanics who performed work at the site and time sheets for all other employees who performed work on the project. These records shall include the names, addresses and number of hours worked on the project by all employees of the Contractor and Subcontractor who performed work on the project to validate compliance with HRS Chapter 103B as amended by Act 192, SLH 2011. The Contractor and Subcontractors shall retain these records and provide access to the State for a minimum period of four (4) years after the final payment, except that if any litigation, claim, negotiation, investigation, audit or other action involving the records has been started before the expiration of the four- year period, the Contractor and Subcontractors shall retain the records until completion of the action and resolution of all issues that arise from it, or until the end of the four-year period, whichever occurs later. Furthermore, it shall be the Contractor’s responsibility to enforce compliance with this provision by any Subcontractor.

G. A Contractor or subcontractor who fails to comply with this section shall be subject to sanctions as follows:

- 1) With respect to the Contractor, withholding of final payment on the contract until the Contractor complies with section B; or
- 2) With respect to the Contractor and Subcontractor, proceedings for debarment or suspension of the Contractor or Subcontractor under Section 103D-702, HRS.

H. Conflict with Federal Law – This section shall not apply if the application of this section is in conflict with any federal law, or if the application of this section will disqualify the State from receiving Federal funds or aid.

13. Apprenticeship Agreement Preference. Pursuant to HRS 103-55.6, if Contractor is awarded the Contract utilizing the apprenticeship preference, Contractor shall certify monthly, using a form provided by the State of Hawaii Department of Labor and Industrial Relations (DLIR), that work is being conducted on the project and that Contractor continues to be a participant in the relevant apprenticeship program for each trade it employs. The Monthly Report of Contractor's Participation (Form 2) is available for download on the DLIR website at: <http://labor.hawaii.gov/wdd/files/2012/12/Form-2-Monthly-Report-of-Contractors-Participation.pdf>.



STATE OF HAWAII
SPECIAL CONDITIONS

14. RESPONSIBILITY OF CONTRACTOR

A. In order to ensure timely payment of invoices, Contractor shall be compliant with all laws governing entities doing business in the State, including, but not limited to:

- 1) Chapter 237, tax clearance;
- 2) Chapter 383, unemployment insurance;
- 3) Chapter 386, workers' compensation;
- 4) Chapter 392, temporary disability insurance;
- 5) Chapter 393, prepaid health care; and
- 6) Chapter 103D-310(c), Certificate of Good Standing (COGS) for entities doing business in the State.

B. As proof of compliance, Contractor must furnish with its payment requests a current and valid Certificate of Vendor Compliance from the HCE system or equivalent documentation showing compliance. The State shall verify compliance on HCE or with the applicable government agencies. If Contractor is not compliant, payment will be delayed until Contractor status is updated Compliant.

15. In the event of a conflict between these Special Conditions, the HHFDC General Conditions and the 103D General Conditions (AG-008), and the Technical Specifications, the documents shall control in the following priority:

- A. Special Conditions
- B. 103D General Conditions (AG-008)
- C. HHFDC General Conditions
- D. Technical Specifications

The foregoing notwithstanding, the provision, section, and/or document most advantageous to the State shall control. Said controlling provision, section and/or document shall be determined by HHFDC in its sole discretion.

GENERAL CONDITIONS

Table of Contents

	<u>Page(s)</u>
1. Coordination of Services by the STATE.....	2
2. Relationship of Parties: Independent Contractor Status and Responsibilities, Including Tax Responsibilities.....	2
3. Personnel Requirements	3
4. Nondiscrimination	3
5. Conflicts of Interest	3
6. Subcontracts and Assignments	3
7. Indemnification and Defense.....	4
8. Cost of Litigation.....	4
9. Liquidated Damages	4
10. STATE'S Right of Offset.....	4
11. Disputes	4
12. Suspension of Contract.....	4
13. Termination for Default.....	5
14. Termination for Convenience.....	6
15. Claims Based on the Agency Procurement Officer's Actions or Omissions.....	8
16. Costs and Expenses	8
17. Payment Procedures; Final Payment; Tax Clearance	9
18. Federal Funds	9
19. Modifications of Contract.....	9
20. Change Order.....	10
21. Price Adjustment	11
22. Variation in Quantity for Definite Quantity Contracts	11
23. Changes in Cost-Reimbursement Contract.....	11
24. Confidentiality of Material	12
25. Publicity.....	12
26. Ownership Rights and Copyright	12
27. Liens and Warranties	12
28. Audit of Books and Records of the CONTRACTOR.....	13
29. Cost or Pricing Data	13
30. Audit of Cost or Pricing Data	13
31. Records Retention.....	13
32. Antitrust Claims.....	13
33. Patented Articles.....	13
34. Governing Law	14
35. Compliance with Laws	14
36. Conflict between General Conditions and Procurement Rules	14
37. Entire Contract.....	14
38. Severability.....	14
39. Waiver	14
40. Pollution Control	14
41. Campaign Contributions.....	14
42. Confidentiality of Personal Information.....	14

GENERAL CONDITIONS

1. Coordination of Services by the STATE. The head of the purchasing agency ("HOPA") (which term includes the designee of the HOPA) shall coordinate the services to be provided by the CONTRACTOR in order to complete the performance required in the Contract. The CONTRACTOR shall maintain communications with HOPA at all stages of the CONTRACTOR'S work, and submit to HOPA for resolution any questions which may arise as to the performance of this Contract. "Purchasing agency" as used in these General Conditions means and includes any governmental body which is authorized under chapter 103D, HRS, or its implementing rules and procedures, or by way of delegation, to enter into contracts for the procurement of goods or services or both.
2. Relationship of Parties: Independent Contractor Status and Responsibilities, Including Tax Responsibilities.
 - a. In the performance of services required under this Contract, the CONTRACTOR is an "independent contractor," with the authority and responsibility to control and direct the performance and details of the work and services required under this Contract; however, the STATE shall have a general right to inspect work in progress to determine whether, in the STATE'S opinion, the services are being performed by the CONTRACTOR in compliance with this Contract. Unless otherwise provided by special condition, it is understood that the STATE does not agree to use the CONTRACTOR exclusively, and that the CONTRACTOR is free to contract to provide services to other individuals or entities while under contract with the STATE.
 - b. The CONTRACTOR and the CONTRACTOR'S employees and agents are not by reason of this Contract, agents or employees of the State for any purpose, and the CONTRACTOR and the CONTRACTOR'S employees and agents shall not be entitled to claim or receive from the State any vacation, sick leave, retirement, workers' compensation, unemployment insurance, or other benefits provided to state employees.
 - c. The CONTRACTOR shall be responsible for the accuracy, completeness, and adequacy of the CONTRACTOR'S performance under this Contract. Furthermore, the CONTRACTOR intentionally, voluntarily, and knowingly assumes the sole and entire liability to the CONTRACTOR'S employees and agents, and to any individual not a party to this Contract, for all loss, damage, or injury caused by the CONTRACTOR, or the CONTRACTOR'S employees or agents in the course of their employment.
 - d. The CONTRACTOR shall be responsible for payment of all applicable federal, state, and county taxes and fees which may become due and owing by the CONTRACTOR by reason of this Contract, including but not limited to (i) income taxes, (ii) employment related fees, assessments, and taxes, and (iii) general excise taxes. The CONTRACTOR also is responsible for obtaining all licenses, permits, and certificates that may be required in order to perform this Contract.
 - e. The CONTRACTOR shall obtain a general excise tax license from the Department of Taxation, State of Hawaii, in accordance with section 237-9, HRS, and shall comply with all requirements thereof. The CONTRACTOR shall obtain a tax clearance certificate from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of the Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR have been paid and submit the same to the STATE prior to commencing any performance under this Contract. The CONTRACTOR shall also be solely responsible for meeting all requirements necessary to obtain the tax clearance certificate required for final payment under sections 103-53 and 103D-328, HRS, and paragraph 17 of these General Conditions.
 - f. The CONTRACTOR is responsible for securing all employee-related insurance coverage for the CONTRACTOR and the CONTRACTOR'S employees and agents that is or may be required by law, and for payment of all premiums, costs, and other liabilities associated with securing the insurance coverage.

- g. The CONTRACTOR shall obtain a certificate of compliance issued by the Department of Labor and Industrial Relations, State of Hawaii, in accordance with section 103D-310, HRS, and section 3-122-112, HAR, that is current within six months of the date of issuance.
- h. The CONTRACTOR shall obtain a certificate of good standing issued by the Department of Commerce and Consumer Affairs, State of Hawaii, in accordance with section 103D-310, HRS, and section 3-122-112, HAR, that is current within six months of the date of issuance.
- i. In lieu of the above certificates from the Department of Taxation, Labor and Industrial Relations, and Commerce and Consumer Affairs, the CONTRACTOR may submit proof of compliance through the State Procurement Office's designated certification process.

3. Personnel Requirements.

- a. The CONTRACTOR shall secure, at the CONTRACTOR'S own expense, all personnel required to perform this Contract.
- b. The CONTRACTOR shall ensure that the CONTRACTOR'S employees or agents are experienced and fully qualified to engage in the activities and perform the services required under this Contract, and that all applicable licensing and operating requirements imposed or required under federal, state, or county law, and all applicable accreditation and other standards of quality generally accepted in the field of the activities of such employees and agents are complied with and satisfied.

4. Nondiscrimination. No person performing work under this Contract, including any subcontractor, employee, or agent of the CONTRACTOR, shall engage in any discrimination that is prohibited by any applicable federal, state, or county law.

5. Conflicts of Interest. The CONTRACTOR represents that neither the CONTRACTOR, nor any employee or agent of the CONTRACTOR, presently has any interest, and promises that no such interest, direct or indirect, shall be acquired, that would or might conflict in any manner or degree with the CONTRACTOR'S performance under this Contract.

6. Subcontracts and Assignments. The CONTRACTOR shall not assign or subcontract any of the CONTRACTOR'S duties, obligations, or interests under this Contract and no such assignment or subcontract shall be effective unless (i) the CONTRACTOR obtains the prior written consent of the STATE, and (ii) the CONTRACTOR'S assignee or subcontractor submits to the STATE a tax clearance certificate from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR'S assignee or subcontractor have been paid. Additionally, no assignment by the CONTRACTOR of the CONTRACTOR'S right to compensation under this Contract shall be effective unless and until the assignment is approved by the Comptroller of the State of Hawaii, as provided in section 40-58, HRS.

a. Recognition of a successor in interest. When in the best interest of the State, a successor in interest may be recognized in an assignment contract in which the STATE, the CONTRACTOR and the assignee or transferee (hereinafter referred to as the "Assignee") agree that:

- (1) The Assignee assumes all of the CONTRACTOR'S obligations;
- (2) The CONTRACTOR remains liable for all obligations under this Contract but waives all rights under this Contract as against the STATE; and
- (3) The CONTRACTOR shall continue to furnish, and the Assignee shall also furnish, all required bonds.

b. Change of name. When the CONTRACTOR asks to change the name in which it holds this Contract with the STATE, the procurement officer of the purchasing agency (hereinafter referred to as the "Agency procurement officer") shall, upon receipt of a document acceptable or satisfactory to the

Agency procurement officer indicating such change of name (for example, an amendment to the CONTRACTOR'S articles of incorporation), enter into an amendment to this Contract with the CONTRACTOR to effect such a change of name. The amendment to this Contract changing the CONTRACTOR'S name shall specifically indicate that no other terms and conditions of this Contract are thereby changed.

- c. Reports. All assignment contracts and amendments to this Contract effecting changes of the CONTRACTOR'S name or novations hereunder shall be reported to the chief procurement officer (CPO) as defined in section 103D-203(a), HRS, within thirty days of the date that the assignment contract or amendment becomes effective.
 - d. Actions affecting more than one purchasing agency. Notwithstanding the provisions of subparagraphs 6a through 6c herein, when the CONTRACTOR holds contracts with more than one purchasing agency of the State, the assignment contracts and the novation and change of name amendments herein authorized shall be processed only through the CPO's office.
7. Indemnification and Defense. The CONTRACTOR shall defend, indemnify, and hold harmless the State of Hawaii, the contracting agency, and their officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including all attorneys' fees, and all claims, suits, and demands therefore, arising out of or resulting from the acts or omissions of the CONTRACTOR or the CONTRACTOR'S employees, officers, agents, or subcontractors under this Contract. The provisions of this paragraph shall remain in full force and effect notwithstanding the expiration or early termination of this Contract.
 8. Cost of Litigation. In case the STATE shall, without any fault on its part, be made a party to any litigation commenced by or against the CONTRACTOR in connection with this Contract, the CONTRACTOR shall pay all costs and expenses incurred by or imposed on the STATE, including attorneys' fees.
 9. Liquidated Damages. When the CONTRACTOR is given notice of delay or nonperformance as specified in paragraph 13 (Termination for Default) and fails to cure in the time specified, it is agreed the CONTRACTOR shall pay to the STATE the amount, if any, set forth in this Contract per calendar day from the date set for cure until either (i) the STATE reasonably obtains similar goods or services, or both, if the CONTRACTOR is terminated for default, or (ii) until the CONTRACTOR provides the goods or services, or both, if the CONTRACTOR is not terminated for default. To the extent that the CONTRACTOR'S delay or nonperformance is excused under paragraph 13d (Excuse for Nonperformance or Delay Performance), liquidated damages shall not be assessable against the CONTRACTOR. The CONTRACTOR remains liable for damages caused other than by delay.
 10. STATE'S Right of Offset. The STATE may offset against any monies or other obligations the STATE owes to the CONTRACTOR under this Contract, any amounts owed to the State of Hawaii by the CONTRACTOR under this Contract or any other contracts, or pursuant to any law or other obligation owed to the State of Hawaii by the CONTRACTOR, including, without limitation, the payment of any taxes or levies of any kind or nature. The STATE will notify the CONTRACTOR in writing of any offset and the nature of such offset. For purposes of this paragraph, amounts owed to the State of Hawaii shall not include debts or obligations which have been liquidated, agreed to by the CONTRACTOR, and are covered by an installment payment or other settlement plan approved by the State of Hawaii, provided, however, that the CONTRACTOR shall be entitled to such exclusion only to the extent that the CONTRACTOR is current with, and not delinquent on, any payments or obligations owed to the State of Hawaii under such payment or other settlement plan.
 11. Disputes. Disputes shall be resolved in accordance with section 103D-703, HRS, and chapter 3-126, Hawaii Administrative Rules ("HAR"), as the same may be amended from time to time.
 12. Suspension of Contract. The STATE reserves the right at any time and for any reason to suspend this Contract for any reasonable period, upon written notice to the CONTRACTOR in accordance with the provisions herein.
 - a. Order to stop performance. The Agency procurement officer 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 performance 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 performance order issued pursuant to this section. Stop performance orders shall include, as appropriate: (1) A clear description of the work to be suspended; (2) Instructions as to the issuance of further orders by the CONTRACTOR for material or services; (3) Guidance as to action to be taken on subcontracts; and (4) Other instructions and suggestions to the CONTRACTOR for minimizing costs. Upon receipt of such an order, the CONTRACTOR shall forthwith comply with its terms and suspend all performance under this Contract at the time stated, provided, however, the CONTRACTOR shall take all reasonable steps to minimize the occurrence of costs allocable to the performance covered by the order during the period of performance stoppage. Before the stop performance order expires, or within any further period to which the parties shall have agreed, the Agency procurement officer shall either:

- (1) Cancel the stop performance order; or
- (2) Terminate the performance covered by such order as provided in the termination for default provision or the termination for convenience provision of this Contract.

b. Cancellation or expiration of the order. If a stop performance order issued under this section is cancelled at any time during the period specified in the order, or if the period of the order or any extension thereof expires, the CONTRACTOR shall have the right to resume performance. 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 performance 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 performance stoppage; provided that, if the Agency procurement officer 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 performance. If a stop performance order is not cancelled and the performance covered by such order is terminated for default or convenience, the reasonable costs resulting from the stop performance order shall be allowable by adjustment or otherwise.

d. Adjustment of price. Any adjustment in contract price made pursuant to this paragraph shall be determined in accordance with the price adjustment provision of this Contract.

13. Termination for Default.

a. 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 Agency procurement officer 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 Agency procurement officer, 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 Agency procurement officer may procure similar goods or services in a manner and upon the terms deemed appropriate by the Agency procurement officer. 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.

b. CONTRACTOR'S duties. Notwithstanding termination of the Contract and subject to any directions from the Agency procurement officer, the CONTRACTOR shall take timely, reasonable, and

necessary action to protect and preserve property in the possession of the CONTRACTOR in which the STATE has an interest.

- c. Compensation. Payment for completed goods and services delivered and accepted by the STATE shall be at the price set forth in the Contract. Payment for the protection and preservation of property shall be in an amount agreed upon by the CONTRACTOR and the Agency procurement officer. If the parties fail to agree, the Agency procurement officer 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 Agency procurement officer deems to be necessary to protect the STATE against loss because of outstanding liens or claims and to reimburse the STATE for the excess costs expected to be incurred by the STATE in procuring similar goods and services.
- d. Excuse for nonperformance or delayed performance. 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 performance hereunder which endangers such performance, if the CONTRACTOR has notified the Agency procurement officer within fifteen (15) days after the cause of the delay and the failure arises out of causes such as: acts of God; acts of a 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 and services to be furnished by the subcontractor were reasonably obtainable from other sources in sufficient time to permit the CONTRACTOR to meet the requirements of the Contract. Upon request of the CONTRACTOR, the Agency procurement officer 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 this Contract. As used in this paragraph, the term "subcontractor" means subcontractor at any tier.
- e. Erroneous termination for default. If, after notice of termination of the CONTRACTOR'S right to proceed under this paragraph, it is determined for any reason that the CONTRACTOR was not in default under this paragraph, or that the delay was excusable under the provisions of subparagraph 13d, "Excuse for nonperformance or delayed performance," the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to paragraph 14.
- f. Additional rights and remedies. The rights and remedies provided in this paragraph are in addition to any other rights and remedies provided by law or under this Contract.

14. Termination for Convenience.

- a. Termination. The Agency procurement officer may, when the interests of the STATE so require, terminate this Contract in whole or in part, for the convenience of the STATE. The Agency procurement officer shall give written notice of the termination to the CONTRACTOR specifying the part of the Contract terminated and when termination becomes effective.
- b. CONTRACTOR'S obligations. The CONTRACTOR shall incur no further obligations in connection with the terminated performance and on the date(s) set in the notice of termination the CONTRACTOR will stop performance to the extent specified. The CONTRACTOR shall also terminate outstanding orders and subcontracts as they relate to the terminated performance. The CONTRACTOR shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated performance subject to the STATE'S approval. The Agency procurement officer 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 performance not terminated by the notice of termination and may incur obligations as necessary to do so.

- c. Right to goods and work product. The Agency procurement officer may require the CONTRACTOR to transfer title and deliver to the STATE in the manner and to the extent directed by the Agency procurement officer:

- (1) Any completed goods or work product; and
- (2) 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 Agency procurement officer, protect and preserve property in the possession of the CONTRACTOR in which the STATE has an interest. If the Agency procurement officer does not exercise this right, the CONTRACTOR shall use best efforts to sell such goods and manufacturing materials. Use of this paragraph in no way implies that the STATE has breached the Contract by exercise of the termination for convenience provision.

- d. Compensation.

- (1) The CONTRACTOR shall submit a termination claim specifying the amounts due because of the termination for convenience together with the cost or pricing data, submitted to the extent required by chapter 3-122, HAR, bearing on such claim. If the CONTRACTOR fails to file a termination claim within one year from the effective date of termination, the Agency procurement officer may pay the CONTRACTOR, if at all, an amount set in accordance with subparagraph 14d(3) below.
- (2) The Agency procurement officer and the CONTRACTOR may agree to a settlement provided the CONTRACTOR has filed a termination claim supported by cost or pricing data submitted as required 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 subparagraph 14c, and the Contract price of the performance not terminated.
- (3) Absent complete agreement under subparagraph 14d(2) the Agency procurement officer shall pay the CONTRACTOR the following amounts, provided payments agreed to under subparagraph 14d(2) shall not duplicate payments under this subparagraph for the following:
 - (A) Contract prices for goods or services accepted under the Contract;
 - (B) Costs incurred in preparing to perform and performing the terminated portion of the performance plus a fair and reasonable profit on such portion of the performance, such profit shall not include anticipatory profit or consequential damages, less amounts paid or to be paid for accepted goods or services; provided, however, 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;
 - (C) Costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to subparagraph 14b. These costs must not include costs paid in accordance with subparagraph 14d(3)(B);
 - (D) 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 costs of the CONTRACTOR reduced by the amount of payments otherwise made, the proceeds of any sales of supplies and manufacturing materials under subparagraph 14d(2), and the contract price of performance not terminated.

- (4) Costs claimed, agreed to, or established under subparagraphs 14d(2) and 14d(3) shall be in accordance with Chapter 3-123 (Cost Principles) of the Procurement Rules.

15. Claims Based on the Agency Procurement Officer's Actions or Omissions.

a. Changes in scope. If any action or omission on the part of the Agency procurement officer (which term includes the designee of such officer for purposes of this paragraph 15) requiring performance changes within the scope of the Contract constitutes the basis for a claim by the CONTRACTOR for additional compensation, damages, or an extension of time for completion, the CONTRACTOR shall continue with performance of the Contract in compliance with the directions or orders of such officials, 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:

- (1) Written notice required. The CONTRACTOR shall give written notice to the Agency procurement officer:

- (A) Prior to the commencement of the performance involved, if at that time the CONTRACTOR knows of the occurrence of such action or omission;

- (B) Within thirty (30) days after the CONTRACTOR knows of the occurrence of such action or omission, if the CONTRACTOR did not have such knowledge prior to the commencement of the performance; or

- (C) Within such further time as may be allowed by the Agency procurement officer in writing.

- (2) Notice content. This notice shall state that the CONTRACTOR regards the act or omission as a reason which may entitle the CONTRACTOR to additional compensation, damages, or an extension of time. The Agency procurement officer, upon receipt of such notice, may rescind such action, remedy such omission, or take such other steps as may be deemed advisable in the discretion of the Agency procurement officer;

- (3) Basis must be explained. The notice required by subparagraph 15a(1) describes as clearly as practicable at the time the reasons why the CONTRACTOR believes that additional compensation, damages, or an extension of time may be remedies to which the CONTRACTOR is entitled; and

- (4) Claim must be justified. The CONTRACTOR must maintain and, upon request, make available to the Agency procurement officer within a reasonable time, detailed records to the extent practicable, and other documentation and evidence satisfactory to the STATE, justifying the claimed additional costs or an extension of time in connection with such changes.

b. CONTRACTOR not excused. Nothing herein contained, however, shall excuse the CONTRACTOR from compliance with any rules or laws precluding any state officers and CONTRACTOR from acting in collusion or bad faith in issuing or performing change orders which are clearly not within the scope of the Contract.

c. Price adjustment. Any adjustment in the price made pursuant to this paragraph shall be determined in accordance with the price adjustment provision of this Contract.

16. Costs and Expenses. Any reimbursement due the CONTRACTOR for per diem and transportation expenses under this Contract shall be subject to chapter 3-123 (Cost Principles), HAR, and the following guidelines:

- a. Reimbursement for air transportation shall be for actual cost or coach class air fare, whichever is less.
- b. Reimbursement for ground transportation costs shall not exceed the actual cost of renting an intermediate-sized vehicle.
- c. Unless prior written approval of the HOPA is obtained, reimbursement for subsistence allowance (i.e., hotel and meals, etc.) shall not exceed the applicable daily authorized rates for inter-island or out-of-state travel that are set forth in the current Governor's Executive Order authorizing adjustments in salaries and benefits for state officers and employees in the executive branch who are excluded from collective bargaining coverage.

17. Payment Procedures; Final Payment; Tax Clearance.

- a. Original invoices required. All payments under this Contract shall be made only upon submission by the CONTRACTOR of original invoices specifying the amount due and certifying that services requested under the Contract have been performed by the CONTRACTOR according to the Contract.
- b. Subject to available funds. Such payments are subject to availability of funds and allotment by the Director of Finance in accordance with chapter 37, HRS. Further, all payments shall be made in accordance with and subject to chapter 40, HRS.
- c. Prompt payment.
 - (1) Any money, other than retainage, paid to the CONTRACTOR shall be disbursed to subcontractors within ten (10) days after receipt of the money in accordance with the terms of the subcontract; provided that the subcontractor has met all the terms and conditions of the subcontract and there are no bona fide disputes; and
 - (2) Upon final payment to the CONTRACTOR, full payment to the subcontractor, including retainage, shall be made within ten (10) days after receipt of the money; provided that there are no bona fide disputes over the subcontractor's performance under the subcontract.
- d. Final payment. Final payment under this Contract shall be subject to sections 103-53 and 103D-328, HRS, which require a tax clearance from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR have been paid. Further, in accordance with section 3-122-112, HAR, CONTRACTOR shall provide a certificate affirming that the CONTRACTOR has remained in compliance with all applicable laws as required by this section.

18. Federal Funds. If this Contract is payable in whole or in part from federal funds, CONTRACTOR agrees that, as to the portion of the compensation under this Contract to be payable from federal funds, the CONTRACTOR shall be paid only from such funds received from the federal government, and shall not be paid from any other funds. Failure of the STATE to receive anticipated federal funds shall not be considered a breach by the STATE or an excuse for nonperformance by the CONTRACTOR.

19. Modifications of Contract.

- a. In writing. Any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract permitted by this Contract shall be made by written amendment to this Contract, signed by the CONTRACTOR and the STATE, provided that change orders shall be made in accordance with paragraph 20 herein.
- b. No oral modification. No oral modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract shall be permitted.

- c. Agency procurement officer. By written order, at any time, and without notice to any surety, the Agency procurement officer may unilaterally order of the CONTRACTOR:
 - (A) Changes in the work within the scope of the Contract; and
 - (B) Changes in the time of performance of the Contract that do not alter the scope of the Contract work.
 - d. Adjustments of price or time for performance. If any modification increases or decreases the CONTRACTOR'S cost of, or the time required for, performance of any part of the work under this Contract, an adjustment shall be made and this Contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined, where applicable, in accordance with the price adjustment clause of this Contract or as negotiated.
 - e. Claim barred after final payment. No claim by the CONTRACTOR for an adjustment hereunder shall be allowed if written modification of the Contract is not made prior to final payment under this Contract.
 - f. Claims not barred. In the absence of a written contract modification, nothing in this clause shall be deemed to restrict the CONTRACTOR'S right to pursue a claim under this Contract or for a breach of contract.
 - g. Head of the purchasing agency approval. If this is a professional services contract awarded pursuant to section 103D-303 or 103D-304, HRS, any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract which increases the amount payable to the CONTRACTOR by at least \$25,000.00 and ten per cent (10%) or more of the initial contract price, must receive the prior approval of the head of the purchasing agency.
 - h. Tax clearance. The STATE may, at its discretion, require the CONTRACTOR to submit to the STATE, prior to the STATE'S approval of any modification, alteration, amendment, change, or extension of any term, provision, or condition of this Contract, a tax clearance from the Director of Taxation, State of Hawaii, and the Internal Revenue Service, U.S. Department of Treasury, showing that all delinquent taxes, if any, levied or accrued under state law and the Internal Revenue Code of 1986, as amended, against the CONTRACTOR have been paid.
 - i. Sole source contracts. Amendments to sole source contracts that would change the original scope of the Contract may only be made with the approval of the CPO. Annual renewal of a sole source contract for services should not be submitted as an amendment.
20. Change Order. The Agency procurement officer may, by a written order signed only by the STATE, at any time, and without notice to any surety, and 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 or services to be furnished are to be specially provided to the STATE in accordance therewith;
 - (2) Method of delivery; or
 - (3) Place of delivery.
- a. 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 the Contract price made pursuant to this provision shall be determined in accordance with the price adjustment provision 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 Agency procurement officer promptly and duly makes 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 any extension of time for completion.

- b. Time period for claim. Within ten (10) days after receipt of a written change order under subparagraph 20a, unless the period is extended by the Agency procurement officer in writing, the CONTRACTOR shall respond with a claim for an adjustment. The requirement for a timely written response by CONTRACTOR cannot be waived and shall be a condition precedent to the assertion of a claim.
- c. Claim barred after final payment. No claim by the CONTRACTOR for an adjustment hereunder shall be allowed if a written response is not given prior to final payment under this Contract.
- d. Other claims not barred. In the absence of a change order, nothing in this paragraph 20 shall be deemed to restrict the CONTRACTOR'S right to pursue a claim under the Contract or for breach of contract.

21. Price Adjustment.

- a. Price adjustment. Any adjustment in the contract price pursuant to a provision in this Contract shall be made in one or more of the following ways:
 - (1) By agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;
 - (2) By unit prices specified in the Contract or subsequently agreed upon;
 - (3) By the costs attributable to the event or situation covered by the provision, plus appropriate profit or fee, all as specified in the Contract or subsequently agreed upon;
 - (4) In such other manner as the parties may mutually agree; or
 - (5) In the absence of agreement between the parties, by a unilateral determination by the Agency procurement officer of the costs attributable to the event or situation covered by the provision, plus appropriate profit or fee, all as computed by the Agency procurement officer in accordance with generally accepted accounting principles and applicable sections of chapters 3-123 and 3-126, HAR.
- b. Submission of cost or pricing data. The CONTRACTOR shall provide cost or pricing data for any price adjustments subject to the provisions of chapter 3-122, HAR.

22. Variation in Quantity for Definite Quantity Contracts. Upon the agreement of the STATE and the CONTRACTOR, the quantity of goods or services, or both, if a definite quantity is specified in this Contract, may be increased by a maximum of ten per cent (10%); provided the unit prices will remain the same except for any price adjustments otherwise applicable; and the Agency 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.

23. Changes in Cost-Reimbursement Contract. If this Contract is a cost-reimbursement contract, the following provisions shall apply:

- a. The Agency procurement officer may at any time by written order, and without notice to the sureties, if any, make changes within the general scope of the Contract in any one or more of the following:
 - (1) Description of performance (Attachment 1);
 - (2) Time of performance (i.e., hours of the day, days of the week, etc.);
 - (3) Place of performance of services;

- (4) Drawings, designs, or specifications when the supplies to be furnished are to be specially manufactured for the STATE in accordance with the drawings, designs, or specifications;
 - (5) Method of shipment or packing of supplies; or
 - (6) Place of delivery.
- b. If any change causes an increase or decrease in the estimated cost of, or the time required for performance of, any part of the performance under this Contract, whether or not changed by the order, or otherwise affects any other terms and conditions of this Contract, the Agency procurement officer shall make an equitable adjustment in the (1) estimated cost, delivery or completion schedule, or both; (2) amount of any fixed fee; and (3) other affected terms and shall modify the Contract accordingly.
 - c. The CONTRACTOR must assert the CONTRACTOR'S rights to an adjustment under this provision within thirty (30) days from the day of receipt of the written order. However, if the Agency procurement officer decides that the facts justify it, the Agency procurement officer may receive and act upon a proposal submitted before final payment under the Contract.
 - d. Failure to agree to any adjustment shall be a dispute under paragraph 11 of this Contract. However, nothing in this provision shall excuse the CONTRACTOR from proceeding with the Contract as changed.
 - e. Notwithstanding the terms and conditions of subparagraphs 23a and 23b, the estimated cost of this Contract and, if this Contract is incrementally funded, the funds allotted for the performance of this Contract, shall not be increased or considered to be increased except by specific written modification of the Contract indicating the new contract estimated cost and, if this contract is incrementally funded, the new amount allotted to the contract.
24. Confidentiality of Material.
- a. All material given to or made available to the CONTRACTOR by virtue of this Contract, which is identified as proprietary or confidential information, will be safeguarded by the CONTRACTOR and shall not be disclosed to any individual or organization without the prior written approval of the STATE.
 - b. All information, data, or other material provided by the CONTRACTOR to the STATE shall be subject to the Uniform Information Practices Act, chapter 92F, HRS.
25. Publicity. The CONTRACTOR shall not refer to the STATE, or any office, agency, or officer thereof, or any state employee, including the HOPA, the CPO, the Agency procurement officer, or to the services or goods, or both, provided under this Contract, in any of the CONTRACTOR'S brochures, advertisements, or other publicity of the CONTRACTOR. All media contacts with the CONTRACTOR about the subject matter of this Contract shall be referred to the Agency procurement officer.
26. Ownership Rights and Copyright. The STATE shall have complete ownership of all material, both finished and unfinished, which is developed, prepared, assembled, or conceived by the CONTRACTOR pursuant to this Contract, and all such material shall be considered "works made for hire." All such material shall be delivered to the STATE upon expiration or termination of this Contract. The STATE, in its sole discretion, shall have the exclusive right to copyright any product, concept, or material developed, prepared, assembled, or conceived by the CONTRACTOR pursuant to this Contract.
27. Liens and Warranties. Goods provided under this Contract shall be provided free of all liens and provided together with all applicable warranties, or with the warranties described in the Contract documents, whichever are greater.

28. Audit of Books and Records of the CONTRACTOR. The STATE may, at reasonable times and places, audit the books and records of the CONTRACTOR, prospective contractor, subcontractor, or prospective subcontractor which are related to:
- a. The cost or pricing data, and
 - b. A state contract, including subcontracts, other than a firm fixed-price contract.

29. Cost or Pricing Data. Cost or pricing data must be submitted to the Agency procurement officer and timely certified as accurate for contracts over \$100,000 unless the contract is for a multiple-term or as otherwise specified by the Agency procurement officer. Unless otherwise required by the Agency procurement officer, cost or pricing data submission is not required for contracts awarded pursuant to competitive sealed bid procedures.

If certified cost or pricing data are subsequently found to have been inaccurate, incomplete, or noncurrent as of the date stated in the certificate, the STATE is entitled to an adjustment of the contract price, including profit or fee, to exclude any significant sum by which the price, including profit or fee, was increased because of the defective data. It is presumed that overstated cost or pricing data increased the contract price in the amount of the defect plus related overhead and profit or fee. Therefore, unless there is a clear indication that the defective data was not used or relied upon, the price will be reduced in such amount.

30. Audit of Cost or Pricing Data. When cost or pricing principles are applicable, the STATE may require an audit of cost or pricing data.

31. Records Retention.

- (1) Upon any termination of this Contract or as otherwise required by applicable law, CONTRACTOR shall, pursuant to chapter 487R, HRS, destroy all copies (paper or electronic form) of personal information received from the STATE.
- (2) The CONTRACTOR and any subcontractors shall maintain the files, books, and records that relate to the Contract, including any personal information created or received by the CONTRACTOR on behalf of the STATE, and any cost or pricing data, for at least three (3) years after the date of final payment under the Contract. The personal information shall continue to be confidential and shall only be disclosed as permitted or required by law. After the three (3) year, or longer retention period as required by law has ended, the files, books, and records that contain personal information shall be destroyed pursuant to chapter 487R, HRS or returned to the STATE at the request of the STATE.

32. Antitrust Claims. The STATE and the CONTRACTOR recognize that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, the CONTRACTOR hereby assigns to STATE any and all claims for overcharges as to goods and materials purchased in connection with this Contract, except as to overcharges which result from violations commencing after the price is established under this Contract and which are not passed on to the STATE under an escalation clause.

33. Patented Articles. The CONTRACTOR shall defend, indemnify, and hold harmless the STATE, and its officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including all attorneys fees, and all claims, suits, and demands arising out of or resulting from any claims, demands, or actions by the patent holder for infringement or other improper or unauthorized use of any patented article, patented process, or patented appliance in connection with this Contract. The CONTRACTOR shall be solely responsible for correcting or curing to the satisfaction of the STATE any such infringement or improper or unauthorized use, including, without limitation: (a) furnishing at no cost to the STATE a substitute article, process, or appliance acceptable to the STATE, (b) paying royalties or other required payments to the patent holder, (c) obtaining proper authorizations or releases from the patent holder, and (d) furnishing such security to or making such arrangements with the patent holder as may be necessary to correct or cure any such infringement or improper or unauthorized use.

34. Governing Law. The validity of this Contract and any of its terms or provisions, as well as the rights and duties of the parties to this Contract, shall be governed by the laws of the State of Hawaii. Any action at law or in equity to enforce or interpret the provisions of this Contract shall be brought in a state court of competent jurisdiction in Honolulu, Hawaii.
35. Compliance with Laws. The CONTRACTOR shall comply with all federal, state, and county laws, ordinances, codes, rules, and regulations, as the same may be amended from time to time, that in any way affect the CONTRACTOR'S performance of this Contract.
36. Conflict Between General Conditions and Procurement Rules. In the event of a conflict between the General Conditions and the procurement rules, the procurement rules in effect on the date this Contract became effective shall control and are hereby incorporated by reference.
37. Entire Contract. This Contract sets forth all of the agreements, conditions, understandings, promises, warranties, and representations between the STATE and the CONTRACTOR relative to this Contract. This Contract supersedes all prior agreements, conditions, understandings, promises, warranties, and representations, which shall have no further force or effect. There are no agreements, conditions, understandings, promises, warranties, or representations, oral or written, express or implied, between the STATE and the CONTRACTOR other than as set forth or as referred to herein.
38. Severability. In the event that any provision of this Contract is declared invalid or unenforceable by a court, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining terms of this Contract.
39. Waiver. The failure of the STATE to insist upon the strict compliance with any term, provision, or condition of this Contract shall not constitute or be deemed to constitute a waiver or relinquishment of the STATE'S right to enforce the same in accordance with this Contract. The fact that the STATE specifically refers to one provision of the procurement rules or one section of the Hawaii Revised Statutes, and does not include other provisions or statutory sections in this Contract shall not constitute a waiver or relinquishment of the STATE'S rights or the CONTRACTOR'S obligations under the procurement rules or statutes.
40. Pollution Control. If during the performance of this Contract, the CONTRACTOR encounters a "release" or a "threatened release" of a reportable quantity of a "hazardous substance," "pollutant," or "contaminant" as those terms are defined in section 128D-1, HRS, the CONTRACTOR shall immediately notify the STATE and all other appropriate state, county, or federal agencies as required by law. The Contractor shall take all necessary actions, including stopping work, to avoid causing, contributing to, or making worse a release of a hazardous substance, pollutant, or contaminant, and shall promptly obey any orders the Environmental Protection Agency or the state Department of Health issues in response to the release. In the event there is an ensuing cease-work period, and the STATE determines that this Contract requires an adjustment of the time for performance, the Contract shall be modified in writing accordingly.
41. Campaign Contributions. The CONTRACTOR is hereby notified of the applicability of 11-355, HRS, which states that campaign contributions are prohibited from specified state or county government contractors during the terms of their contracts if the contractors are paid with funds appropriated by a legislative body.
42. Confidentiality of Personal Information.
- a. Definitions.
- "Personal information" means an individual's first name or first initial and last name in combination with any one or more of the following data elements, when either name or data elements are not encrypted:
- (1) Social security number;
 - (2) Driver's license number or Hawaii identification card number; or

- (3) Account number, credit or debit card number, access code, or password that would permit access to an individual's financial information.

Personal information does not include publicly available information that is lawfully made available to the general public from federal, state, or local government records.

"Technological safeguards" means the technology and the policy and procedures for use of the technology to protect and control access to personal information.

b. Confidentiality of Material.

- (1) All material given to or made available to the CONTRACTOR by the STATE by virtue of this Contract which is identified as personal information, shall be safeguarded by the CONTRACTOR and shall not be disclosed without the prior written approval of the STATE.
- (2) CONTRACTOR agrees not to retain, use, or disclose personal information for any purpose other than as permitted or required by this Contract.
- (3) CONTRACTOR agrees to implement appropriate "technological safeguards" that are acceptable to the STATE to reduce the risk of unauthorized access to personal information.
- (4) CONTRACTOR shall report to the STATE in a prompt and complete manner any security breaches involving personal information.
- (5) CONTRACTOR agrees to mitigate, to the extent practicable, any harmful effect that is known to CONTRACTOR because of a use or disclosure of personal information by CONTRACTOR in violation of the requirements of this paragraph.
- (6) CONTRACTOR shall complete and retain a log of all disclosures made of personal information received from the STATE, or personal information created or received by CONTRACTOR on behalf of the STATE.

c. Security Awareness Training and Confidentiality Agreements.

- (1) CONTRACTOR certifies that all of its employees who will have access to the personal information have completed training on security awareness topics relating to protecting personal information.
- (2) CONTRACTOR certifies that confidentiality agreements have been signed by all of its employees who will have access to the personal information acknowledging that:
 - (A) The personal information collected, used, or maintained by the CONTRACTOR will be treated as confidential;
 - (B) Access to the personal information will be allowed only as necessary to perform the Contract; and
 - (C) Use of the personal information will be restricted to uses consistent with the services subject to this Contract.

d. Termination for Cause. In addition to any other remedies provided by this Contract, if the STATE learns of a material breach by CONTRACTOR of this paragraph by CONTRACTOR, the STATE may at its sole discretion:

- (1) Provide an opportunity for the CONTRACTOR to cure the breach or end the violation; or
- (2) Immediately terminate this Contract.

In either instance, the CONTRACTOR and the STATE shall follow chapter 487N, HRS, with respect to notification of a security breach of personal information.

e. Records Retention.

- (1) Upon any termination of this Contract or as otherwise required by applicable law, CONTRACTOR shall, pursuant to chapter 487R, HRS, destroy all copies (paper or electronic form) of personal information received from the STATE.
- (2) The CONTRACTOR and any subcontractors shall maintain the files, books, and records that relate to the Contract, including any personal information created or received by the CONTRACTOR on behalf of the STATE, and any cost or pricing data, for at least three (3) years after the date of final payment under the Contract. The personal information shall continue to be confidential and shall only be disclosed as permitted or required by law. After the three (3) year, or longer retention period as required by law has ended, the files, books, and records that contain personal information shall be destroyed pursuant to chapter 487R, HRS or returned to the STATE at the request of the STATE.

HHFDC GENERAL CONDITIONS

GENERAL CONDITIONS

TABLE OF CONTENTS

ARTICLE/SUBARTICLE		PAGE
ARTICLE 1	DEFINITIONS	6
ARTICLE 2	PROPOSAL REQUIREMENTS AND CONDITIONS	
2.1	QUALIFICATION OF BIDDERS	12
2.2	INTERPRETATION OF QUANTITIES IN BID SCHEDULE	15
2.3	CONTENTS OF PROPOSAL FORMS	15
2.4	BIDDER'S RESPONSIBILITY FOR EXAMINATION OF CONTRACT, DOCUMENTS, SITE OF WORK, ETC.	15
2.5	UTILITIES AND SERVICES	16
2.6	ADDENDA AND BID CLARIFICATIONS	17
2.7	SUBSTITUTION OF MATERIALS AND EQUIPMENT BEFORE BID OPENING	17
2.8	PREPARATION OF PROPOSAL	18
2.9	BID SECURITY	19
2.10	DELIVERY OF PROPOSALS	20
2.11	WITHDRAWAL OR REVISION OF PROPOSAL	20
2.12	PUBLIC OPENING OF PROPOSALS	21
2.13	DISQUALIFICATION OF BIDDERS	21
2.14	PROTESTS	21
ARTICLE 3	AWARD AND EXECUTION OF CONTRACT	
3.1	CONSIDERATION OF PROPOSALS; CANCELLATION	23
3.2	IRREGULAR PROPOSALS	23
3.3	CORRECTION OF BIDS AND WITHDRAWAL OF BIDS (§3-122-31 HAR)	24
3.4	AWARD OF CONTRACT	24
3.5	CANCELLATION OF AWARD	25
3.6	RETURN OF BID SECURITY	25
3.7	REQUIREMENT OF PERFORMANCE AND PAYMENT BONDS	25
3.8	EXECUTION OF THE CONTRACT	26
3.9	FAILURE TO EXECUTE THE CONTRACT	26
3.10	NOTICE TO PROCEED	27
3.11	RELATIONSHIP OF PARTIES	27
3.12	PERSONNEL REQUIREMENTS	28
3.13	NONDISCRIMINATION	28
3.14	CONFLICT OF INTEREST	28

ARTICLE 4 SCOPE OF WORK

4.1	INTENT OF CONTRACT, DUTY OF CONTRACTOR	29
4.2	CHANGES	29
4.3	DUTY OF CONTRACTOR TO PROVIDE PROPOSAL FOR CHANGES	30
4.4	PRICE ADJUSTMENT (§3-125-13 HAR)	31
4.5	ALLOWANCES FOR OVERHEAD AND PROFIT (§3-125-13 HAR)	31
4.6	PAYMENT FOR DELETED MATERIAL	32
4.7	VARIATIONS IN ESTIMATED QUANTITIES (§3-125-10 HAR)	33
4.8	VARIATIONS IN BOTTOM ELEVATIONS	33
4.9	DIFFERING SITE CONDITIONS (§3-125-11 HAR)	33
4.10	COSTS AND EXPENSES	34

ARTICLE 5 CONTROL OF WORK

5.1	AUTHORITY OF EXECUTIVE DIRECTOR	35
5.2	AUTHORITY OF THE PROJECT ENGINEER	35
5.3	AUTHORITY OF THE INSPECTOR	35
5.4	AUTHORITY OF CONSULTANT(S)	35
5.5	SHOP DRAWINGS AND OTHER SUBMITTALS	36
5.6	COORDINATION OF CONTRACT DOCUMENTS	39
5.7	INTERPRETATION OF DRAWINGS AND SPECIFICATIONS	40
5.8	EXAMINATION OF DRAWINGS, SPECIFICATIONS, PROJECT SITE	40
5.9	COOPERATION BETWEEN THE CONTRACTOR AND THE DEPARTMENT	41
5.10	INSPECTION	43
5.11	REMOVAL OF DEFECTIVE, NON-CONFORMING AND UNAUTHORIZED WORK	43
5.12	VALUE ENGINEERING INCENTIVE	44
5.13	SUBCONTRACTS	46

ARTICLE 6 CONTROL OF MATERIALS AND EQUIPMENT

6.1	MATERIALS AND EQUIPMENT	48
6.2	SOURCE OF SUPPLY AND QUALITY OF MATERIALS	48
6.3	SUBSTITUTION OF MATERIALS AND EQUIPMENT AFTER BID OPENING ..	48
6.4	ASBESTOS CONTAINING MATERIALS	49
6.5	TEST SAMPLES	49
6.6	MATERIAL SAMPLES	50
6.7	NON-CONFORMING MATERIALS	50
6.8	HANDLING MATERIALS	50
6.9	STORAGE OF MATERIALS	50
6.10	PROPERTY RIGHTS IN MATERIALS	51
6.11	ASSIGNMENT OF ANTITRUST CLAIMS FOR OVERCHARGES FOR GOODS PURCHASED	51

7.1	PROSECUTION OF THE WORK	52
7.2	COMMENCEMENT REQUIREMENTS	53
7.3	INSURANCE REQUIREMENTS	53
7.4	PERMITS AND LICENSES	55
7.5	NORMAL WORKING HOURS	55
7.6	HOURS OF LABOR (§104-2 HRS)	56
7.7	PREVAILING WAGES (§104-2 HRS & FEDERAL DAVIS-BACON)	56
7.8	FAILURE TO PAY REQUIRED WAGES (§104-4 HRS & FEDERAL DAVIS-BACON)	57
7.9	PAYROLLS AND PAYROLL RECORDS (§104-3 HRS)	57
7.10	OVERTIME AND NIGHT WORK	58
7.11	OVERTIME AND NIGHT PAYMENT FOR DEPARTMENT INSPECTION SERVICE	58
7.12	LIMITATIONS OF OPERATIONS	59
7.13	ASSIGNMENT OR CHANGE OF NAME (§3-125-14 HAR)	59
7.14	LAWS TO BE OBSERVED	60
7.15	PATENTED DEVICES, MATERIALS AND PROCESSES	61
7.16	SANITARY, HEALTH AND SAFETY PROVISIONS	61
7.17	PROTECTION OF PERSONS AND PROPERTY	62
7.18	ARCHAEOLOGICAL SITES	63
7.19	RESPONSIBILITY FOR DAMAGE CLAIMS; INDEMNITY	63
7.20	CHARACTER OF WORKERS OR EQUIPMENT	64
7.21	CONTRACT TIME	65
7.22	CONSTRUCTION SCHEDULE	68
7.23	STATEMENT OF WORKING DAYS	69
7.24	SUSPENSION OF WORK (§3-125-7 HAR)	69
7.25	DISPUTES AND CLAIMS (§3-126-31 HAR)	70
7.26	FAILURE TO COMPLETE THE WORK ON TIME	73
7.27	TERMINATION OF CONTRACT FOR CAUSE (§3-125-18 HAR)	74
7.28	TERMINATION FOR CONVENIENCE (§3-125-22 HAR)	75
7.29	CORRECTING DEFECTS	76
7.30	FINAL CLEANING	76
7.31	SUBSTANTIAL COMPLETION AND FINAL INSPECTION	77
7.32	PROJECT ACCEPTANCE DATE	78
7.33	FINAL SETTLEMENT OF CONTRACT	79
7.34	CONTRACTOR'S RESPONSIBILITY FOR WORK; RISK OF LOSS	80
7.35	GUARANTEE OF WORK	80
7.36	WORK OF AND CHARGES BY UTILITIES	81
7.37	RIGHT TO AUDIT RECORDS	81
7.38	RECORDS MAINTENANCE, RETENTION AND ACCESS	81
7.39	COST OR PRICING DATA	82
7.40	CONFIDENTIALITY OF MATERIAL	82
7.41	PUBLICITY	83

ARTICLE 7 PROSECUTION AND PROGRESS

7.42	OWNERSHIP RIGHTS AND COPYRIGHT	83
7.43	GOVERNING LAW	83
7.44	SEVERABILITY	83
7.45	WAIVER	83

ARTICLE 8 MEASUREMENT AND PAYMENT

8.1	MEASUREMENT OF QUANTITIES	84
8.2	NO WAIVER OF LEGAL RIGHTS	84
8.3	PAYMENT FOR ADDITIONAL WORK	84
8.4	PROGRESS AND/OR PARTIAL PAYMENTS	89
8.5	PROMPT PAYMENT (§3-125-23 HAR)	90
8.6	RETAINAGE	91
8.7	WARRANTY OF CLEAR TITLE	91
8.8	FINAL PAYMENT	91
8.9	HHFDC'S RIGHT TO OFFSET	92

ARTICLE 1 - DEFINITIONS

Whenever the following terms or pronouns are used in these Bidding and Execution of Contract Requirements, and General Conditions, or in any contract documents or instruments where these Bidding and Execution of Contract Requirements, and General Conditions govern, the intent and meaning shall be interpreted as follows:

1.01 ADDENDUM (plural - Addenda). A written or graphic document, including Drawings and Specifications, issued by the Executive Director during the bidding period which modifies or interprets the bidding documents, by additions, deletions, clarifications or corrections, which shall be considered and made a part of the bid proposal and the contract.

1.02 ADDITION (to the contract sum). Amount added to the contract sum by Change Order.

1.03 ADMINISTRATIVE RULES. Hawaii Administrative Rules for Chapter 103-D of the Hawaii Revised Statutes.

1.04 ADVERTISEMENT. A public announcement inviting bids for work to be performed or materials to be furnished.

1.05 BAD WEATHER DAY. When weather or other conditions prevent a minimum of four hours of work with the Contractor's normal work force on controlling items of work at the site. (See EXCESS BAD WEATHER DAY.)

1.06 BENEFICIAL OCCUPANCY. The point of project completion when the Department can use the constructed facility in whole or in part for its intended purpose even though substantial completion may not be achieved.

1.07 BID. See PROPOSAL.

1.09 BID SECURITY. The security furnished by the Bidder from which the Department may recover its damages in the event the Bidder breaches its promise to enter into a contract with the Department and fails to execute the required bonds covering the work contemplated, if its proposal is accepted.

1.10 BIDDER. Any individual, partnership, firm, corporation, joint venture, or other legal entity submitting, directly or through a duly authorized representative or agent, a proposal for the work contemplated.

1.11 BIDDING DOCUMENTS. The advertisement "Notice to Contractors", or invitation to bid, instructions to Bidders, proposal requirements, the bid form and the proposed Contract Documents including all addenda issued prior to receipt of Bids.

1.12 BULLETIN. A written notice to the Contractor requesting a price and / or time proposal for contemplated changes preparatory to the issuance of a field order or change order.

1.13 BY OR TO THE PROJECT ENGINEER. To avoid cumbersome and confusing repetition of expressions in these General Conditions, it is provided that whenever the following words or words of like import are used, they shall be understood as if they were followed by the words "by the Project Engineer" or "to the Project Engineer", unless the context clearly indicates

another meaning: contemplated, required, determined, directed, specified, authorized, ordered, given, designated, indicated, considered necessary, deemed necessary, permitted, reserved, suspended, established, approval, approved, disapproved, acceptable, unacceptable, suitable, accepted, satisfactory, unsatisfactory, sufficient, insufficient, rejected or condemned.

1.14 CALENDAR DAY. Any day shown on the calendar beginning at midnight and ending at midnight the following day. If no designation of calendar or working day is made, "day" shall mean calendar day.

1.15 CHANGE ORDER. A written order signed by the Executive Director that establishes the full payment and final settlement of all claims for direct, indirect and consequential costs, including costs of delays, and establishes any adjustments to contract time related to the work covered and affected by one or more field orders, or for change work done or agreed to be done without issuance of a separate field order. A change order signed by all the parties to the contract constitutes a supplemental agreement.

1.16 COMPLETION. See SUBSTANTIAL COMPLETION and FINAL COMPLETION.

1.17 CONSULTANT. A person, firm or corporation having a contract with the Department to furnish services with respect to the project.

1.18 CONTRACT. The written agreement between the Contractor and the Department by its Executive Director, by which the Contractor is bound to furnish all labor, equipment, and materials and to perform the specified work within the contract time stipulated, and by which HHFDC is obligated to compensate the Contractor therefor at the prices set forth therein. The contract shall include the Contract Documents and also any and all amendments and change orders which are required to complete the construction in an acceptable manner.

1.19 CONTRACT COMPLETION DATE. The calendar day on which all work on the project, required by the contract, must be completed. See CONTRACT TIME and FINAL COMPLETION.

1.20 CONTRACT DOCUMENTS. The Contract, Addenda (which pertain to the Contract Documents, Contractor's Proposal (including Wage Schedule, List of Subcontractors and other documentation accompanying the Bid and any post bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the contract, the Notice to Proceed, the Bonds, these General Conditions, the SPECIAL CONDITIONS, the Specifications and the Drawings as the same are more specifically identified in the contract together with all written Amendments, Change Orders, Field Orders, any written order for minor changes in the work and Project Engineer's written interpretations and clarifications issued on or after the effective date of the contract.

1.21 CONTRACT PRICE. The amount designated on the face of the contract for the performance of work including allowances, if any.

1.22 CONTRACT TIME. The number of working or calendar days provided in the contract for completion of the contract, exclusive of authorized time extensions. The number of days shall begin running on the effective date in the Notice to Proceed. If in lieu of providing a number of working or calendar days, the contract requires completion by a certain date, the work shall be completed by that date.

1.23 CONTRACTOR. Any individual, partnership, firm, corporation, joint venture, or other legal entity undertaking the execution of the work under the terms of the contract with the State of Hawaii, and acting directly or through its agents, or employees.

1.24 DEPARTMENT. The Department of Business Economic Development and Tourism, Hawaii Housing Finance and Development Corporation (abbreviated HHFDC).

1.25 DRAWINGS (or Plans). The contract drawings in graphic or pictorial form, which show the design, location, character, dimensions and details of the Work to be done and which shall be a part of the Contract Documents.

1.26 EQUAL OR APPROVED EQUAL. Whenever this term is used in the drawings or specifications, it shall be interpreted to mean a brand or article, prequalified in accordance with Section 6.3 SUBSTITUTION OF MATERIALS AND EQUIPMENT AFTER BID OPENING, that may be used in place of the one specified.

1.27 EXCESS BAD WEATHER DAY. A working day on which inclement weather prevents work on the contract and is beyond the average weather for the location of the project and the time of the year.

1.28 EXECUTIVE DIRECTOR. The Executive Director of the Hawaii Housing Finance and Development Corporation.

1.29 FIELD ORDER. A written order issued by the Project Engineer to the Contractor requiring the contract work to be performed in accordance with a change or changes in the work. A field order may (1) establish a price adjustment and/or time adjustment in an amount the Project Engineer believes is reasonable for the change; or (2) may declare that the Project Engineer does not intend to adjust contract time or price for the work; or (3) may request the Contractor to submit a proposal for an adjustment to the contract time and/or price by a certain date.

1.30 FINAL COMPLETION. The date set by the Executive Director that all work required by the contract and any amendments or changes thereto is in full compliance with the contract.

1.31 FORCE ACCOUNT. Term used when Work is ordered to be done at the sole option of the Department and is to be billed for at cost of labor, materials and equipment, insurances, taxes, etc., plus a percentage for overhead and profit.

1.32 GUARANTEE. Legally enforceable assurance of the duration of satisfactory performance of quality of a product or Work.

1.33 HAZARDOUS MATERIALS. Any and all radioactive materials, asbestos, polychlorinated biphenyls, petroleum, crude oil, chemicals known to cause cancer or reproductive toxicity, pollutants, contaminants, toxic substances or materials cited in Hazardous Material Laws. Abandoned motor vehicles or parts thereof are not hazardous material.

1.34 HHFDC. Hawaii Housing Finance and Development Corporation.

- 1.35 HOLIDAYS. The days of each year which are set apart and established as State holidays pursuant to Chapter 8, Hawaii Revised Statutes.
- 1.36 INSPECTOR. The person assigned by the Department to make detailed inspections of contract performance and materials supplied for the work.
- 1.37 LAWS. All Federal, State, City and County Laws, ordinances, rules and regulations, and standard specifications, including any amendments thereto effective as of the date of the call for sealed bids.
- 1.38 LIQUIDATED DAMAGES. The amount prescribed in the Special Conditions, LIQUIDATED DAMAGES to be paid to the Department or to be deducted from any payments due or to become due the Contractor for each working day or calendar day (as applicable) delay in completing the whole or any specified portion of the work beyond the Contract Time.
- 1.39 LETTER OF AWARD. A written notice from the Executive Director to the successful Bidder(s) stating that its proposal has been accepted by the Department.
- 1.40 MAJOR UNIT PRICE ITEM. A unit price item which, when extended on its estimated quantities in the proposal form, exceeds five percent (5%) of the total base bid proposal less any allowance and contingent items included in the proposal.
- 1.41 NON-CONFORMING WORK. Work that does not meet the requirements of the Contract Documents.
- 1.42 NOTICE TO BIDDERS/CONTRACTORS. The advertisement for proposals for all work or materials on which bids are required. Such advertisement will indicate the location of the work to be done or the character of the material to be furnished and the time and place of the opening of proposals.
- 1.43 NOTICE TO PROCEED. A written notice from the Project Engineer to the Contractor advising it of the date on which it is to begin the prosecution of the Work, which date shall also be the beginning of Contract Time.
- 1.44 POST CONTRACT DRAWINGS. Drawings issued after the award of the contract for the purpose of clarification and / or changes to the work indicated in the original drawings and which may be made a part of the contract.
- 1.45 PROJECT ACCEPTANCE DATE. The calendar day on which the Project Engineer accepts the project as sufficiently completed in compliance with the contract so that the Department can occupy or utilize the Work for its intended use. See SUBSTANTIAL COMPLETION.
- 1.46 PROJECT CONTRACT LIMITS (or CONTRACT ZONE). The portion of the site as delineated on the drawings which define the Contractor's primary area of operation for the prosecution of the work. It does not define the exact limits of all construction that may be required under the contract.
- 1.47 PROJECT ENGINEER. The Department's Contract Administrator as described in Article 5 "CONTROL OF WORK".

- 1.48 PROJECT GUARANTEE. A guarantee issued by the Contractor to the Department. See GUARANTEE.
- 1.49 PROPOSAL (BID). The executed document submitted by a Bidder in the prescribed manner, in response to a request for proposals or invitation to Bid, to perform at the prices quoted, for the work specified under the contract, within the time prescribed for performance.
- 1.50 PROPOSAL FORM. The form prepared by the Department on which the written offer or formal bid for the work to be done is submitted by the Bidder. By submitting a bid on the proposal form, a Bidder adopts the language therein as its own.
- 1.51 PUNCHLIST. A list compiled by the Project Engineer (or Contractor) stating work yet to be completed or corrected by the Contractor in order to substantially complete or finally complete the contract requirements.
- 1.52 QUESTIONNAIRE. The specified forms on which the Bidder shall furnish required information as to its ability to perform and finance the work.
- 1.53 SHOP DRAWINGS/SUBMITTALS. All drawings, diagrams illustrations, schedules and other data or information which are prepared or assembled by the Contractor and submitted by Contractor to illustrate some portion of the Work.
- 1.54 SPECIAL CONDITIONS. The specific clauses that supplements or modify the standard clauses of the GENERAL CONDITIONS setting forth conditions or requirements peculiar to the individual project under consideration, which are not thoroughly or satisfactorily covered, described or explained in these GENERAL CONDITIONS.
- 1.55 SPECIFICATIONS. That portion of the Contract Documents consisting of written descriptions for materials, equipment, construction systems, standards, workmanship, directions, provisions and requirements that pertain to the method and manner of performing the work and certain administrative requirements applicable thereto.
- 1.56 STATE. The State of Hawaii acting through its authorized representative.
- 1.57 SUBCONTRACT. Any written agreement between the Contractor and its subcontractors which contains the conditions under which the subcontractor is to perform a portion of the work for the Contractor.
- 1.58 SUBCONTRACTOR. An individual, partnership, firm, corporation, joint venture or other legal entity, as covered in Chapter 444, Hawaii Revised Statutes, which enters into an agreement with the Contractor to perform a portion of the work for the Contractor.
- 1.59 SUBSTANTIAL COMPLETION. The status of the project when the Contractor has completed all the work and 1) all utilities and services are connected and working; 2) all equipment is in acceptable working condition; 3) additional activity by the Contractor to correct punchlist items as described herein will not prevent or disrupt use of the work or the facility in which the work is located; and 4) the building, structure, improvement or facility can be used for its intended purpose.

1.60 SUPERINTENDENT. The employee of the Contractor, authorized to receive and fulfill instructions from the Project Engineer, who is charged with the responsibility of all the Work.

1.61 SURETY. The qualified individual, firm or corporation other than the Contractor, which executes a bond with and for the Contractor to insure its acceptable performance of the contract.

1.62 UNUSUALLY SEVERE WEATHER. Uncommonly harsh weather including but not limited to hurricanes, tornadoes, tropical storms and tropical depressions—(See General Conditions, Section 7.21.8.6).

1.63 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.

1.64 WORKING DAY. A calendar day, exclusive of Saturdays, Sundays and State-recognized legal holidays for the month in question.

ABBREVIATIONS

HAR Hawaii Administrative Rules
HRS Hawaii Revised Statutes
VECP Value Engineering Cost Proposal
DOTAX State Department of Taxation
IRS Internal Revenue Service

END OF ARTICLE 1

BIDDING AND EXECUTION OF CONTRACT REQUIREMENTS

ARTICLE 2 – PROPOSAL REQUIREMENTS AND CONDITIONS

2.1 QUALIFICATION OF BIDDERS - Prospective Bidders must be capable of performing the work for which bids are invited, and must be capable of entering into a public contract of \$25,000 (twenty five thousand dollars) or more.

2.1.1 NOTICE OF INTENTION TO BID

2.1.1.1 In accordance with Section 103D-310, Hawaii Revised Statutes, and Section 3-122-108, Hawaii Administrative Rules, a written notice of intention to bid must be filed for the construction of any public building or public work when the bid is \$25,000 (twenty five thousand dollars) or more. A written notice of intention to bid need not be filed for the mere furnishing and installing of furniture, equipment, appliances, material and any combination of these items when a Contractor's license is not required under Chapter 444 of the Hawaii Revised Statutes, as amended, and the rules and regulations of the Contractor's License Board.

2.1.1.2 The written notice must be addressed to the Executive Director, who is the officer charged with letting the contract. The words, "INTENTION TO BID" must be clearly written or typed on the face of the envelope containing the written notice of intention to bid. The notice may be faxed, hand carried or mailed to the office indicated in the Notice to Contractors.

2.1.1.3 The written notice must be received by the office indicated in the Notice to Contractors no later than 2:00 p.m. on the 10th calendar day prior to the day designated for opening bids. If the 10th calendar day prior to the day designated for opening bids is a Saturday, Sunday, or legal State holiday, then the written notice must be received by the Department no later than 2:00 p.m. on the last working day immediately prior to said Saturday, Sunday, or legal State holiday. The written notice will be time stamped when received by said office. The time designated by the time stamping device in said office shall be official. If the written notice is hand carried, then the bearer is responsible to ensure that the notice is time stamped by said office. If the notice is faxed, the time of receipt by the Department fax machine shall be official.

2.1.1.4 It is the responsibility of the prospective Bidder to ensure that the written notice of intention to bid is received in time and the Department assumes no responsibility for failure of timely delivery caused by the prospective Bidder or by any method of conveyance chosen by the prospective Bidder.

2.1.1.5 If two (2) or more prospective Bidders desire to bid jointly as a joint venture on a single project, they must file an affidavit of joint venture with their notice of intention to bid. Such affidavit of joint venture will be valid only for the specific project for which it is filed. No further license is required when all parties to the joint venture possess current and appropriate contractor's licenses. Joint ventures are required to be licensed in accordance with Chapter 444 of the Hawaii Revised Statutes, as amended, and the rules and regulations of the Contractor's License Board when any party to the joint venture agreement does not hold a current or appropriate contractor's license. The joint venture must register with the office of the

Director of Commerce and Consumer Affairs in accordance with Chapter 425 of the Hawaii Revised Statutes, as amended.

2.1.1.6 No persons, 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 any payment owed to the State of Hawaii or any of its political subdivisions or is in default of any obligation to the State of Hawaii or to all or to any of its political subdivisions, including default as a surety or failure to perform faithfully and diligently any previous contract with the Department.

2.1.1.7 The Executive Director may, in accordance with Section 103D-310 Hawaii Revised Statutes, require the prospective Bidder to submit answers to questions contained in the STANDARD QUALIFICATION QUESTIONNAIRE FOR PROSPECTIVE BIDDERS ON PUBLIC WORKS CONTRACTS, on the form provided 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, at least two (2) working days prior to the time advertised for the opening of bids. If the information in the questionnaire proves satisfactory, the Bidder's proposal will be received. All information contained in the answers to the questionnaire shall be kept confidential. The questionnaire will be returned to the Bidder after it has served its purpose.

2.1.1.8 If upon review of the Questionnaire, or otherwise, the Bidder appears not fully qualified or able to perform the intended work, the Executive Director shall, after affording the 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 to consider any bid offered by the prospective Bidder.

2.1.1.9 Failure to complete and submit the prequalification questionnaire by the designated deadline will be sufficient cause for the Department to disqualify a prospective Bidder.

2.1.2 TAX CLEARANCE (§103D-328 HRS)

2.1.2.1 Contractors are required to provide both state and federal tax clearances as a prerequisite to entering into a public contract of \$25,000 or more. To meet this requirement, all Bidders shall submit valid tax clearances with their bid proposals when the bid is \$25,000 or more. An additional tax clearance will be required before final payment can be made.

2.1.2.2 Tax clearances may be obtained by completing the Tax Clearance Application (Form A-6) and submitting it to the Hawaii State Department of Taxation (DOTAX) or the Internal Revenue Service (IRS). The application may be obtained from the DOTAX, the IRS, or the Public Works Division, Kalanimoku Building, Room 422, 1151 Punchbowl Street, Honolulu, Hawaii. The application may be mailed in or walked in to either the DOTAX or the IRS. Both tax agencies encourage the use of their mail-in process, which should be completed within twenty-one (21) calendar days. Tax clearance certificates will be issued to the applicant upon determination that the applicant has filed all tax returns due, and has paid all amounts owing on such returns, including penalty and interest.

2.1.2.3 Only original tax clearance certificates or certified copies will be accepted for this purpose. Failure to submit the required tax clearance certificates may be sufficient grounds for the Department to refuse to receive or consider the prospective Bidder's proposal.

2.1.2.4 Tax clearance certificates are valid for six (6) months. The six-month period will begin with the later approval date stamped on the tax clearance. An original copy of a tax clearance that bears an original green certified copy stamp will be accepted by the Department for final payment. The period of validity for final payment is forty-five (45) days.

2.1.2.5 The tax clearances submitted with the bid proposals must be valid on the solicitation's first legal advertisement date or any date thereafter up to the bid opening date. Valid tax clearances submitted with the proposal will remain valid for the contract award and encumbrance.

2.1.2.6 Any person, firm or corporation that is not presently doing business in the State of Hawaii and submits a Notice of Intention to Bid must submit along with said Notice of Intention to Bid a certified letter stating that said person, firm or corporation is not doing business in the State of Hawaii and is not in default of any obligations due to the State or any of its political subdivisions.

2.1.2.7 If a business cannot obtain a tax clearance certificate because of tax delinquencies, it may submit a "special letter" from DOTAX and/or the IRS. The "special letter" may only be obtained if (1) the business has an existing installment agreement with the tax agency, or (2) the delinquency is the subject of an administrative or judicial appeal. The Bidder is cautioned that the "special letter" from the IRS must be certified by DOTAX. All conditions applied to tax clearance certificates for this purpose are applicable to these "special letters". Instructions to obtain the "special letter" are available from each respective tax agency.

2.1.2.8 Various combinations of tax clearance certificates and "special letters" are acceptable for this purpose as follows:

- (a) Tax clearance certificate signed by both tax agencies;
- (b) Individual tax clearance certificates from each tax agency, respectively;
- (c) Tax clearance certificate from one tax agency and a "special letter" from the other tax agency;
- (d) "Special letters" from both tax agencies.

2.1.3 **WRONGFUL REFUSAL TO ACCEPT A BID** - In the event the Executive Director, for any reason, wrongfully refuses to accept what would otherwise be a responsive and responsible lowest bid, the exclusive remedy for such lowest Bidder shall be the recovery of the reasonable actual costs of preparing the bid. No other Bidder shall have any claim for damages. Refer to 2.14, PROTESTS.

2.2 INTERPRETATION OF QUANTITIES IN BID SCHEDULE

2.2.1 When quantities for individual items of work are listed in the proposal form for which respective unit prices are asked, said quantities are estimated or approximate and are to be used by the Department only for the purpose of comparing on a uniform basis bids offered for the work. The Department does not, expressly or by implication agree that the actual quantity of work will correspond therewith.

2.2.2 After determining the low Bidder by comparison of bids submitted in accordance with the proposal form and Section 3.1, CONSIDERATION OF PROPOSALS; CANCELLATION in these Contract Documents, the quantities of unit price items of work may increase or decrease.

2.2.3 On unit price bids, payment will be made only for the actual number of units incorporated into the finished project at the unit price bid, subject to Section 4.7, VARIATIONS IN ESTIMATED QUANTITIES. It is understood and agreed that the Contractor shall make no claim for anticipated profit, loss of profit or unabsorbed field, branch or home office overhead and impact losses due to the exercise of the Departments right to eliminate entire portions of the work or to increase or decrease any or all the quantities shown in the proposal form.

2.3 CONTENTS OF PROPOSAL FORMS

2.3.1 Prospective Bidders will be furnished with proposal forms giving the location, description, and the contract time of the work contemplated for which a lump sum bid price is asked or containing a schedule of items, together with estimated quantities of work to be performed and materials to be furnished, for which unit bid prices and/or lump sum bid prices are asked.

2.3.2 All papers bound with or attached to the proposal form shall be considered a part thereof and shall not be detached or altered when the proposal is submitted.

2.3.3 The drawings, specifications and other documents designated in the proposal form will also be considered a part thereof whether attached or not.

2.3.4 By submitting a bid on the proposal form, a Bidder accepts the language therein as its own.

2.4 BIDDER'S RESPONSIBILITY FOR EXAMINATION OF CONTRACT DOCUMENTS, SITE OF WORK, ETC.

2.4.1 The Bidder shall carefully examine the project site contemplated all Contract Documents and any documents or items referenced therein and contract and bond forms therefore. The submission of a bid shall be considered as a warranty that the Bidder has made such examination and is informed of the conditions to be encountered in performing the Work and of the requirements of the Contract Documents and any documents and items referenced therein, and contract and bonds.

2.5 UTILITIES AND SERVICES

2.5.1 Where its operations are next to or near properties of utility companies or other property, the Contractor shall not start work until the Contractor makes arrangements necessary for the protection of said property.

2.5.2 The Contractor shall cooperate, coordinate and schedule its work to suit the owners of underground or overhead utility lines or other property in removing or altering such lines or providing new services in order for the work to progress according to the contract. Cooperation includes rearranging the Contractor's operations and normal work schedules and realignment of work as approved by the Department in order to accommodate the operations and work of the utilities and/or other property in and around the work site at no additional cost to the Department.

2.5.3 The Contractor shall contact all the various utility companies before the start of the work to ascertain any existing utilities and to develop a full understanding of the utility requirements with respect to this project. The Contractor shall furnish the Project Engineer with evidence that the Contractor has contacted the utility companies.

2.5.4 If the Contractor discovers that the existence and location of utilities in the contract plans are not correct, the Contractor shall not disturb the utilities and immediately notify the Project Engineer. The Project Engineer will advise the Contractor regarding actions to take.

2.5.5 The Contractor shall ascertain the exact location and depth of utilities within the project area. The Contractor shall mark such locations to warn workers or equipment operators of their existence and location. The Contractor shall be responsible to acquaint personnel working near utilities with the type, size, location and depth of the utilities and the consequences that might result from disturbances. The Contractor shall not start trenching or start similar operations until the Contractor has taken reasonable and appropriate precautions to protect the utilities.

2.5.6 Any utilities or other property that the Contractor encounters during the progress of the work, such as telephone ducts, electric ducts, water lines, sewer lines, electric lines and drainage pipes, whether shown or not on the contract plans, shall not be disturbed or damaged unless otherwise instructed in the plans and specifications.

2.5.7 In the event the utilities or other property are damaged or disturbed by the Contractor, the Contractor shall be liable for all such damage where the utilities or other property are:

- a) Shown on the plan in its actual or approximate location; or
- b) Exposed on the job as it progresses; or
- c) Pointed out to the Contractor in the field.

2.5.8 Such utilities or other property as described above shall be "known utilities or other property." If the Contractor encounters an unknown utility or other property, it shall not proceed until it has notified the Project Engineer and receives instructions. If the Project Engineer directs additional work, it shall be paid for under Subsection 4.2, CHANGES.

2.5.9 The Contractor shall repair and restore to pre-damaged condition any utilities or any other property it may damage, and it shall be liable for any and all resulting damage at no cost to the Department, the work or utility owner or property owner. Any damage claim due to the disruption of service caused by the utilities being damaged shall be paid by the Contractor who shall defend, indemnify and hold harmless the Department from all suits, actions or claims of any character brought on account of such damages, whether or not the Department may have been partially at fault. Public liability and property damage insurance to be obtained by the Contractor pursuant to Article 7, "PROSECUTION AND PROGRESS" shall cover such risk of damage.

2.5.10 In the event the Contractor simultaneously with the discovery of an unknown utility or other property damages that utility or other property, the Contractor shall not be held liable beyond the extent of the Contractor's liability insurance but shall immediately notify the Project Engineer. Upon instruction from the Project Engineer, the Contractor shall repair all damages and execute a plan for dealing with the damaged utility or other property. This repair work shall be considered additional work as covered in Subsection 4.2, CHANGES.

2.6 ADDENDA AND BID CLARIFICATIONS

2.6.1 The terms and requirements of the bid documents (i.e. drawings, specifications and other bid and contract documents) cannot be changed prior to the bid opening except by a duly issued addendum.

2.6.2 The Department may alter, increase or decrease the scope of the work or the contract time, provisions and conditions by issuing a written addendum which sets forth such alterations, increase or decrease.

2.6.3 If a Bidder discovers what it considers to be a discrepancy, ambiguity, omission or doubt as to the meaning of drawings, specifications and any other bid or contract documents, the Bidder shall request in writing an interpretation from the Executive Director.

2.6.4 If the Department agrees that a discrepancy, ambiguity, omission or doubt exists, it shall issue a written addendum to the bid documents to all prospective Bidders at the respective offices furnished for such purposes eight (8) days before the bids are opened. The Department may extend the bid opening to allow at least eight (8) days from the notification date of the addendum. Upon notification by the Department, all Bidders/addressees shall be deemed to be on notice of the information therein whether or not the addendum is actually received. All addenda so issued shall become part of the contract documents.

2.6.5 No claim for additional compensation and/or time for performance will be allowed if the Contractor discovered, or in the exercise of reasonable care, should have discovered a discrepancy, ambiguity, omission or doubt for which an interpretation was not requested.

2.7 SUBSTITUTION OF MATERIALS AND EQUIPMENT BEFORE BID OPENING

2.7.1 Brand names of materials or equipment are specified or shown on the drawings to indicate a quality, style, appearance or performance and not to limit competition. The Bidder shall base its bid on one of the specified brand names unless alternate brands are qualified as equal or better in an addendum. Qualifications of such proposed alternate brands shall be submitted in writing and addressed to the Project Engineer. The face of the envelope

containing the request must be clearly marked "SUBSTITUTION REQUEST". The request may be hand carried or mailed to HHFDC, 677 Queen Street, Third Floor, Honolulu, Hawaii 96813. In either case, the written request must be received by HHFDC no later than fourteen (14) days before the bid opening date and time specified in the Notice to Bidders. The written request will be time stamped by HHFDC. For the purpose of this section, the time designated by the time stamping device in HHFDC shall be official. If the written request is hand carried, the bearer is responsible to ensure that the request is time stamped by HHFDC.

2.7.2 Submit three (3) sets of the written request, technical brochures, and a statement of variances. Refer to the Appendix for the Sample "Request for Substitution."

2.7.3 STATEMENT OF VARIANCES. The statement of variances must list all features of the proposed substitution which differ from the drawings, specifications and/or product(s) specified and must further certify that the substitution has no other variant features. The brochure and information submitted shall be clearly marked showing make, model, size, options, etc., and must include sufficient evidence to evaluate each feature listed as a variance. A request will be denied if submitted without sufficient evidence. If after installing the substituted product, an unlisted variance is discovered, Contractor shall immediately replace the product with a specified product at no cost to the Department.

2.7.4 SUBSTITUTION DENIAL - Any substitution request not complying with the above requirements will be denied. Substitution requests sent to other agencies and received by Project Engineer after the deadline above will be denied.

2.7.5 An addendum shall be issued to inform all prospective Bidders of any accepted substitution in accordance with Section 2.6, ADDENDA AND BID CLARIFICATIONS.

2.7.6 For substitutions of materials and equipment after issuance of the Letter of Award, refer to Section 6.3, SUBSTITUTION OF MATERIALS AND EQUIPMENT AFTER BID OPENING.

2.8 PREPARATION OF PROPOSAL

2.8.1 The Bidder's proposal must be submitted on the proposal form furnished by the Department. The proposal must be prepared in full accordance with the instructions thereon. The Bidder must state, both in words and numerals, the lump sum price or total sum bid at which the work contemplated is proposed to be done. These prices must be written in ink or typed. In case of a discrepancy between the prices written in words and those written in figures, the words shall govern over the figures. The Bidder shall sign the proposal in the spaces provided with ink. By submitting a bid, the Bidder adopts the language of the proposal as its own.

2.8.2 If the proposal is made by an individual, the person's name and post office address must be shown in the space provided. If made by a partnership the name and post office address of each member of the partnership must be shown and the proposal signed by all partners or evidence in the form of a partnership agreement must be submitted showing the authority of the partner to enter, on behalf of said partnership, into contract with the Department. If made by a corporation the proposal must show the name, title and business address of the president, secretary and treasurer and also evidence in the form of a corporate resolution must be submitted showing the authority of the particular corporate representative to enter on behalf of said corporation into contract with the Department. If made by a joint-venture the name and

post office address of each member of the individual firm, partnership or corporation comprising the joint-venture must be shown with other pertinent information required of individuals, partnerships or corporations as the case may be. The proposal must be signed by all parties to the joint-venture or evidence in the form of a Joint-Venture Agreement must be submitted showing the authority of the joint-venture's representative to enter on behalf of said joint-venture into contract with the Department.

2.8.3 Pursuant to the requirements of Section 103D-302, HRS, each Bidder shall include in its bid the name of each person or firm to be engaged by the Bidder on the project as joint contractor or subcontractor indicating also the nature and scope of work to be performed by such joint contractor and/or subcontractor and their respective contractor's license number. A joint contractor or subcontractor performing less than or equal to one percent of the total bid amount is not required to be listed in the proposal. The Bidder shall be solely responsible for verifying that their joint contractor or subcontractor has the proper license at the time of the submitted bid.

2.9 BID SECURITY

2.9.1 Subject to the exceptions in Section 3-122-223(d) HAR, all lump sum bids of \$25,000 (twenty five thousand dollars) and higher, or lump sum base bids including alternates of \$25,000 (twenty five thousand dollars) and higher, that are not accompanied by bid security are non-responsive. Bid security shall be one of the following: §3-122-222(a) HAR

2.9.1.1 Surety bid bond underwritten by a company licensed to issue bonds in this State which shall be substantially in the form of the Surety Bid Bond form in the Appendix; or

2.9.1.2 Legal Tender; or

2.9.1.3 Certificate of Deposit; credit union share certificate; or cashier's, treasurer's, teller's or official check drawn by, or a certified check accepted by, and payable on demand to the State by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration.

(a) These instruments may be utilized only to a maximum of \$100,000 (one hundred thousand dollars).

(b) If the required security or bond amount totals over \$100,000 (one hundred thousand dollars), more than one instrument not exceeding \$100,000 (one hundred thousand dollars) each and issued by different financial institutions shall be accepted.

(c) CAUTION - Bidders are cautioned that certificates of deposit or share certificates with an early withdrawal penalty must have a face value sufficient to cover the maximum penalty amount in addition to the proposal guaranty requirement. If the certificate is made out to two names, the certificate must be assigned unconditionally to the Executive Director.

2.9.2 Unless otherwise stated, the bid security shall be in an amount equal to at least five percent (5%) of the lump sum bid or lump sum base bid including all additive alternates or in an amount required by the terms of the federal funding, where applicable.

2.9.3 If the Bidder is a corporation, evidence in the form of a corporate resolution, authorizing the corporate representative to execute the bond must be submitted with the proposal. (See sample in Appendix.) If the Bidder is a partnership, all partners must sign the bond or evidence in the form of a partnership agreement must be submitted showing the authority of the partner.

2.9.4 If the Bidder is a joint-venture, all parties to the joint-venture must sign the bond; provided, that one party to the joint-venture may sign on behalf of the joint-venture if evidence in the form of a joint-venture agreement or power of attorney, is submitted showing the authority of the signatory to sign the bond on behalf of the joint-venture.

2.9.5 In the case where the award will be made on a group or item basis, the amount of bid security shall be based on the total bid for all groups or items submitted.

2.9.6 Bidders are cautioned that surety bid bonds which place a limit in value to the difference between the bid amount and the next acceptable bid, such value not to exceed the purported amount of the bond, are not acceptable. Also, surety bid bonds which place a time limit on the right of the State to make claim other than allowed by statutes or these GENERAL CONDITIONS are not acceptable. Bidders are hereby notified that a surety bid bond containing such limitation(s) is not acceptable and a bid accompanied by such surety bid bond will be automatically rejected.

2.10 DELIVERY OF PROPOSALS - The entire proposal shall be placed together with the bid security, in a sealed envelope no smaller than 9-1/2" x 12" so marked as to indicate the identity of the project, the project number, the date of bid opening and the name and address of the Bidder and then delivered as indicated in the Notice to Contractors. Bids which do not comply with this requirement may not be considered. Proposals will be received up to the time fixed in the public notice for opening of bids and must be in the hands of the official by the time indicated. The words "SEALED BID" must be clearly written or typed on the face of the sealed envelope containing the proposal and bid security.

2.11 WITHDRAWAL OR REVISION OF PROPOSAL- Proposal may be modified prior to the deadline to submit the proposal by any of the following documents:

2.11.1 Withdrawal of Proposals:

2.11.1.1 A signed, written notice received in the office designated in the solicitation; or

2.11.1.2 A signed written notice faxed to the office designated in the solicitation.

2.11.2 Modification of Proposals:

2.11.2.1 A signed written notice received in the office designated in the solicitation, accompanied by a duly executed certificate of resolution for corporations, partnerships and joint-ventures, stating that a modification to the proposal is submitted; and

2.11.2.2 The actual modification sealed securely in a separate envelope or container, accompanying the written notice.

2.12 PUBLIC OPENING OF PROPOSALS - Proposals will be opened and read publicly at the time and place indicated in the Notice to Contractors. Bidders, their authorized agents and other interested parties are invited to be present.

2.13 DISQUALIFICATION OF BIDDERS - Any one or more of the following causes will be considered as sufficient for the disqualification of a Bidder and the rejection of its proposal or proposals:

2.13.1 Non-compliance with Section 2.1, QUALIFICATION OF BIDDERS;

2.13.2 Evidence of collusion among Bidders;

2.13.3 Lack of responsibility and cooperation as shown by past work such as failing to complete all of the requirements to close the project within a reasonable time or engaging in a pattern of unreasonable or frivolous claims for extra compensation;

2.13.4 Being in arrears on existing contracts with the State of Hawaii, or having defaulted on a previous contract with the State of Hawaii;

2.13.5 Lack of proper equipment and/or sufficient experience to perform the work contemplated, as revealed by the Standard Questionnaire and Financial Statement for Bidders;

2.13.6 No contractor's license or a contractor's license which does not cover type of work contemplated;

2.13.7 More than one proposal for the same work from an individual, firm, partnership, corporation or joint venture under the same or different name;

2.13.8 Delivery of bids after the deadline specified in the advertisement calling for bids;

2.13.9 Failure to pay, or satisfactorily settle, all bills overdue for labor and materials of former contracts in force at the time of issuance of proposal forms; and/or

2.13.10 Debarment or suspension pursuant to the provisions of Chapters 103D, 104 and 444, Hawaii Revised Statutes, as amended.

2.14 PROTESTS

2.14.1 Protests shall be adjudicated in accordance with §103D-701, HRS and as amended.

2.14.2 No Protest based upon the contents of the solicitation shall be considered unless it is submitted in writing to the Executive Director, prior to the date set for the receipt of proposals.

2.14.3 A protest of an award or proposed award pursuant to §103D-302 or §103D-303, HRS, shall be submitted in writing to the Executive Director, within five (5) working days after the posting of the award of the Contract.

2.14.4 When a protest is sustained and the protestor should have been awarded the contract under the solicitation but is not, then the exclusive remedy for such protestor shall be the recovery of the reasonable actual costs of preparing the bid, but not attorney's fees.

END OF ARTICLE 2

ARTICLE 3 – AWARD AND EXECUTION OF CONTRACT

3.1 CONSIDERATION OF PROPOSALS; CANCELLATION - After the proposals are opened and read, the figures will be extended and/or totaled in accordance with the bid prices of the acceptable proposals and the totals will be compared and the results of such comparison shall be made public. In the event of a tie bid, the low Bidder shall be determined by lot. In the comparison of bids, words written in the proposals will govern over figures and unit prices will govern over totals. Until the award of the contract, the Department may cancel the solicitation, reject any and all proposals in whole or part and may waive any defects or technicalities whenever such action is deemed to be in the best interest of the Department.

3.2 IRREGULAR PROPOSALS - Proposals will be considered irregular and may be rejected for the following reasons:

3.2.1 If the proposal is unsigned.

3.2.2 If bid security is not in accordance with Section 2.9, BID SECURITY.

3.2.3 If proposal is on a form other than that furnished by the Department; or if the form is altered or any part thereof detached.

3.2.4 If the proposal shows any non-compliance with applicable law, alteration of form, additions not called for, conditional bids, incomplete bids, non-initialed erasures, other defects, or if the prices are obviously unbalanced.

3.2.5 If the Bidder adds any provisions reserving the right to accept or reject an award.

3.2.6 If the Bidder adds any provisions reserving the right to enter into a contract pursuant to an award.

3.2.7 When a proposal is signed by an officer or officers of a corporation and a currently certified corporate resolution authorizing such signer(s) to submit such proposal is not submitted with the proposal or when the proposal is signed by an agent other than the officer or officers of a corporation or a member of a partnership and a power of attorney is not submitted with the proposal.

3.2.8 Where there is an incomplete or ambiguous listing of joint contractors and/or subcontractors the proposal may be rejected. All work which is not listed as being performed by joint contractors and/or subcontractors must be performed by the Bidder with its own employees. Additions to the list of joint contractors or subcontractors will not be allowed. Whenever there is a doubt as to the completeness of the list, the Bidder will be required to submit within five (5) working days, a written confirmation that the work in question will be performed with its own work force. Whenever there is more than one joint contractor and/or subcontractor listed for the same item of work, the Bidder will be required to either confirm in writing within five (5) working days that all joint contractors or subcontractors listed will actually be engaged on the project or obtain within five (5) working days written releases from those joint contractors and/or subcontractors who will not be engaged.

3.2.9 If in the opinion of the Executive Director, the Bidder and/or its listed subcontractors do not have the contractor's licenses or combination of contractor's licenses necessary to complete all of the work.

3.3 CORRECTION OF BIDS AND WITHDRAWAL OF BIDS (§3-122-31 HAR)

3.3.1 Corrections to bids after bid openings but prior to award may be made under the following conditions:

3.3.1.1 If the mistake is attributable to an arithmetical error, the Executive Director shall so correct the mistake. In case of error in extension of bid price, the unit price shall govern.

3.3.1.2 If the mistake is a minor informality which shall not affect price, quantity, quality, delivery, or contractual conditions, the Bidder shall request correction by submitting proof of evidentiary value which demonstrates that a mistake was made. The Executive Director shall prepare a written approval or denial in response to this request. Examples of such mistakes include:

- (a) Typographical errors;
- (b) Transposition errors;
- (c) Failure of a Bidder to sign the bid, but only if the unsigned bid is accompanied by other material indicating the Bidder's intent to be bound.

3.3.1.3 For reasons not allowable under paragraphs 3.3.1.1 and 3.3.1.2 when the Executive Director determines that the correction or waiver of an obvious mistake is in the best interest of the Department or is warranted for the fair treatment of other Bidders.

3.3.2 Withdrawal of bids after bid opening but prior to award may be made when the bid contains a mistake attributable to an obvious error which affects price, quantity, quality, delivery, or contractual conditions, and the Bidder requests withdrawal by submitting proof of evidentiary value which demonstrates that a mistake was made. The Executive Director shall prepare a written approval or denial in response to this request.

3.3.3 Correction or withdrawal of bids after award is not permissible except in response to a written withdrawal or correction request by the Contractor, and the Executive Director makes a written determination that the Department's procurement practices and policies would not be materially affected by such correction or withdrawal.

3.4 AWARD OF CONTRACT

3.4.1 The award of contract, if it be awarded, will be made within one hundred twenty (120) consecutive calendar days after the opening of the proposals to the lowest responsible and responsive Bidder (including the alternate or alternates which may be selected by the Executive Director in the case of alternate bids) whose proposal complies with all the requirements prescribed, but in no case will an award be made until all necessary investigations are made. The successful Bidder will be notified, by letter mailed to the address shown on the proposal, that its bid has been accepted and that it has been awarded the contract.

3.4.2 If the contract is not awarded within the one hundred twenty (120) days noted in paragraph 3.4.1 above, the Department may request the successful Bidder to extend the time for the acceptance of its bid. The Bidder may reject such a request without penalty; and in such case, the Department may at its sole discretion make a similar offer to the next lowest responsive and responsible Bidder and so on until a bid is duly accepted or until the Department elects to stop making such requests.

3.4.3 No contract will be awarded to any person or firm suspended or debarred under the provisions of Chapters 103D, 104 and Chapter 444, Hawaii Revised Statutes as amended.

3.4.4 The contract will be drawn on the forms furnished by the Executive Director. The contract will not be binding on the Department until all required signatures have been affixed thereto and written certification that funds are available for the work has been made.

3.5 CANCELLATION OF AWARD - The Department reserves the right to cancel the award of any contract at any time before the execution of said contract by all parties. The exclusive remedy to the awardee for such cancellation shall be payment of the reasonable bid preparation costs and the reimbursement of any direct expenses incurred as directed in the Notice of Award. Such cancellation will not incur any liability by the Department to any other Bidder.

3.6 RETURN OF BID SECURITY - All bid securities, except those of the four (4) lowest Bidders, will be returned following the opening and checking of the proposals. The retained bid securities of the four lowest Bidders will be returned within five (5) working days following the complete execution of the contract.

3.7 REQUIREMENT OF PERFORMANCE AND PAYMENT BONDS

3.7.1 Performance and Payment Bonds shall be required for contracts \$25,000 (twenty five thousand dollars) and higher. At the time of the execution of the contract, the successful Bidder shall file good and sufficient performance and payment bonds on the form furnished by the Department (see Appendix), each in an amount equal to one hundred percent (100%) of the amount of the contract price unless otherwise stated in the solicitation of bids. Acceptable performance and payment bonds shall be limited to the following:

3.7.1.2 Surety bonds underwritten by a company licensed to issue bonds in this State; or

3.7.1.3 A certificate of deposit; credit union share certificate; or cashier's, treasurer's, teller's or official check drawn by, or a certified check accepted by, and payable on demand to the Department by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration.

(a) These instruments may be utilized only a maximum of \$100,000 (one hundred thousand dollars).

(b) If the required security or bond amount totals over \$100,000 (one hundred thousand dollars), more than one instrument not exceeding \$100,000 (one hundred thousand dollars) each and issued by different financial institutions shall be acceptable.

3.7.2 If the Contractor fails to deliver the required performance and payment bonds, the Contractor's award shall be canceled, the Department shall have the remedies provided under Section 3.9, FAILURE TO EXECUTE THE CONTRACT and award of the contract shall be made to the next lowest responsible and responsive Bidder.

3.8 EXECUTION OF THE CONTRACT

3.8.1 The contract shall be signed by the successful Bidder and returned, together with satisfactory performance and payment bonds, within ten (10) calendar days after the Bidder is awarded the contract for execution or within such further time as the Executive Director may allow. No proposal or contract shall be considered binding upon the Department until the contract has been fully and properly executed by all parties thereto. For projects funded with State Capital Improvement Project (CIP) funds, the Executive Director shall also endorse thereon its certificate, as required by Section 103D-309, HRS, that there is an available unexpended appropriation or balance of an appropriation over and above all outstanding contracts sufficient to cover the Department's amount required by such contract.

3.8.2 On any individual award totaling less than \$25,000 (twenty five thousand dollars), the Department reserves the right to execute the contract by the issuance of a Purchase Order. Issuance of a Purchase Order shall result in a binding contract between the parties without further action by the Department. The issuance of a Purchase Order shall not be deemed a waiver of these General Conditions, and Contract Document requirements.

3.9 FAILURE TO EXECUTE THE CONTRACT

3.9.1 Before the Award - If a low Bidder without legal justification withdraws its bid after the opening of bids but before the award of the contract, the Department shall be entitled to retain as damages the amount established as bid security, and may take all appropriate actions to recover the damages sum from the property or third-party obligations deposited as bid security.

3.9.2 After the Award - If the Bidder to which a contract is awarded shall fail or neglect to enter into the contract and to furnish satisfactory security within ten (10) calendar days after such award or within such further time as the Executive Director may allow, the Department shall be entitled to recover from such Bidder its actual damages, including but not limited to the difference between the bid and the next lowest responsive bid, as well as personnel and administrative costs, consulting and legal fees and other expenses incurred in arranging a contract with the next low responsible and responsive Bidder or calling for new bids. The Department may apply all or part of the amount of the bid security to reduce its damages. If upon determination by the Department that the bid security exceeds the amount of its damages, it shall release or return the excess to the person who provided same.

3.9.3 Executive Director's Options - Upon a withdrawal of the lowest responsive bid, or upon a refusal or failure of the lowest Bidder to execute the contract, the Executive Director may thereupon award the contract to the next lowest responsible and responsive Bidder or may call for new bids, whichever method the Executive Director may deem to be in the best interests of the Department.

3.10 NOTICE TO PROCEED

3.10.1 After the contract is fully executed and signed by the Executive Director, the Contractor will be sent a formal Notice to Proceed letter advising the Contractor of the date on which it may proceed with the work. The Contractor shall be allowed ten (10) consecutive working days from said date to begin its work. In the event that the Contractor refuses or neglects to start the work, the Executive Director may terminate the contract in accordance with Section 7.27, TERMINATION OF CONTRACT FOR CAUSE.

3.10.2 The Contractor may commence its operations strictly at its own risk prior to receipt of the formal notice to proceed, provided it makes a written request and has received approval from the Executive Director in writing. All work performed shall be conducted in accordance with Section 7.1, PROSECUTION OF THE WORK.

3.10.3 In certain cases, the Department, with agreement of the Contractor, may issue a Notice to Proceed before full execution of the contract by the Executive Director and it may further issue a Notice to Proceed concurrently with the Notice of Award.

3.10.4 In the event the Notice to Proceed is not issued within one hundred eighty (180) days after 1) the date the contract is executed by all parties; or 2) for projects funded with State Capital Improvement Project (CIP) funds, the date that the written certificate that funds are available is issued, whichever is later, the Contractor may submit a claim for increased labor and material costs (but not overhead costs) which are directly attributable to the delay beyond the first one hundred eighty (180) days. Such claims shall be accompanied with the necessary documentation to justify the claim. No payment will be made for assumed escalation costs.

3.11 RELATIONSHIP OF PARTIES: Independent Contractor Status and Responsibilities, Including Tax Responsibilities.

3.11.1 In the performance of services required under this Contract, the CONTRACTOR is an "independent contractor," with the authority and responsibility to control and direct the performance and details of the work and services required under this Contract; however, the STATE shall have a general right to inspect work in progress to determine whether, in the STATE's opinion, the services are being performed by the CONTRACTOR in compliance with this Contract. Unless otherwise provided by special condition, it is understood that the STATE does not agree to use the CONTRACTOR exclusively, and that the CONTRACTOR is free to contract to provide services to other individuals or entities while under contract with the STATE.

3.11.2 The CONTRACTOR and the CONTRACTOR's employees and agents are not by reason of this Contract, agents or employees of the State for any purpose, and the CONTRACTOR and the CONTRACTOR's employees and agents shall not be entitled to claim or receive from the STATE any vacation, sick leave, retirement, workers' compensation, unemployment insurance, or other benefits provided to state employees.

3.11.3 The CONTRACTOR shall be responsible for the accuracy, completeness, and adequacy of the CONTRACTOR's performance under this Contract. Furthermore, the CONTRACTOR intentionally, voluntarily, and knowingly assumes the sole and entire liability to the CONTRACTOR's employees and agents, and to any individual not a party to this Contract,

for all loss, damage, or injury caused by the CONTRACTOR, or the CONTRACTOR's employees or agents in the course of their employment.

3.11.4 The CONTRACTOR shall be responsible for payment of all applicable federal, state, and county taxes and fees which may become due and owing by the CONTRACTOR by reason of this Contract, including but not limited to (i) income taxes, (ii) employment related fees, assessments, and taxes, and (iii) general excise taxes. The CONTRACTOR also is responsible for obtaining all licenses, permits, and certificates that may be required in order to perform this Contract.

3.11.5 The CONTRACTOR shall obtain a general excise tax license from the Department of Taxation, State of Hawaii, in accordance with section 237-9, HRS, and shall comply with all requirements thereof. The CONTRACTOR shall obtain a tax clearance certificate from the Director of Taxation, State of Hawaii, showing that all delinquent taxes, if any, levied or accrued under state law against the CONTRACTOR have been paid and submit the same to the STATE prior to commencing any performance under this Contract. The CONTRACTOR shall also be solely responsible for meeting all requirements necessary to obtain the tax clearance certificate required for final payment under sections 103-53 and 237-45, HRS, and paragraph 8.8 of these General Conditions.

3.11.6 The CONTRACTOR is responsible for securing all employee-related insurance coverage for the CONTRACTOR and the CONTRACTOR's employees and agents that is or may be required by law, and for payment of all premiums, costs, and other liabilities associated with securing the insurance coverage.

3.12 PERSONNEL REQUIREMENTS:

3.12.1 The CONTRACTOR shall secure, at the CONTRACTOR's own expense, all personnel required to perform this Contract.

3.12.2 The CONTRACTOR shall ensure that the CONTRACTOR's employees or agents are experienced and fully qualified to engage in the activities and perform the services required under this Contract, and that all applicable licensing and operating requirements imposed or required under federal, state, or county law, and all applicable accreditation and other standards of quality generally accepted in the field of the activities of such employees and agents are complied with and satisfied.

3.13 NONDISCRIMINATION - No person performing work under this Contract, including any subcontractor, employee, or agent of the Contractor, shall engage in any discrimination that is prohibited by any applicable federal, state, or county law.

3.14 CONFLICTS OF INTEREST - The CONTRACTOR represents that neither the CONTRACTOR, nor any employee or agent of the CONTRACTOR, presently has any interest, and promises that no such interest, direct or indirect, shall be acquired, that would or might conflict in any manner or degree with the CONTRACTOR's performance under this Contract.

END OF ARTICLE 3

ARTICLE 4 - SCOPE OF WORK

4.1 INTENT OF CONTRACT, DUTY OF CONTRACTOR - The intent of the Contract is to provide for the construction, complete in every detail, of the work described at the accepted bid price and within the time established by the contract. The Contractor has the duty to furnish all labor, materials, equipment, tools, transportation, incidentals and supplies and to determine the means, methods and schedules required to complete the work in accordance with the drawings, specifications and terms of the contract.

4.1.1 ENTIRE CONTRACT - This Contract sets forth all of the Contract, conditions, understandings, promises, warranties, and representations between the STATE and the CONTRACTOR relative to this Contract. This Contract supersedes all prior Contracts, conditions, understandings, promises, warranties and representations, which shall have no further force or effect. There are no Contracts, conditions, understandings, promises, warranties, or representations, oral or written, express or implied, between the STATE and the CONTRACTOR other than as set forth or as referred to herein.

4.2 CHANGES - The Project Engineer may at any time, during the progress of the work, by written order, and without notice to the sureties, make changes in the work as may be found to be necessary or desirable. Such changes shall not invalidate the Contract nor release the Surety, and the Contractor will perform the work as changed, as though it had been a part of the original Contract.

4.2.1 MINOR CHANGES - Minor changes in the work may be directed by the Project Engineer with no change in contract price or time of performance. Minor changes are consistent with the intent of the Contract Documents and do not substantially alter the type of work to be performed or involve any adjustment to the contract sum or extension of the contract time.

4.2.2 Oral Orders

4.2.2.1 Any oral order, direction, instruction, interpretation or determination from the Executive Director or any other person which in the opinion of the Contractor causes any change, shall be considered as a change only if the Contractor gives the Executive Director written notice of its intent to treat such oral order, direction, instruction, interpretation or determination as a change directive. Such written notice must be delivered to both the Executive Director and the Project Engineer before the Contractor acts in conformity with the oral order, direction, instruction, interpretation or determination, but not more than five (5) days after delivery of the oral order to the Contractor. The written notice shall state the date, circumstances, whether a time extension will be requested, and source of the order that the Contractor regards as a change. Such written notice may not be waived and shall be a condition precedent to the filing of any claim by the Contractor. Unless the Contractor acts in accordance with this procedure, any such oral order shall not be treated as a change for which the Contractor may make a claim for an increase in the contract time or contract price related to such work.

4.2.2.2 No more than five (5) days after receipt of the written notice from the Contractor, a Field Order shall be issued for the subject work if the Department agrees that it constitutes a change. If no Field Order is issued in the time established, it shall be deemed a rejection of Contractor's claim for a change. If the Contractor objects to the failure to issue a Field Order, it

shall file a written protest with the Executive Director within thirty (30) days after delivery to the Executive Director of the Contractor's written notice of its intention to treat the oral order as a change. In all cases, the Contractor shall proceed with the work. The protest shall be determined as provided in Section 7.25, DISPUTES AND CLAIMS.

4.2.3 FIELD ORDERS - All changes will be set forth in a field order or change order. Upon receipt of a field order, the Contractor shall proceed with the changes as ordered. If the Contractor does not agree with any of the terms or conditions or in the adjustment or non-adjustment to the contract time and/or contract price set forth therein, it shall file with the Executive Director a written protest setting forth its reasons in detail within thirty (30) days after receipt of the field order. In all cases, the Contractor shall proceed with the work as changed. The protest shall be determined as provided in Subsection 7.25, DISPUTES AND CLAIMS. Failure to file such a protest within the time specified shall constitute agreement on the part of the Contractor with the terms, conditions, amounts and adjustments or non-adjustment to the contract price and/or contract time set forth in the field order.

4.2.4 CHANGE ORDERS

4.2.4.1 The Department will issue sequentially numbered change orders at times it deems appropriate during the contract period. A change order may contain the adjustment in contract price and / or time for a number of Field Orders. The change order will be issued in the format attached (refer to the Appendix). No payment for any change will be made until the change order is issued.

4.2.4.2 The penal sum of the Surety Performance and Payment Bonds will be adjusted by the amount of each and every change order.

4.3 DUTY OF CONTRACTOR TO PROVIDE PROPOSAL FOR CHANGES

4.3.1 A Field Order may request the Contractor to supply the Department with a proposal for an adjustment to the contract time or contract price for the work described therein. Any such request for a proposal shall not affect the duty of the Contractor to proceed as ordered with the work described in the Field Order.

4.3.2 The Project Engineer from time to time may issue a Bulletin to the Contractor requesting price and / or time adjustment proposals for contemplated changes in the work. A Bulletin is not a directive for the Contractor to perform the work described therein.

4.3.3 Within seven (7) days after receipt of a Bulletin or Field Order containing a request for proposal, the Contractor shall submit to the Project Engineer a detailed written statement in a format similar to the one shown in the Appendix setting forth all charges the Contractor proposes for the change and the proposed adjustment of the contract time, all properly itemized and supported by sufficient substantiating data to permit evaluation. No time extension will be granted for delays caused by late Contractor pricing of changes or proposed changes. If the project is delayed because Contractor failed to submit the cost proposal within the seven (7) days, or longer as allowed by the Project Engineer, liquidated damages will be assessed in accordance with Section 7.26, FAILURE TO COMPLETE THE WORK ON TIME.

4.3.4 No payment shall be allowed to the Contractor for pricing or negotiating proposed or actual changes. No time extension will be granted for delay caused by late Contractor pricing of changes or proposed changes.

4.3.5 The Executive Director may accept the entire proposal, or any discreet cost item contained within the proposal or the proposed adjustment to contract time by a notice in writing to the Contractor delivered to the Contractor within thirty (30) days after receipt of the proposal. The written acceptance by the Executive Director of all or part of the Contractor's proposal shall create a binding agreement between the parties for that aspect of the change.

4.3.6 If the Department refuses to accept the Contractor's entire proposal, the Executive Director may issue a Field Order for the work; or if a Field Order has already been issued, the Department may issue a supplemental Field Order establishing the remaining adjustments to contract price and/or contract time for the ordered changes. If the Contractor disagrees with any term, condition or adjustment contained in such Field Order or supplemental Field Order, it shall follow the protest procedures set forth in and be subject to the other terms of Subsection 4.2.3, FIELD ORDERS.

4.4 PRICE ADJUSTMENT (§3-125-13 HAR)

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

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

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

4.4.1.3 Whenever there is a variation in quantity for any work covered by any line item in the schedule of costs submitted as required by Section 7.2, COMMENCEMENT REQUIREMENTS, by the Department at its discretion, adjusting the lump sum price proportionately;

4.4.1.4 In such other manner as the parties may mutually agree;

4.4.1.5 At the sole option of the Project Engineer, by the costs attributable to the event or situation covered by the change, plus appropriate profit or fee, all as specified in Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT and the force account provision of Section 8.3, PAYMENT FOR ADDITIONAL WORK; or

4.4.1.6 In the absence of an agreement between the two parties, by a unilateral determination by the Department of the reasonable and necessary costs attributable to the event or situation covered by the change, plus appropriate profit or fee, all as computed in accordance with applicable sections of Chapters 3-123 and 3-126 of the Hawaii Administrative Rules and Regulations, and Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT.

4.5 ALLOWANCES FOR OVERHEAD AND PROFIT (§3-125-13 HAR)

4.5.1 In determining the cost or credit to the Department resulting from a change, the allowances for all overhead, including, extended overhead resulting from adjustments to

contract time (including home office, branch office and field overhead, and related delay impact costs) and profit combined, shall not exceed the percentages set forth below:

4.5.1.1 For the Contractor, for any work performed by its own labor forces, fifteen percent (15%) of the direct cost;

4.5.1.2 For each subcontractor involved, for any work performed by its own forces, fifteen percent (15%) of the direct cost;

4.5.1.3 For the Contractor or any subcontractor, for work performed by their subcontractors, seven percent (7%) of the amount due the performing subcontractor.

4.5.1.4 Field overhead includes, but is not limited to all costs of supervision, engineering, clerical, layout, temporary facilities, improvements and structures, all general condition expenditures, storage, transport and travel, housing, small tools (as defined in 8.3.4.5(h), pickup trucks and automobiles.

4.5.2 Not more than three markup allowance line item additions not exceeding the maximum percentage shown above will be allowed for profit and overhead, regardless of the number of tier subcontractors.

4.5.3 The allowance percentages will be applied to all credits and to the net increase of direct costs where work is added and deleted by the changes.

4.6 PAYMENT FOR DELETED MATERIAL

4.6.1 Canceled Orders - If acceptable material was ordered by the Contractor for any item deleted by an ordered change in the work prior to the date of notification of such deletion by the Project Engineer, the Contractor shall use its best efforts to cancel the order. The Department shall pay reasonable cancellation charges required by the supplier excluding any markup for overhead and profit to the Contractor.

4.6.2 RETURNED MATERIALS - If acceptable deleted material is in the possession of the Contractor or is ultimately received by the Contractor, if such material is returnable to the supplier and the Project Engineer so directs, the material shall be returned and the Contractor will be paid for the reasonable charges made by the supplier for the return of the material, excluding any markup for overhead and profit to the Contractor. The cost to the Contractor for handling the returned material will be paid for as provided in Section 4.4, PRICE ADJUSTMENT.

4.6.3 UNCANCELLED MATERIALS - If orders for acceptable deleted material cannot be canceled at a reasonable cost, it will be paid for at the actual cost to the Contractor including an appropriate markup for overhead and profit as set forth in Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT. In such case, the material paid for shall become the property of the Department and the cost of further storage and handling shall be paid for as provided in Section 4.4, PRICE ADJUSTMENT.

4.7 VARIATIONS IN ESTIMATED QUANTITIES (§3-125-10 HAR)

4.7.1 Where the quantity of a major unit price item in this contract is estimated on the proposal form and where the actual quantity of such pay item varies more than fifteen percent (15%) above or below the estimated quantity stated in this contract, an adjustment in the contract price shall be made upon demand of either party. The adjustment shall be based upon any increase or decrease in costs due solely to the variation above one hundred fifteen percent (115%) or below eighty-five percent (85%) of the estimated quantity. The adjustment shall be subject to Section 4.4 PRICE ADJUSTMENT and Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT. If the quantity variation is such as to cause an increase in the time necessary for completion, the Executive Director shall, upon receipt of a written request for an extension of time within thirty (30) days of the item's completion, ascertain the facts and make such adjustment to the completion date as the Executive Director finds justified.

4.8 VARIATIONS IN BOTTOM ELEVATIONS - The Contractor shall plan and construct to the bottom elevations of footings, piles, drilled shafts, or cofferdams as shown on the drawings. When the bottom of a footing, pile, drilled shaft, or cofferdam is shown as an estimated or approximate elevation, the Contractor shall plan and construct to that elevation or to any deeper elevation required by the drawings or direction of the Project Engineer. In the event the bottom elevation is lowered, the Contractor shall be entitled to additional payment in accordance with Sections 4.4 PRICE ADJUSTMENT and 4.5 ALLOWANCES FOR OVERHEAD AND PROFIT. In the event the bottom elevation is raised, the Department shall be entitled to a credit in accordance with Sections 4.2 CHANGES, 4.4, PRICE ADJUSTMENT and 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT.

4.9 DIFFERING SITE CONDITIONS (§3-125-11 HAR)

4.9.1 During the progress of the work, if the Contractor encounters conditions at the site differing materially from those shown in the drawings and specifications, Contractor shall promptly, and before any such conditions are disturbed or damaged (except in an emergency as required by subsection 7.17.8), notify the Project Engineer in writing of:

4.9.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the contract; or

4.9.1.2 Unknown physical conditions at the site, of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this contract. Unclaimed motor vehicles or parts thereof and discarded materials or unclaimed items are not unknown or unforeseen physical conditions. (See also Section 5.8, EXAMINATION OF DRAWINGS, SPECIFICATIONS, PROJECT SITE)

4.9.2 After receipt of written notice, the Executive Director shall promptly investigate the site, and if it is found that such conditions do materially differ and cause an increase in the Contractor's cost of, or the time required to, perform any part of the Work, whether or not changed as a result of such conditions, an adjustment shall be made and the contract modified accordingly. Any adjustment in contract price made pursuant to this Section 4.9 shall be determined in accordance with Sections 4.4, PRICE ADJUSTMENT and 7.25, DISPUTES AND CLAIMS.

4.9.3 Nothing contained in this Section 4.9 shall be grounds for an adjustment in compensation if the Contractor had actual knowledge or should have known of the existence of such conditions prior to the submission of bids.

4.10 COSTS AND EXPENSES - Any reimbursement due the CONTRACTOR for per diem and transportation expenses under this Contract shall be subject to chapter 3-123 (Cost Principles) of the Procurement Rules and the following guidelines:

4.10.1 Reimbursement for air transportation shall be actual cost or coach class air fare, whichever is less.

4.10.2 Reimbursement for ground transportation costs shall not exceed the actual cost of renting an intermediate-sized vehicle.

4.10.3 Unless prior written approval of the EXECUTIVE DIRECTOR is obtained, reimbursement for subsistence allowance (i.e., hotel and meals, etc.) shall not exceed the applicable daily authorized rates for interisland or out-of-state travel that are set forth in the current Governor's Executive Order authorizing adjustments in salaries and benefits for state officers and employees in the executive branch who are excluded from collective bargaining coverage.

END OF ARTICLE 4

ARTICLE 5 - CONTROL OF WORK

5.1 AUTHORITY OF THE EXECUTIVE DIRECTOR

5.1.1. AUTHORITY OF THE EXECUTIVE DIRECTOR - The Executive Director shall make final and conclusive decisions on all questions which may arise relating to the quality and acceptability of the materials furnished and work performed, the manner of performance and the rate of progress of the work, the interpretation of the plans and specifications, the acceptable fulfillment of the contract on the part of the Contractor, the compensation under the contract and the mutual rights of the parties to the contract. The Executive Director shall have the authority to enforce and make effective such decisions and orders at the Contractor's expense when the Contractor fails to carry such decisions and orders out promptly and diligently. The Executive Director shall have the authority to suspend the work wholly or in part as provided in Subsection 7.24, SUSPENSION OF WORK.

5.2 AUTHORITY OF THE PROJECT ENGINEER

5.2.1 The Project Engineer has the authority to act on behalf of the Department on all matters regarding the contract and the work that are not reserved for the Executive Director. The Project Engineer's authority is vested exclusively in the Project Engineer except when specific authority to act for the Project Engineer has been delegated to a specific person or persons. Such delegation of authority may be established by the Contract Documents; otherwise, it is not effective or binding upon the Department until such written notification of the delegation is received by the Contractor.

5.3 AUTHORITY OF THE INSPECTOR

5.3.1 The Inspector shall observe and inspect the contract performance and materials. The Inspector does not have any authority vested in the Project Engineer unless specifically delegated in writing.

5.3.2 The Inspector may offer advice and recommendations to the Contractor, but any such advice or recommendations are not directives from the Project Engineer.

5.3.3 The Inspector has no authority to allow deviations from the Contract Documents and may reject any and all work that the Inspector deems is not in conformity with the contract requirements. Failure of an Inspector at any time to reject non-conforming work shall not be considered a waiver of the Department's right to require work in strict conformity with the Contract Documents as a condition of final acceptance.

5.4 AUTHORITY OF CONSULTANT(S) - The Department may engage Consultant(s) for limited or full observation to supplement the inspections performed by the Department and respective Counties. Unless otherwise specified in writing to the Contractor, such retained Consultant(s) will have the authority of an Inspector.

5.5 SHOP DRAWINGS AND OTHER SUBMITTALS

5.5.1 The following documents shall be submitted where required by the Contract Documents:

5.5.1.1 Shop Drawing

- (1) The Contractor shall prepare, thoroughly check, and approve all shop drawings, including those prepared by subcontractors or any other persons. The Contractor shall indicate its approval by stamping and signing each drawing. Any shop drawing submitted without being reviewed, stamped and signed will be considered as not having been submitted, and any delay caused thereby shall be the Contractor's responsibility.
- (2) Shop drawings shall indicate in detail all parts of an item of work, including erection and setting instructions and engagements with work of other trades or other separate contractors. Shop drawings for structural steel, millwork and pre-cast concrete shall consist of calculations, fabrication details, erection drawings and other working drawings to show the details, dimensions, sizes of members, anchor bolt plans, insert locations and other information for the complete fabrication and erection of the structure to be constructed.
- (3) The Contractor shall be responsible for the design of all structural curtain walls, all connections and fasteners for structural steel and architectural and structural precast concrete. Curtain walls, connections and fasteners shall be designed by a licensed professional engineer to carry the indicated or necessary loads. The precast concrete pieces shall be designed to withstand erection, transportation and final loading stresses. All calculations shall be performed by a licensed professional engineer and submitted to the Project Engineer for review.
- (4) The cost of shop drawings or any other submittal shall not be a separate or individual pay item. All costs of furnishing shop drawings required by the contract shall be included in the price agreed to be paid for the various contract items of work, and no additional allowances will be made therefor.
- (5) All shop drawings as required by the contract, or as determined by the Project Engineer to be necessary to illustrate details of the Work shall be submitted to the Project Engineer with such promptness as to cause no delay in the work or in that of any other Contractor. Delay caused by the failure of the Contractor to submit shop drawings on a timely basis to allow for review, possible resubmittal and acceptance will not be considered as a justifiable reason for a contract time extension. Contractor, at its own risk, may proceed with the work affected by the shop drawings before receiving acceptance; however the Department shall not be liable for any costs or time required for the correction of work done without the benefit of accepted shop drawings.
- (6) It is the Contractor's obligation and responsibility to check all of its and its subcontractor's shop drawings and be fully responsible for them and for coordination with connecting and other related work. The Contractor shall prepare, and submit to the Project Engineer coordination drawings showing the installation locations of all plumbing, piping, duct and electrical work including equipment throughout the project. By

approving and submitting shop drawings, the Contractor thereby represents that it has determined and verified all field measurements and field construction criteria, or will do so, and that it has checked and coordinated each shop drawing with the requirements of the work and the contract documents. When shop drawings are prepared and processed before field measurements and field construction criteria can be or have been determined or verified, the Contractor shall make all necessary adjustments in the work or resubmit further shop drawings, all at no change in contract price or time.

5.5.1.2 SHOP DRAWING FORM - Each drawing and/or series of drawings submitted must be accompanied by a letter of transmittal giving a list of the titles and number of the drawings. Each series shall be numbered consecutively for ready reference and each drawing shall be marked with the following information:

- (1) Date of Submission
- (2) Name of Project
- (3) Project Number
- (4) Location of Project
- (5) Name of submitting Contractor and Subcontractor
- (6) Revision Number
- (7) Specification and/or any drawing reference by article or sheet number.

5.5.1.3 No shop drawing shall be smaller than 24" x 36" nor larger than 28" x 42". At the determination of the Project Engineer, each sheet of drawings for the submittal shall consist of either (1) reproducible transparency and three ozalid prints; or (2) six ozalid prints

5.5.1.4 The Department will not be responsible for any cost of modifying/adjusting precast structures to fit the final as-built design, actual field conditions and finished work. To this end, the Contractor shall follow the following procedures:

- (a) Submit shop drawings for general design conformity for approval. Delay precasting operations.
- (b) Start infrastructure work. Expose, check grade and install improvements requiring precast structures. Resubmit shop drawings with schedule for all structures indicating required deviations, correct and final inverts, depths, openings, special reinforcing and details, alignments, correct configurations, tops, grating, etc. The Contractor shall submit a schedule for the precasting work. Precast operations may commence based on approved shop drawings. During precast operations, the Project Engineer may inspect the operations at least once per differing group of structures. The Contractor shall assume all risks and costs associated with modifying/adjusting the precast structures due to incomplete field verification, premature analysis and shop drawings.

5.5.1.5 DESCRIPTIVE SHEETS AND OTHER SUBMITTALS - When a submittal is required by the contract, the Contractor shall submit to the Project Engineer eight (8) complete

sets of descriptive sheets such as brochures, catalogs, illustrations, etc., which will completely describe the material, product, equipment, furniture or appliances to be used in the project as shown in the drawings and specifications. Prior to the submittal, the Contractor will review and check all descriptive sheets for conformity to the contract requirements and indicate such conformity by marking or stamping and signing each sheet. It is the responsibility of the Contractor to submit descriptive sheets for review and acceptance by the Project Engineer as required at the earliest possible date after the date of award in order to meet the construction schedule. Delays caused by the failure of the Contractor to submit descriptive sheets as required will not be considered as justifiable reasons for contract time extension. The submittal shall list the seven (7) items of information as listed in Section 5.5.1.2.

5.5.1.6 MATERIAL SAMPLES AND COLOR SAMPLES – Prior to their submittal, all color samples and material shall be assembled and presented as required by the Department. When sample submittals are required by the contract, the Contractor shall review, approve, indicate its approval and submit to the Project Engineer samples of the materials to be used in the project and color selection samples. It is the responsibility of the Contractor to submit material and color samples for review as required at the earliest possible date after the date of award in order to meet the construction schedule. Delays caused by the failure of the Contractor to submit material and color samples will not be considered as justifiable reasons for contract time extension. The submittal shall list the seven (7) items of information as listed in Section 5.5.1.2.

5.5.2 SUBMITTAL VARIANCES - The Contractor shall include with the submittal, written notification clearly identifying all deviations or variances from the contract drawings, specifications and other Contract Documents. The notice shall be in a written form separate from the submittal. The variances shall also be clearly indicated on the shop drawing, descriptive sheet, material sample or color sample. Failure to so notify of and identify such variances shall be grounds for the subsequent rejection of the related work or materials, notwithstanding that the submittal was accepted by the Project Engineer. If the variances are not acceptable to the Project Engineer, the Contractor will be required to furnish the item as specified or indicated on the Contract Documents at no additional cost or time.

5.5.3 REVIEW AND ACCEPTANCE PROCESS - The Project Engineer shall check shop drawings and within forty-five (45) days of receipt return them to the Contractor unless otherwise agreed between the Contractor and the Department. Submittals required for work to be installed within the first sixty days after the notice to proceed shall be returned by the Project Engineer within twenty (20) days. If the volume of shop drawings submitted at any time for review is unusually large, the Contractor may inform the Project Engineer of its preferred order for review and the Project Engineer shall use reasonable efforts to accommodate the Contractor's priorities.

5.5.3.1 The acceptance by the Project Engineer of the Contractor's submittal relates only to their sufficiency and compliance with the intention of the contract. Acceptance by the Project Engineer of the Contractor's submittal does not relieve the Contractor of any responsibility for accuracy of dimensions, details, and proper fit, and for agreement and conformity of submittal with the Contract Drawings and Specifications. Nor will the Project Engineer's acceptance relieve the Contractor of responsibility for variance from the Contract Documents unless the Contractor, at the time of submittal, has provided notice and identification of such variances required by this section. Acceptance of a variance shall not justify a contract price or time adjustment unless the Contractor requests such an adjustment at the time of submittal and the adjustment are explicitly agreed to in writing by the Department. Any such request shall include

price details and proposed scheduling modifications. Acceptance of a variance is subject to all contract terms, stipulations and covenants, and is without prejudice to any and all rights under the surety bond.

5.5.3.2 If the Project Engineer returns a submittal to the Contractor that has been rejected, the Contractor, so as not to delay the work, shall promptly make a resubmittal conforming to the requirements of the Contract Documents and indicating in writing on the transmittal and the subject submittal what portions of the resubmittal has been altered in order to meet the acceptance of the Project Engineer. Any other differences between the resubmittal and the prior submittal shall also be specifically described in the transmittal.

5.5.3.3 No mark or notation made by the Project Engineer or Consultant(s) on or accompanying the return of any submittal to the Contractor shall be considered a request or order for a change in work. If the Contractor believes any such mark or notation constitutes a request for a change in the work for which it is entitled to an adjustment in contract price and/or time, the Contractor must follow the same procedures established in Section 4.2, CHANGES for oral orders, directions, instructions, interpretations or determinations from the Project Engineer or else lose its right to claim for an adjustment.

5.6 COORDINATION OF CONTRACT DOCUMENTS - It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. The Contract Documents are complementary: any requirement occurring in one document is as binding as though occurring in all. In the event of conflict or discrepancy the priorities stated in the following subparagraphs shall govern:

5.6.1 Addenda shall govern over all other Contract Documents. Subsequent addenda issued shall govern over prior addenda only to the extent specified.

5.6.2 Special Conditions and Proposal shall govern over the General Conditions and Specifications.

5.6.3 Specifications shall govern over drawings.

5.6.4 Specification Error - Should an error or conflict appear within the specification, the Contractor shall immediately notify the Project Engineer. The Project Engineer shall promptly issue instructions as to procedure. Any requirement occurring in one or more parts of the specification is as binding as though occurring in all applicable parts.

5.6.4.1 Should an error or conflict appear within a specification section, between a listed manufacturer / product and the performance requirements of the specification section, the performance requirements shall govern.

5.6.5 Drawings:

5.6.5.1 Schedules shall govern over all other notes and drawings.

5.6.5.2 Bottom elevations of footings shown on drawings shall govern over a general note such as: "All footings shall rest on firm, undisturbed soil and extend a minimum of a certain number of feet into natural or finish grade, whichever is lower." In the event the footing must be lowered below the bottom elevation shown, the Contractor shall be entitled to additional

payment as provided in Subsection 4.2, CHANGES. In the event the footing is raised above the bottom elevation shown, the Department shall be entitled to a credit as provided in Subsection 4.2, CHANGES.

5.6.5.3 When a bottom of pile, drilled shaft, piling or cofferdam is shown as an estimated or approximate elevation, the Contractor shall plan and construct to that elevation or to any deeper elevation required by the plans or the direction by the Project Engineer. The Project Engineer, at the Project Engineer's sole discretion, may order in writing termination of all or part of the work above the estimated or approximate elevation.

5.6.5.4 Except for drawing schedules and bottom elevations as noted above, general notes shall govern over all other portions of the drawings:

5.6.5.5 Larger scale drawings shall govern over smaller scale drawings.

5.6.5.6 Figured or numerical dimensions shall govern over dimensions obtained by scaling. Measurements from the drawings when scaled shall be subject to the approval of the Project Engineer.

5.6.5.7 In cases of discrepancies in the figures or drawings, the discrepancies shall be immediately referred to the Project Engineer without whose decision said discrepancy shall not be corrected by the Contractor save at its own risk and in the settlement of any complications arising from such adjustment without the knowledge and consent of the Project Engineer, the Contractor shall bear all extra expense involved.

5.6.5.8 Items shown on the drawings that are completely void in terms of description, details, quality and / or performance standards in both the Drawings and Specifications to make a price determination shall be considered an omission and the Contractor shall immediately refer same to the Project Engineer for a decision.

5.6.5.9 Where there is a conflict between the architectural sheets and the civil or landscaping or electrical sheets, etc., the conflict shall be considered a discrepancy and the Contractor shall immediately refer same to the Project Engineer for a decision.

5.6.5.10 Any requirement occurring in one or more of the sheets is as binding as though occurring in all applicable sheets.

5.7 INTERPRETATION OF DRAWINGS AND SPECIFICATIONS - The Contractor shall carefully study and compare the Contract Documents with each other, with field conditions and with the information furnished by the Department and shall at once report to the Project Engineer errors, conflicts, ambiguities, inconsistencies or omissions discovered. Should an item not be sufficiently detailed or explained in the Contract Documents, Contractor shall report and request the Project Engineer's clarification and interpretation. The Project Engineer will issue a final clarification or final interpretation.

5.8 EXAMINATION OF DRAWINGS, SPECIFICATIONS, PROJECT SITE

5.8.1 The Contractor shall examine carefully the Project Site to become familiar with the conditions to be encountered in performing the Work and the requirements of the Contract Documents.

5.8.1.1 No extra compensation will be given by reason of the Contractor's misunderstanding or lack of knowledge of the requirements of the Work to be accomplished or the conditions to be encountered in performing the project.

5.8.1.2 No extra compensation will be given by reason of the Contractor's misunderstanding or lack of knowledge when the existence of differing site, subsurface or physical conditions could have been reasonably discovered or revealed as a result of any examination, investigation, exploration, test or study of the site and contiguous areas required by the bidding requirements or contract documents to be conducted by or for the Contractor.

5.8.2 When the contract drawings include a log of test borings showing a record of the data obtained by the Department's investigation of subsurface conditions, said log represents only the opinion of the Department as to the character of material encountered in its test borings and at only the location of each boring. The Contractor acknowledges that underground site conditions in Hawaii vary widely. There is no warranty, either expressed or implied, that the conditions indicated are representative of those existing throughout the work or any part of it, or that other conditions may not occur.

5.8.3 Reference is made to the Special Conditions for identification of subsurface investigations, reports, explorations and tests utilized by the Department in preparation the Contract Documents. Such reports, drawings, boring logs etc., if any, are not part of the Contract Documents.

5.9 COOPERATION BETWEEN THE CONTRACTOR AND THE DEPARTMENT

5.9.1 Furnishing Drawings and Specifications - Contractor will be supplied copies of the Contract Drawings and Specifications as specified in the General Requirements. Contractor shall have and maintain at least one unmarked copy of the Contract Drawings and Specifications on the work site, at all times. Contractor shall cooperate with the Project Engineer, the Inspector(s), and other contractors in every possible way.

5.9.2 SUPERINTENDENT - The Contractor shall have a competent superintendent on the work site as its designated agent. The superintendent shall be able to read and understand the project plans and specifications and shall be experienced in the type of project being undertaken and the work being performed. The superintendent shall receive instructions from the Project Engineer or its authorized representative. The Contractor shall authorize the superintendent to (a) execute the orders and directions of the Project Engineer or its authorized representative without delay and (b) promptly supply such materials, equipment, tools, labor and incidentals as may be required to complete the project within the prescribed contract time. The Contractor shall furnish a superintendent regardless of the amount of project work sublet.

5.9.2.1 If the superintendent or agent is not present at the work site, the Project Engineer shall have the right to suspend the work as described under Section 7.24, SUSPENSION OF WORK.

5.9.2.2 The Contractor shall file with the Project Engineer a written statement giving the name of the superintendent or agent assigned to the project. The Contractor shall be responsible for notifying the Project Engineer in writing of any change in the superintendent or agent.

5.9.2.3 The requirements of this subsection 5.9.2 may be waived by the Project Engineer.

5.9.3 ENGINEERING WORK - The Contractor shall properly and accurately lay out the work, perform all engineering work, and furnish all engineering materials and equipment required to establish and maintain all lines, grades, dimensions and elevations called for in the drawings or required in the progress of construction, unless otherwise noted in the contract documents. The Contractor will be held definitely and absolutely responsible for any errors in lines, grades, dimensions and elevations and shall at once, on instruction from the Project Engineer, correct and make good such errors or any errors, or faults in the work resulting from errors in engineering performed under the requirements of its contract to the entire satisfaction of the Project Engineer. Full compensation for the work shall be included in the prices paid for contract items of work. No additional allowance will be made for the correction of incorrect engineering work.

5.9.3.1 The Project Engineer shall furnish the requisite bench elevations.

5.9.3.2 The Contractor shall locate and verify all lines, grades, dimensions and elevations indicated on the drawings before any excavation, or construction begins. Any discrepancy shall be immediately brought to the attention of the Project Engineer; any change shall be made in accordance with the Project Engineer's instruction.

5.9.3.3 The Contractor shall verify all street survey monuments (horizontal and vertical alignment) prior to final acceptance by the Project Engineer in accordance with any governmental requirements.

5.9.3.4 The Contractor shall provide a surveyor or Civil Engineer licensed in the State of Hawaii to verify and establish all lines, grades, dimensions and elevations.

5.9.4 USE OF STRUCTURE OR IMPROVEMENT - The Department shall have the right, at any time during construction of the structure or improvements, to enter same for the purpose of installing by government labor or by any other Contractor or utility any necessary work in connection with the installation of facilities, it being mutually understood and agreed, however, that the Contractors, utilities and the Department will, so far as possible work to the mutual advantage of all, where their several works in the above mentioned or in unforeseen instances touch upon or interfere with each other. As a convenience to those involved, the Project Engineer shall allocate the work and designate the sequence of construction in case of controversy between Contractors on separate projects under Department jurisdiction.

5.9.4.1 The Department shall also have the right to use the structure, equipment, improvement or any part thereof, at any time after it is considered by the Project Engineer as available. In the event that the structure, equipment or any part thereof is so used, the Department shall be responsible for all expenses incidental to such use and any damages resulting from the Department's use.

5.9.4.2 Equipment warranty will commence to run before the work is complete when and if the Department begins actual use of the equipment for the purpose for which the equipment was designed and installed.

5.9.4.3 If the Department enters the structure for construction and / or occupancy and the Contractor is delayed because of interference by the Department or by extra work resulting from damage which the Contractor is not responsible for, or by extraordinary measures the Contractor must take to accommodate the Department, the Contractor shall be granted an extension of time in accordance with Section 7.21 CONTRACT TIME. However, if such use increases the cost or delays the completion of the remaining portions of work, the Contractor shall be entitled to such extra compensation or extension of time or both, as the Department may determine to be proper. Any additional work necessary will be paid in accordance with Section 8.3, PAYMENT FOR ADDITIONAL WORK.

5.10 INSPECTION - The Project Engineer, the Department's consultants, Inspectors employed by the Department and other representatives duly authorized by the Department shall at all times have access to the work during its construction and shall be furnished with every reasonable facility for ascertaining at any time that the materials and the workmanship are in accordance with the requirements and intentions of the contract. All work done and all materials furnished shall be subject to inspection and acceptance.

5.10.1 Such inspection and approval may extend to all or part of the Work, and to the preparation, fabrication or manufacture of the materials to be used. By entering into a contract for the supply of materials, equipment or performance of labor in connection with the Work, such Material and Equipment Supplier or Labor Contractor consents to and is subject to the terms of Section 5.9 to the same extent as the Contractor.

5.10.2 AUTHORITY TO SUSPEND OPERATIONS - The Project Engineer shall have the authority to suspend operations of any work being improperly performed by issuing a written order giving the reason for shutting down the work. Should the Contractor disregard such written order, the work done thereafter will not be accepted nor paid for.

5.10.3 The inspection of the work shall not relieve the Contractor of any of its obligations to fulfill the contract as prescribed. Notwithstanding prior payment and acceptance by the Project Engineer, any defective and nonconforming work shall be corrected to comply with the contract requirements. Unsuitable, unspecified or unapproved materials may be rejected.

5.10.4 FEDERAL AGENCY INSPECTION - Projects financed in whole or in part with Federal funds shall be subject to inspection and corrective requirements at all times by the Federal Agency involved at no cost to the Department.

5.11 REMOVAL OF DEFECTIVE, NON-CONFORMING AND UNAUTHORIZED WORK

5.11.1 All work which has been rejected as not conforming to the requirements of the Contract shall be remedied or removed and replaced by the Contractor in an acceptable manner and no compensation will be allowed for such removal or replacement. Any work done beyond the work limits shown on the drawings and specifications or established by the Project Engineer or any additional work done without written authority will be considered as unauthorized and will not be paid for. Work so done may be ordered removed at the Contractor's expense.

5.11.2 SCHEDULING CORRECTIVE WORK - The Contractor shall perform its corrective or remedial work at the convenience of the Department and shall obtain the Project Engineer's approval of its schedule.

5.11.3 FAILURE TO CORRECT WORK - Upon failure on the part of the Contractor to comply promptly with any order of the Project Engineer made under the provisions of Section 5.10, the Project Engineer shall have authority to cause defective work to be remedied or removed and replaced, and unauthorized work to be removed, at the Contractor's expense, and to deduct the costs from any monies due or to become due the Contractor.

5.12 VALUE ENGINEERING INCENTIVE (§3-132 HAR amended by Act 149 SLH 1999) On projects with contract amounts in excess of \$250,000 (two hundred fifty thousand dollars), the following Value Engineering Incentive Clause shall apply to allow the Contractor to share in cost savings that ensue from cost reduction proposals it submits.

5.12.1 The Value Engineering Incentive Clause applies to all Value Engineering Change Proposals (cost reduction proposals, hereinafter referred to as (VECP) initiated and developed by the Contractor for changing the drawings, designs, specifications or other requirements of this contract. This clause does not however, apply to any VECP unless it is identified as such by the Contractor at the time of its submission to the Project Engineer.

5.12.2 VALUE ENGINEERING CHANGE PROPOSAL (VECP) – All VECP must:

5.12.2.1 Result in a savings to the Department of at least \$4000 (four thousand dollars) by providing less costly items and without impairing any essential functions and characteristics such as service life, reliability, economy of operation, ease of maintenance and all necessary features of the completed work;

5.12.2.2 Require, in order to be applied to this Contract, a change order to this Contract; and

5.12.2.3 Not adversely impact on the schedule of performance or the Contract completion date.

5.12.3 VECP Required Information - The VECP will be processed expeditiously and in the same manner as prescribed for any other change order proposal. As a minimum, the following information will be submitted by the Contractor with each proposal:

5.12.3.1 A description of the difference between the existing contract requirements and the VECP, and the comparative advantages and disadvantages of each including durability, service life, reliability, economy of operation, ease of maintenance, design safety standards, desired appearance, impacts due to construction and other essential or desirable functions and characteristics as appropriate;

5.12.3.2 An itemization of the requirements of the contract which must be changed if the VECP is adopted and a recommendation as to how to make each such change;

5.12.3.3 An estimate of the reduction in performance costs that will result from adoption of the VECP taking into account the costs of implementation by the Contractor, including any amounts attributable to subcontracts, and the basis for the estimate;

5.12.3.4 A prediction of any effects the VECP would have on other costs to the Department, such as Department furnished property costs, costs of related items, and costs of maintenance and operation over the anticipated life of the material, equipment, or facilities as appropriate; the

construction schedule, sequence and time; and bid item totals used for evaluation and payment purposes;

5.12.3.5 A statement of the time by which a change order adopting the VECP must be issued so as to obtain the maximum cost reduction during the remainder of this contract noting any effect on the contract time; and

5.12.3.6 The dates of any previous submissions of the VECP, the numbers of any Government contracts under which submitted and the previous actions by the Government, if known.

5.12.4 Required Use of Licensed Architect or Engineer - When, in the judgment of the Project Engineer, a VECP alters the design prepared by a registered professional architect or engineer, the Contractor shall ensure the changes to be prepared are by or under the supervision of a licensed professional architect or engineer, and stamped and so certified.

5.12.5 Unless and until a change order applies a VECP to a contract, the Contractor shall remain obligated to perform in accordance with the terms of the contract and the Department shall not be liable for delays incurred by the Contractor resulting from the time required for the Department's determination of the acceptability of the VECP.

5.12.5.1 The determination of the Project Engineer as to the acceptance of any VECP under a contract shall be final.

5.12.6 ACCEPTANCE OF VECP - The Project Engineer may accept in whole or in part any VECP submitted pursuant to this section by issuing a change order to the Contract. Prior to issuance of the change order, the Contractor shall submit complete final contract documents similar to those of the original Contract showing the accepted changes and the new design and features as well as the following:

5.12.6.1 Design calculations;

5.12.6.2 The design criteria used; and

5.12.6.3 A detailed breakdown of costs and expenses to construct or implement such revisions.

5.12.6.4 The change order will identify the final VECP on which it is based.

5.12.7 VECP PRICE ADJUSTMENTS - When a VECP is accepted under a contract, an adjustment in the contract price shall be made in accordance with Section 4.4, PRICE ADJUSTMENT. The adjustment shall first be established by determining the effect on the Contractor's cost of implementing the change, including any amount attributable to subcontractors and to the Department's charges to the Contractor for architectural, engineering, or other consultant services, and the staff time required to examine and review the proposal. The contract price shall then be reduced by fifty percent (50%) of the net estimated decrease in the cost of performance.

5.12.8 The Contractor may restrict the Department's right to use the data or information or both, on any sheet of a VECP or of the supporting data, submitted pursuant to this paragraph, if it is stated on that sheet as follows:

5.12.8.1 "This data or information or both shall not be disclosed outside the Department or be duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate this VECP. This restriction shall not limit the Department's right to use this data or information or both if obtained from another source, or is otherwise available, without limitations. If this VECP is accepted by the Department by issuance of a change order after the use of this data or information or both in such an evaluation, the Department shall have the right to duplicate, use and disclose any data or information or both pertinent to the proposal as accepted in any manner and for any purpose whatsoever and have others so do."

5.12.9 In the event of acceptance of a VECP, the Department shall have all rights to use, duplicate or disclose in whole or in part in any manner and for any purpose whatsoever, and to have or permit others to do so, any data or information or both reasonably necessary to fully utilize such proposal.

5.12.10 The Contractor shall submit with each VECP all required information and provide all additional information as may be required by the Project Engineer to evaluate and implement the VECP. The cost for preparing the VECP shall be the Contractor's responsibility, and any part of the Contractor's cost for implementing the change shall be due only when the proposal is accepted and a change order is issued.

5.12.11 If the service of the Department's architect, Project Engineer or consultant is necessary to review and evaluate a VECP, the cost therefor shall be paid for by the Contractor.

5.12.12 Each VECP shall be evaluated as applicable to this contract, and past acceptance on another Department project for a similar item shall not be automatic grounds for approval.

5.12.13 The method by which the Contractor will share a portion of the cost savings from an accepted VECP shall be for this contract only, and no consideration shall be made for future acquisition, royalty type payment or collateral savings.

5.12.13.1 The Department may accept the proposed VECP in whole or in part. The Executive Director shall issue a contract change order to identify and describe the accepted VECP.

5.13 SUBCONTRACTS - Nothing contained in the contract documents shall create a contractual relationship between the Department and any subcontractor.

5.13.1 SUBSTITUTING SUBCONTRACTORS - Contractors may enter into subcontracts only with subcontractors listed in the proposal. No subcontractor may be added or deleted and substitutions will be allowed only if the subcontractor:

5.13.1.1 Fails, refuses or is unable to enter into a subcontract; or

5.13.1.2 Becomes insolvent; or

5.13.1.3 Has its subcontractor's license suspended or revoked; or

5.13.1.4 Has defaulted or has otherwise breached the subcontract in connection with the subcontracted work; or

5.13.1.5 Is unable to comply with other requirements of law applicable to contractors, subcontractors and public works projects.

5.13.2 Requesting Approval to Substitute a Subcontractor - Requests to substitute a subcontractor shall be submitted to the Project Engineer for approval. Contractor agrees to hold the Department harmless and indemnify the Department for all claims, liabilities, or damages whatsoever, including attorney's fees arising out of or related to the approval or disapproval of the substitution.

5.13.3 The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and the other contract documents insofar as applicable to the work of the subcontractor and to give the Contractor the same rights regarding the termination of a subcontractor as the Department may exercise over the Contractor.

5.13.4 The Contractor shall not sponsor any unliquidated subcontractor's claim against the Department and shall defend, indemnify and hold the Department harmless against any direct claims by its subcontractors. Any claim for additional compensation by a subcontractor in connection with the work shall be made only against the Contractor. The Contractor may not assert any such claim against the Department until the liability of the Contractor has been unconditionally established by negotiation, arbitration or litigation, and the amount due the subcontractor has been determined, save for interest due.

5.13.5 Once a subcontractor's claim is established, should the Contractor intend to make the claim against the Department, it shall follow the procedure set forth under Section 7.25, DISPUTES AND CLAIMS.

5.13.6 SUBCONTRACTING - Contractor shall perform with its own organization, work amounting to not less than twenty percent (20%) of the total contract cost, exclusive of costs for materials and equipment the Contractor purchases for installation by its subcontractors, except that any items designated by the Department in the contract as "specialty items" may be performed by a subcontractor and the cost of any such specialty items so performed by the subcontractor may be deducted from the total contract cost before computing the amount of work required to be performed by the Contractor with its own organization.

END OF ARTICLE 5

ARTICLE 6 - CONTROL OF MATERIALS AND EQUIPMENT

6.1 MATERIALS AND EQUIPMENT - Contractor shall furnish, pay for and install all material and equipment as called for in the drawings and specifications. Materials and equipment shall be new and the most suitable for the purpose intended unless otherwise specified. The Department does not guarantee that the specified or pre-qualified product listed in the drawings and specifications are available at the time of bid or during the contract period.

6.2 SOURCE OF SUPPLY AND QUALITY OF MATERIALS

6.2.1 Only materials conforming to the drawings and specifications and, when required by the contract have been accepted by the Project Engineer, shall be used. In order to expedite the inspection and testing of materials, at the request of the Project Engineer, the Contractor shall identify its proposed sources of materials within ten (10) days after notification by the Project Engineer.

6.2.2 At the option of the Project Engineer, the materials may be accepted by the Project Engineer at the source of supply before delivery is started. Representative preliminary samples of the character and quantity prescribed shall be submitted by the Contractor or producer for examination and tested in accordance with the methods referred to under samples and tests.

6.2.3 PROJECT ENGINEER'S AUTHORIZATION TO TEST MATERIALS - Materials proposed to be used may be inspected and tested whenever the Project Engineer deems necessary to determine conformance to the specified requirements. The cost of testing shall be borne by the Contractor. However, should test results show that the material(s) is in compliance with the specified requirements; the cost of the testing will be borne by the Department.

6.2.4 UNACCEPTABLE MATERIALS - In the event material(s) are found to be unacceptable, the Contractor shall cease their use, remove the unacceptable material(s) that have already been installed or applied, and furnish acceptable materials all at no additional cost to the Department. No material which is in any way unfit for use shall be used.

6.3 SUBSTITUTION OF MATERIALS AND EQUIPMENT AFTER BID OPENING

6.3.1 SUBSTITUTION OF MATERIALS AND EQUIPMENT BEFORE BID OPENING - Refer to Section 2.7, SUBSTITUTION OF MATERIALS AND EQUIPMENT BEFORE BID OPENING. For materials and equipment submitted in compliance with Section 2.7, if after installing the substituted product, an unlisted variance is discovered the Contractor shall immediately replace the product with a specified product at no cost to the Department.

6.3.2 SUBSTITUTION AFTER CONTRACT AWARD - Subject to the Project Engineer's determination if the material or equipment is equal to the one specified or prequalified, substitution of material or equipment may be allowed after the Letter of Award is issued only:

6.3.2.1 If the specified or prequalified item is delayed by unforeseeable contingencies beyond the control of the Contractor which would cause a delay in the project completion; or

6.3.2.2 If any specified or prequalified item is found to be unusable or unavailable due to a change by the manufacturer or other circumstances; or

6.3.2.3 If the Contractor desires to provide a more recently developed material, equipment, or manufactured model from the same named manufacturer than the one specified or prequalified; or

6.3.2.4 If the specified material and / or equipment inadvertently lists only a single manufacturer.

6.3.3 A substitution request after the Contract is awarded shall be fully explained in writing. Contractor shall provide brochures showing that the substitute material and / or equipment is equal or better in essential features and also provide a matrix showing comparison of the essential features. Contractor shall justify its request and include quantities and unit prices involved, respective supplier's price quotations and such other documents necessary to fully support the request. Any savings in cost will be credited to the Department. Contractor shall absorb any additional cost for the substitute item(s) or for its installation. Submitting a substitution request, does not imply that substitutions, for brand name specified materials and equipment will be allowed. The Project Engineer may reject and deny any request deemed irregular or not in the best interest of the Department. A request for substitution shall not in any way be grounds for an extension of contract time. At the discretion of the Project Engineer, a time extension may be granted for an approved substitution.

6.4 ASBESTOS CONTAINING MATERIALS - The use of materials or equipment containing asbestos is prohibited under this contract. Contractor warrants that all materials and equipment incorporated in the project are asbestos-free.

6.5 TEST SAMPLES

6.5.1 The Project Engineer may require any or all materials to be tested by means of samples or otherwise. Contractor shall collect and forward samples requested by the Project Engineer. Contractor shall not use or incorporate any material represented by the samples until all required tests have been made and the material has been accepted. In all cases, the Contractor shall furnish the required samples without charge. Where samples are required from the completed work, the Contractor shall cut and furnish samples from the completed work. Samples so removed shall be replaced with identical material and refinished. No additional compensation will be allowed for furnishing test samples and their replacement with new materials.

6.5.2 Tests of the material samples will be made in accordance with the latest standards of the American Society for Testing and Materials (ASTM), as amended prior to the contract date unless otherwise provided. In cases where a particular test method is necessary or specifications and serial numbers are stipulated, the test shall be made by the method stated in the above-mentioned publication. Where the test reference is the American Association of State Highway and Transportation Officials (AASHTO), it means the specifications and serial numbers of the latest edition and amendments prior to the bid date.

6.5.3 The Project Engineer may, at no extra cost to the Department retest any materials which have been tested and accepted at the source of supply after the same has been delivered to the work site. The Project Engineer shall reject all materials which, when retested, do not meet the requirements of the Contract.

6.6 MATERIAL SAMPLES

6.6.1 The Contractor shall furnish all samples required by the drawings and specifications or that may be requested by the Project Engineer of any and all materials or equipment it proposes to use. Unless specifically required, samples are not to be submitted with the bid.

6.6.2 No materials or equipment of which samples are required shall be used on the Work until the Project Engineer has received and accepted the samples. If the Contractor proceeds to use such materials before the Project Engineer accepts the samples, the Contractor shall bear the risk.

6.6.3 Contractor shall furnish two (2) copies of a transmittal letter with each shipment of samples. The letter shall provide a list of the samples, the name of the building or work for which the materials are intended and the brands of the materials and names of the manufacturers. Also, each sample submitted shall have a label indicating the material represented, its place of origin, the names of the producer, the Contractor and the building or work for which the material is intended. Samples of finished materials shall be marked to indicate where the materials represented are required by the drawings or specifications.

6.6.4 Acceptance of any sample(s) shall be only for the characteristics or for the uses named in such acceptance and for no other purpose. Acceptance of samples shall not change or modify any contract requirement. All samples will be provided by the Contractor at no extra cost to the Department. See also Section 5.5, SHOP DRAWINGS AND OTHER SUBMITTALS.

6.7 NON-CONFORMING MATERIALS - All materials not conforming to the requirements of this contract documents, whether in place or not, shall be rejected and removed immediately from the site of work unless otherwise permitted by the Project Engineer in writing. No rejected material which has subsequently been made to conform shall be used unless and until written acceptance has been given by the Project Engineer. If the Contractor fails to comply forthwith with any order of the Project Engineer made under the provisions of this Section 6.7, the Project Engineer shall have the authority to remove and replace non-conforming materials and charge the cost of removal and replacement to the Contractor.

6.8 HANDLING MATERIALS - Contractor shall handle all materials to preserve their quality and fitness for work. Transport aggregates from the source or storage site to the work in tight vehicles to prevent loss or segregation of materials after loading and measuring.

6.9 STORAGE OF MATERIALS - Contractor shall store all materials to preserve their quality and fitness for the work. Unless otherwise provided, any portion of the project site within the Project Contract Limit not required for public travel may be used for storage purposes and for the Contractor's plant and equipment. Any additional space required shall be provided by the Contractor at its expense subject to the Project Engineer's acceptance. Contractor shall store materials on wooden platforms or other hard, clean surfaces and covered to protect it from the weather and damage. Stored materials shall be located to allow prompt inspection.

6.10 PROPERTY RIGHTS IN MATERIALS - Nothing in the contract shall be construed to vest in the Contractor any right to any materials and equipment after such materials and equipment have been attached, affixed to, or placed in the work.

6.11 ANTITRUST CLAIMS - The STATE and the CONTRACTOR recognized that in actual economic practice, overcharges resulting from antitrust violations are in fact usually borne by the purchaser. Therefore, the CONTRACTOR hereby assigns to STATE any and all claims for overcharges as to goods and material purchased in connection with this Contract, except as to overcharges which result from violations commencing after the price is established under this Contract and which are not passed on to the STATE under an escalation clause.

END OF SECTION 6

ARTICLE 7 - PROSECUTION AND PROGRESS

(Including Legal Relations and Responsibility)

7.1 PROSECUTION OF THE WORK

7.1.1 After approval of the Contract by the Executive Director, a Notice to Proceed will be given to the Contractor as described in Section 3.10, NOTICE TO PROCEED. The Notice to Proceed will indicate the date the Contractor is expected to begin the construction and from which date contract time will be charged.

7.1.2 The Contractor shall begin work no later than ten (10) working days from the date in the Notice to Proceed and shall diligently prosecute the same to completion within the contract time allowed. The Contractor shall notify the Project Engineer at least three (3) working days before beginning work.

7.1.3 If any subsequent suspension and resumption of work occurs, the Contractor shall notify the Project Engineer at least twenty-four (24) hours before stopping or restarting actual field operations.

7.1.4 **WORKING PRIOR TO NOTICE TO PROCEED** - The Contractor shall not begin work before the date in the Notice to Proceed. Should the Contractor begin work before receiving the Notice to Proceed, any work performed in advance of the specified date will be considered as having been done at the Contractor's risk and as a volunteer and subject to the following conditions:

7.1.4.1 Under no circumstances shall the Contractor commence work on site until it has notified the Project Engineer of its intentions and has been advised by the Project Engineer in writing that the project site is available to the Contractor. The project site will not be made available until the Contractor has complied with commencement requirements under Section 7.2, COMMENCEMENT REQUIREMENTS.

7.1.4.2 In the event the contract is not executed, the Contractor shall, at its own expense, do such work as is necessary to leave the site in a neat condition to the satisfaction of the Project Engineer. The Contractor shall not be reimbursed for any work performed.

7.1.4.3 All work done prior to the Notice to Proceed shall be performed in accordance with the Contract Documents, but will only be considered authorized work and be paid for as provided in the Contract after the Notice to Proceed is issued.

7.1.5 For repairs and/or renovations of existing buildings, unless otherwise permitted by the Project Engineer, the Contractor shall not commence with the physical construction unless all or sufficient amount of materials are available for either continuous construction or completion of a specified portion of the work. When construction is started, the Contractor shall work expeditiously and pursue the work diligently until it is complete. If only a portion of the work is to be done in stages, the Contractor shall leave the area safe and usable for the user agency at the end of each stage.

7.2 Prior to beginning work on site, the Contractor shall submit the following to the Project Engineer:

7.2.1 Identification of the Superintendent or authorized representative on the job site. Refer to Section 5.9, COOPERATION BETWEEN THE CONTRACTOR AND THE DEPARTMENT;

7.2.2 Proposed Working Hours on the job. Refer to Section 7.5, NORMAL WORKING HOURS;

7.2.3 Permits and Licenses. Refer to Section 7.4, PERMITS AND LICENSES;

7.2.4 Schedule of Prices to be accepted for the agreed Monthly Payment Application. Unless the proposal provides unit price bids on all items in this project, the successful Bidder will be required, after the award of contract, to submit a schedule of prices for the various items of construction included in the contract. For projects involving more than a single building and/or facility, the breakdown cost shall reflect a separate schedule of prices for the various items of work for each building and/or facility. The sum of the prices submitted for the various items must equal the lump sum bid in the Bidder's proposal. This schedule will be subject to acceptance by the Project Engineer who may reject same and require the Bidder to submit another or several other schedules if in the Project Engineer's opinion the prices are unbalanced or not sufficiently detailed. This schedule of prices shall be used for the purpose of determining the value of monthly payments due the Contractor for work installed complete in place; and may be used as the basis for determining cost and credit of added or deleted items of work, respectively;

7.2.4.1 The Contractor shall estimate at the close of each month the percentage of work completed under each of the various construction items during such month and submit the Monthly Payment Application to the Project Engineer for review and approval. The Contractor shall be paid the approved percentage of the price established for each item less the retention provided in Section 8.4, PROGRESS AND/OR PARTIAL PAYMENTS; and

7.2.5 PROOF OF INSURANCE COVERAGE - Certificate of Insurance or other documentary evidence satisfactory to the Project Engineer that the Contractor has in place all insurance coverage required by the contract. Refer to Section 7.3, INSURANCE REQUIREMENTS.

7.2.6 Until such time as the above items are processed and approved, the Contractor shall not be allowed to commence on any operations unless authorized by the Project Engineer.

7.3 INSURANCE REQUIREMENTS

7.3.1 OBLIGATION OF CONTRACTOR - Contractor shall not commence any work until it obtains, at its own expense, all required herein insurance. Such insurance shall be provided by an insurance company authorized by the laws of the State to issue such insurance in the State of Hawaii. Coverage by a "Non-Admitted" carrier is permissible provided the carrier has a Best's Rating of "A-VII" or better.

7.3.2 All insurance described herein will be maintained by the Contractor for the full period of the contract and in no event will be terminated or otherwise allowed to lapse prior to written certification of final acceptance of the work by the Department.

7.3.3 Certificate(s) of Insurance acceptable to the Department shall be filed with the Project Engineer prior to commencement of the work. Certificates shall identify if the insurance company is a "captive" insurance company or a "Non-Admitted" carrier to the State of Hawaii. The Best's rating must be stated for the "Non-Admitted" carrier. Certificates shall contain a provision that coverage(s) being certified will not be cancelled or materially changed without giving the Project Engineer at least thirty (30) days prior written notice. The Department is to be named as Additional Insured on any of the required insurance and it shall be so noted on the certificate. Should any policy be cancelled before final acceptance of the work by the Department, and the Contractor fails to immediately procure replacement insurance as specified, the Department, in addition to all other remedies it may have for such breach, reserves the right to procure such insurance and deduct the cost thereof from any money due to the Contractor.

7.3.4 Nothing contained in these insurance requirements is to be construed as limiting the extent of Contractor's responsibility for payment of damages resulting from its operations under this Contract, including the Contractor's obligation to pay liquidated damages, nor shall it affect the Contractor's separate and independent duty to defend, indemnify and hold the Department harmless pursuant to other provisions of this Contract. In no instance will the Department's exercise of an option to occupy and use completed portions of the work relieve the Contractor of its obligation to maintain the required insurance until the date of final acceptance of the work.

7.3.5 All insurance described herein shall be primary and cover the insured for all work to be performed under the Contract, all work performed incidental thereto or directly or indirectly connected therewith, including traffic detour work or other work performed outside the work area and all change order work.

7.3.6 The Contractor shall, from time to time, furnish the Project Engineer, when requested, satisfactory proof of coverage of each type of insurance required covering the work. Failure to comply with the Project Engineer's request may result in suspension of the work, and shall be sufficient grounds to withhold future payments due the Contractor and to terminate the contract for Contractor's default.

7.3.7 TYPES OF INSURANCE - Contractor shall purchase and maintain insurance described below which shall provide coverage against claims arising out of the Contractor's operations under the Contract, whether such operations be by the Contractor itself or by any subcontractor or by anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable.

7.3.7.1 WORKER'S 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.

7.3.7.2 COMMERCIAL GENERAL LIABILITY INSURANCE AND AUTOMOBILE INSURANCE Contractor's commercial general liability insurance and automobile liability

insurance shall both be obtained in a combined, single limit of not less than \$1,000,000 (one million dollars) unless otherwise indicated in the Special Conditions per occurrence that shall include coverage for bodily injury, sickness, disease or death of any person, arising directly or indirectly out of, in connection with, the performance of work under this contract.

7.3.7.3 The Contractor's property damage liability insurance shall provide for a single combined limit of not less than \$1,000,000 (one million dollars) unless otherwise indicated in the Special Conditions for all damages arising out of injury to or destruction of property of others including the Department's, arising directly or indirectly out of or in connection with the performance of the work under this contract including explosion or collapse.

7.3.7.4 The Contractor shall either (a) Require each of its subcontractors to procure and to maintain during the life of its subcontract, subcontractor's comprehensive general liability, automobile liability and property damage liability insurance of the type and in the same amounts specified herein; or (b) Insure the activities of its subcontractors in its own policy.

7.3.7.5 BUILDERS RISK INSURANCE - Unless excluded by the Special Conditions of this contract, the Contractor shall provide builder's risk insurance during the progress of the work and until final acceptance by the Department upon completion of the contract. It shall be "All Risk" (including but not limited to earthquake, windstorm and flood damage) completed value insurance coverage on all completed work and work in progress to the full replacement value thereof. Such insurance shall include the Department as an additional named insured. The Contractor shall submit to the Project Engineer for its approval all items deemed to be uninsurable. The policy may provide for a deductible in an amount of up to twenty five percent (25%) of the amount insured by the policy. With respect to all losses up to any deductible amount, the relationship between the Contractor and the Department shall be that of insurer and the additional insured respectively as if no deductible existed. The Contractor is responsible for theft, if any item of the contract is stolen prior to, or after installation, until the work is accepted by the Department. Progress payment does not constitute acceptance.

7.4 PERMITS AND LICENSES

7.4.1 The Department or its representative may process Federal (e.g. Corps of Engineers), State and county permit applications. The Contractor shall pick up the pre-processed Permits at the appropriate governmental agency and pay the required fees. Other permits necessary for the proper execution of the work such as utility connection permits, elevator installation permits etc., unless processed by the Department and paid for by the Contractor, shall be obtained and paid for by the Contractor.

7.4.2 Until such time as the above permits are approved, the Contractor shall not be allowed to commence any operations without written approval of the Project Engineer.

7.4.3 The Project Engineer reserves the right to waive application and processing of the building permit.

7.5 NORMAL WORKING HOURS - Prior to beginning operations, unless otherwise established by the Department, the Contractor shall notify the Project Engineer in writing of the time in hours and minutes, A.M. and P.M. respectively, at which it desires to begin and end the day's work. If the Contractor desires to change the working hours, it shall request the Project Engineer's approval three (3) consecutive working days prior to the date of the change.

7.6 HOURS OF LABOR (§104-2 HRS)

7.6.1 No laborer or mechanic employed on the job site of any public work of the Department or any political sub-division thereof shall be permitted or required to work on Saturday, Sunday or a legal holiday of the State or in excess of eight (8) hours on any other day unless the laborer or mechanic receives overtime compensation for all hours worked on Saturday, Sunday and a legal holiday of the State or in excess of eight (8) hours on any other day. For the purposes of determining overtime compensation under this Section 7.6, the basic hourly rate of any laborer or mechanic shall not be less than the basic hourly rate determined by the Department of Labor and Industrial Relations to be the prevailing basic hourly rate for corresponding classes of laborers and mechanics on projects of similar character in the Department.

7.6.2 Overtime compensation means compensation based on one and one-half times the laborers or mechanics basic hourly rate of pay plus the cost to an employer of furnishing a laborer or mechanic with fringe benefits.

7.7 PREVAILING WAGES (State §104-2 HRS & Federal Davis-Bacon)

7.7.1 The Contractor shall at all time observe and comply with all provisions of Chapter 104, HRS, the significant requirements of which are emphasized in the Department of Labor and Industrial Relations Publication No. H104-3 entitled "Requirements of Chapter 104, Hawaii Revised Statutes, Wages and Hours of Employees on Public Works Law".

The Contractor must also comply with all provisions of Federal Davis-Bacon Act (40 U.S.C. 276-276a-5 and Code of Federal Regulation (CFR) Title 29 and related Acts.

7.7.2 **WAGE RATE SCHEDULE** - The wage rate schedule is not physically enclosed in the bid documents. However, the wage rate schedule is incorporated herein by reference and made a part of the Bid and Contract Documents. The bidder must obtain and use the latest minimum rates ten (10) days prior to the date set for the bid opening of bids. The wage rate schedule may be obtained from the Contracts Office, HHFDC, 677 Queen Street, Suite 300, Honolulu, Hawaii or, State Department of Labor and Industrial Relations web site: <http://www.loihi@rs.dlir.state.hi.us> or the Federal Department of Labor (Davis-Bacon) wage rate schedule web site: <http://www.access.gpo.gov/davisbacdavbacsearch.html>.

7.7.3 The Contractor or its subcontractor(s) shall pay all laborers and mechanics employed on the job site, unconditionally and not less often than once a week, and without deduction or rebate on any account except as allowed by law, the full amounts of their wages including overtime, accrued to not more than five (5) working days prior to the time of payment, at wage rates not less than those stated in the contract, regardless of any contractual relationship which may be alleged to exist between the Contractor and subcontractor and such laborers and mechanics. The wages stated in the contract shall not be less than the minimum prevailing wages (basic hourly rate plus fringe benefits), as determined by the Director of Labor and Industrial Relations and published in wage rate schedules. Any increase in wage rates, as determined by the Director of Labor and Industrial Relations and issued in the wage rate schedule, shall be applicable during the performance of the contract, in accordance with section 104-2(a) and (b), Hawaii Revised Statutes. Notwithstanding the provisions of the original contract, if the Director of Labor and Industrial Relations determines that prevailing wages have

increased during the performance of the contract, the rate of pay of laborers and mechanics shall be raised accordingly.

7.7.4 The applicable wage rate schedule shall be physically included in the Contract Documents executed by the successful Bidder.

7.7.5 **POSTING WAGE RATE SCHEDULE** - The rates of wages to be paid shall be posted by the Contractor in a prominent and easily accessible place at the job site and a copy of such wages required to be posted shall be given to each laborer and mechanic employed under the contract by the Contractor at the time the person is employed thereunder, provided that where there is a collective bargaining agreement, the Contractor does not have to provide its employees the wage rate schedules. Any revisions to the schedule of wages issued by the Director of Labor and Industrial Relations during the course of the Contract shall also be posted by the Contractor and a copy provided to each laborer and mechanic employed under the Contract as required above.

7.7.6 The Executive Director may withhold from the Contractor so much of the accrued payments as the Executive Director may consider necessary to pay to laborers and mechanics employed by the Contractor or any subcontractor on the job site. The accrued payments withheld shall be the difference between the wages required by this Contract and the wages actually received by such laborers or mechanics.

7.8 **FAILURE TO PAY REQUIRED WAGES (§ 104-4, HRS or Federal Davis-Bacon)** - If the Department finds that any laborer or mechanic employed on the job site by the Contractor or any subcontractor has been or is being paid wages at a rate less than the required rate by the Contract, or has not received their full overtime compensation, the Department may, by written notice to the Contractor, terminate its right, or the right of any subcontractor, to proceed with the work or with the part of the work on which the required wages or overtime compensation have not been paid and may complete such work or part by contract or otherwise, and the Contractor and its sureties shall be liable to the Department for any excess costs occasioned thereby.

7.9 **PAYROLLS AND PAYROLL RECORDS (§104-3 HRS)**

7.9.1 A certified copy of each weekly payroll shall be submitted to the Executive Director within seven (7) calendar days after the end of each weekly payroll period. Failure to do so on a timely basis shall be cause for withholding of payments, termination of the contract, and/or debarment. The Contractor shall be responsible for the timely submission of certified copies of payrolls of all subcontractors. The certification shall affirm that payrolls are correct and complete, that the wage rates contained therein are not less than the applicable rates contained in the wage determination decision, any amendments thereto during the period of the contract, and that the classifications set forth for each laborer and mechanic conform with the work they performed.

7.9.2 Payroll records for all laborers and mechanics working at the site of the work shall be maintained by the General Contractor and its subcontractors, if any, during the course of the work and preserved for a period of four (4) years thereafter. Such records shall contain the name of each employee, their address, their correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid. Such records shall be made available for inspection at a place designated by the Executive Director, the Director of

Labor and any authorized persons who may also interview employees during working hours on the job site.

7.9.3 Note that the falsification of certifications noted in this Section 7.9 may subject the Contractor or subcontractor to penalties and debarment under the laws referenced in Section 7.14, LAWS TO BE OBSERVED and / or criminal prosecution.

7.10 OVERTIME AND NIGHT WORK

7.10.1 Overtime work shall be considered as work performed in excess of eight (8) hours in any one (1) day or work performed on Saturday, Sunday or legal holiday of the State. Overtime and night work are permissible when approved by the Project Engineer in writing, or as called for elsewhere within these Contract Documents.

7.10.2 OVERTIME NOTIFICATION - Contractor shall inform the Project Engineer in writing at least two (2) working days in advance as to exactly what specific work is to be done during any overtime and night period to insure that proper inspection will be available.

7.10.3 In the event that work other than that contained in the above notification is performed and for which the Project Engineer determines Department inspection services were necessary but not available because of the lack of notification, the Contractor may be required to remove all such work and perform the work over again in the presence of Department inspection personnel.

7.10.4 Any hours worked in excess of the normal eight (8) working hours per day or on Saturdays, Sundays or legal State holidays will not be considered a working day.

7.10.5 The Department hereby reserves the right to cancel the overtime, night, Saturday, Sunday or legal State holiday work when it is found that work during these periods is detrimental to the public welfare or the user agency.

7.11 OVERTIME AND NIGHT PAYMENT FOR DEPARTMENT INSPECTION SERVICE

7.11.1 Whenever the Contractor's operations require the Department's inspection and staff personnel to work overtime or at night, the Contractor shall reimburse the Department for the cost of such services unless otherwise instructed in the Contract. The Project Engineer will notify the Contractor of the minimum number of required Department employees and other personnel engaged by the Department prior to the start of any such work. The costs chargeable to the Contractor shall include but not be limited to the following:

7.11.1.1 The cost of salaries which are determined by the Department and includes overtime and night time differential for the Department's staff and inspection personnel. In addition to the cost of the salaries, the Contractor shall reimburse the Department's share of contributions to the employee's retirement, medical plan, social security, vacation, sick leave, worker's compensation funds, per diem, and other applicable fringe benefits and overhead expenses;

7.11.1.2 The transportation cost incurred by the Department's staff and inspection personnel which are based on established rental rates or mileage allowance in use by the Department for the particular equipment or vehicle; and/or

7.11.1.3 Fees and other costs billed the Department by Consultants engaged on the project for overtime and/or night time work.

7.11.2 PAYMENT FOR INSPECTION SERVICES - The monies due the Department for staff and inspection work and use of vehicles and equipment as determined in subsection 7.11.1 shall be deducted from the monies due or to become due the Contractor. In any and all events, the Contractor shall not pay the Department's employees directly.

7.12 LIMITATIONS OF OPERATIONS

7.12.1 Contractor shall at all times conduct the work in such manner and in such sequence as will insure the least practicable interference with pedestrian and motor traffic passageways. The Contractor shall furnish convenient detours and provide and plan all other appropriate signs, flashers, personnel, warnings, barricades and other devices for handling pedestrian and motor traffic.

7.12.2 In the event that other contractors are also employed on the job site, the Contractor shall arrange its work and dispose of materials so as not to interfere with the operations of the other contractors engaged upon adjacent work. The Contractor shall join its work to that of others and existing buildings in a proper manner, and in accordance with the drawings and specifications, and perform its work in the proper sequence in relation to that of others, all as may be directed by the Project Engineer.

7.12.3 Each Contractor shall be responsible for any damage done by it to work performed by another contractor. Each Contractor shall conduct its operations and maintain the work in such condition that no fugitive dust shall be created and adequate drainage shall be in effect at all times.

7.12.4 In the event that the Contractor fails to prosecute its work as provided in this Section 7.12 or disregards the directions of the Project Engineer, the Project Engineer may suspend the work until such time as the Contractor provides for the prosecution of the work with minimum interference to traffic and passageways or other contractors, dust control, adequate drainage, the repair of damage and complies with the direction of the Project Engineer. No payment will be made to the Contractor for the costs of such suspension.

7.13 ASSIGNMENT OR CHANGE OF NAME (§3-125-14 HAR)

7.13.1 SUBCONTRACTS AND ASSIGNMENT - The CONTRACTOR shall not assign or subcontract any of the CONTRACTOR's duties, obligations, or interests under this Contract and no such assignment or subcontract shall be effective unless (i) the CONTRACTOR obtains the prior written consent of the STATE and (ii) the CONTRACTOR's assignee or subcontractor submits to the STATE a tax clearance certificate from the Director of Taxation, State of Hawaii, showing that all delinquent taxes, if any, levied or accrued under state law against the CONTRACTOR's assignee or subcontractor have been paid. Additionally, no assignment by the CONTRACTOR of the CONTRACTOR's right to compensation under this Contract shall be effective unless and until the assignment is approved by the Comptroller of the State of Hawaii, as provided in section 40-58, HRS.

7.13.2 RECOGNITION OF A SUCCESSOR IN INTEREST - When in the best interest of the State, a successor in interest may be recognized in an assignment Contract in which the

STATE, the CONTRACTOR and the assignee or transferee (hereinafter referred to as the "Assignee") agree that:

7.13.2.1 The Assignee assumes all of the CONTRACTOR's obligations;

7.13.2.2 The CONTRACTOR remains liable for all obligations under this Contract but waives all rights under this Contract as against the STATE; and

7.13.2.3 The CONTRACTOR shall continue to furnish, and the Assignee shall also furnish, all required bonds.

7.13.3 CHANGE OF NAME - When the CONTRACTOR asks to change the name in which it holds this Contract with the STATE, the procurement officer of the purchasing agency (hereinafter referred to as the "Agency procurement officer") shall, upon receipt of a document acceptable or satisfactory to the Agency procurement officer indicating such change of name (for example, an amendment to the CONTRACTOR's articles of incorporation), enter into an amendment to this Contract with the CONTRACTOR to effect such a change of name. The amendment to this Contract changing the CONTRACTOR's name shall specifically indicate that no other terms and conditions of this Contract are thereby changed.

7.13.4 REPORTS - All assignment Contracts and amendments to this Contract effecting changes of the CONTRACTOR's name or novations hereunder shall be reported to the CPO within thirty days of the date that the assignment Contract or amendment becomes effective.

7.13.5 ACTIONS AFFECTING MORE THAN ONE PURCHASING AGENCY - Notwithstanding the provisions of subparagraphs 7.13.2 through 7.13.4 herein, when the CONTRACTOR holds Contracts with more than one purchasing agency of the State, the assignment Contracts and the novation and change of name amendments herein authorized shall be processed only through the CPO's office.

7.14 LAWS TO BE OBSERVED - The CONTRACTOR shall comply with all federal, state, and county laws, ordinances, codes, rules, and regulations, as the same may be amended from time to time, that in any way affect the CONTRACTOR's performance of this Contract.

7.14.1 The Contractor at all times shall observe and comply with all Federal, State and local laws or 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. The Contractor shall also comply with all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the work. Any reference to such laws, ordinances, rules and regulations shall include any amendments thereto before and after the date of this Contract.

7.14.2 The Contractor shall defend, protect, hold harmless and indemnify the State and its departments and agencies and all their officers, representatives, employees or agents against any claim or liability arising from or based on the violation of any such laws, ordinances, rules and regulations, orders or decrees, whether such violation is committed by the Contractor or its Subcontractor(s) or any employee of either or both. If any discrepancy or inconsistency is discovered in the contract for the work in relation to any such laws, ordinances, rules and regulations, orders or decrees, the Contractor shall forthwith report the same to the Project Engineer in writing.

7.14.3 While the Contractor must comply with all applicable laws, attention is directed to: Wage and Hours of Employees on Public Works, Chapter 104, Hawaii Revised Statutes (HRS); Hawaii Public Procurement Code, Authority to debar or suspend, Section 103D-702, HRS; Hawaii Employment Relations Act, Chapter 377, HRS; Hawaii Employment Security Law, Chapter 383, HRS; Worker's Compensation Law, Chapter 386, HRS; Wage and Hour Law, Chapter 387, HRS; Occupational Safety and Health, Chapter 396, HRS; and Authority to Debar or Suspend, Chapter 126, subchapter 2, Hawaii Administrative Rules (HAR).

7.14.4 **CONFLICT BETWEEN GENERAL CONDITIONS AND PROCUREMENT RULES -** In the event of a conflict between the General Conditions and the Procurement Rules, the Procurement Rules in effect on the date this Contract became effective shall control and are hereby incorporated by reference.

7.15 PATENTED ARTICLES, MATERIALS AND PROCESSES

7.15.1 If the Contractor desires to use any design, device, material, or process covered by letters of patent or copyright, the right for such use shall be procured by the Contractor from the patentee or owner. The Contractor shall defend, protect, indemnify and hold harmless the State of Hawaii, the contracting agency, and their officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including attorney' fees, and all claims, suits, and demands arising out of or resulting from any claims, demands, or actions by the patent holder for infringement or other improper or unauthorized use of any patented article, patented design, patented device, patented process, patented appliance or patented material in connection with this Contract. The Contractor shall be solely responsible for correcting or curing to the satisfaction of the HHFDC any such infringement or improper or unauthorized use, including, without limitation: (a) furnishing at no cost to the HHFDC a substitute article, design, device, process, appliance or material acceptable to the HHFDC; (b) paying royalties or other required payments to the patent holder; (c) obtaining proper authorizations or releases from the patent holder; and (d) furnishing such security to or making such arrangement with the patent holder as may be necessary to correct or cure any such infringement or improper or unauthorized use. This section shall not apply to any article, design, device, material, appliance or process covered by letters of patent or copyright, which the Contractor is required to use by the Drawings or Specifications.

7.16 SANITARY, HEALTH AND SAFETY PROVISIONS

7.16.1 The Contractor shall provide and maintain in a neat, sanitary condition such accommodations for the use of its employees as may be necessary to comply with the requirements of the State and local boards of health, or other bodies or tribunals having jurisdiction. Unless otherwise stated in the drawings or specifications, the Contractor shall install toilet facilities conveniently located at the job site and maintain same in a neat and sanitary condition for the use of the employees on the job site for the duration of the Contract. The toilet facilities shall conform to the requirements of the State Department of Health. The cost of installing, maintaining and removing the toilet facilities shall be considered incidental to and paid for under various contract pay items for work or under the lump sum bids as the case may be, and no additional compensation will be made therefor. These requirements shall not modify or abrogate in any way the requirements or regulations of the State Department of Health.

7.16.2 Attention is directed to Federal, State and local laws, rules and regulations concerning construction safety and health standards. The Contractor shall not require any worker to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to their health or safety.

7.17 PROTECTION OF PERSONS AND PROPERTY

7.17.1 SAFETY PRECAUTIONS AND PROGRAMS - The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury or loss to:

7.17.1.1 All persons on the Work site or who may be affected by the Work;

7.17.1.2 All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor and its subcontractors; and

7.17.1.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavement, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

7.17.2 Contractor shall give notices and comply with applicable laws, ordinances, regulations, rules, and lawful orders of any public body having jurisdiction for the safety of persons or property or their protection from damage, injury or loss; and the Contractor shall erect and maintain reasonable safeguards for safety and protection, including posting danger signs, or other warnings against hazards.

7.17.3 The Contractor shall notify owners of adjacent properties and of underground (or overhead) utilities when performing work which may affect the owners; and shall cooperate with the owners in the protection, removal and replacement of their property.

7.17.4 All damage, injury or loss to any property referred to in paragraphs 7.17.1.2 and 7.17.1.3 caused by the fault or negligence or damage or loss attributable to acts or omissions directly or indirectly in whole or part by the Contractor a subcontractor or any one directly or indirectly employed by them, or by anyone for whose acts they might be liable, shall be remedied promptly by the Contractor.

7.17.5 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the protection of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor.

7.17.6 The Contractor shall not load or permit any part of the construction to be loaded so as to endanger its safety. The Contractor shall not injure or destroy trees or shrubs nor remove or cut them without permission of the Project Engineer. Contractor shall protect all land monuments and property marks until an authorized agent has witnessed or otherwise referenced their location and shall not remove them until directed.

7.17.7 In the event the Contractor encounters on the site, material reasonably believed to be asbestos or other hazard material that has not been rendered harmless, the Contractor shall

stop work in the area and notify the Project Engineer promptly. The work in the affected area shall be resumed in the absence of hazard materials or when the hazard has been rendered harmless.

7.17.8 EMERGENCIES - In an emergency affecting the safety and protection of persons or the Work or property at the site or adjacent thereto, Contractor without special instructions or authorization from the Project Engineer, shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Contractor shall give the Project Engineer prompt written notice of the emergency and actions taken. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined under the provisions of Section 7.25, DISPUTES AND CLAIMS.

7.18 ARCHAEOLOGICAL SITES

7.18.1 Should historic sites such as walls, platforms, pavements and mounds, or remains such as artifacts, burials, concentration of charcoal or shells be encountered during construction, work shall cease in the immediate vicinity of the find and the find shall be protected from further damage. The Contractor shall immediately notify the Project Engineer and contact the State Historic Preservation Division which will assess the significance of the find and recommend the appropriate mitigation measures, if necessary.

7.18.2 When required, the Contractor shall provide and install any temporary fencing to protect archaeological sites within the project. The fencing shall be installed prior to any construction activity and shall be maintained by the Contractor for the duration of the project. Fence installation and maintenance shall be to the satisfaction of the Project Engineer. The Contractor shall remove the fencing upon completion of construction, or as directed by the Project Engineer.

7.18.3 No work shall be done within the temporary fencing area. If any construction work is done within the temporary fencing, the Contractor shall notify the Project Engineer immediately; and if the Contractor entered the archaeological site area without permission, it shall stop work in this area immediately. The Project Engineer shall notify the archaeologist to assess any damage to the area. The Contractor shall allow the archaeologist sufficient time to perform the field investigation.

7.18.4 Any site requiring data recovery within the project shall not be disturbed until data recovery is completed.

7.19 RESPONSIBILITY FOR DAMAGE CLAIMS; INDEMNITY

7.19.1 The CONTRACTOR shall defend, indemnify, and hold harmless the State of Hawaii, the contracting agency, and their officers, employees, and agents from and against all liability, loss, damage, cost, and expense, including all attorneys' fees, and all claims, suits, and demands therefor, arising out of or resulting from the acts or omissions of the CONTRACTOR or the CONTRACTOR's employees, officers, agents, or subcontractors under this Contract. The provisions of this paragraph shall remain in full force and effect notwithstanding the expiration or early termination of this Contract.

7.19.2 The Contractor agrees that it will not attempt to hold the State and the Department, their officers, representatives, employees or agents, liable or responsible for any losses or

damages to third parties from the action of the elements, the nature of the work to be done under these Contract Documents or from any unforeseen obstructions, acts of God, vandalism, fires or encumbrances which may be encountered in the prosecution of the work.

7.19.3 The Contractor shall pay all just claims for materials, supplies, tools, labor and other just claims against the Contractor or any subcontractor in connection with this contract and the surety bond will not be released by final acceptance and payment by the Department unless all such claims are paid or released. The Department may, but is not obligated to, withhold or retain as much of the monies due or to become due the Contractor under this contract considered necessary by the Project Engineer to cover such just claims until satisfactory proof of payment or the establishment of a payment plan is presented.

7.19.4 The Contractor shall defend, indemnify and hold harmless the State and the Department, their officers, representatives, employees or agents from all suits, actions or claims of any character brought on account of any claims or amounts arising out of or recovered under the Workers' Compensation Laws or violation of any other law, by-law, ordinance, order or decree.

7.19.5 COST OF LITIGATION - In case the STATE shall, without any fault on its part, be made a party to any litigation commenced by or against the CONTRACTOR in connection with this Contract, the CONTRACTOR shall pay all costs and expenses incurred by or imposed on the STATE, including attorneys' fees.

7.20 CHARACTER OF WORKERS OR EQUIPMENT

7.20.1 The Contractor shall at all times provide adequate supervision and sufficient labor and equipment for prosecuting the work to full completion in the manner and within the time required by the contract.

7.20.2 Character and Proficiency of Workers - All workers shall possess the proper license and/or certification, job classification, skill and experience necessary to properly perform the work assigned to them. All workmen engaged in special work or skilled work, such as bituminous courses or mixtures, concrete pavement or structures, electrical installation, plumbing installation, or in any trade shall have sufficient experience in such work and in the operation of the equipment required to properly and satisfactorily perform all work. All workers shall make due and proper effort to execute the work in the manner prescribed in these Contract Documents, otherwise, the Project Engineer may take action as prescribed herein.

7.20.2.1 Any worker employed on the project by the Contractor or by any subcontractor who, in the opinion of the Project Engineer, is not careful and competent, does not perform its work in a proper and skillful manner or is disrespectful, intemperate, disorderly or neglects or refuses to comply with directions given, or is otherwise objectionable shall at the written request of the Project Engineer, be removed forthwith by the Contractor or subcontractor employing such worker and shall not be employed again in any portion of the work without the written consent of the Project Engineer. Should the Contractor or subcontractor continue to employ, or again employ such person or persons on the project, the Project Engineer may withhold all payments which are or may become due, or the Project Engineer may suspend the work until the Project Engineer's orders are followed, or both.

7.20.3 INSUFFICIENT WORKERS - A sufficient number of workers shall be present to ensure the work is accomplished at an acceptable rate. In addition, the proper ratio of apprentice to journey worker shall be maintained to ensure the work is properly supervised and performed. In the event that the Project Engineer finds insufficient workers are present to accomplish the work at an acceptable rate of progress or if a adequate number of journey workers are not present and no corrective action is taken by the Contractor after being informed in writing, the Executive Director may terminate the Contract as provided for under Section 7.27, TERMINATION OF CONTRACT FOR CAUSE.

7.20.4 EQUIPMENT REQUIREMENTS - All equipment furnished by the Contractor and used on the work shall be of such size and of such mechanical condition that the work can be performed in an acceptable manner at a satisfactory rate of progress and the quality of work produced will be satisfactory.

7.20.4.1 Equipment used on any portion of the project shall be such that no injury to the work, persons at or near the site, adjacent property or other objects will result from its use.

7.20.4.2 If the Contractor fails to provide adequate equipment for the work, the contract may be terminated as provided under Section 7.27, TERMINATION OF CONTRACT FOR CAUSE.

7.20.4.3 In the event that the Contractor furnishes and operates equipment on a force-account basis, it shall be operated to obtain maximum production under the prevailing conditions.

7.21 CONTRACT TIME

7.21.1 Time is of the essence for this Contract.

7.21.2 CALCULATION OF CONTRACT TIME - When the contract time is on a working day basis, the total contract time allowed for the performance of the work shall be the number of working days shown in the contract plus any additional working days authorized in writing as provided hereinafter. Refer to Article 1, DEFINITIONS for the definition of Working Day. The count of elapsed working days to be charged against contract time shall begin from the date of the Notice to Proceed and shall continue consecutively to the date of Project Acceptance determined by the Project Engineer. When the contract completion time is a fixed calendar date, it shall be the date on which all work on the project shall be completed. Maintenance periods are not included within the contract time unless specifically noted in the Contract Documents. Failure to complete the work by contract completion date shall not terminate the Contract.

7.21.3 MODIFICATIONS OF CONTRACT TIME (§3-125-4 HAR)

7.21.3.1 EXTENSIONS - For increases in the scope for work caused by alterations and additional work made under Section 4.2, CHANGES, the Contractor will be granted a time extension only if the changes increase the time of performance for the Contract. If the Contractor believes an extension of time is justified and is not adequately provided for in a Field Order, it must request the additional time sought in writing when the detailed cost breakdown required by Section 4.2, CHANGES, is submitted. The Contractor must show how the time of performance for the critical path will be affected and must also support the time extension request with schedules and statements from its subcontractors, suppliers, and/or

manufacturers. Compensation for any altered or additional work will be paid as provided in Section 4.2, CHANGES.

7.21.3.2 The Department may direct changes to the work at any time until the work is finally accepted. The issuance of a Field Order at any time may alter or modify the contract duration only by the days specified therein; or if not specified therein, for the days the critical path must be extended for the change. Additional time to perform the extra work will be added to the time allowed in the contract without regard to the date the change directive was issued, even if the contract completion date has passed. A change requiring time will not constitute a waiver of pre-existing Contractor delay.

7.21.4 DELAY FOR PERMITS - For delays beyond the control of the Contractor in obtaining necessary permits, one day extension for each day delay may be granted by the Project Engineer, provided the Contractor notifies the Project Engineer that the permits are not available, as soon as the delay occurs. Time extensions shall be the exclusive relief granted on account of such delays. No additional compensation will be paid for these time extensions.

7.21.5 DELAYS BEYOND CONTRACTOR'S CONTROL - For delays affecting the critical path caused by acts of God, or the public enemy, fire, unusually severe weather, earthquakes, floods, epidemics, quarantine restrictions, labor disputes, freight embargoes and other reasons beyond the Contractor's control, the Contractor may be granted an extension of time provided that:

7.21.5.1 The Contractor notifies the Project Engineer in writing within five (5) work days after the occurrence of the circumstances described above and states the possible effects on the completion date of the contract.

7.21.5.2 No time extension will be granted for weather conditions other than unusually severe weather occurrences, and floods.

7.21.5.3 The Contractor, if requested, submits to the Project Engineer within ten (10) work days after the request, a written statement describing the delay to the project. The extent of delay must be substantiated as follows:

- (a) State specifically the reason or reasons for the delay and fully explain in a detailed chronology the effect of this delay to the work and/or the completion date;
- (b) Submit copies of purchase order, delivery tag, and any other pertinent documentation to support the time extension request;
- (c) Cite the period of delay and the time extension requested; and
- (d) A statement either that the above circumstances have been cleared and normal working conditions restored as of a certain day or that the above circumstances will continue to prevent completion of the project.

7.21.5.4 Time extensions shall be the exclusive relief granted and no additional compensation will be paid the Contractor for such delays.

7.21.6 DELAYS IN DELIVERY OF MATERIALS - For delays in delivery of materials and/or equipment which occur as a result of unforeseeable causes beyond the control and without fault or negligence of the Contractor, its subcontractor(s) or supplier(s), the Contractor may be granted an extension of time provided it complies with the following procedures:

7.21.6.1 The Contractor must notify the Project Engineer in writing within five (5) consecutive working days after it first has any knowledge of delays or anticipated delays and state the effects such delays may have on the completion date of the Contract.

7.21.6.2 The Contractor, if requested, must submit to the Project Engineer within ten (10) working days after a firm delivery date for the material and equipment is established, a written statement as to the delay to the progress of the project. The delay must be substantiated as follows:

- (a) State specifically the reason or reasons for the delay. Explain in a detailed chronology the effect of this delay to the other work and / or the completion date;
- (b) Submit copies of purchase order(s), factory invoice(s), bill(s) of lading, shipping manifest(s), delivery tag(s) and any other pertinent correspondence to support the time extension request; and
- (c) Cite the start and end date of the delay and the days requested therefore. The delay shall not exceed the difference between the originally scheduled delivery date versus the actual delivery date.

7.21.6.3 Time extensions shall be the exclusive relief granted and no additional compensation will be paid the Contractor on account of such delay.

7.21.7 DELAYS FOR SUSPENSION OF WORK - Delay during periods of suspension of the work by the Project Engineer shall be computed as follows:

7.21.7.1 When the performance of the work is totally suspended for one (1) or more days (calendar or working days, as appropriate) by order of the Project Engineer in accordance with paragraphs 7.24.1.1, 7.24.1.2, 7.24.1.4 or 7.24.1.6 the number of days from the effective date of the Project Engineer's order to suspend operations to the effective date of the Project Engineer's order to resume operations shall not be counted as contract time and the contract completion date will be adjusted. Should the Contractor claim for additional days in excess of the suspension period, Contractor shall provide evidence justifying the additional time. During periods of partial suspensions of the work, the Contractor will be granted a time extension only if the partial suspension affects the critical path. If the Contractor believes that an extension of time is justified for a partial suspension of work, it must request the extension in writing at least five (5) working days before the partial suspension will affect the critical operation(s) in progress. The Contractor must show how the critical path was increased based on the status of the work and must also support its claim, if requested, with statements from its subcontractors. A suspension of work will not constitute a waiver of pre-existing Contractor delay.

7.21.8 CONTRACTOR CAUSED DELAYS - No time extension will be considered for the following:

7.21.8.1 Delays in performing the work caused by the Contractor, subcontractor and/or supplier;

7.21.8.2 Delays in arrival of materials and equipment caused by the Contractor, subcontractor and / or supplier in ordering, fabricating, delivery, etc.;

7.21.8.3 Delays requested for changes which the Project Engineer determines unjustifiable due to the lack of supporting evidence or because the change is not on the critical path;

7.21.8.4 Delays caused by the failure of the Contractor to submit for review and acceptance by the Project Engineer, on a timely basis, pricing proposals, shop drawings, descriptive sheets, material samples, color samples, etc. except as covered in subsection 7.21.5 and 7.21.6;

7.21.8.5 Failure to follow the procedure within the time allowed to qualify for a time extension; and

7.21.8.6 Days the Contractor is unable to work due to normal rainfall or other normal bad weather day conditions.

7.21.9 REDUCTION IN TIME - If the Department deletes any portion of the work, an appropriate reduction of contract time may be made in accordance with Section 4.2, CHANGES.

7.22 CONSTRUCTION SCHEDULE

7.22.1 The Contractor shall submit its detailed construction schedule to the Project Engineer prior to the start of the work. The purpose of the schedule is to allow the Project Engineer to monitor the Contractor's progress on the work. The schedule shall account for normal inclement weather, unusual soil or other conditions that may influence the progress of the work, schedules and coordination required by any utility, off or on site fabrications, and all other pertinent factors that relate to progress.

7.22.2 Submittal of and the Project Engineer's receipt of the construction schedule shall not imply the Department's approval of the schedule's breakdown, its individual elements, and any critical path that may be shown. Any acceptance or approval of the schedule: 1) shall be for general format only and not for sequences or durations thereon; and 2) shall not be deemed an agreement by the Department that the construction means, methods and resources shown on the schedule will result in work that conforms to the contract requirements. The Contractor has the risk of all elements (whether or not shown) of the schedule and its execution.

7.22.3 In the event the Contractor submits and the Department receives an accelerated schedule (shorter than the contract time), such will not constitute an agreement to modify the contract time or completion date, nor will the receipt, acceptance or approval of such a schedule incur any obligation by the Department. The Contractor shall be solely responsible for and shall accept all risks and any delays that may materialize during the construction work until the contract completion date is reached. The contract time or completion date is established for the benefit of the Department and cannot be changed without an appropriate change order issued by the Department. All float on an accelerated schedule belongs exclusively to the Department. The Department will not be responsible for or obligated to accept the work before the completion date established by the Contract.

7.23 STATEMENT OF WORKING DAYS - For all contracts on a working day basis, the Contractor will submit a statement of the number of working days for each month together with the Monthly Payment Application. The Monthly Payment Application will not be processed without the statement of working days.

7.24 SUSPENSION OF WORK (§3-125-7 HAR)

7.24.1 PROCEDURE TO BE FOLLOWED - The Executive Director may, by written order to the Contractor, at any time and without notice to any surety, suspend the performance of the Work either in whole or in part for any cause, including but not limited to:

7.24.1.1 Weather or excess bad weather days, considered unsuitable by the Project Engineer for prosecution of the work; or

7.24.1.2 Soil Conditions considered unsuitable by the Project Engineer for prosecution of the work; or

7.24.1.3 Failure of the Contractor to:

- (a) Correct conditions unsafe for the general public or for the workers;
- (b) Carry out orders given by the Project Engineer;
- (c) Perform the work in strict compliance with the provisions of the contract; or
- (d) Provide a qualified Superintendent on the jobsite as described under Article 5.9.2.

7.24.1.4 When any redesign is deemed necessary by the Project Engineer; or

7.24.1.5 Disturbance due to noise, odors or dust arising from the construction even if such disturbance does not violate the section on Environmental Protection contained in the Contract Documents; or

7.24.1.6 The convenience of the Department.

7.24.2 PARTIAL OR TOTAL SUSPENSION OF WORK - Suspension of work on some but not all items of work shall be considered a partial suspension. Suspension of work on the entire work at the job site shall be considered total suspension. The period of suspension shall be computed as set forth in Subsection 7.21.7, Delays for Suspension of Work.

7.24.3 PAYMENT

7.24.3.1 In the event that the Contractor is ordered by the Executive Director in writing as provided herein to suspend all work under the contract in accordance with paragraphs 7.24.1.4 or 7.24.1.6, the Contractor may be reimbursed for actual direct costs incurred on work at the jobsite, as authorized in writing by the Executive Director, including costs expended for the protection of the work. Payment for equipment which must standby during such suspension of work shall be made as described in clause 8.3.4.5.(e). No payment will be made for profit on

any suspension costs. An allowance of five percent (5%) will be paid on any reimbursed actual costs for indirect categories of delay costs, including extended branch and home-office overhead and delay impact costs.

7.24.3.2 However, no adjustment to the contract amount or time shall be made under this Section 7.24 for any suspension, delay, or interruption:

- (a) To the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor; or
- (b) For which an adjustment is provided for or excluded under any other provision of this Contract.

7.24.3.3 Any adjustment in contract price made pursuant to this subsection shall be determined in accordance with this Section 7.24 and Section 4.2, CHANGES.

7.24.3.4 Claims for such compensation shall be filed with the Project Engineer within ten (10) calendar days after the date of the order to resume work or such claims will be waived by the Contractor. Together with the claim, the Contractor shall submit substantiating documents supporting the entire amount shown on the claim. The Executive Director may make such investigations as are deemed necessary and shall be the sole judge of the claim and the Executive Director's decision shall be final.

7.24.4 CLAIMS NOT ALLOWED - No claim under this Section 7.24 shall be allowed:

7.24.4.1 For any direct costs incurred more than twenty (20) days before the Contractor shall have notified the Project Engineer in writing of any suspension that the Contractor considers compensable. This requirement shall not apply as to a claim resulting from a suspension order under paragraphs 7.24.1.4 or 7.24.1.6; and

7.24.4.2 Unless the claim is asserted in writing within ten (10) calendar days after the termination of such suspension, delay, or interruption, but in no case not later than the date of final payment under the contract.

7.24.4.3 No provision of this Section 7.24 shall be construed as entitling the Contractor to compensation for delays due to failure of surety, for suspensions made at the request of the Contractor, for any delay required under the Contract, for partial suspension of work or for suspensions made by the Project Engineer under the provisions of paragraphs 7.24.1.1, 7.24.1.2, 7.24.1.3 and 7.24.1.5.

7.25 DISPUTES AND CLAIMS (§3-126-31 HAR) - Disputes shall be resolved in accordance with section 103D-703, HRS, and chapter 126, Procurement Rules, as the same may be amended from time to time.

7.25.1 Required Notification - As a condition precedent for any claim, the Contractor must give notice in writing to the Project Engineer in the manner and within the time periods stated in Section 4.2, CHANGES for claims for extra compensation, damages, or an extension of time due for one or more of the following reasons:

7.25.1.1 Requirements not clearly covered in the Contract, or not ordered by the Project Engineer as an extra;

7.25.1.2 Failure by the Department and Contractor to agree to an Oral Order or an adjustment in price or contract time for a Field Order or a Change Order (which was not previously agreed on by a Field Order), issued by the Department;

7.25.1.3 An action or omission by the Project Engineer requiring performance changes beyond the scope of the Contract; and/or

7.25.1.4 Failure of the Department to issue a Field Order for controversies within the scope of Section 4.2, CHANGES.

7.25.1.5 For any other type of claim, the Contractor shall give notice within the time periods set forth in contract provisions pertaining to that event. If no specific contract provisions pertain to the claim, then the written notice of claim must be submitted within fifteen (15) days of the event giving rise to the claim.

7.25.2 CONTINUED PERFORMANCE OF WORK - The Contractor shall at all times continue with performance of the contract in full compliance with the directions of the Project Engineer. Continued performance by the Contractor shall not be deemed a waiver of any claim for additional compensation, damages, or an extension of time for completion, provided that the written notice of claim is submitted in accordance with subsection 7.25.1

7.25.3 The requirement for timely written notice shall be a condition precedent to the assertion of a claim.

7.25.4 REQUIREMENTS FOR NOTICE OF CLAIM -The notice of claim 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 it is entitled. At a minimum, it shall provide the following:

7.25.4.1 Date of the protested order, decision or action;

7.25.4.2 The nature and circumstances which caused the claim;

7.25.4.3 The contract provision(s) that support the claim;

7.25.4.4 The estimated dollar cost, if any, of the protested work and how that estimate was determined; and

7.25.4.5 An analysis of the progress schedule showing the schedule change or disruption if the Contractor is asserting a schedule change or disruption.

7.25.5 If the protest or claim is continuing, the information required in Subsection 7.25.4 above shall be supplemented as requested by the Project Engineer.

7.25.6 FINAL STATEMENT FOR CLAIM - The Contractor shall provide a final written statement of the actual adjustment in contract price and/or contract time requested for each notice of claim. Such statement shall clearly set forth that it is the final statement for that notice

of claim. All such final statements shall be submitted within thirty (30) days after completion of the work that is the subject of the claim, but in no event no later than thirty (30) days after the Project Acceptance Date or the date of termination of the Contractor, whichever comes first.

7.25.7 All claims of any nature are barred if asserted after final payment under this Contract has been made.

7.25.8 Contractor may protest the assessment or determination by the Project Engineer of amounts due the Department from the Contractor by providing a written notice to the Executive Director within thirty (30) days of the date of the written assessment or determination. Said notice shall comply with all requirements of subsections 7.25.4 and 7.25.6 above. The requirement of such notice cannot be waived and it is a condition precedent to any claim by the Contractor. Failure to comply with these notice provisions constitutes a waiver of any claim.

7.25.9 In addition to the requirements of subsections 7.25.4, 7.25.6, and 7.25.8, all final written statements of claim shall be certified. This certification requirement applies to the Contractor without exception, including, but not limited to, situations involving claims of subcontractors or suppliers which meet the requirements of subsection 5.13.4. The certification must be executed by a person duly authorized to bind the Contractor with respect to the claim. The certification shall state as follows:

7.25.9.1 "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Department is liable; and that I am duly authorized to certify the claim on behalf of the Contractor."

7.25.10 **DECISION ON CLAIM/APPEAL** - The decision of the Executive Director on the claim shall be final and conclusive, unless fraudulent, or unless the Contractor delivers to the Executive Director a written appeal of the Executive Director's decision. Said appeal shall be delivered to the Executive Director no later than thirty (30) days after the date of the Executive Director's decision.

7.25.10.1 In that event, the decision of the Executive Director shall be final and conclusive, unless fraudulent or unless the Contractor brings an action seeking judicial review of the Executive Director's decision in an appropriate circuit court of this State within six (6) months from the date of the Executive Director's decision.

7.25.11 **PAYMENT AND INTEREST** - The amount determined payable pursuant to the decision, less any portion already paid, normally should be paid without awaiting Contractor action concerning appeal. Such payments shall be without prejudice to the rights of either party. Interest on amounts ultimately determined to be due to a Contractor shall be payable at the Statutory rate applicable to judgments against the State under Chapter 662, HRS from the date of receipt of a properly certified final written statement of actual adjustment required until the date of decision; except, however, that if an action is initiated in circuit court, interest under this Section 7.25 shall only be calculated until the time such action is initiated. Interest on amounts due the Department from the Contractor shall be payable at the same rate from the date of issuance of the Project Engineer's notice to the Contractor. Where such payments are required to be returned by a subsequent decision, interest on such payments shall be paid at the statutory rate from the date of payment.

7.25.12 Contractor shall comply with any decision of the Executive Director and proceed diligently with performance of this contract pending final resolution by a circuit court of this State of any controversy arising under, or by virtue of, this Contract, except where there has been a material breach of contract by the Department; provided that in any event the Contractor shall proceed diligently with the performance of the Contract where the Project Engineer has made a written determination that continuation of work under the Contract is essential to the public health and safety.

7.25.13 WAIVER OF ATTORNEY'S FEES - In the event of any litigation arising under, or by virtue of, this Contract, the Contractor and the Department agree to waive all claims against each other for attorney's fees and agree to refrain from seeking attorney's fees as part of any award or relief from any court.

7.26 FAILURE TO COMPLETE THE WORK ON TIME

7.26.1 Completion of the work within the required time is important because delay in the prosecution of the work will inconvenience the public and interfere with the Department's business. In addition, the Department will be damaged by the inability to obtain full use of the completed work and by increased engineering, inspection, superintendence, and administrative services in connection with the work. Furthermore, delay may detrimentally impact the financing, planning, or completion of other Department projects because of the need to devote Department resources to the project after the required completion date. The monetary amount of such public inconvenience, interference with Department business, and damages, is difficult, if not impossible, to accurately determine and precisely prove. Therefore, it is hereby agreed that the amount of such damages shall be the appropriate sum of liquidated damages.

7.26.1.1 When the Contractor fails to complete the Work or any portion of the Work within the time or times fixed in the contract or any extension thereof, it is agreed the Contractor shall pay liquidated damages to the Department in the amount of \$1,000 (one thousand dollars) per day, unless otherwise indicated in the Special Conditions.

7.26.1.2 If the Contractor fails to correct Punchlist deficiencies as required by Section 7.32, PROJECT ACCEPTANCE DATE, the Department will be inconvenienced and damaged, therefore, it is agreed that the Contractor shall pay liquidated damages to the Department based upon the amount stated in the General Requirements, Section 3.02. Liquidated damages shall accrue for all days after the Contract Completion Date or any extension thereof, until the date the Punchlist items are corrected and accepted by the Project Engineer.

7.26.1.3 If the Contractor fails to submit final documents as required by Section 7.33, FINAL SETTLEMENT OF CONTRACT, the Department will be inconvenienced and damaged, therefore, it is agreed that the Contractor shall pay liquidated damages to the Department in the amount stated in the General Requirements. Liquidated damages shall accrue for all days after the Contract Completion Date or any extension thereof, until the date the final documents are received by the Project Engineer.

7.26.1.4 The Project Engineer shall assess the total amount of liquidated damages in accordance with the amount of \$1,000 (one thousand dollars) per day, unless otherwise indicated in the Special Conditions, and provide written notice of such assessment to the Contractor.

7.26.2 ACCEPTANCE OF LIQUIDATED DAMAGES - The assessment of liquidated damages by the Project Engineer shall be accepted by the parties hereto as final, unless the Contractor delivers a written appeal of the Project Engineer's decision in accordance with subsection 7.25.10 requirements. Any allowance of time or remission of charges or liquidated damages shall in no other manner affect the rights or obligations of the parties under this contract nor be construed to prevent action under Section 7.27, TERMINATION OF CONTRACT FOR CAUSE. If the Department terminates the Contractor's right to proceed, the resulting damage will include such liquidated damages for such time as may be required for final completion of the work after the required contract completion date.

7.26.3 PAYMENTS FOR LIQUIDATED DAMAGES - Liquidated damages shall be deducted from monies due or that may become due to the Contractor under the contract or from other monies that may be due or become due to the Contractor from the Department.

7.26.3.1 If the Contractor contests the per diem liquidated charge, the Department may elect to recover the actual damages caused by the Contractor's delay. Should the Department claim liquidated damages for delay and if such liquidated damages are disallowed for any reason, the Department shall recover the actual damages to which it is legally entitled as a result of the Contractor's delay or other breach.

7.27 TERMINATION OF CONTRACT FOR CAUSE (§3-125-18 HAR)

7.27.1 DEFAULT - If the Contractor refuses or fails to perform the work, or any separable part thereof, with such diligence as will assure its completion within the time specified in this contract, or any extension thereof, fails to complete the work within such time, or commits any other material breach of this contract, and further fails within seven (7) days after receipt of written notice from the Project Engineer to commence and continue correction of the refusal or failure with diligence and promptness, the Executive Director may, by written notice to the Contractor, declare the Contractor in breach and terminate the Contractor's right to proceed with the work or the part of the work as to which there has been delay or other breach of contract. In such event, the Department may take over the work and perform the same to completion, by contract or otherwise, and may take possession of, and utilize in completing the work, the materials, appliances, and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor's right to proceed with the work is terminated, the Contractor and the Contractor's sureties shall be liable for any damage to the Department resulting from the Contractor's refusal or failure to complete the work within the specified time.

7.27.2 ADDITIONAL RIGHTS AND REMEDIES - The rights and remedies of the Department provided in this contract are in addition to any other rights and remedies provided by law.

7.27.3 COSTS AND CHARGES

7.27.3.1 All costs and charges incurred by the Department, together with the cost of completing the work under contract, will be deducted from any monies due or which would or might have become due to the Contractor had it been allowed to complete the work under the contract. If such expense exceeds the sum which would have been payable under the contract, then the Contractor and the surety shall be liable and shall pay the Department the amount of the excess.

7.27.3.2 In case of termination, the Executive Director shall limit any payment to the Contractor to the part of the contract satisfactorily completed at the time of termination. Payment will not be made until the work has satisfactorily been completed and the tax clearance required by Section 8.8, FINAL PAYMENT is submitted by the Contractor. Termination shall not relieve the Contractor or Surety from liability for liquidated damages.

7.27.4 ERRONEOUS TERMINATION FOR CAUSE - If, after notice of termination of the Contractor's right to proceed under this Section 7.27, it is determined for any reason that good cause did not exist to allow the Department to terminate as provided herein, the rights and obligations of the parties shall be the same as, and the relief afforded the Contractor shall be limited to, the provisions contained in Section 7.28, TERMINATION FOR CONVENIENCE.

7.28 TERMINATION FOR CONVENIENCE (§3-125-22 HAR)

7.28.1 TERMINATION - The Executive Director may, when the interests of the Department so require, terminate this contract in whole or in part, for the convenience of the Department. The Executive Director shall give written notice of the termination to the Contractor specifying the part of the contract terminated and when termination becomes effective.

7.28.2 CONTRACTOR'S OBLIGATIONS - The Contractor shall incur no further obligations in connection with the terminated work and on the date 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 subject to the Department's approval. The Executive Director may direct the Contractor to assign the Contractor's right, title, and interest under terminated orders or subcontracts to the Department. The Contractor must still complete the work not terminated by the notice of termination and may incur obligations as necessary to do so.

7.28.3 RIGHT TO CONSTRUCTION AND GOODS - The Executive Director may require the Contractor to transfer title and delivery to the Department in the manner and to the extent directed by the Executive Director, the following:

7.28.3.1 Any completed work; and

7.28.3.2 Any partially completed construction, goods, materials, parts, tools, dies, jigs, fixtures, drawings, information, and contract rights (hereinafter called "construction material") that the Contractor has specifically produced or specially acquired for the performance of the terminated part of this contract.

7.28.3.3 The Contractor shall protect and preserve all property in the possession of the Contractor in which the Department has an interest. If the Executive Director does not elect to retain any such property, the Contractor shall use its best efforts to sell such property and construction material for the Department's account in accordance with the standards of section 490:2-706, HRS.

7.28.4 COMPENSATION

7.28.4.1 Contractor shall submit a termination claim specifying the amounts due because of the termination for convenience together with cost or pricing data, submitted to the extent required by subchapter 15, chapter 3-122, HAR. If the Contractor fails to file a termination claim within one (1) year from the effective date of termination, the Executive Director may pay the Contractor, if at all, an amount set in accordance with paragraph 7.28.4.3.

7.28.4.2 The Executive Director and the Contractor may agree to a settlement provided the Contractor has filed a termination claim supported by cost or pricing data submitted as required and that the settlement does not exceed the total contract price plus settlement costs reduced by payments previously made by the Department, the proceeds of any sales of construction, supplies, and construction materials under paragraph 7.28.3.3 of this Section, and the contract price of the work not terminated.

7.28.4.3 Absent complete agreement, the Executive Director shall pay the Contractor the following amounts, less any payments previously made under the Contract.

- (a) The cost of all contract work performed prior to the effective date of the notice of termination work plus a five percent (5%) markup on the actual direct costs, including amounts paid to subcontractor(s), less amounts previously paid or to be paid for completed portions of such work; provided, however, that if it appears that the Contractor would have sustained a loss if the entire contract would have been completed, no markup shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss. No anticipated profit or consequential damage will be due or paid.
- (b) Subcontractors shall be paid a markup of ten percent (10%) on their direct job costs incurred to the date of termination. No anticipated profit or consequential damage will be due or paid to any subcontractor. These costs must not include payments made to the Contractor for subcontract work during the contract period.
- (c) In any case, the total sum to be paid the Contractor shall not exceed the total contract price reduced by the amount of any sales of construction supplies, and construction materials.

7.28.4.4 Costs claimed, agreed to, or established by the Department shall be in accordance with chapter 3-123, HAR.

7.29 CORRECTING DEFECTS - If the Contractor fails to commence to correct any defects of any nature, within ten (10) working days after the correction thereof has been requested in writing by the Department, and thereafter to expeditiously complete the correction of said defects, the Project Engineer may without further notice to the Contractor or surety and without termination of contract, correct the defects and deduct the cost thereof from the contract price.

7.30 FINAL CLEANING - Before final inspection of the work, the Contractor shall clean all ground occupied by the Contractor in connection with the Work of all rubbish, excess materials, temporary structures and equipment, and all parts of the work must be left in a neat and presentable condition to the satisfaction of the Project Engineer. However, the Contractor shall not remove any warning and directional signs prior to the formal acceptance by the Project Engineer. Full compensation for final cleaning will be included in the prices paid for the various

items of work or lump sum bid, as the case may be, and no separate payment will be made therefor.

7.31 SUBSTANTIAL COMPLETION AND FINAL INSPECTION - Before the Department accepts the project as being completed, unless otherwise stipulated by the Project Engineer the following procedure shall be followed:

7.31.1 SUBSTANTIAL COMPLETION

7.31.1.1 The Contractor and its subcontractors shall inspect the project to confirm whether the Project is Substantially Complete. This inspection effort shall include the testing of all equipment and providing a Punchlist that identifies deficiencies which must be corrected. Contractor shall make the corrections and if required repeat the procedure. Also, the Contractor shall schedule final Building, Plumbing, Electrical, Elevator, Fire and other required inspections and obtain final approvals.

- (a) When in compliance with the above requirements, the Contractor shall notify the Project Engineer in writing that project is Substantially Complete and ready for a Final Inspection. Along with the Substantial Completion notification, the Contractor shall provide its Punchlist(s) with the status of the deficiencies and dates when the deficiencies were corrected. The Project Inspector and / or the Project Engineer shall make a preliminary determination whether project is Substantially Complete.
- (b) If the Project is not Substantially Complete, the Project Engineer shall inform the Contractor. The Contractor shall identify deficiencies which must be corrected, update its Punchlist, make the necessary corrections and repeat the previous step. After completing the necessary work, the Contractor shall notify the Project Engineer in writing that Punchlist deficiencies have been corrected and the project is ready for a Final Inspection.
- (c) If the Project is Substantially Complete, the Project Engineer shall schedule a Final Inspection within fifteen (15) days of the Contractor's notification letter or as otherwise determined by the Project Engineer.

7.31.1.2 In addition, and to facilitate closing of the project, the Contractor shall also proceed to obtain the following closing documents (where applicable) prior to the Final Inspection:

- (a) Field-Posted As-Built Drawings;
- (b) Maintenance Service Contract and two (2) copies of a list of all equipment;
- (c) Five (5) sets of operating and maintenance manuals;
- (d) Air conditioning test and balance reports; and
- (e) Any other final submittal required by the Contract.

7.31.2 FINAL INSPECTION - If at the Final Inspection the Project Engineer determines that all work is completed, the Project Engineer shall notify the Contractor in accordance with Section 7.32, PROJECT ACCEPTANCE DATE. Should there be remaining deficiencies which

must be corrected the Contractor shall provide an updated Punchlist to the Project Engineer, within five (5) days from the Final Inspection Date. The Contractor shall make the necessary corrections.

7.31.2.1 The Project Engineer shall confirm the list of deficiencies noted by the Contractor's punchlist(s) and will notify the Contractor of any other deficiencies that must be corrected before final settlement.

7.31.3 The Project Engineer may add to or otherwise modify the Punchlist from time to time. The Contractor shall take immediate action to correct the deficiencies.

7.31.4 REVOKING SUBSTANTIAL COMPLETION - At any time before final Project Acceptance is issued the Project Engineer may revoke the determination of Substantial Completion if the Project Engineer finds it was not warranted. The Project Engineer shall notify the Contractor in writing with the reasons and outstanding deficiencies negating the declaration. Once notified, the Contractor shall make the necessary corrections and repeat the required steps noted in subsections 7.31.1 and 7.31.2.

7.32 PROJECT ACCEPTANCE DATE

7.32.1 If upon Final Inspection, the Project Engineer finds that the project has been satisfactorily completed in compliance with the contract, the Project Engineer shall declare the project completed and accepted and will notify the Contractor in writing of the acceptance by way of the Project Acceptance Notice.

7.32.2 PROTECTION AND MAINTENANCE - After the Project Acceptance Date, the Contractor shall be relieved of maintaining and protecting the work except that this does not hold true for those portions of the work which have not been accepted, including Punchlist deficiencies. The Department shall be responsible for the protection and maintenance of the accepted facility.

7.32.3 The date of Project Acceptance shall determine:

7.32.3.1 End of Contract Time;

7.32.3.2 Commencement of all guaranty periods except as noted in Section 7.34, CONTRACTOR'S RESPONSIBILITY FOR WORK: RISK OF LOSS; and

7.32.3.3 Commencement of all maintenance services except as noted in Section 7.34, CONTRACTOR'S RESPONSIBILITY FOR WORK: RISK OF LOSS.

7.32.4 PUNCHLIST REQUIREMENTS – If a Punchlist is required under Section 7.31, SUBSTANTIAL COMPLETION AND FINAL INSPECTION, the Project Acceptance Notice will include the Project Engineer's Punchlist and the date when correction of the deficiencies must be completed.

7.32.5 Upon receiving the Punchlist, the Contractor shall promptly devote the required time, labor, equipment, materials and incidentals necessary to correct the deficiencies expeditiously.

7.32.6 For those items of work that cannot be completed by the established date, the Contractor shall submit a schedule in writing to the Project Engineer for approval along with documentation to justify the time required, no later than five (5) working days before the date stipulated for completion of the Punchlist work. A Proposed schedule submitted after the five (5) day period will not be considered.

7.32.7 **FAILURE TO CORRECT DEFICIENCIES** – After the Contract Completion Date, or any extension thereof, if the Contractor fails to correct the deficiencies within the established date or agreed to Punchlist completion date, the Project Engineer shall assess liquidated damages as required by Section 7.26, **FAILURE TO COMPLETE THE WORK ON TIME**.

7.32.8 If the Contractor fails to correct the deficiencies and complete the work by the established or agreed to date, the Department also reserves the right to correct the deficiencies by whatever method it deems necessary and deduct the cost from the final payment due the Contractor.

7.32.9 The Contractor may further be prohibited from bidding in accordance with Section 2.12, **DISQUALIFICATION OF BIDDERS**. In addition, assessment of damages shall not prevent action under Section 7.27, **TERMINATION OF CONTRACT FOR CAUSE**.

7.33 FINAL SETTLEMENT OF CONTRACT

7.33.1 The contract will be considered settled after the project acceptance date and when the following items have been satisfactorily submitted, where applicable:

7.33.1.1 Necessary Submissions in addition to the items noted under paragraph 7.31.1.2.

7.33.1.2 All written guarantees required by the contract.

7.33.1.3 Complete and certified weekly payrolls for the Contractor and its Subcontractor(s).

7.33.1.4 Certificate of Plumbing and Electrical Inspection.

7.33.1.5 Certificate of Building Occupancy.

7.33.1.6 Certificate for Soil Treatment and Wood Treatment.

7.33.1.7 Certificate of Water System Chlorination.

7.33.1.8 Certificate of Elevator Inspection, Boiler and Pressure Pipe installation.

7.33.1.9 All other documents required by the Contract.

7.33.2 **FAILURE TO SUBMIT CLOSING DOCUMENTS** – The Contractor shall submit the final Payment Application and the above applicable closing documents within sixty (60) days from the date of Project Acceptance or the agreed to Punchlist completion date. Should the Contractor fail to comply with these requirements, the Executive Director may terminate the Contract for cause. The pertinent provisions of Section 7.27, **TERMINATION OF CONTRACT FOR CAUSE** shall be applicable.

7.33.3 In addition, should the Contractor fail to furnish final closing documents within the required time period, the Project Engineer shall assess liquidated damages as required by Section 7.26, FAILURE TO COMPLETE THE WORK ON TIME.

7.34 CONTRACTOR'S RESPONSIBILITY FOR WORK; RISK OF LOSS

7.34.1 Until the establishment of the Project Acceptance Date or Beneficial Occupancy, whichever is sooner, the Contractor shall take every necessary precaution against injury or damage to any part of the work caused by the perils insured by an All Risk policy, whether arising from the execution or from the non-execution of the work. The Contractor shall rebuild, repair, restore and make good all injuries or damage to any portion of the work occasioned by the perils insured by an All Risk policy before the date of final acceptance and shall bear the risk and expense thereof.

7.34.2 After the Project Acceptance Date or Beneficial Occupancy, whichever is sooner, the Contractor shall be relieved of maintaining and protecting the work except for those portions of the work which have not been accepted including Punchlist deficiencies.

7.34.3 The risk of damage to the work from any hazard or occurrence that may be covered by a required Property Insurance policy is that of the Contractor, unless such risk of loss is placed elsewhere by express language in the Contract Documents. No claims for any loss or damage shall be recognized by the Department, nor will any such loss or damage excuse the complete and satisfactory performance of the Contract by the Contractor.

7.35 GUARANTEE OF WORK

7.35.1 In addition to any required manufacturers warranties, all work and equipment shall be guaranteed by the Contractor against defects in materials, equipment or workmanship for one year from the Project Acceptance Date or as otherwise specified in the Contract Documents.

7.35.2 REPAIR OF WORK – If, within any guarantee period, repairs or changes are required in connection with the guaranteed work, which in the opinion of the Project Engineer is necessary due to materials, equipment or workmanship which are inferior, defective or not in accordance with the terms of the Contract, the Contractor shall within five (5) working days and without expense to the Department commence to:

7.35.2.1 Place in satisfactory condition in every instance all such guaranteed work and correct all defects therein; and

7.35.2.2 Make good and repair or replace to new or pre-existing condition all damages to the building, facility, work or equipment or contents thereof, resulting from such defective materials, equipment or installation thereof.

7.35.3 MANUFACTURER'S AND INSTALLER'S GUARANTEE - Whenever a manufacturer's or installer's guarantee on any product specified in the respective Specification sections, exceeds one year, this guarantee shall become part of this contract in addition to the Contractor's guarantee. Contractor shall complete the guarantee forms in the name of the Department and submit such forms to the manufacturer within such time required to validate the

guarantee. Contractor shall submit to the Department a photocopy of the completed guarantee form for the Department's record as evidence that such guarantee form was executed by the manufacturer.

7.35.4 If a defect is discovered during a guarantee period, all repairs and corrections to the defective items when corrected shall again be guaranteed for the original full guarantee period. The guarantee period shall be tolled and suspended for all work affected by the defect. The guarantee period for work affected by the defect shall restart for its remaining duration upon confirmation by the Project Engineer that the deficiencies have been repaired or remedied.

7.36 WORK OF AND CHARGES BY UTILITIES

7.36.1 The Contractor shall be responsible for scheduling and coordinating the work with the utility companies and applicable Governmental agencies for permanent service installation and connections or modifications to existing utilities. The Contractor shall make available all portions of the work necessary for the utility companies to do their work. The Department shall not bear the risk of any damage to the contract work caused by any utility company, and work of repairing such damage and delay costs must be resolved between the Contractor and the utility company and their insurers.

7.36.2 Unless stated as an allowance item to be paid by the Contractor, the Department will pay the utility companies and applicable governmental agencies directly for necessary modifications and connections. Contractor charges for overhead, supervision, coordination, profit, insurance and any other incidental expenses shall be included in the Contractor's Bid whether the utility is paid directly by the Department or by an allowance item in the Contract.

7.37 RIGHT TO AUDIT RECORDS

7.37.1 The STATE may, at reasonable times and places, audit the books and records of the CONTRACTOR, prospective contractor, subcontractor or prospective subcontractor which are related to the cost or pricing data, and a State contract, including subcontracts, other than a firm fixed-price contract. The books and records shall be maintained by the Contractor and subcontractor(s) for a period of four (4) years from the date of final payment under the Contract.

7.37.2 The Contractor shall insure that its subcontractors comply with this requirement and shall bear all costs (including attorney's fees) of enforcement in the event of its subcontractor's failure or refusal to fully cooperate.

7.37.3 Additionally, Sections 231-7, 235-108, 237-39 and other HRS chapters through reference, authorize the Department of Taxation to audit all taxpayers conducting business within the State. Contractors must make available to the Department of Taxation all books and records necessary to verify compliance with the tax laws.

7.38 RECORDS MAINTENANCE, RETENTION AND ACCESS

7.38.1 The Contractor and any subcontractor whose contract for services is valued at \$25,000 (twenty five thousand) or more shall, in accordance with generally acceptable accounting practices, maintain fiscal records and supporting documents and related files, papers, and reports that adequately reflect all direct and indirect expenditures and management

and fiscal practices related to the Contractor and subcontractor's performance of services under this Contract.

7.38.2 The representative of the Department, the Executive Director, the Attorney General, (the Federal granting agency, the Comptroller General of the United States, and any of their authorized representatives when federal funds are utilized), and the Legislative Auditor of the State of Hawaii shall have the right of access to any book, document, paper, file, or other record of the Contractor and any subcontractor that is related to the performance of services under this Contract in order to conduct an audit or other examination and /or to make copies, excerpts and transcripts for the purposes of monitoring and evaluating the Contractor and subcontractor's performance of services and the Contractor and subcontractor's program, management, and fiscal practices to assure the proper and effective expenditure of funds and to verify all costs associated with any claims made under this Contract.

7.38.3 The right of access shall not be limited to the required retention period but shall last as long as the records are retained. The Contractor and subcontractor shall maintain and retain all books and records related to the Contractor and subcontractor's performance of services under this Contract, including any cost or pricing data for three (3) years from the date of final payment, except that if any litigation, claim, negotiation, investigation, audit or other action involving the books and records has been started before the expiration of the three (3) year period, the Contractor and subcontractors shall retain the books and records until completion of the action and resolution of all issues that arise from it, or until the end of the three (3) year retention period, whichever occurs later. Furthermore, it shall be the Contractor's responsibility to enforce compliance with this provision by any subcontractor.

7.39 COST OR PRICING DATA - Cost or pricing data must be submitted to the Agency purchasing officer and timely certified as accurate for contracts over \$100,000 unless the contract is for a multiple-term or as otherwise specified by the procurement officer. Unless otherwise required by the Agency procurement officer, cost or pricing data submission is not required for Contracts awarded pursuant to competitive sealed bid procedures.

If certified cost or pricing data are subsequently found to have been inaccurate, incomplete, or noncurrent as of the date stated in the certificate, the STATE is entitled to an adjustment of the contract price, including profit or fee, to exclude any significant sum by which the price, including profit or fee, was increased because of the defective data. It is presumed that overstated cost or pricing data increased the contract price in the amount of the defect plus related overhead and profit or fee. Therefore, unless there is a clear indication that the defective data was not used or relied upon, the price will be reduced in such amount.

7.39.1 AUDIT OF COST OR PRICING DATA - When cost or pricing principles are applicable, the STATE may require an audit of cost or pricing data.

7.40 CONFIDENTIALITY OF MATERIAL

7.40.1 All material given to or made available to the CONTRACTOR by virtue of this Contract, which is identified as proprietary or confidential information, will be safeguarded by the CONTRACTOR and shall not be disclosed to any individual or organization without the prior written approval of the STATE.

7.40.2 All information, data, or other material provided by the CONTRACTOR to the STATE shall be subject to the Uniform Information Practices Act, chapter 92F, HRS.

7.41 PUBLICITY - The CONTRACTOR shall not refer to the STATE, or any office, agency, or officer thereof, or any State employee, including the head of the purchasing agency, the Chief Procurement Officer, the Director, the Agency procurement officer, or to the services or goods, or both, provided under this Contract, in any of the CONTRACTOR's brochures, advertisements, or other publicity of the CONTRACTOR. All media contacts with the CONTRACTOR about the subject matter of this Contract shall be referred to the Agency procurement officer.

7.42 OWNERSHIP RIGHTS AND COPYRIGHT - The STATE shall have complete ownership of all material, both finished and unfinished which is developed, prepared, assembled, or conceived by the CONTRACTOR pursuant to this Contract, and all such material shall be considered "works made for hire." All such material shall be delivered to the STATE upon expiration or termination of this Contract. The STATE, in its sole discretion, shall have the exclusive right to copyright any product, concept, or material developed, prepared, assembled, or conceived by the CONTRACTOR pursuant to this Contract.

7.43 GOVERNING LAW - The validity of this Contract and any of its terms or provisions, as well as the rights and duties of the parties to this Contract, shall be governed by the laws of the State of Hawaii. Any action at law or in equity to enforce or interpret the provisions of this Contract shall be brought in a state court of competent jurisdiction in Honolulu, Hawaii.

7.44 SEVERABILITY - In the event that any provision of this Contract is declared invalid or unenforceable by a court, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining terms of this Contract.

7.45 WAIVER - The failure of the STATE to insist upon the strict compliance with any term, provision, or condition of this Contract, shall not constitute or be deemed to constitute a waiver or relinquishment of the STATE's right to enforce the same in accordance with this Contract. The fact that the STATE specifically refers to one provision of the Procurement Rules or one section of the Hawaii Revised Statutes, and does not include other provisions or statutory sections in this Contract shall not constitute a waiver or relinquishment of the STATE's rights or the CONTRACTOR's obligations under the Procurement Rules or statutes.

END OF ARTICLE 7

ARTICLE 8 - MEASUREMENT AND PAYMENT

8.1 MEASUREMENT OF QUANTITIES

8.1.1 All work completed under the Contract shall be measured by the Project Engineer according to United States standard measures, or as stated in this Contract. The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract shall conform to good engineering practice. These measurements shall be considered correct and final unless the Contractor has protested same to the Project Engineer and has demonstrated the existence of an error by actual physical measurement before the work has progressed in a manner which would prohibit a proper check.

8.1.2 All measurements of the area of the various surfaces, pavement and base courses will be made in the horizontal projection of the actual surface and no deductions will be made for fixtures or structures having an area of nine (9) square feet or less. All measurements of headers, curbs, fences and any other type of construction which is to be paid for by its length will be made in the horizontal projection of the actual driven length from toe to top of cutoff, except where slope exceeds ten percent (10%) and for piles, which will be by actual length. All materials which are specified for measurement by the cubic yard "Loose Measurement" or "Measured in the Vehicle" shall be hauled in approved vehicles and measured therein at the point of delivery. Approved vehicles for this purpose may be of any type or size satisfactory to the Project Engineer, provided that the body is of such type that the actual contents may be readily and accurately determined. Unless all approved vehicles on a job are of a uniform capacity each approved vehicle must bear a plainly legible identification mark indicating the specific approved capacity. The Inspector may reject all loads not hauled in such approved vehicles.

8.2 NO WAIVER OF LEGAL RIGHTS - The Project Engineer shall not be precluded or estopped by any measurements, estimate or certificate made either before or after the completion and acceptance of the work and payment therefor, from showing the true amount and character of the work performed and materials furnished by the Contractor, or from showing that any such measurement estimate or certificate is untrue or incorrectly made, or rejecting the work or materials that do not conform in fact to the contract. The Project Engineer shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor and its sureties such damages as the Department may sustain by reason of the Contractor's failure to comply with the terms of the Contract. Neither the acceptance by the Project Engineer or any representative of the Project Engineer, nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, or any possession taken by the Project Engineer, shall operate as a waiver of any portion of the contract, or of any power herein reserved, or any right to damage herein provided. A waiver of any notice requirement or breach of the contract shall not be held to be a waiver of any other notice requirement or subsequent breach.

8.3 PAYMENT FOR ADDITIONAL WORK

8.3.1 Additional work as defined in Section 4.2, CHANGES, when ordered, shall be paid for as defined in Section 4.4, PRICE ADJUSTMENT by a duly issued change order in accordance with the terms provided therein.

8.3.2 On credit proposals and proposals covering both increases and decreases, the application of overhead and profit shall be on the net change in direct costs for the performance of the work.

8.3.3 When payment is to be made for additional work directed by a Field Order, the total price adjustment as specified in the Field Order or if not specified therein for the work contained in the related change order shall be considered full compensation for all materials, labor, insurance, taxes, equipment use or rental and overheads, both field and home office including extended home and branch office overhead and other related delay impact costs.

8.3.4 FORCE ACCOUNT METHOD - When, for the convenience of the Department, payment is to be made by the Force Account method, all work performed or labor and materials and equipment furnished shall be paid for as described below. Payment by the Force Account method will not alter any rights, duties and obligations under the contract.

8.3.4.1 LABOR - For all hourly workers, the Contractor will receive the rate of wage including fringe benefits when such amounts are required by collective bargaining agreement or other employment contract generally applicable to the classes of labor employed on the work, which shall be agreed upon in writing before beginning work for each and every hour that said labor is actually engaged in said work.

(a) All markups for overhead and profit shall be added subject to limitations established in Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT.

(b) No allowance for overtime compensation will be given without the written approval of the Project Engineer prior to performance of such work.

8.3.4.2 INSURANCE AND TAXES - The Contractor and subcontractor(s) will also receive the actual additional costs paid for property damage, liability, worker's compensation insurance premiums, State unemployment contributions, Federal unemployment taxes, social security and Medicare taxes.

8.3.4.3 MATERIALS - For materials accepted by the Project Engineer and used, the Contractor and subcontractor(s) shall receive the actual cost of such materials delivered and incorporated into work, plus a markup allowed under Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT.

8.3.4.4 SUBCONTRACTORS - Subcontractor costs shall be the actual costs of the subcontractor marked up as defined in this Section 8.3 plus a markup allowed under Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT.

8.3.4.5 EQUIPMENT

(a) For machinery or special equipment (other than small tools as herein defined in clause 8.3.4.5.(h) owned or leased by the Contractor or a related entity, the use of which has been authorized by the Project Engineer:

(1) The Contractor will be paid at the per-hour rental rates based on the monthly rate established for said machinery or equipment in the then-current edition of the

Rental Rate Blue Book for Construction Equipment including the estimated operating cost per hour and regional correction provided therein.

- (2) If no rate is listed for a particular kind, type or size of machinery or equipment, then the monthly, hourly rates shall be as agreed upon in writing by the Contractor and the Project Engineer prior to the use of said machinery or equipment. If there is no agreement, the Project Engineer will set a rate. The Contractor may contest the rate pursuant to Section 7.25, DISPUTES AND CLAIMS.
 - (3) Rental rates which are higher than those specified in the aforesaid Rental Rate Blue Book publication may be allowed where such higher rates can be justified by job conditions such as work in water and work on lava, etc. Request for such higher rates shall be submitted in writing to the Project Engineer for approval prior to the use of the machinery or equipment in question.
- (b) For machinery or special equipment [other than small tools as herein defined in clause 8.3.4.5 (h)] rented by the Contractor or a related entity specifically for the Force Account work, the use of which has been authorized by the Project Engineer, the Contractor will be paid the actual rental cost for the machinery or equipment, including mobilization and demobilization costs. A receipt from the equipment supplier shall be submitted to the Project Engineer.
 - (c) For machinery or special equipment [other than small tools as herein defined in clause 8.3.4.5 (h)] rented by the Contractor or a related entity for use in the project, but which will also be used for the Force Account work, the use of which has been authorized by the Project Engineer, the Contractor will be paid the actual rental cost for the machinery or equipment. No additional mobilization and demobilization costs will be paid. A receipt from the equipment supplier shall be submitted to the Project Engineer.
 - (d) The rental rate for trucks not owned by the Contractor shall be those as established under the Hawaii State Public Utilities Commission, which will be paid for as an equipment item pursuant to paragraph 8.3.4.5. Rental rates for Contractor-owned trucks not listed in the Rental Rate Blue Book shall be agreed upon in writing by the Contractor and Project Engineer prior to the use of said trucks. If there is no agreement, the Project Engineer shall set the rate. The Contractor may contest the rate pursuant to Section 7.25, DISPUTES AND CLAIMS.
 - (e) The rental period shall begin at the time equipment reaches the site of work, shall include each day that the machinery or equipment is at the site of the work and shall terminate at the end of the day on which the equipment is no longer needed. In the event the equipment must standby due to work being delayed or halted by reason of design, traffic, or other related problems uncontrollable by the Contractor, excluding Saturdays, Sundays and Legal Holidays, unless the equipment is used to perform work on such days, the rental shall be two (2) hours per day until the equipment is no longer needed.
- (1) The rental time to be paid will be for the time actually used. Any hours or operation in excess of eight (8) hours in any one (1) day must be approved by the Project Engineer prior to the performance of such work.

- (2) Rental time will not be allowed or credited for any day on which machinery or equipment is inoperative due to its breakdown. On such days, the Contractor will be paid only for the actual hours, if any, that the machinery or equipment was in operation.
 - (3) In the event the Force Account work is completed in less than eight (8) hours, equipment rental shall nevertheless be paid for a minimum eight (8) hours.
 - (4) For the purpose of determining the rental period the continuous and consecutive days shall be the normal eight (8) hour shift work day, Monday through Friday excluding legal holidays. Any work day to be paid less than eight (8) hours shall not be considered as continuous, except for equipment removed from rental for fuel and lubrication.
 - (5) No additional premium beyond the normal rates used will be paid for equipment over eight (8) hours per day or forty (40) hours per week.
- (f) All rental rates for machinery and equipment shall include the cost of fuel, oil, lubricants, supplies, small tools, necessary attachments, repairs, maintenance, tire wear, depreciation, storage, and all other incidentals.
 - (g) All machinery and equipment shall be in good working condition and suitable for the purpose for which the machinery and equipment is to be used.
 - (h) Individual pieces of equipment or tools having a replacement value of \$2,000 (two thousand dollars) or less, whether or not consumed by use, shall be considered to be small tools and included in the allowed markup for overhead and profit and no separate payment will be made therefor.
 - (i) The total of all Force Account rental charges accrued over the duration of the contract for a specific item of equipment shall not exceed the replacement cost of that equipment.
 - (1) The Contractor shall provide the cost of replacement to the Project Engineer prior to using the equipment. If the Project Engineer does not agree with the replacement cost, the Project Engineer shall set the replacement cost. The Contractor may contest the replacement cost pursuant to Section 7.25, DISPUTES AND CLAIMS.
 - (j) Should the item of equipment be rented from an unrelated entity, the rental cost will be treated as an equipment cost under paragraph 8.3.4.5.
 - (k) Transportation and/or Mobilization: The following provisions shall govern in determining the compensation to be paid to the Contractor for use of equipment or machinery on the Force Account method:
 - (1) The location from which the equipment is to be moved or transported shall be approved by the Project Engineer.

- (2) Where the equipment must be transported to the site of the Force Account work, the Department will pay the reasonable cost of mobilizing and transporting the equipment, including its loading and unloading, from its original location to the site of Force Account work. Upon completion of the work the Department will pay the reasonable cost of mobilizing and transporting the equipment back to its original location or to another location, whichever cost is less.
 - (3) The cost of transporting the equipment shall not exceed the rates established by the Hawaii State Public Utilities Commission. If such rates are nonexistent, then the rates will be determined by the Project Engineer based upon the prevailing rates charged by established haulers within the locale.
 - (4) Where the equipment is self-propelled, the Department will pay the cost of moving the equipment by its own power from its original location to the site of the Force Account work. Upon completion of the work the Department will pay the reasonable cost of moving of the Equipment back to its original or another location, whichever cost is less.
 - (5) At the discretion of the Project Engineer, when the Contractor desires to use such equipment for other than Force Account work, the costs of mobilization and transportation shall be prorated between the Force Account and non- Force Account work.
- (l) Pickup trucks, vans, storage trailers, unless specifically rented for the Force Account work, shall be considered incidental to the Force Account work and the costs therefor are included in the markup allowed under Section 4.5, ALLOWANCES FOR OVERHEAD AND PROFIT.

8.3.4.6 STATE EXCISE (GROSS INCOME) TAX AND BOND - A sum equal to the current percentage rate for the State excise (Gross Income) tax on the total sum determined in paragraphs 8.3.4.1, 8.3.4.2, 8.3.4.3 and 8.3.4.4 above, and the bond premium shall be added as compensation to the Contractor. The actual bond premium not to exceed one percent (1%) shall be added to items covered by paragraphs 8.3.4.1, 8.3.4.2, 8.3.4.3 and 8.3.4.4 when applicable.

- (a) The compensation as determined in paragraphs 8.3.4.1, 8.3.4.2, 8.3.4.3, 8.3.4.4 and 8.3.4.5 above shall be deemed to be payment in full for work paid on a Force Account basis.

8.3.4.7 RECORDS - The Contractor and the Project Engineer shall compare records of the labor, materials and equipment rentals paid by the Force Account basis at the end of each day. These daily records, if signed by both parties, shall thereafter be the basis for the quantities to be paid for by the Force Account method. The Contractor shall not be entitled to payment for Force Account records not signed by the Project Engineer.

8.3.4.8 STATEMENTS - No payment will be made for work on a Force Account basis until the Contractor has submitted to the Project Engineer, duplicate itemized statements of the cost of such Force Account work detailed as follows:

- (a) Laborers - Name, classification, date, daily hours, total hours, rate, and extension for each laborer and foreman and also the amount of fringe benefits payable if any.
- (b) Equipment - Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.
- (c) Materials:
 - (1) Quantities of materials, prices and extensions.
 - (2) Costs of transporting materials, if such cost is not reflected in the prices of the materials.
 - (3) Statements shall be accompanied and supported by receipted invoices for all materials used and transportation charges. However, if materials used on the Force Account work are not specifically purchased for such work but are taken from the Contractor's stock, then in lieu of the invoices the Contractors shall submit an affidavit certifying that such materials were taken from stock and that the amount claimed represents the actual cost to the Contractor.
- (d) Insurance - Cost of property damage, liability and worker's compensation insurance premiums, unemployment insurance contributions, and social security tax.

8.4 PROGRESS AND/OR PARTIAL PAYMENTS

8.4.1 PROGRESS PAYMENTS - The Contractor will be allowed progress payments on a monthly basis upon preparing the Monthly Payment Application forms and submitting the originals to the Project Engineer. The monthly payment shall be based on the items of work satisfactorily completed and the value thereof at unit prices and/or lump sum prices set forth in the contract as determined by the Project Engineer and will be subject to compliance with Section 7.9, PAYROLLS AND PAYROLL RECORDS.

8.4.1.1 ORIGINAL INVOICES REQUIRED - All payments under this Contract shall be made only upon submission by the CONTRACTOR of original invoices specifying the amount due and certifying that services requested under the Contract have been performed by the CONTRACTOR according to the Contract.

8.4.1.2 SUBJECT TO AVAILABLE FUNDS - Such payments are subject to availability of funds and allotment by the Director of Finance in accordance with chapter 37, HRS. Further, all payments shall be made in accordance with and subject to chapter 40, HRS.

8.4.2 In the event the Contractor or any Subcontractor fails to submit certified copies of payrolls in accordance with the requirements of Section 7.9, PAYROLLS AND PAYROLL RECORDS, the Project Engineer may retain the amount due for items of work for which payroll affidavits have not been submitted on a timely basis notwithstanding satisfactory completion of the work until such records have been duly submitted. The Contractor shall not be due any interest payment for any amount thus withheld.

8.4.3 PARTIAL PAYMENT FOR MATERIALS - The Contractor will also be allowed partial payments to the extent of ninety percent (90%) of the manufacturer's, supplier's, distributor's or

fabricator's invoice cost of accepted materials to be incorporated in the work on the following conditions:

8.4.3.1 The materials are delivered and properly stored at the site of the Work; or

8.4.3.2 For special items of materials accepted by the Project Engineer, the materials are delivered to the Contractor or subcontractor(s) and properly stored in an acceptable location within a reasonable distance to the site of the Work.

8.4.4 Partial payments shall be made only if the Project Engineer finds that:

8.4.4.1 The Contractor has submitted bills of sale for the materials or otherwise demonstrates clear title to such materials.

8.4.4.2 The materials are insured for their full replacement value to the benefit of the Department against theft, fire, damages incurred in transportation to the site, and other hazards.

8.4.4.3 The materials are not subject to deterioration.

8.4.4.4 In case of materials stored off the project site, the materials are not commingled with other materials not to be incorporated into the project.

8.4.5 FEDERAL FUNDS - If this Contract is payable in whole or in part from federal funds, Contractor agrees that, as to the portion of the compensation under this Contract to be payable from federal funds, the Contractor shall be paid only from such funds received from the federal government, and shall not be paid from any other funds.

8.5 PROMPT PAYMENT (§3-125-23 HAR)

8.5.1 Any money, other than retainage, paid to the CONTRACTOR shall be dispersed to subcontractors within ten days after receipt of the money in accordance with the terms of the subcontract; provided that the subcontractor has met all the terms and conditions of the subcontract and there are no bona fide disputes; and

8.5.2 Upon final payment to the CONTRACTOR, full payment to the subcontractor, including retainage, shall be made within ten days after receipt of the money; provided that there are no bona fide disputes over the subcontractor's performance under the subcontract.

8.5.3 BONA FIDE DISPUTES - The existence of a bona fide dispute with a subcontractor or material supplier shall not release the Contractor of its prompt payment obligations as to all sums due that are not directly affected by such dispute.

8.5.4 FILING NON-PAYMENT COMPLAINT - Subcontractors and material suppliers may file in writing a complaint with the Executive Director regarding non-payment by the Contractor. Such complaint shall include:

8.5.4.1 The amount past due for work performed and already paid for by the Department;

8.5.4.2 That all the terms, conditions or requirements of its subcontract have been met; and

8.5.4.3 That no bona fide dispute over its performance exists. The Department will investigate the validity of the complaint.

8.5.5 The Department may withhold from future progress payments amounts to cover any sums paid to the Contractor for work performed by a subcontractor if the Department finds that the subcontractor complaint regarding non-payment by the Contractor has merit.

8.5.6 If the Project Engineer determines that the Contractor failed to make prompt payment required to a subcontractor or material supplier with whom it has no bona fide dispute, the Project Engineer shall inform the Contractor of the findings and request the Contractor make payment accordingly. If the Contractor does not act promptly, the Project Engineer shall take appropriate action as allowed under this Contract and / or refer the matter to the Contractor Licensing Board for appropriate action under Section 444-17, Hawaii Revised Statutes regarding the Revocation, Suspension and Renewal of (Contractor) Licenses and/or initiate a petition for debarment of the Contractor from bidding on other Department jobs.

8.6 RETAINAGE

8.6.1 The Department will retain five percent (5%) of the total amount of progress and / or partial payments until after completion of the entire Contract in an acceptable manner at which time this balance, less any previous payments, will be certified and paid to the Contractor. After fifty percent (50%) of the work is completed, and if progress is satisfactory, the Project Engineer at its sole discretion may elect not to withhold further retainage. If progress is not satisfactory, the Department may continue to withhold as retainage sums not exceeding five percent (5%) of the amount earned.

8.6.2 The retainage shall not include sums deducted as liquidated damages from monies due or that may become due the Contractor under the Contract.

8.6.3 Contractor may withdraw from time to time the whole or any portion of the sum retained after endorsing over to the Department and depositing with the Department any general obligation bond of the State or its political subdivisions suitable to the Department but in no case with a face value less than the value established by law of the amount to be withdrawn. The Department may sell the bond and use the proceeds therefrom in the same way as it may use monies directly retained from progress payments or the final payment.

8.7 WARRANTY OF CLEAR TITLE - The Contractor warrants and guarantees that all work and materials covered by progress or partial payments made thereon shall be free and clear of all liens, claims, security interests or encumbrances, and shall become the sole property of the Department. This provision shall not, however, be construed as an acceptance of the work nor shall it be construed as relieving the Contractor from the sole responsibility for all materials and work upon which payments have been made or the restoration of any damaged work, or as waiving the right of the Department to require the fulfillment of all the items of the Contract.

8.7.1 LIENS AND WARRANTIES - Goods provided under this Contract shall be provided free of all liens and provided together with all applicable warranties, or with the warranties described in the Contract documents, whichever are greater.

8.8 FINAL PAYMENT

8.8.1 Upon final payment to the CONTRACTOR, full payment to the subcontractor, including retainage, shall be made within ten days after receipt of the money; provided that there are no bona fide disputes over the subcontractor's performance under the subcontract.

8.8.2 Sums necessary to meet any claims of any kind by the Department may be retained from the sums due the Contractor until said claims have been fully and completely discharged or otherwise satisfied.

8.9 STATE'S RIGHT TO OFFSET - The STATE may offset against any monies or other obligations the STATE owes to the CONTRACTOR under this Contract, any amounts owed to the State of Hawaii by the CONTRACTOR under this Contract or any other Contracts or pursuant to any law or other obligation owed to the State of Hawaii by the CONTRACTOR, including, without limitation, the payment of any taxes or levies of any kind or nature. The STATE will notify the CONTRACTOR in writing of any offset and the nature of such offset. For purposes of this paragraph, amounts owed to the State of Hawaii shall not include debts or obligations which have been liquidated, agreed to by the CONTRACTOR, and are covered by an installment payment or other settlement plan approved by the State of Hawaii, provided, however, that the CONTRACTOR shall be entitled to such exclusion only to the extent that the CONTRACTOR is current with, and not delinquent on, any payments or obligations owed to the State of Hawaii under such payment or other settlement plan.

END OF ARTICLE 8

GENERAL REQUIREMENTS

GENERAL

- 1.01 GENERAL PROVISIONS: The General Conditions of the Contract and any supplementary conditions as agreed upon between the HHFDC and the Contractor are a part of this Contract and shall govern the Work.
- 1.02 DESCRIPTION OF WORK AREAS: The work consists of repair, reconstruction, and rehabilitation of existing road pavement, curb and gutters, and catch basins, located within the Villages of Kapolei at various locations as depicted in the Project Figures and outlined in the Technical Specifications.
- 1.03 WORK COVERED BY THE CONTRACT DOCUMENTS:
- A. Repaving of existing roadways to include Kaiu Avenue from Kama'aha Avenue at its western terminus to Kama'aha Avenue at its eastern terminus, utilizing cold planing of existing asphalt and repaving with hot mix asphalt.
 - B. Reconstruction of damaged concrete curbs and gutters.
 - C. Repair and reconstruction of damaged catch basin decks, curbs, and adjoining sidewalks, where necessary.
 - D. Removal of existing and installation of temporary and new permanent pavement markers, striping and markings for affected roadways.
 - E. Removal and disposal of existing, and furnishing and installation of new traffic signs and identified traffic sign posts.
 - F. Destruction of existing and installation of new vehicle detector loops located within the affected roadways.
 - G. Adjustment of existing utility structures to finished grade in conjunction with the repaving work. Existing utility structures include, but are not limited to, manholes, valve boxes and street survey monuments.
 - H. All related work including, but not limited to, mobilization and demobilization, furnishing and maintaining the Project field office, pre-construction site survey, traffic control and environmental pollution control as required and specified herein.
- 1.04 GENERAL REQUIREMENTS:
- A. SCOPE. The Contractor shall furnish supervision, labor, equipment and incidentals necessary to complete the work as described in these General

Requirements and Technical Specifications. For conditions not covered by the Technical Specifications the following shall govern:

- The City and County of Honolulu's Standard Specifications for Public Works Construction, dated September 1986, as amended.
- The City and County of Honolulu's Standard Details for Public Works Construction, dated September 1984, as amended.
- The City and County of Honolulu, Department of Environmental Services' Wastewater System Design Standards, dated July 2017, as amended.
- The City and County of Honolulu, Department of Environmental Services' Wastewater System Standard Details, dated July 2017, as amended.
- The City and County of Honolulu, Department of Planning and Permitting's Storm Drainage Standards, dated August 2017, as amended.
- The City and County of Honolulu, Department of Planning and Permitting's Rules Relating to Water Quality, as amended.

1.05 TIME OF COMPLETION: The time of completion for all work in the Contract shall be incidental and be completed within the one hundred forty (140) calendar day performance period of this contract from the date of commencement indicated in the written Notice to Proceed. Any extension of Contract time will be subject to the approval of the Executive Director as indicated in these Specifications.

1.06 CONTINGENCY: Allowances of Ten Thousand & No/100 Dollars (\$10,000.00), Ten Thousand & No/100 Dollars (\$10,000.00), Ten Thousand & No/100 Dollars (\$10,000.00), Twenty Thousand & No/100 Dollars (\$20,000.00), and Twenty Thousand & No/100 Dollars (\$20,000.00) are reserved for Environmental Pollution Control, Traffic Control, Additional Police Officers, Tree Protection and/or Tree Removal, Replacement and Relocation, and Archaeological Monitoring and Archaeological Findings Mitigation, respectively, related to this Contract. An allowance of One Hundred Thousand & No/100 Dollars (\$100,000.00) is also reserved for any unforeseen additional work related to this Contract. The contingency allowance shall be applied to work only as authorized by HHFDC and performed by the Contractor. Work shall not commence on any allowance work prior to issuance of written authorization by HHFDC, except in emergency cases. Further, the HHFDC may require that the Contractor submit invoices, receipts or other information.

1.07 PROJECT MANAGEMENT AND COORDINATION:
See section on separate pages.

1.08 CONSTRUCTION PROGRESS DOCUMENTATION:
See section on separate pages.

1.09 EXECUTION REQUIREMENTS:
See section on separate pages.

SECTION 1.07 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General project coordination procedures.
 - 2. Project meetings.

1.02 PERFORMANCE AND COORDINATION

- A. Contractor is in charge of the Work within the Project Contract Limits and shall direct and schedule the Work. Include general supervision, management and control of the Work of this project, in addition to other areas more specifically noted throughout the Specifications. Final responsibility for performance, interface, and completion of the Work and the Project is the Contractor's.
- B. The Contractor is responsible for jobsite Administration. Provide a competent superintendent on the job and provide an adequate staff to execute the Work. In addition, all workers shall dress appropriately and conduct themselves properly at all times. Loud abusive behavior, sexual harassment and misconduct will not be tolerated. Workers found in violation of the above shall be removed from the job site as directed by the Contracting Officer.
- C. The HHFDC will hold the Contractor liable for all the acts of Subcontractors and shall deal only with the Contractor in matters pertaining to other trades employed on the job.
- D. Coordination: Provide project interface and coordination to properly and accurately bring together the several parts, components, systems, and assemblies as required to complete the Work pursuant to the GENERAL CONDITIONS and SPECIAL CONDITIONS.
 - 1. Provide interface and coordination of all subcontracts. Ensure and make correct and accurate connections of abutting, adjoining, overlapping, and related work.
 - 2. Provide excavation, trenching, backfilling, and drilling for trades to install their work.
 - 3. Materials, equipment, component parts, accessories, incidental items, connections, and services required to complete the Work which are not provided by Subcontractors shall be provided by the Contractor.
 - 4. Coordination: Coordinate construction operations included in various Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.

1.03 COOPERATION WITH OTHER CONTRACTORS

- A. The HHFDC reserves the right at any time to contract for or otherwise perform other or additional work within the Project Contract Limits. The Contractor of this project shall to the extent ordered by the Contracting Officer, conduct its work so as not to interfere with or hinder the progress or completion of the work performed by the HHFDC or other Contractors.

1.04 COORDINATION WITH OTHER PRIME CONTRACTORS

- A. Multiple prime contractors performing work under separate agreements with the HHFDC may be present near the project location, adjacent to and abutting the Project Contract Limits. This Contractor shall coordinate activities, sequence of work, protective barriers and any and all areas of work interfacing with other prime contractor's work. Contractor shall provide a continuity of finishes, walks, landscape, etc. at abutting Contract limits so no additional work will be required. Any damage to other prime contractor's Work committed by this Contractor (or its Subcontractor) shall be repaired promptly at no additional cost to the HHFDC.
- B. Coordinate Subcontractors and keep them informed of any work from the other Projects that may affect the site or the Subcontractor's work. If the Contractor has any questions regarding its coordination responsibilities or needs clarification as to the impact in scheduling of its work and the work of other projects, this Contractor shall notify the Contracting Officer in writing.

1.05 RESERVED

1.06 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences as directed by the Contracting Officer at the Contractor's field office, unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Contracting Officer of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Contracting Officer, within 7 days of the meeting.
- B. Preconstruction Conference: Contracting Officer shall schedule a preconstruction conference before the start of construction, at a time convenient to the Contracting Officer, but no later than 7 days before the Project start date or jobsite start date whichever is later. Conference will be held at the Project site or another convenient location. The Contracting Officer shall conduct the meeting to review responsibilities and personnel assignments.
 - 1. Attendees: Contracting Officer and design consultants; Facility Users; Contractor and its superintendent; major Subcontractors; manufacturers; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.

2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and coordination.
 - d. Designation of responsible personnel.
 - e. Use of the premises.
 - f. Responsibility for temporary facilities and controls.
 - g. Parking availability.
 - h. Office, work, and storage areas.
 - i. Equipment deliveries and priorities.
 - j. First aid.
 - k. Security.
 - l. Progress cleaning.
 - m. Working hours.
- C. Progress Meetings: Conduct progress meetings at monthly or other intervals as determined by the Contracting Officer. Coordinate dates of meetings with preparation of payment requests.
1. Attendees: In addition to Contracting Officer and Design Consultant, each Contractor, Subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

- b. Review present and future needs of each entity present, including the following:
 - 1) Outstanding Requests for information (clarification).
 - 2) Status of outstanding submittals.
 - 3) Sequence of operations.
 - 4) Interface requirements.
 - 5) Deliveries.
 - 6) Access.
 - 7) Site utilization.
 - 8) Temporary facilities and controls.
 - 9) Work hours.
 - 10) Hazards and risks.
 - 11) Progress cleaning.
 - 12) Quality and work standards.
 - 13) Force Account work.
 - 14) Change Orders and Change Proposals.
 - 15) Documentation of information for payment requests.
 - c. Corrective Action Plan: Contractor shall provide a plan of corrective action for any item which is delayed or expected to be delayed when that item impacts the contractual dates.
3. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.
- a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 1.08 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's Construction Schedule.
 - 2. Submittals Schedule.
 - 3. Schedule of Prices.
 - 4. Payment Application.

1.02 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical activities are activities on the critical path and control the total length of the project. They must start and finish on the planned early start and finish times.
 - 2. Predecessor activity is an activity that must be completed before a given activity can be started.
- B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of project.
- C. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall Project duration and contains no float.
- D. Event: The starting or ending point of an activity.
- E. Float: The measure of leeway in starting and completing an activity.
 - 1. Float time is not for the exclusive use or benefit of either the HHFDC or Contractor, but is a jointly owned, expiring Project resource available to both parties as needed to meet schedule milestones and Contract completion date.
 - 2. Free float is the amount of time an activity can be delayed without adversely affecting the early start of the following activity.
 - 3. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned Project completion date.

- F. Schedule of Prices: A Statement furnished by Contractor allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Payment Applications.

1.03 SUBMITTALS

- A. Required Submittals: Submit 4 sets of the list of the required submittals, by Specification Section, within 15 days after award of the contract or upon earlier written instructions from the Contracting Officer.
 - 1. The listing shall indicate and include the following:
 - a. The number of copies required for submittal.
 - b. Planned submittal date.
 - c. Approval date required by the Contractor.
 - d. A space where the "date of submittal" can be inserted.
 - e. A space where the "date of approval" can be inserted.
 - f. A space where an "action code" can be inserted.
- B. Construction Schedule: Submit 4 sets of the Construction Schedule for review within 15 days after the award of the contract or upon earlier written instructions from the Contracting Officer.
- C. Schedule of Prices: Submit 4 sets of the Schedule of Prices integrated with the Construction Schedule for review within 15 days after the award of the contract or upon earlier written instructions from the Contracting Officer.
- D. Payment Application: Submit the payment application at earliest possible date and no sooner than the last day of the month after all payroll affidavits, updated submittal registers, and schedules have been submitted.

1.04 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate subcontractors.
- B. Construction Schedule: Coordinate Contractor's Construction Schedule with the Schedule of Prices, Submittals Schedule, loaded monthly event activity, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.
- C. Schedule of Prices: Coordinate preparation of the schedule with preparation of Contractor's Construction Schedule.
 - 1. Correlate line items in the Schedule of Prices with other required administrative forms and schedules, including the following:
 - a. The HHFDC's Payment Application form and the Construction Progress Report continuation sheet for the event cost estimate per time period.

- b. Submittals Schedule.

PART 2 - PRODUCTS

2.01 SUBMITTALS SCHEDULE

- A. Comply with the GENERAL CONDITIONS "SHOP DRAWINGS AND OTHER SUBMITTALS" Article. Furnish required submittals specified in this Section and in the Technical Sections. Submittals include one or more of the following: shop drawings, color samples, material samples, technical data, material safety data information, schedules of materials, schedules of operations, guarantees, certifications, operating and maintenance manuals, and field posted as-built drawings.
- B. Preparation: Furnish a schedule of submittals per Contracting Officer.
 - 1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Prices, and Contractor's Construction Schedule.
 - 2. The schedule shall accommodate a minimum of 21 calendar days for the HHFDC's review, as applicable for the Island the project is located.
 - 3. Prepare and submit an updated list to the Contracting Officer at monthly intervals or as directed by the Contracting Officer. The listing shall reflect all approvals received since the last update.

2.02 CONTRACTOR'S CONSTRUCTION SCHEDULE - PERT CHART CRITICAL PATH METHOD (CPM)

- A. The construction schedule shall address the entire project, to the extent required by the Contract Documents, and shall show an expedient and practical execution of work. If requested by the Contracting Officer, the Contractor shall participate in a preliminary meeting to discuss the proposed schedule and requirements prior to submitting the schedule.
- B. The Construction Schedule shall indicate the following:
 - 1. Elements of the Project in detail time scaled by month or by week, and a project summary.
 - 2. The order and interdependence of activities and the sequence in which the work is to be accomplished.
 - 3. How the start of a given activity is dependent upon the completion of preceding activities and how its completion restricts the start of following activities.
 - 4. The submittal and approval of shop drawings, samples, procurement of critical materials and equipment, receipt of materials with estimated costs of major items for which payment will be requested in advance of installation, fabrication of special materials and equipment, and their installation and testing.

5. Activities of the HHFDC that have an effect on the progress schedule, such as the required delivery dates for HHFDC furnished materials and equipment and other similar items.
6. Provide a separate report with the following:
 - a. The description of the activity.
 - b. The duration of time in calendar days.
 - c. For each activity indicate the early start date.
 - d. For each activity indicate the early finish date.
 - e. For each activity indicate the late start date.
 - f. For each activity indicate the late finish date.
 - g. Total float time.
 - h. Cost of event.
 - i. Contract-required dates for completion of all or parts of the Work.
 - j. Events are to be used on "Monthly Progress Report" for monthly payment request.
- C. Upon completion of the Contracting Officer's review, the Contractor shall amend the schedule to reflect the comments. If necessary, the Contractor shall participate in a meeting with the Contracting Officer to discuss the proposed schedule and changes required. Submit the revised schedule for review within 7 calendar days after receipt of the comments.
- D. Use the reviewed schedule for planning, organizing and directing the work, for reporting progress, and for requesting payment for the work completed. Unless providing an update, do not make changes to the reviewed schedule without the Contracting Officer's approval.
- E. Should changes to the schedule be desired, submit a request in writing to the Contracting Officer and indicate the reasons for the proposed change. If the changes are major, the Contracting Officer may require the Contractor to revise and resubmit the schedule at no additional cost to the HHFDC. Contractor shall mitigate the impact of all changes by readjusting the sequence of activities, duration of time, or resources utilizing available float.
 1. A change is major if, in the opinion of the Contracting Officer, the change affects the substantial completion date or other contractual and milestone dates.
 2. Minor changes are those that only affect activities with adequate float time.
- F. Once the schedule is reviewed by the Contracting Officer, the Contractor shall submit 4 sets of the revised schedule within 14 calendar days.
- G. Throughout the duration of the project, the Contracting Officer may require more detailed breakdowns of activities, logic, and schedule submittals from the Contractor.
- H. Updated Schedules: Submit at monthly intervals or as directed by the Contracting Officer. The schedule shall reflect all changes occurring since the last update including the following:
 1. Activities started and completed during the previous period.

2. The estimated duration to complete each activity that was started but not completed.
 3. Percentage of cost payable for each activity.
 4. Modifications and pending proposed changes.
 5. Narrative report describing current and anticipated problem areas or delaying factors with their impact together with an explanation of corrective actions taken or proposed.
- I. Failure on the part of the Contractor to submit updated schedules may be grounds for the Contracting Officer to withhold progress payments for items noted on the schedule.
 - J. Contractor shall prosecute the work according to the CPM Schedule. The Contracting Officer shall rely on the reviewed Contractor's CPM Schedule and regular updates for planning and coordination. The Contracting Officer's review of the Contractor's CPM Construction Schedule does not relieve the Contractor of its obligation to complete the work within the allotted contract time. Nor does the review grant, reject or in any other way act on the Contractor's request for adjustments to complete remaining contract work, or for claims of additional compensation. These requests shall be processed in accordance with other relevant provisions of the contract.
 - K. If the Contracting Officer issues a field order or change order or other directive that affects the sequence or duration of work activities noted on the construction progress schedule, the Contractor shall promptly update the schedule. To accomplish this update, add, delete or revise the work activities noted or change the logic in the schedule to show the Contractor's plan to incorporate the change into the flow of work. All change orders and time extension requests that affect the construction schedule shall be evaluated based on their impact on the approved Construction Schedule.
 - L. If the current work is behind schedule or projected to be behind schedule, such as negative float on a critical activity or inability to meet the Contract Completion Date, the Contracting Officer may require the Contractor, at the Contractor's cost, to take remedial measures to get the project back on schedule. This may require increasing the work force, working overtime and weekends, air freighting materials, or other similar actions.
 - M. If at any time the Contracting Officer determines that any critical activity has fallen behind the CPM schedule by 15 calendar days or more, the Contractor shall submit a remedial plan to recapture the lost scheduled time. Include a revised schedule. Furnish the remedial plan no later than 7 calendar days from Contracting Officer's notification.
 - N. If an accelerated schedule is proposed, refer to GENERAL CONDITIONS Section 7.22 "CONSTRUCTION SCHEDULE".

2.03 SCHEDULE OF PRICES

- A. Furnish a schedule of prices per Contracting Officer.
- B. Provide a breakdown of the Contract Sum in enough detail to facilitate developing and the continued evaluation of Payment Applications. Provide several line items for principal subcontract amounts, or for materials or equipment purchased or fabricated and stored, but not yet installed, where appropriate. Total shall equal the Contract Price.
- C. Each item in the Schedule of Prices and Payment Application shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

2.04 PAYMENT APPLICATION

- A. Use the Schedule of Prices as the Monthly Construction Progress Report. Each Payment Application shall be consistent with previous applications and payments. The Contracting Officer shall determine the appropriateness of each payment application item.
- B. Payment Application Times: The date for each progress payment is the last day of each month. The period covered by each Payment Application starts on the first day of the month or following the end of the preceding period and ends on the last day of the month.
- C. Updating: Update the schedule of prices listed in the Payment application when Change Orders or Contract Modifications result in a change in the Contract Price.
- D. Provide a separate line item for each part of the Work where Payment Application may include materials or equipment purchased or fabricated and stored, but not yet installed.
- E. Differentiate between items stored on-site and items stored off-site. Include evidence of insurance or bonded warehousing if required.
- F. Payment Application Forms: Use and submit copies of the Payment Application and Construction Progress forms approved by the HHFDC. Furnish 4 copies.
- G. Application Preparation: Complete every entry on form. Execute by a person authorized to sign legal documents on behalf of the Contractor.
 - 1. Entries shall match data on the Schedule of Prices and Contractor's Construction Schedule. Use updated schedules if revisions were made. Include amounts of Change Orders and Contract Modifications issued before last day of construction period covered by application.
- H. No payment will be made until the following are submitted each month:
 - 1. Monthly Estimate, 4 copies.
 - 2. Monthly Progress Report, 4 copies.
 - 3. Statement of Contract Time, 4 copies.

4. Updated Submittal Register, 1 copy.
 5. Updated Progress Schedule, 1 copy.
 6. All Daily Reports, 1 copy.
 7. All Payroll Affidavits for work done, 1 copy.
- I. Retainage: The HHFDC will withhold retainage in compliance with the GENERAL CONDITIONS.
 - J. Transmittal: Submit the signed original and 3 copies of each Payment Application for processing.

2.05 CONTRACTOR AND SUBCONTRACTORS DAILY PROGRESS REPORTS

- A. The Contractor is responsible for submitting the Contractor and Subcontractor Daily Progress Reports (Daily Reports) for the Contractor, all subcontractors, and any lower-tier subcontractors.
- B. The form of the Daily Reports shall be as directed by the Contracting Officer. A separate report shall be made and submitted for the Contractor (each calendar day) and each subcontractor (each day worked). The report shall include the following information for each employer: Name of Contractor or Subcontractor, Report Number, Contract Day (consecutive calendar day from Notice to Proceed (NTP) Date), Date worked, work location and description, number of workers, trade/labor classification, and work hours. For Contractor, only the Contract Day is required because the Report Number will be the same number.
- C. The Daily Reports shall be prepared from the project NTP Date. Daily Reports shall continue to be prepared and submitted up to the Project Acceptance Date. After the Project Acceptance Date, Daily Reports will be submitted for days worked only, and continue to date of Contract Completion Notice. Running Contract Day will stop at Project Acceptance Date. Submit copies of the Daily Reports to the Contracting Officer on a weekly basis.
- D. Daily Reports can be handwritten in the field or typed electronically on a hand-held device or computer and signed by the Contractor's authorized representative. The reports shall use the following file naming convention:

CN R# CD# YYMMDD

- CN:** Company Name of Contractor or Subcontractor (2 capital letters)
- R#:** Daily Report number (3 digits, used only by Subcontractor)
- CD#:** Contract Day (consecutive calendar day from NTP Date, 3 digits)
- YYMMDD:** Report Date in numerals (year, month, day, 6 digits)

Examples: HS 011 015 170314, for Honolulu Subcontractor, Inc. HG
015 170314, for Honolulu Contractor, Inc.

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 1.09 - EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including the following:
 - 1. Construction layout. Field engineering and surveying.
 - 2. General installation of products.
 - 3. Progress cleaning.
 - 4. Starting and adjusting.
 - 5. Protection of installed construction.
 - 6. Correction of the Work.

1.02 NOTIFICATION

- A. Contact the Contracting Officer and the Project Contact Person at least 3 working days prior to starting any onsite work.

1.03 PROJECT AND SITE CONDITIONS

- A. Project Contract Limits (Contract Zone Limits) indicate only in general the limits of the work involved. Perform necessary and incidental work, which may fall outside of these demarcation lines. Confine construction activities within the Project Contract Limits and do not spread equipment and materials indiscriminately about the area.
- B. Contractor's Operations - Provide means and methods to execute the Work and minimize interruption or interference to the facility's operations. Rearrange the construction schedule when construction activities result in interruptions that hamper the operations of the roadways and facilities.

1.04 QUALITY ASSURANCE

- A. Land Surveyor Qualifications: A professional land surveyor with a license to practice in Hawaii.
- B. Professional Engineer Qualifications: A professional engineer with a license to practice in Hawaii.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 EXAMINING THE SITE

- A. Contractor and Subcontractors are expected to visit the site and make due allowances for difficulties and contingencies to be encountered. Compare contract documents with work in place. Become familiar with existing conditions, the conditions to be encountered in performing the Work, and the requirements of the drawings and specifications.

- B. Verify construction lines, grades, dimensions and elevations indicated on the drawings before any clearing, excavation or construction begins. Bring any discrepancy to the attention of the Contracting Officer and make any change in accordance with the Contracting Officer instruction.
- C. Obtain all field measurements required for the accurate fabrication and installation of the Work included in this Contract. Verify governing dimensions and examine adjoining work on which the Contractor or Subcontractor's work is in any way dependent. Submit differences discovered during the verification work to the Contracting Officer for interpretations before proceeding with the associated work. Exact measurements are the Contractor's responsibility.
- D. Furnish or obtain templates, patterns, and setting instructions as required for the installation of all Work. Verify dimensions in the field.
- E. Contractor shall accept the site in the condition that exists at the time access is granted to begin the Work. Verify existing conditions and dimensions shown and other dimensions not indicated but necessary to accomplish the Work.
- F. Locate all general reference points and take action to prevent their destruction. Lay out work and be responsible for lines, elevations and measurements and the work executed. Exercise precautions to verify figures and conditions shown on drawings before layout of work.

3.02 SITE UTILITIES AND TONING

- A. Cooperate, coordinate and schedule work to maintain construction progress, and accommodate the operations and work of the owners of underground or overhead utility lines or other property in removing or altering the lines or providing new services.
- B. Contact all the various utility companies before the start of the work to ascertain any existing utilities and to develop a full understanding of the utility requirements with respect to this Project. Furnish the Contracting Officer with evidence that the utility companies were contacted.
- C. Should the Contractor discover the existence and location of utilities in the contract drawings are not correct, do not disturb the utilities and immediately notify the Contracting Officer.
- D. Do not disturb or modify any utilities encountered, whether shown or not on the Contract Drawings, unless otherwise instructed in the drawings and specifications or as directed by the Contracting Officer. Repair and restore to pre-damaged condition any utilities or any other property damaged by construction activities.
- E. Toning: Prior to the start of grading, excavation or trenching work, verify and confirm the presence, location and depth of existing underground utility lines in the area affected by the project by "toning" or by other appropriate means acceptable to the Contracting Officer. The intent of this advanced toning is to afford the Contracting Officer an opportunity to identify utility lines that may or may not be shown on the drawings and issue a directive to address the existing conditions.
 - 1. Perform toning using instruments specifically developed and designed for the detection of underground pipes and cable utilities.

2. Notify the Contracting Officer 48 hours in advance before toning operations. Provide information on the proposed toning method and other pertinent information.
- F. Recording Toning Information: Upon completion of the toning operation, submit drawings that show the location and approximate depth of the existing and newly discovered utility lines. Identify the type of utility lines. Also, identify where utility lines indicated on the drawings are not shown in their approximate location or where new utility lines are found or pointed out in the field.
- G. After ascertaining the exact location and depth of utilities within the project area, mark and protect the locations.
1. Acquaint personnel working near utilities with the type, size, location, depth of the utilities, and the consequences that might result from disturbances.
 2. Do not start trenching or start similar operations until reasonable and appropriate precautions to protect the utilities are taken.
- H. For newly identified utility lines, if directed by the Contracting Officer, manually excavate within 2-feet of the utility line to avoid damage. Under this directive, manual excavation is considered additional work.
- I. Existing Irrigation Systems: Where work is located in areas with existing irrigation systems, Contractor shall test the existing systems and document all deficiencies prior to any work that may damage the existing systems.

3.03 FIELD MEASUREMENTS

- A. Take field measurements to fit and install the Work properly. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress.
- B. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- C. Review of Contract Documents and Field Conditions: Submit a Request For Information (RFI) immediately upon discovery of the need for clarification of the Contract Documents. Include a detailed description of problem encountered together with recommendations for changing the Contract Documents.

3.04 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings in relation to the property survey and existing benchmarks and existing conditions. If discrepancies are discovered, notify the Contracting Officer promptly.
- B. General: Engage a licensed land surveyor to lay out the Work using industry-accepted surveying practices.
1. Establish benchmarks, control points, lines and levels at each story or level of construction and elsewhere as needed to locate each element of Project.

2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
 3. Inform installers of lines and levels to which they must comply.
 4. Check the location, level and plumb of every major element as the Work progresses.
 5. Notify the Contracting Officer when deviations from required lines and levels exceed allowable tolerances.
 6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.

3.05 INSTALLATION

- A. Install materials, items, fixtures required by the various Divisions and Sections of the Specifications in accordance with Contract Documents, by workers specially trained and skilled in performance of the particular type of work, to meet guarantee and regulatory agency requirements. Should the drawings or specifications be void of installation requirements, install the materials, items, and fixtures in accordance with the manufacturer's current specifications, recommendations, instructions and directions.

3.06 CUTTING AND PATCHING

- A. Oversee cutting and patching of concrete, masonry, structural members and other materials where indicated on drawings and as required by job conditions. Unless noted elsewhere in the contract documents, do not cut or patch existing or new structural members without previously notifying the Contracting Officer.
- B. Provide patch materials and workmanship of equal quality to that indicated on the drawings or specified for new work.

3.07 STATE - INSTALLED PRODUCTS (Not Applicable)

3.08 CLEANING

- A. General: Clean the Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
1. Comply with requirements in **NFPA** 241 for removal of combustible waste materials and debris.
 2. Do not hold waste more than 7 days unless approved otherwise by the Contracting Officer.
 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.

- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1. Remove liquid spills promptly.
 - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use only cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- F. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- G. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- H. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- I. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.09 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

3.10 CORRECTION OF THE WORK

- A. Repair or replace defective construction.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

END OF SECTION

PART III - TECHNICAL SPECIFICATIONS

FOR

KAI AU AVENUE ROADWAY REHABILITATION PROJECT - PHASE I
KAPOLEI (EWA), OAHU, HAWAII

HAWAII HOUSING FINANCE AND DEVELOPMENT CORPORATION
STATE OF HAWAII

FRANCIS PAUL KEENO
PROCUREMENT OFFICER

HHFDC BID NO. 22-009-K85-S

OCTOBER 2022

TABLE OF CONTENTS OF TECHNICAL SPECIFICATIONS

<u>SECTION SP</u>	<u>TITLE</u>
	GENERAL
3	Standard Specifications
4	Standard Details
	EXCAVATION AND EMBANKMENT
12	Roadway Excavation
	SUBBASES AND BASES
31	Aggregate Base Course
	SURFACINGS AND PAVEMENTS
33	Asphalt Surface Treatment
35	Asphalt Concrete Pavement (State Mix No. IV)
36	Adjustment of Existing Utility Structures to Finished Grade
41	Concrete Curb and Gutter
42	Concrete Sidewalk
43	Defective Concrete Repairs
	MISCELLANEOUS
61	Pavement Markers, Striping and Markings
62	Vehicle Detector Loop
64	Directional, Regulatory and Warning Signs

	MISCELLANEOUS - ROADWAY
100	Geogrid
101	Woven Geotextile
104	Cold Planing
105	Drip Pans
106	Aerosol Spray Paint
107	Asphalt Removal in Gutters
108	Arboricultural Work, Including Tree Trimming, Root Pruning and Tree Protection Measures
	MISCELLANEOUS - SCOPE OF WORK
150	Existing Utilities
151	Description of Work
152	Additional Work
153	Deletion of Work
	MISCELLANEOUS - CONTROL OF WORK
160	Surveys and Construction Stakes, Lines and Grade
	MISCELLANEOUS - MATERIAL RESTRICTIONS AND REQUIREMENTS
170	Certification of Compliance
	MISCELLANEOUS - PROSECUTION AND PROGRESS
180	Liquidated Damages
181	As-Built Drawings

	MISCELLANEOUS - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC
190	Press Release
191	Protection and Control of Pedestrians and Vehicular Traffic
192	Prior Notice of Removal of Surface Encroachment
193	Notification of Property Owners Affected by the Project
194	Permits and Regulations
195	Environmental Pollution Control
	Environmental Pollution Control - (SWPPP draft bound separately)
198	Safety Precaution and Protection of Property
199	Construction Area Appearance
204	Archaeological Monitoring

The following Section shall be made part of the Standard Specifications:

"SECTION SP 3 - STANDARD SPECIFICATIONS

The "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986", of the Departments of Public Works, County of Kauai, City and County of Honolulu, County of Maui, and County of Hawaii, of the State of Hawaii, is by reference incorporated herein and made a part of these specifications. The term "Standard Specifications" used hereinafter refers to this "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1986".

The work embraced herein shall be done in accordance with the Standard Specifications, insofar as they may apply and in accordance with the following Special Provisions. These Special Provisions supplement and modify the Standard Specifications."

END OF SECTION SP 3

The following Section shall be made part of the Standard Specifications:

"SECTION SP 4 - STANDARD DETAILS

The "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984", as amended, of the Departments of Public Works, County of Kauai, City and County of Honolulu, County of Maui, and County of Hawaii, of the State of Hawaii, is by reference incorporated herein and made a part hereof. The term "Standard Details" used hereinafter refers to this "STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION, SEPTEMBER 1984".

The work embraced herein shall be done in accordance with the Standard Details, insofar as they may apply."

END OF SECTION SP 4

SECTION SP 12 - ROADWAY EXCAVATION

Make the following amendments to said Sections:

(I) Add the below to the end of Section SP 12.1 DESCRIPTION:

"Unless otherwise specified herein, all work shall conform to Section 12 (Roadway Excavation) of the Standard Specification."

(II) Add the below to the end of Section SP 12.4 CONSTRUCTION DETAILS:

"Construct transitions/tapers at drop-offs in accordance with Section SP 151.2 PERFORMANCE OF WORK.

If shrinkage cracks appear in the subgrade, the subgrade should be scarified and thoroughly moisture conditioned (between optimum moisture content and 3% wet of optimum moisture content) and recompacted.

If local wet area is encountered in silt or sandy subgrade due to seepage water, the subgrade should be scarified and thoroughly mixed with cement (one (1) bag of cement for 5'x10' area 6" deep) and recompacted.

If any soft areas that exhibit pumping or rutting are encountered, the base/subgrade shall be overexcavated and replaced with 8-inches aggregate base course (or as directed by the Officer-in-Charge), geogrid, and woven geotextile. Refer to the detail called "Soft Subgrade Replacement with Aggregate Base Course".

During construction, the Contractor shall not overstress the subgrade. Heavy trucks or equipment are not allowed to travel on the unprotected subgrade.

Should any soft areas be encountered, the Contractor shall plan their work accordingly in order to open the road up for traffic at the end of the work day. No additional compensation shall be considered for redoing any pavement areas in order to open up the road at the end of the day.

All excess excavated material shall become the property of the Contractor and hauled from the jobsite. All material not used on the project may be reused, recycled, or disposed of in compliance with all Federal, State, City, OSHA, and HRFDC requirements and regulations. Hauling of wet, dripping material over public streets shall not be permitted."

(III) Amend Sections SP 12.5 MEASUREMENT and SP 12.6 PAYMENT to read as follows:

"SP 12.5 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure roadway excavation for payment. The Officer-in-Charge will not pay for roadway excavation separately and will consider the cost for roadway excavation as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

The Officer-in-Charge will measure any additional roadway excavation for soft area replacement per cubic yard for payment as an Additional Work Item

"Additional Roadway Excavation for Reconstruction of Pavement Areas" in accordance with the contract documents. Roadway excavation will be measured from the bottom of the ACP or ACB to the revised bottom of excavation. The Officer-in-Charge will pay for the accepted additional roadway excavation at the contract price per cubic yard as an Additional Work Item "Additional Roadway Excavation for Reconstruction of Pavement Areas". Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents.

If the wet subgrade is scarified and thoroughly mixed with cement and recompacted, the Officer-in-Charge will measure the subgrade mixed with cement per square yard for payment as an Additional Work Item "Subgrade Treatment with Cement" in accordance with the contract documents. The Officer-in-Charge will pay for the accepted subgrade mixed with cement at the contract price per square yard as an Additional Work Item "Subgrade Treatment with Cement". Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents."

END OF SECTION SP 12

SECTION SP 31 - AGGREGATE BASE COURSE

Make the following amendments to said Section:

(I) Amend 31.1 DESCRIPTION to read as follows:

"SP 31.1 DESCRIPTION

This work shall consist of furnishing, spreading and compacting untreated aggregate base course on the prepared subbase or subgrade, or on existing improved surfaces and including installation of woven geotextile (Section SP 101) and geogrid (Section SP 100) in conformity with these specifications."

(II) Amend 31.3 DETAILS, subparagraph B. to read as follows:

"B. Placing and Compacting Aggregate Base. The base material shall be delivered to the site and spread on the approved prepared foundation by means of vehicles equipped with spreading devices. The material when spread shall be uniform in gradation and free from large pockets of segregated particles. Segregated material shall be remixed until uniform.

Material shall not be stockpiled nor dumped in piles on the road but shall be spread longitudinally and only in such quantity to obtain the required thickness. After watering and compacting, the completed base shall conform to the required grade and cross section within the tolerances specified herein below.

When the specified thickness of the base is 8 inches, the base can be constructed in one lift. When the specified thickness is greater than 8 inches, the base shall be constructed in two or more equal lifts.

The base course shall be compacted until it does not creep or weave in front of the roller or compacting vehicle. When tested, the base course shall have a field California Bearing Ratio (CBR) value of at least 85% or be compacted to attain at least 95% of maximum density.

Wherever necessary, filler material shall be added to the surface. It shall be spread in one or more uniform thin layers. Each layer shall be rolled dry until additional filler cannot be forced into the voids. The surface shall then be sprinkled with water and again thoroughly rolled. All excess filler shall be removed. The sprinkling and rolling shall be continued to secure a thoroughly bonded surface.

Where the aggregate base course is constructed in more than one layer, each layer shall be constructed as specified above except that sprinkling shall be required only in the top layer. Each layer shall be compacted to a field CBR value of not less than 85% or be compacted to attain at least 95% of maximum density."

(III) Amend 31.4 MEASUREMENT AND PAYMENT to read as follows:

"SP 31.4 MEASUREMENT AND PAYMENT

The Officer-in-Charge will measure aggregate base course per cubic yard for payment as an Additional Work Item "Additional Aggregate Base Course" in accordance with the contract documents. The Officer-in-Charge will pay for the accepted aggregate base course at the contract price per cubic yard as an Additional Work Item "Additional Aggregate Base Course". Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents."

END OF SECTION SP 31

SECTION SP 33 - ASPHALT SURFACE TREATMENT

Make the following amendments to said Sections:

(I) Amend 33.2 MATERIAL, subparagraph B. Tack Coat to read as follows:

"B. Tack Coat. Tack coat shall be Type SS-1, SS-1h, CSS-1, or CSS-1h, emulsified asphalt. The bituminous material shall meet the requirements under AASHTO M 140."

(II) Tack coat application shall conform to 33.3 DETAILS, except as modified by the following paragraphs:

"Immediately before applying the tack coat, the surface to be treated shall be swept clean of all loose material, dirt, excess dust or other objectionable material. The tack coat shall not be applied when the street to be treated is appreciably damp or when weather conditions are unsuitable.

Immediately after a street has been resurfaced, the gutter area shall be hand-swept clean of all loose material.

Dilute the emulsified asphalt with water at a rate of one part emulsion to one part of water by volume. Submit the quantity, rate of application, temperature, and areas to be treated for acceptance before applying the tack coat.

The time between the placement of the tack coat and the subsequent paving shall not exceed four hours. In multiple lift construction, the Officer-in-Charge may waive the application of the tack coat provided the placement of the upper lift and lower lift are performed within a 12-hour period. During curing of tack coat or placement between lifts, vehicle tracking shall not be permitted.

The Officer-in-Charge shall keep traffic except construction equipment directly connected with paving operations off the tack coat. Protect the tack coat from damage until after placing the surface course."

(II) Amend Section 33.4 MEASUREMENT AND PAYMENT to read as follows:

"33.4 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure asphalt surface treatment for payment. The Officer-in-Charge will not pay for the accepted asphalt surface treatment separately and will consider the cost for asphalt surface treatment as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 33

Amend Section 35 ASPHALT CONCRETE PAVEMENT to read as follows:

"SECTION SP 35 - ASPHALT CONCRETE PAVEMENT (STATE MIX NO. IV)

SP 35.1 DESCRIPTION

This section describes furnishing and placing HMA pavement on a prepared surface.

Reference: The State of Hawaii Department of Transportation (HDOT), Highways Division, 2005, Standard Specifications and Special Provisions shall be applicable as referenced in the section.

SP 35.2 MATERIALS

A. General. HMA pavement shall be plant mixed and shall include mixture of aggregate and asphalt cement, and may include reclaimed asphalt pavement (RAP) or filler, or both.

HMA pavement shall include surface course and may include one or more binder courses, depending on HMA pavement thickness indicated in the contract documents.

RAP is defined as removed or reprocessed pavement materials containing asphalt and aggregates. Process RAP by crushing until 100 percent of RAP passes 1/2-inch sieve. Size, grade uniformly, and combine materials such that blend of RAP and aggregate material conforms to grading requirements of Subsection 703.09 Aggregate for Hot Plant Mix Bituminous Pavement.

In surface and binder courses, aggregate for HMA may include RAP quantities up to 20 percent of total mix weight.

Quantity of filler material to correct deficiencies in aggregate gradation passing the No. 200 sieve shall not exceed 3 percent by weight of fine aggregates.

Conform to the following HDOT 2005 Standard Specification Sections:

702.01 Asphalt Cement

702.04 Emulsified Asphalt

703.09 Aggregate for Hot Plant Mix Bituminous Pavement

703.15 Filler

703.22 Blending Sand

712.03 Hydrated Lime

Asphalt cement shall be PG 64-16.

SP 35.3 JOB-MIX FORMULA AND TESTS

A. Job-Mix Formula. Design job-mix formula in accordance with procedures contained in current edition of Asphalt Institute's Mix Design Methods for Asphalt Concrete and Other Hot Mix Types, Manual Series No. 2 (MS-2) for Marshall Method of Mix Design.

Establish and submit job-mix formula for each type of HMA pavement mix indicated in the contract documents as follows:

- (1) Design percent of aggregate passing each required sieve size.
- (2) Design asphalt content added to aggregate, based on total weight of mix.
- (3) Design proportion of processed RAP.
- (4) Design temperature of mixture at point of discharge at paver.
- (5) Source of aggregate.
- (6) Grade of asphalt cement.
- (7) Test data used to develop job-mix formula.

With the exception of item (4) in this subsection, if design requirements are modified after the Officer-in-Charge reviews job-mix formula, submit new job-mix formula before using HMA produced from modified mix design.

Submit a certificate of compliance for asphalt cement, accompanied by substantiating test data.

Provide HMA within allowable tolerances of reviewed job-mix formula as specified in the following ranges of tolerances:

TABLE 35 I - RANGE OF TOLERANCES FOR JOB-MIX FORMULA	
Passing No 4 and larger sieves (%)	± 7
Passing No. 8 to No. 100 sieves (inclusive) (%)	± 4
Passing No. 200 sieve (%)	± 3
Bitumen (%)	± 0.4
Temperature of mixture (degrees F)	± 20

The Contractor shall provide bulk samples of the aggregate in the gradation submitted in the mix design and asphalt binder for each mix design submitted in sufficient quantities to make three (3) samples to test by the Marshall Method.

Limit compacted lift thickness and asphalt content of job-mix formula as specified in Table 35 II - Limits of Compacted Lift Thickness and Asphalt Content. Asphalt content limits for porous aggregate may be exceeded only if accepted in writing by the Officer-in-Charge.

TABLE 35 II - Limits of Compacted Lift Thickness and Asphalt Content				
MIX NO.	II	III	IV	V
Minimum to Maximum Compacted Thickness for Individual Lifts (Inches)	2.25 - 3	2 - 3	1.5 - 3	1.25 - 3.0

Asphalt Content Limits (% of total Weight of Mix)	3.8 - 6.1	4.3 - 6.1	4.3 - 6.5	4.8 - 7.0
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- B. Tests. Meet job-mix formula design criteria specified in Table 35 IIIA - Marshall Method Mix Criteria (AASHTO T 245)

Table 35 IIIA - Marshall Method Mix Criteria (AASHTO T 245)	
Compaction (number of blows each end of specimen)	75
Stability, minimum (pounds)	1,800
Flow (x 0.01 inch)	8-16
Air Voids (percent) ¹	4 - 6
Notes: 1. Air Voids: AASHTO T 166 or AASHTO T 275; AASHTO T 209, AASHTO T 269.	

Minimum percent voids in mineral aggregates (VMA) of job-mix formula shall be as specified in Table 35 IIIB - Minimum Percent Voids in Mineral Aggregates (VMA).

TABLE 35 IIIB - MINIMUM PERCENT VOIDS IN MINERAL AGGREGATES (VMA)					
Nominal Maximum Particle Size, (Inches)	1-1/2	1	3/4	1/2	3/8
VMA, (percent) ¹	11	12	13	14	15
Notes: 1. VMA: See Asphalt Institute Manual MS-2, Chapter 4.					

SP 35.4 DETAILS

A. Equipment.

1. Mixing Plant. Use mixing plants that conform to AASHTO M 156, supplemented as follows:

- a. All Plants.

- 1) Automated Controls. Control proportioning, mixing, and mix discharging automatically. When RAP is incorporated into mixture, provide positive controls for proportioning processed RAP.
- 2) Dust Collector. AASHTO M 156, Requirements for All Plants, Emission Controls is amended as follows:

"Equip plant with dust collector. Dispose of collected material. In the case of baghouse dust collectors, dispose of collected material or return collected material uniformly."
- 3) Modifications for Processing RAP. When RAP is incorporated into mixture, modify mixing plant in accordance with plant manufacturer's recommendations to process RAP.

b. Drum Dryer-Mixer Plants.

- 1) Bins. Provide separate bin in cold aggregate feeder for each individual aggregate stockpile in mix. Use bins of sufficient size to keep plant in continuous operation and of proper design to prevent overflow of material from one bin to another.
- 2) Stockpiling Procedures. Separate aggregate into at least three stockpiles with different gradations as follows: coarse, intermediate, and fine. Separate aggregates for Mix #4 into at least two stockpiles. Stockpile RAP separately from virgin aggregates.

c. Batch and Continuous Mix Plants.

- 1) Hot Aggregate Bin. Provide bin with three or more separate compartments for storage of screened aggregate fractions to be combined for mix. Make partitions between compartments tight and of sufficient height to prevent spillage of aggregate from one compartment into another.
- 2) Load Cells. Calibrated load cells may be used in batch plants instead of scales.

2. Hauling Equipment. Use trucks that have tight, clean, smooth metal beds for hauling HMA.

Thinly coat truck beds with minimum quantity of non-stripping release agent to prevent mixture from adhering to beds. The use of diesel or petroleum-based liquid release agents, except for paraffin oil, shall not be allowed.

Equip each truck with tarpaulin conforming to the following:

- a. In good condition, without tears and holes.
 - b. Large enough to be stretched tightly over truck bed, completely covering mix.
3. Asphalt Pavers. Use asphalt pavers that are:
- a. Self-contained, power-propelled units.
 - b. Equipped with activated screed or strike-off assembly, heated if necessary.
 - c. Capable of spreading and finishing courses of HMA mixtures in lane widths applicable to typical section and thicknesses indicated in the contract documents.
 - d. Equipped with receiving hopper having sufficient capacity for uniform spreading operation.
 - e. Equipped with automatic feed controls to maintain uniform depth of material ahead of screed.
 - f. Equipped with automatic screed controls with sensors capable of sensing grade from outside reference line, sensing transverse slope of screed, and providing automatic signals to control screed grade and transverse slope.
 - g. Capable of operating at constant forward speeds consistent with satisfactory laying of mixture.
 - h. Equipped with a mean of preventing the segregation of the coarse aggregate particles from the remainder of the bituminous plant mix when that mix is carried from the paver hopper back to the paver augers. The means and methods used shall be approved by the paver manufacturer and may consist of chain curtains, deflector plates, or other such devices and any combination of these.

The following specific requirements shall apply to the identified bituminous pavers or approved substitutes:

- 1) Blaw-Knox bituminous pavers shall be equipped with the Blaw-Knox Materials Management Kit (MMK).
- 2) Cedarapids bituminous pavers shall be those that were manufactured in 1989 or later.
- 3) Barber-Green/Caterpillar bituminous pavers shall be equipped with deflector plates as identified

in the December 2000 Service Magazine entitled "New Asphalt Deflector Kit {6630, 6631, 6640}".

Prior to the start of using the paver for placing plant mix, the Contractor shall submit for review a full description in writing of the means and methodologies that will be used to prevent bituminous paver segregation. Use of the paver shall not commence prior to receiving review comments from the Officer-in-Charge.

The Contractor shall supply a Certificate of Compliance that verifies that the approved means and methods used to prevent bituminous paver segregation have been implemented on all pavers used on the project and is working in accordance with the manufacturer's requirements.

4) Rollers. Rollers shall be self-propelled, steel-tired tandem, pneumatic-tired, or vibratory-type rollers capable of reversing without shoving or tearing HMA mixture. Unless otherwise indicated in the contract documents, provide sufficient number, sequencing, type, and weight of rollers to compact mixture to required density while mixture is still in workable condition. Do not use equipment that will excessively crush aggregate. Operate rollers in accordance with manufacturer's recommendations.

a) Steel-Tired Tandem Rollers. Steel-tired tandem rollers used for initial breakdown or intermediate roller passes shall have minimum gross weight of 12 tons and shall provide minimum 250-pound weight per linear inch of width on drive wheel.

Steel-tired tandem rollers used for finish roller passes shall have minimum gross weight of 3 tons.

Do not use roller with grooved or pitted rolling drum. Replace excessively worn scrapers and wetting pads.

b) Pneumatic Tired Rollers. Pneumatic-tired rollers shall be oscillating-type, equipped with smooth-tread pneumatic tires of equal size and diameter. Maintain tire pressure within 5 pounds per square inch of designated operational pressure when hot. Space tires so that gaps between adjacent tires are covered by following set of tires.

Equip pneumatic-tired rollers used for breakdown or intermediate roller passes,

with ballast capable of establishing an operating weight per tire of not less than 3,000 pounds. Equip rollers with tires having minimum 20-inch wheel diameter. Inflate tires to 70 to 75 pounds per square inch pressure when cold and 90 pounds per square inch when hot. Equip rollers with skirt-type devices to maintain temperature of tires during rolling operations.

Equip pneumatic-tired rollers used for kneading finished asphalt surfaces, with ballast capable of establishing an operating weight per tire of not less than 1,500 pounds. Equip rollers with tires having minimum 15-inch wheel diameter. Inflate tires to 50 to 60 pounds per square inch pressure.

- c) Vibratory Rollers. Vibratory rollers shall be steel-tired tandem rollers having minimum weight of 3 tons. Equip vibratory rollers with amplitude and frequency controls and speedometer. Operate vibratory roller in accordance with manufacturer's recommendations.
- 5) Hand Tools. Keep hand tools used in production, hauling, and placement of HMA clean and free of contaminants. Liquids such as diesel or mineral spirits may be used to clean hand tools. Do not contaminate HMA with cleaning liquids. Clean hand tools over catch pan with capacity to hold all the cleaning liquid. Dry hand tools before using with HMA.
- 6) Material Transfer Vehicle (MTV).
- a) Usage. Unless otherwise indicated in the contract documents, MTV usage applies to surface courses of paving projects. When placing HMA surface course, use MTV to independently deliver mixtures from hauling equipment to paving equipment. MTV usage shall not be required for the following:
 - (1) Projects with less than 1,000 tons of HMA.
 - (2) Temporary pavements.
 - (3) Bridge deck approaches & Bridges.
 - (4) Shoulders.

- (5) Tapers.
 - (6) Turning lanes.
 - (7) Driveways.
 - (8) Areas with low overhead clearances.
 - (9) Areas where unable to provide one open lane for traffic.
- b) Equipment. When using MTV, install minimum 10-ton capacity hopper insert in conventional paver hopper. Provide the following equipment:
- (1) High-capacity truck unloading system in MTV capable of receiving HMA from hauling equipment.
 - (2) MTV storage bin with minimum 15-ton capacity.
 - (3) Auger mixing system in MTV storage bin, paver hopper insert, or paver hopper to continuously mix HMA prior to discharging to conveyor system.

Coordinate plant production rate, number of haul units, and MTV and paver speeds to avoid stop-and-go operations and to provide continuous, uniform, segregation-free material flow.

- c) Performance Evaluation. The Contractor shall evaluate performance of MTV and mixing equipment by measuring mat temperature profile immediately behind paver screed on first day of paving.

Six temperature profile measurements shall be taken of mat surface using non-contact thermometers at 50-foot intervals behind paver. Each temperature profile shall consist of three surface temperature measurements taken transversely across mat in approximately a straight line from screed while paver is operating. For each profile, temperatures shall be measured approximately 1 foot from each edge and in middle of mat; and difference between maximum and minimum temperature measurements within each temperature profile shall not exceed 10 degrees F. If any two or more temperature profiles exceed

allowable 10-degree F temperature differential, halt paving operation and adjust MTV or mixing equipment to ensure that material placed by paver meets specified temperature requirements.

Once adjustments are made, the Contractor shall repeat measurement procedure to verify that material placed by paver meets specified temperature requirements. Terminate paving if temperature profile requirements are not met during repeated measurement procedure.

If equipment fails to meet requirements after measurement procedure is repeated once, equipment replacement shall be required before the Officer-in-Charge conducts any further temperature profile measurements.

The Contractor may perform additional surface temperature profile measurements at any time during project. If two consecutive temperature profiles fail to comply with specified allowable temperature differential, halt paving operation and adjust MTV or mixing equipment to ensure that HMA placed by paver complies with temperature requirements. The Contractor shall submit a report of all the measurements & adjustments made.

d) Transport.

(1) Trailered MTV. Transport MTV by means of truck-tractor/trailer combination in accordance with Chapter 104 of Title 19, Department of Transportation, entitled "The Movement by Permit of Oversize and Overweight Vehicles on State Highways".

(2) Crossing Bridges for Self-Powered MTV. When self-powered MTV exceeds legal axle or total weight limits for vehicles under the HRS, Chapter 291, conform to the following when crossing bridges within project limits unless otherwise indicated in the contract documents:

(a) Completely remove mix from MTV.

(b) Move MTV at relatively constant speed not exceeding 5 miles per hour. MTV shall not be allowed to stop on bridge.

(c) No other vehicle or equipment shall be allowed on bridge.

- B. Mixing. Uniformly heat asphalt cement and provide continuous supply of heated asphalt cement from storage to mixer. Do not heat asphalt cement above 350 degrees F. The heat must be applied so that there is no burning of any portion of the asphalt concrete. Live steam shall not be injected into the asphalt.

Preparation of Aggregate. Dry and heat aggregate material at temperature sufficient to produce design temperature of job-mix formula. Do not exceed 350 degrees F. Adjust heat source used for drying and heating to avoid damage to and contamination of aggregate. When dry, aggregate shall not contain more than 1 percent moisture by weight. For batch plants, screen aggregates immediately after heating, and drying into three or more fractions. Convey aggregates into separate compartments ready for batching and mixing with asphalt cement.

After heating to the required temperature, the required amount of asphalt cement shall be added to the heated aggregate in a mixer and the mixing commenced. The minimum mixing period shall be 30 seconds. Measure aggregate and asphalt; or aggregate, RAP, and asphalt into mixer in accordance with job-mix formula. Mix until components are completely mixed and adequately coated with asphalt in accordance with AASHTO M 156. Percent of coated particles shall be 95 percent when tested in accordance with AASHTO T 195. Any mixture which shows an excess of deficiency of asphalt, or any uneven distribution of cement due to insufficient mixing, shall be wasted.

- C. Preparing of Surface. All surfaces on or against which asphalt concrete wearing surface course is to be placed shall first be given a tack coat as specified under Asphalt Surface Treatment, except clean surfaces of any course of asphaltic materials laid within the preceding 24 hours.

The Contractor shall prepare the existing surface by power brooming to remove all loose particles, dust, sand, and other foreign materials.

Where indicated in the contract documents, bring irregular surfaces to uniform grade and cross section by furnishing and placing one or more leveling courses of HMA Mix #4. Spread leveling course in variable thicknesses to eliminate irregularities in existing surface. Place leveling course such that maximum depth of each course, when thoroughly compacted, does not exceed 3 inches.

- D. Spreading and Finishing. If required by the Officer-in-Charge, a leveling course mixture shall be spread to level

irregularities, dips, depressions, sags, and to provide a smooth base of uniform grade and cross section. The leveling course shall not be placed more than one day in advance of placing the surface course.

Prior to each day's paving operation, check screed or strike-off assembly surface with straight edge to ensure straight alignment. Provide screed or strike-off assembly that produces finished surface without tearing, shoving, and gouging HMA.

If the paving machine leaves ridges, indentations, or other marks in the surface that cannot be eliminated by rolling or prevented by adjustment in operation, its use shall be discontinued and another equipment, acceptable to the Officer-in-Charge, shall be furnished by the Contractor.

If more than one course is to be constructed in any area, not more than 24 hours shall elapse between the spreading and finishing of any two successive courses in that area. No wearing surface mixture shall be spread during unsuitable weather or when the base is wet.

When a new asphalt lift abuts an existing or previous asphalt lift, the joint shall be trimmed to a neat vertical plane, swept clean of debris and tack coat applied to the vertical face prior to placement of the abutting lift.

When asphalt concrete wearing surface is to abut a concrete gutter, the wearing surface shall be laid so that its surface, after compaction, shall approximately be slightly higher than the surface of the concrete gutter. At curb ramp locations, the top of asphalt concrete wearing surface shall be flush with the top of concrete gutters.

Maintain HMA at minimum 250 degrees F temperature at discharge to paver. Measure temperature of mix in hauling vehicle just before depositing into spreader.

Deposit HMA in a manner that minimizes segregation. Raise truck beds with tailgates closed before discharging HMA.

Lay, spread, and strike off HMA upon prepared surface. Use asphalt pavers to distribute mixture.

Control horizontal alignment using automatic grade and slope controls from reference line, ski and slope control device, or dual skis.

Obtain sensor grade reference from 30-foot ski for first pass. For subsequent passes, substitution of one ski with joint-matching shoe riding on finished adjacent pavement is acceptable. Use of a comparable non-contact mobile reference system and joint matching shoe is acceptable.

Avoid stop-and-go operation. Minimize changing forward speed of paver during paving operation.

In areas where irregularities or unavoidable obstacles make use of mechanical spreading and finishing equipment impracticable, spread, rake, and lute mixture by hand tools. For such areas, deposit, spread, and screed mixture to required compacted thickness.

Demonstrate competence of personnel operating grade and crown control device before placing surface courses. If automatic control system becomes inoperative during the day's work, the Officer-in-Charge shall permit the Contractor to finish day's work using manual controls. Do not resume work until automatic control system is made operative. The Officer-in-Charge may waive requirement for electronic screed control device when paving gores, shoulders, transitions, and miscellaneous reconstruction areas.

When production of HMA can be maintained and when practicable, use pavers in echelon to place surface course in adjacent lanes.

The maximum depth of asphalt concrete which may be spread and rolled in any one course or lift shall not exceed a compacted thickness of 3 inches as directed by the Officer-in-Charge. Longitudinal joints in any two successive lifts or courses shall be offset a minimum of 6 inches so that one joint shall not be directly over the other.

Construct temporary transitions or tapers at vertical grade differentials in accordance with Section SP 151.2 PERFORMANCE OF WORK.

- E. Compacting. Immediately after spreading and striking off HMA and adjusting surface irregularities, uniformly compact mixture by rolling.

Initiate compaction at highest mix temperature allowing compaction without excessive horizontal movement. Temperature shall not be less than 220 degrees F.

Finish rolling using tandem roller while HMA temperature is at or above 175 degrees F.

On superelevated curves, begin rolling at lower edge and progress to higher edge by overlapping the longitudinal rolling parallel to centerline.

If necessary, repair damage immediately using rakes and fresh mix. Do not displace line and grade of HMA edges during rolling.

Asphalt cement sticking to roller wheels tear and damage the asphalt surface; water or diluted mixtures with small amounts of detergent, or other approved release agents shall be applied to the roller wheel surface and/or transverse bar in minimal quantities to prevent the occurrence. Excessive liquid, diesel fuel or other petroleum based products are not allowed under any circumstances.

Along forms, curbs, headers, walls and other places not accessible to rollers, compact mixture with hot hand tampers, smoothing irons, or mechanical tampers. On depressed areas, trench roller or cleated compression strips under roller may be used to transmit compression.

Remove pavement that is loose, broken, or contaminated, or combination thereof; pavement that shows an excess or deficiency in asphalt cement content; and pavement that is defective in any way. Replace with fresh HMA pavement of same type, and compact. Remove and replace defective pavement and compact at no increase in contract price or contract time.

Operate rollers at slow but uniform speed with drive wheels nearest paver. Continue rolling to attain specified density and until roller marks are eliminated.

- (1) HMA Pavement Courses One and a Half Inches Thick Or Greater. Where HMA pavement compacted thickness indicated in the contract documents is 1-1/2 inches or greater, compact to not less than 92.0 percent nor greater than 97.0 percent of the maximum specific gravity determined in accordance with AASHTO T 209, modified by deletion of Supplemental Procedure for Mixtures Containing Porous Aggregate. The Contractor shall provide daily reports and data indicating compliance at no additional cost to the HHFDC.

Place HMA pavement in individual lifts that are within minimum and maximum allowable compacted thickness for various types of mixture.

- (2) HMA Pavement Courses Less Than One and a Half Inches Thick. Where HMA pavement compacted thickness indicated in the contract documents is less than 1-1/2 inches, compaction to a specified density shall not be required.

Initiate rolling using non-vibratory, steel-tired, tandem roller. Roll entire surface with minimum of two roller passes. A roller pass is defined as one trip of the roller in one direction over any one spot.

For intermediate rolling, roll entire surface with minimum of four passes of roller.

Finish rolling using steel-tired, tandem roller. Continue rolling until entire surface has been compacted with minimum of three passes of roller, and roller marks have been eliminated.

Do not use rollers that will excessively crush aggregate.

- (3) HMA Pavement Courses One and a Half Inches Thick Or Greater In Special Areas Not Designed For Vehicular Traffic. For areas such as bikeways that are not part of roadway and other areas not subjected to vehicular traffic, compact to not less than 90 percent of maximum specific gravity determined in accordance with AASHTO T 209, modified by deletion of Supplemental Procedure for Mixtures Containing Porous Aggregate. Increase asphalt content by at least 0.5 percent above that used for HMA pavements designed for vehicular traffic.

In areas where there is a grade differential/drop off/slope at the edge of pavement and shoulder area in the unimproved roadway areas, additional AC quantities may be placed to achieve the compaction requirements of the AC pavement areas. No additional compensation shall be made for any additional AC quantities placed beyond the edge of pavement to address this grade difference/slope situation.

- F. Smoothness. The finished surface of the pavement shall be true to grade and cross section, free from depressions and grainy spots, and of uniform texture. It shall not vary more than 3/16 of an inch from any point along the bottom of a 10-foot straightedge laid in any direction except across the crown.
- G. Thickness Tolerance. Thickness of finished HMA pavement shall be within 1/4 inch of thickness indicated in the contract documents. Correct pavement exceeding specified tolerances by methods accepted by the Officer-in-Charge, including removal and replacement, at no increase in contract price or contract time.
- H. Sampling and Testing of the Bituminous Mixture.
 1. The Contractor shall provide laboratory testing for quality control functions during periods of mix productions: One (1) field Marshall Test, asphalt content test, gradation analysis, and specific gravity test for each mixtures.
 2. Pavement Samples. At the discretion of the Officer-in-Charge, the Contractor shall obtain pavement samples for the Contractor's quality control testing as well as the HHFDC's testing for acceptance. The affected areas shall be restored at no extra cost to the HHFDC.
 - a. Quantity, Size and Location. The number of samples to be obtained per street shall be directed by the Officer-in-Charge. The size of the samples shall be directed by the Officer-in-Charge. Core samples shall be minimum 4 inches in diameter, and cut samples shall be minimum 12 inches by 12 inches, consisting of undisturbed, full-depth portion of the compacted mixture. Samples shall be taken to the full depth of the course. The location of the samples shall be directed by the Officer-in-Charge. Only sample the leveling course if 1-1/2 inches or greater.

- b. Collection. Samples shall be obtained from compacted HMA pavement within 72 hours of laydown. Collection of samples shall be coordinated with the inspector for labeling and handoff.
- c. Testing. Samples shall be tested to determine thickness and density of the completed pavements. Final acceptance shall be based on the HHFDC's laboratory test results.
- d. Restoration. Restore HMA pavement immediately after obtaining samples. Apply tack coat to vertical faces of sample holes. Fill sampled area with new HMA pavement of same type as that removed, and compact. The entire cost of the sampling and restoring the area shall be borne by the Contractor, and no additional compensation shall be made.

SP 35.5 MEASUREMENT AND PAYMENT

The Officer-in-Charge will measure asphalt concrete pavement per ton in accordance with the contract documents. The Officer-in-Charge will pay for the accepted asphalt concrete pavement at the contract price per ton. Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents."

END OF SECTION SP 35

Amend SECTION 36 ADJUSTMENT OF EXISTING UTILITY STRUCTURES TO FINISHED GRADE to read as follows:

"SECTION SP 36 - ADJUSTMENT OF EXISTING UTILITY STRUCTURES TO FINISHED GRADE

SP 36.1 GENERAL

This section is for the adjustment and/or reconstruction of existing manhole and handhole frame and covers, valve boxes, and street survey monument castings to finished grade. This section also covers the inspection and assessment of existing manholes within the roadway for existing debris and identification of any required reconstruction, including replacement of missing covers. Work shall be performed in accordance with the requirements and standards of the respective utility company and agency. Sewer manholes, with or without existing wrap seal, should be adjusted and/or reconstructed with new wrap seals per the plan details. The Contractor shall notify, provide updated work schedules, and coordinate their work with the affected utility company and agency, prior to the commencement of work on the existing utilities and final adjustment of utility to finished grades and manhole inspections.

SP 36.2 INSPECTION AND ASSESSMENT

- A. Pre-construction. The Contractor shall coordinate and arrange for a field inspection with the various utility company or agency and document the existing condition of the manholes, handholes, valve boxes, and street survey monuments within three (3) weeks of the Notice to Proceed date. An assessment of the existing frame and cover shall also be made at the time of inspection to determine the necessary work to lower or raise the frame and covers to meet the finished roadway grade by either an adjustment or reconstruction of the utility structure. The Contractor shall verify and document existing condition of the street survey monument pin and structure.

The inspection documentation shall include, but is not limited to, photographs; sketches; the amount and type of debris inside the manholes; and existing construction of the utility structure frame and covers and indication of adjustment or reconstruction of the utility structure to meet the finished roadway grades. The Contractor shall submit a copy of the documentation to the HHFDC.

If any debris is present, the Contractor shall notify the affected utility company or agency in writing to have the debris cleaned out and removed prior to the Contractor's work. The Contractor shall follow up with the utility company and agency in the event they are unable to clean out their manholes prior to the Contractor's work, the Contractor shall document this condition.

- B. Post-construction. Upon completion of the Contractor's work, including the final adjustments/reconstruction of the utility structures, the Contractor shall coordinate and arrange for a post construction field inspection with the various utility

company or agency to document and verify that no additional debris from the Contractor's work are in the manholes. Similar documentation to the pre-construction inspection shall be prepared and a copy forwarded to the HHFDC.

Any debris in the manholes as a result of the construction operations shall be removed immediately by the Contractor or the utility company or agency at the Contractor's expense. The removed debris shall be disposed of at an approved disposal site.

- C. The Contractor shall arrange, obtain the street usage permit and provide all traffic controls for the pre-construction and post-construction manhole inspections. The Contractor shall follow the traffic control requirements, as specified in Section SP 191 PROTECTION AND CONTROL OF PEDESTRIANS AND VEHICULAR TRAFFIC.

SP 36.3 CONSTRUCTION REQUIREMENTS

Prior to commencing cold planing and roadway reconstruction operations, the Contractor shall locate and identify any buried frames and covers and exercise due diligence in locating and protecting any buried manhole, handhole and/or valve box frames and covers. The existing buried frames and covers shall be adjusted to finished grades. The Contractor shall be responsible for and shall pay for all damages to existing buried street monument, manhole, handhole and/or valve box frames and covers. The HHFDC shall not be responsible for damages to the Contractor's equipment resulting from any conflicts with existing buried manhole, handhole and/or valve box frames and covers.

The Contractor shall photo document any buried street survey monuments, manhole and/or valve box frames and covers. The photos shall clearly show that they were not visible from the surface and labeled with the adjacent street address for reference. Clear and complete documentation is required for payment.

The Contractor shall be responsible for referencing/labeling the existing frame and covers to ensure that the pair is correctly matched during reinstallation and aligned to the pre-existing condition to prevent rattling and/or noise. The means and methods for referencing is the Contractor's responsibility; as such, any rattling shall be addressed by the Contractor.

The Contractor shall furnish and install temporary mechanical plugs or alternate means to prevent and minimize debris from entering existing manholes and handholes, including sewer manholes. Any debris entering the manholes during construction shall be removed immediately by the Contractor or the utility agency at the Contractor's expense. The Contractor shall remove temporary mechanical plugs or alternate means after final adjustment/reconstruction of utility structure to finished grade is complete.

Anytime sewer manholes require adjustment and/or reconstruction, the Contractor shall install a wrap seal on the sewer manholes, including sewer manhole reconstruction required due to the Contractor's means and methods. Contractor shall use Infi-Shield Uni-band, GPT Industries Riser Wrap, or approved substitute. Contractor shall submit product information

and specifications to the Officer-in-Charge at least ten (10) work days prior to construction.

Anytime the Contractor's means and methods deny access by removal, substitution or paving over of manhole and valve boxes; the Contractor shall provide the utility agencies with a 24/7 contact number and named individual or representative of the company. The individual shall be responsible to provide immediate response at all times to provide access whenever required for emergencies and maintenance.

The Contractor shall be held responsible for the actual cost of clean-up, criminal and civil fines resulting from sewer spills, backups, and overflow as a result of the Contractor's work.

The Contractor shall adjust and restore existing manhole and handhole frames and covers, valve boxes, and street survey monument castings to finished grade within 45 calendar days from the day these structures are removed.

Reconstruction of any manhole shall be performed prior to final paving. The determination of any reconstruction shall be made at the pre-construction inspection of the manholes.

The Contractor shall work around existing street survey monuments. If the Contractor deems it necessary to remove existing street survey monument frame and cover, then the Contractor shall have a licensed surveyor in the State of Hawaii reference the monument prior to start of work. If the street survey monument is damaged during construction activities, then the Contractor shall be responsible for all work required to restore the street survey monument at no additional cost to the HHFDC. Restoration shall include all surveying work required to restore the street survey monument. No additional contract time shall be considered for this restoration work.

SP 36.4 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure adjustment of existing street monument castings; storm drain manholes and handholes; traffic signal boxes; Board of Water Supply manholes, water meter boxes, and water valves; sewer manholes and facilities, telephone manholes and handholes; gas valves, manholes, and handholes; and electric manholes and handholes to finished grade for payment. The Officer-in-Charge will not pay for the accepted adjustment of existing street monument castings; storm drain manholes and handholes; traffic signal boxes; Board of Water Supply manholes, sewer manholes and facilities, water meter boxes, and water valves; telephone manholes and handholes; gas valves, manholes, and handholes; and electric manholes and handholes to finished grade separately and will consider the cost for adjustments as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents.

If the frames and covers of existing street survey monuments are missing or damaged, and require replacements, the Officer-in-Charge will measure the new street survey monuments' frames and covers and adjustment to finished grade per each for payment as an Additional Work Item "Additional Street Survey Monument Frame and Cover, Including Adjustment" in accordance with the contract documents. The Officer-in-Charge will pay for the accepted new street survey monuments' frames and covers and adjustment to finished

grade at the contract price per each as an Additional Work Item "Additional Street Survey Monument Frame and Cover, Including Adjustment". Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents.

END OF SECTION SP 36

SECTION SP 41 - CONCRETE CURB AND GUTTER

Make the following amendments to said Sections:

- (I) Unless otherwise specified herein, all work shall conform to Section SP 41.1 DESCRIPTION of the Standard Specifications and Standard Details.

"SP 41.1 DESCRIPTION

Unless otherwise specified herein, all work shall conform to Section SP 41 (CONCRETE CURB AND GUTTER), and Section SP 48 (REINFORCING STEEL) of the Standard Specifications and R-4, R-4A, R-5 and R-8 of the Standard Details.

Description. This work consists of the reconstruction of the reinforced and non-reinforced concrete curb and/or gutter as shown on the project plans and in accordance with this special provision. Exact locations shall be determined in the field by the Officer-in-Charge."

- (II) Unless otherwise specified herein, all work shall conform to Section SP 41.2 MATERIALS of the Standard Specifications and Standard Details.

"SP 41.2 MATERIALS

All curbs and gutters shall be constructed with Class "A" concrete."

- (III) Unless otherwise specified herein, all work shall conform to Section SP 41.3 DETAILS of the Standard Specifications and Standard Details.

"SP 41.3 DETAILS

- A. General. The approximate locations of the areas to be reconstructed are noted on the project plans. The exact limits shall be determined in the field by the Officer-in-Charge.
- B. Removal of curb and/or gutter. In removing the curb and/or gutter to be reconstructed, the junctions with the curb and/or gutters to remain shall be power saw cut along straight lines, preferably along the scored lines, to provide clean, solid, vertical joints. Curb and/or gutter shall be permitted to be removed only on one side of any street at any given time, except as allowed by the Officer-in-Charge. The Contractor shall not be allowed to remove in advance more curb and/or gutter than can be replaced within five working days.
- C. Subgrade. Subsection 41.3A of the Standard Specifications shall govern except as modified herein. Any fill necessary to bring the curb and/or gutter to the proper grade shall be select borrow. After the curb and/or gutter is removed, the subgrade shall be kept in a continuously moist condition. Subgrades with expansive soil that has cracked due to its drying out shall be removed to a depth of 12 inches (maximum) or shall be removed to match existing pavement subgrade,

whichever is less, and replaced with select borrow at no additional cost to the HHFDC.

- D. Expansion joints. Expansion joints, where their construction are determined to be required in the field by the Officer-in-Charge, shall be considered as included and no measurement for payment will be made."

(IV) Amend Section SP 41.4 MEASUREMENT AND PAYMENT to read as follows:

"SP 41.4 MEASUREMENT AND PAYMENT (for applicable pay items included in the Offer)

The Officer-in-Charge will measure the reinforced/non-reinforced curb and/or gutter reconstruction per linear foot in accordance with the contract documents. The Officer-in-Charge will pay for the accepted reinforced/non-reinforced curb and/or gutter reconstruction at the contract price per linear foot. Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents.

Select Borrow material for new curb and/or gutter will not be paid for directly but shall be considered as included in the prices bid for curb and/or gutter reconstruction.

Saw cutting and removal of existing curb and/or gutter will not be paid for directly but shall be considered as included in the prices bid for curb and/or gutter reconstruction."

END OF SECTION SP 41

SECTION SP 42 - CONCRETE SIDEWALK

Make the following amendments to said Section:

- (I) Unless otherwise specified herein, all work shall conform to Section 42.1 DESCRIPTION of the Standard Specifications and Standard Details:

"SP 42.1 DESCRIPTION

Unless otherwise specified herein, all work shall conform to Section 42 (CONCRETE SIDEWALK) of the Standard Specifications and R-27 and R-28 of the Standard Details.

This work consists of the reconstruction of the concrete sidewalk areas as shown on the project plans and in accordance with this special provision. This work shall also include the Bus Stop Landing reconstruction."

- (II) Unless otherwise specified herein, all work shall conform to Section 42.3 DETAILS of the Standard Specifications and Standard Details:

"SP 42.3 DETAILS

- A. The approximate locations of the areas to be reconstructed are noted in the project plans. The exact limits shall be determined in the field by the Officer-in-Charge.
- B. Removal of existing sidewalks. In removing the existing sidewalks to be reconstructed, the junctions with the concrete sidewalks to remain shall be power saw cut along straight lines, preferably along the scored lines, to provide clean, solid, vertical joints. Existing concrete sidewalks shall be permitted to be removed only on one side of any street at any given time, except as allowed by the Officer-in-Charge. The Contractor shall not be allowed to remove in advance more existing concrete sidewalks than can be replaced within five working days.

Subgrade. Subsection 42.3A of the Standard Specifications shall govern except as modified herein. Any fill necessary to bring the sidewalk to the proper grade shall be select borrow. After the existing concrete sidewalks are removed, the subgrade shall be kept in a continuously moist condition. Subgrades with expansive soil that has cracked due to its drying out shall be removed to a depth of 12 inches (maximum) or shall be removed to match existing pavement subgrade, whichever is less, and replaced with select borrow at no additional cost to the HHFDC.

- C. Placing and finishing. Prior to pouring of concrete, the subgrade shall be dampened. Concrete shall be poured continuously and shall be thoroughly tamped and floated to a smooth and even surface. The pouring and constructing of alternating blocks shall not be permitted.

- D. Joints. Expansion joints shall be constructed at fixed structures, such as buildings bridges, or walls, and at the beginning and end of curb returns. The joints shall be constructed with ½" thick premolded expansion-type filler, extending from the bottom of the sidewalk to approximately ½" below the top of the sidewalk, then filled with joint sealer. Expansion joints, where their construction are determined to be required in the field by the Officer-in-Charge, shall be considered as included and no measurement for payment shall be made.

Divide sidewalk between expansion joints into sections approximately five (5) feet in length by providing transverse contraction joints.

Where sidewalks are more than seven (7) feet in width provide longitudinal contraction joints that intersect the transverse contraction joints to obtain secure uniform blocks that are approximately square.

The width of contraction joints shall be at least 1/8", but not greater than 3/16"."

(III) Amend Section SP 42.4 MEASUREMENT AND PAYMENT to read as follows:

"SP 42.4 MEASUREMENT AND PAYMENT

The Officer-in-Charge will measure the concrete sidewalk per square foot in accordance with the contract documents. The Officer-in-Charge will pay for the accepted concrete sidewalk at the contract price per square foot. Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents.

Removal of the existing sidewalks will not be paid for directly but shall be considered as included in the prices bid for sidewalk reconstruction."

END OF SECTION SP 42

The following Section shall be made part of the Standard Specifications:

"SECTION SP 43 - DEFECTIVE CONCRETE REPAIRS

SP 43.1 GENERAL

This section is for repairing spalls and removal of corroded reinforcing.

SP 43.2 QUALITY ASSURANCE

- A. The Contractor shall be experienced (5 years or more) and have expertise in the field of spall repairs of reinforced concrete structures, proper application of migrating corrosion inhibiting admixtures and protective coatings, and be familiar with the materials, repair and protection systems specified for this project. The manufacturers of the repair and protection systems shall be members in good standing of the International Concrete Repair Institute (ICRI). The Contractor will employ and provide a full-time supervisor to be on site at all times during the duration of the work covered in this Section. This person will work very closely with the manufacturer of the repair systems, the Officer-in-Charge and the HHFDC's representative.
- B. Codes and Standards: Comply with all locally applicable codes, regulations and requirements pertaining to this work.
- C. Conflict in Requirements: In the event of conflict between pertinent codes and regulations and the requirements for the referenced standards or this specification, the provisions of the more stringent or the greater amount shall govern.
- D. Rejection of Installed Work: The Officer-in-Charge shall have the right to reject all work which is not in compliance with the requirements of the drawings and specifications.
 - 1. Indication of lack of skill on the part of installation and application mechanics shall be sufficient grounds for the Officer-in-Charge to reject applied products and to require their immediate removal and complete reinstallation and application at no additional cost to the HHFDC. Mechanics lacking skill shall be replaced.
 - 2. Replacement of rejected work may require that the materials in places be stripped back to solid substrate and that special additional surface preparation and a change of surface preparation or primer materials may be required. The Contractor

shall research and define these procedures and complete the additional surface preparation and reapplication of the repair materials at no extra cost to the HHFDC.

SP 43.3 SUBSTITUTION OF MATERIALS

- A. Use only materials specified herein. Other materials of the same manufacturer or of other manufacturers may not be substituted for those specified without written approval of the Officer-in-Charge. This is not to be construed as to limit competition but to establish a standard of quality. Other manufacturers of equal or better system of products may be considered as a substitution to the system of products specified herein, however, complete documentation proving that the substituted product meets or exceeds the performance of the specified product shall be provided in order to provide a basis for evaluation and comparison. Submission of incomplete, inadequate, incongruous, vague material and installation data will be grounds for disapproval without review.

- B. Substantiation: For substitution requests, submit documentation from the manufacturer's home office since claims by field sales and products representatives are not recognized by the parent company should a claim be inaccurate.

SP 43.4 SUBMITTALS

- A. Material Safety Data Sheets: Furnish the manufacturer's Material Safety Data Sheets for each of the materials present at any time on the job site.

- B. Manufacturer's data sheets and certificates of compliance signed by the manufacturer for the following:
 - 1. Bonding agent and anti-corrosion coating for reinforcing steel bars.

 - 2. Pre-packaged polymer modified repair mortar which contains a migrating corrosion inhibitor.

 - 3. Materials for curing repair concrete and mortars.

 - 4. Equipment: Submit descriptive literature describing the kinds, types, model numbers and operational features of the mixing and application equipment proposed for use on this project.

- C. Results of slump, 1-day, 7-day, and 28-day compressive strengths made and tested in accordance with ASTM C 109 by an independent testing laboratory (hired by the Contractor and approved by the Officer-in-Charge) as part of field quality control for polymer modified mortar (pre-packaged).

SP 43.5 DELIVERY, HANDLING AND STORAGE

- A. Delivery of Materials: Deliver all materials in original tightly sealed containers or unopened packages, clearly labeled and containing manufacturer's name, labels, date of manufacture, lot number, product identification, manufacturer's instructions for mixing, and warning for handling and toxicity.
- B. Storage: Store materials at the Contractor's place of business in cool, dry and safe location out of weather in original containers or unopened packages as recommended by the manufacturer. Temperature and humidity requirements of the manufacturer are to be adhered to at all times.
- C. Handling: Handle all materials in a safe manner and in a way to avoid breaking container seals.
- D. Environmental Requirements: Container shall comply with manufacturer's recommendations as to environmental conditions under which the materials may be applied.

SP 43.6 JOB CONDITIONS

- A. Adhere to the manufacturer's printed instructions regarding weather and climate condition restrictions on the use of all materials supplied in this section.
- B. Do not apply the materials if it is raining or if rain is imminent. Take proper precautions to protect newly placed and completed repairs from weather conditions such as strong wind or rain.
- C. Do not man scaffolds or lift equipment in strong wind or rain conditions that makes working dangerous.
- D. Protection: Precautions shall be taken to avoid damage to any surface near the work area due to spillage.
- E. Barricades: Erect temporary barricades and railings, to prevent people from entering the project area. Coordinate with the HHFDC's representative on final location and placement. The extent of barricade and railings may be adjusted by HIOSHA requirements at no extra cost to the HHFDC.

SP 43.7 PROTECTION OF THE WORK

Use all means necessary to protect the materials of this section before, during and after installation and to protect this work and the work of all other trades. In the event of damage, immediately make repairs and replacements necessary to the approval of the HHFDC's representative at no additional cost to the HHFDC.

SP 43.8 MATERIALS

- A. Polymer Modified Repair Mortar:
1. A factory blended cementitious patching material (containing no gypsum) combined with a polymer type admixture, water, and a penetrating corrosion inhibitor. The 1-day, 7-day, and 28-day compressive strength shall be at least 3,000 psi, 4,000 psi and 6,000 psi respectively, the splitting tensile strength at 28 days shall be at least 750 psi and the 28-day flexural strength shall be at least 2,000 psi. The polymer type admixture shall be added to the mixing water. The ratio of polymer solids to cement weight shall not be less than 10 percent.
 2. Acceptable Materials:
 - a. Duraltop Gel, The Euclid Chemical Company
 - b. SikaTop 123 PLUS, Sika Corp.
 - c. Or Approved Equal
- B. Bonding Agent:
1. A three component, preproportioned, water based epoxy modified Portland cement bonding agent and anti-corrosion coating designed to bond fresh concrete to existing concrete. ASTM C882 Bond strength shall exceed 2400 psi at 14 days. Anti-corrosion agent in coating shall be a penetrating or migrating corrosion inhibitor.
 2. Acceptable Materials:
 - a. Duralprep AC, The Euclid Chemical Company
 - b. Sika Armatec 110 EpoCem, Sika Corp.
 - c. Or Approved Equal
- C. Water: Potable.
- D. Curing Compound: For curing of polymer modified repair concrete and mortars, apply clear, water soluble, inorganic silicate-base curing compound. For curing concrete that will receive surface sealers, apply impervious sheeting, ASTM C 171, or check with the manufacturer of the surface treatments on the recommended method of curing.
- E. Other Materials: All other materials, not specifically described but required for the successful completion and installation of the work shall be as selected by the Contractor, subject to the acceptance of the Officer-in-Charge.

SP 43.9 EXECUTION

- A. The Contractor shall inspect all concrete surfaces around the repair area for spalling and/or other deterioration by hammer sounding and exploratory removal methods. Areas identified for repair shall be marked on the surface, and marked on the project as-built plans.
- B. Defective Concrete Removal:
1. General: Execute all work in an orderly and careful manner. Protect all surfaces and items to remain. The Contractor is responsible for any and all damages, repairs or replacement of existing surfaces and items to remain. Carefully cut and remove defective materials indicated or found without damaging adjacent material surfaces or items that are to remain. Provide catchment device or platform to collect all concrete chips and other debris for proper disposal offsite.
 2. Where concrete work is to be repaired, make a square cut along straight lines at 90 degree angles, 1 inch beyond the edge of the damaged area or spall into sound concrete, unless noted otherwise. Saw-cut to a depth of 3/4-inch minimum to 1-inch maximum below the concrete surface. Make cut shallower as needed with approval of the Officer-in-Charge to avoid damage to reinforcing. Use a chipping gun, electric tools, or approved equal having an impact energy less than 15 pounds to produce the remainder of the square cut. When a saw-cut edge cannot be achieved because of tool interferences, face of the top edge of the patch shall be chipped out to provide a vertical face a minimum of 1/4-inch to 1/2-inch depth, unless shown otherwise. The remainder of the defective concrete shall be chipped out with a chipping gun, electric tools, or approved equal having an impact energy less than 15 pounds to solid sound concrete. Adjust saw-cut depth so as not to cut existing concealed reinforcing bars. Do not extend saw-cut beyond the limits of removal work.
 3. Spalled and Loose Surfaces: Remove all loose concrete and check all spalled areas that are indicated or are obvious upon visual examination.
 4. Sounding: Inspect the remaining exterior concrete surfaces around the repair area for any other defective concrete by tapping with a hammer throughout the exterior surface of the area around the repair and listening for dull or hollow sounds. In areas where tapping does not produce a solid tone, remove loose and spalled concrete until testing produces a solid tone. Use a high frequency chipping hammer to deepen cavity.

5. Where concrete work is to be removed, chip-out concrete along straight lines to a depth indicated or as required to cover reinforcing bars. Remove all honeycombed, deteriorated, loose or otherwise damaged concrete by cutting or chipping with suitable pneumatic or hand tools until sound concrete is exposed.
6. Partially exposed reinforcing bar(s) exposed when prying and chipping off concrete shall be fully exposed throughout its length, within the patch area. There shall be a minimum of 1 inch of space between the reinforcing bars and the top of the existing concrete. Remove enough concrete to force reinforcing bar back away from the finished exterior face of the structure.
7. Remove deteriorated concrete, prepare and clean surfaces to be patched. Clean all chipped concrete surfaces to remove all foreign material and laitance before application of repair mortar or placement of formwork for cast-in-place concrete repairs.
8. All concrete surfaces to receive repair mortars shall be roughened to obtain an aggregate-fractured surface with a minimum profile of 1/16-inch. This is to include the vertical edges of the saw cuts. There are to be no polished or smooth surfaces prior to placement of repair mortars.

C. Concrete Surface Preparation:

1. Cleaning: After removal of all defective concrete, remaining concrete surfaces to be patched shall be structurally sound, clean, free of dirt, powdered concrete, loose mortar particles, paint, film, protective coatings, efflorescence, laitance, and other matter detrimental to proper adhesion of the new patch materials. Work surfaces must be free of ridges, fins or sharp projections.
 - a. Clean debris from work surfaces and remove any remaining efflorescence per manufacturer's instructions.
 - b. Prior to applying pre-packaged repair mortar, follow manufacturer's recommendations for preparation, bonding and application.

D. Application of Repair Mortars (Not Requiring Formwork):

1. Mix pre-packaged repair mortars and apply in strict conformance with the manufacturer's published or job specific written instructions. If patch exceeds maximum lift thickness, extend with aggregate as recommended by manufacturer.

2. Make batches small enough to assure placement before binder sets.
3. For all hand, trowel placed vertical and overhead repair areas, apply repair mortar in layers as recommended by the manufacturer not exceeding maximum lift thickness. Work and press mortar onto the prepared substrate surfaces to ensure bond. For repair areas that require multiple lifts, the top surface of each lift must be roughened to create a mechanical bond for the following layer of repair mortar. All layers for each patch shall be placed on the same day. Use vibratory floats, plates, or hand tampers to consolidate the patching material layers. Level each layer and screed the final surface. Remove excess patching material on the adjacent surfaces before it hardens.
4. Finish: Finish all patch work to match existing surfaces in texture and appearance or as otherwise directed by the HHFDC's representative. Do not feather edge repair mortar onto adjacent surfaces.
5. Curing:
 - a. Immediately after the final layer of repair mortar has been placed and finished, curing shall begin.
 - b. Cure per manufacturer's recommendations for pre-packaged polymer modified repair mortar. Moist cure with wet burlap and polyethylene, or a pre-tested water-based, compatible curing compound.

E. Field Quality Control:

1. Sampling: As soon as the concrete, grout and mortar patching materials are batched, sample each batch for testing by an independent testing laboratory. Clearly identify each sample by description of patch material, batch number, intended repair location and quantity batched.
2. Testing: Perform compressive strength tests on samples by an independent testing laboratory according to ASTM C109. If the compressive strength test results fail to meet the 1-day strengths as given by the submitted manufacturer's data sheets, work shall not commence until the 7-day strengths are reported. If the 7-day strengths do not meet the manufacturer's data sheet requirements the repairs made using the batched material represented by the samples tested shall be rejected. Areas of rejected repairs shall be removed, replaced and re-tested until acceptable at no additional cost to the HHFDC. Submit a copy of the

test results to the HHFDC's representative. Contractor shall not perform shotcreting operation until either the 1-day or 7-day compressive strength tests provide adequate results.

3. Special Inspection:

- a. The HHFDC's representative will examine the repair materials at the job site to verify that the materials used at the jobsite are the selected and approved materials referenced in the test results of design mixes or certificates of compliance.
- b. The HHFDC's representative will examine the surface preparations, mixing, application and curing procedures of the repair materials to determine general conformance with the requirements specified.

4. In-Place Test of Repairs:

- a. The HHFDC's representative, utilizing a 2-pound hammer, will test all completed concrete spall repairs to locate hollow or ringing sounding areas. A hollow sound generally will indicate that either the repair material has not completely filled the space from which the damaged concrete was removed or that it has not adequately bonded to the concrete substrate.
- b. The Contractor shall remove the repair material from those hollow or ringing sounding areas, prepare the surfaces of the exposed reinforcing bars and the sound concrete substrate, if necessary form and then place, cure and finish the new repair materials at no additional cost to the HHFDC. Upon completion, the repairs will be retested by the HHFDC's representative.

F. Cleaning:

- 1. Surfaces Not Involved in the Repairs: Adjacent surfaces damaged by staining left by concrete work, or other concrete materials shall be completely restored to original condition with respect to color and texture to the acceptance by the HHFDC's representative.
- 2. Uncured polymer-modified repair mortar can be cleaned from tools with water. Cured polymer-modified repair mortar can only be removed mechanically.

3. Removal:

- a. Remove debris and rubbish from the site daily. Prevent debris and rubbish from entering the stream. Debris and rubbish shall not be allowed to accumulate on the site. Debris shall be removed and transported in a manner that will prevent spillage into the open channel, onto the adjacent ground and streets.
- b. Upon completion of the work, remove all materials, tools, forming materials, catchments, work platforms, refuse and debris generated by the work specified in this section.

SP 43.10 MEASUREMENT AND PAYMENT

The Officer-in-Charge will measure defective concrete repairs (spalls and honeycombs) per square foot. The Officer-in-Charge will compute the actual square foot area within the neat lines of the spall and patch repair as shown on the drawings.

The Officer-in-Charge will pay for the accepted quantities of defective concrete repairs at the contract unit price per square foot, complete in place.

The payment will be full compensation for chipping, removing and disposing of defective concrete found within the limits of the spall and patch repair work; locating existing reinforcing steel bars, extending the probing to beyond the end of corrosion and removing concrete around the corroded reinforcing steel; cleaning and preparing concrete surfaces; removing corrosion-damaged reinforcing steel; coating the reinforcing steel and prepared concrete surfaces with a corrosion inhibitor epoxy bonding agent; providing forms and falsework; placing, finishing and curing concrete repair materials; repairing defects; sampling and testing concrete; for clean-up; and for furnishing equipment, tools, labor, materials necessary to complete the work."

END OF SECTION SP 43

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 61 - PAVEMENT MARKERS, STRIPING AND MARKINGS

SP 61.1 DESCRIPTION

This work shall consist of furnishing all labor, materials and equipment, and installing complete in place pavement markers, reflectorized white and yellow traffic pavement striping and other markings in conformance to the "Manual on Uniform Traffic Control Devices for Streets and Highways", 2009 or current Edition (MUTCD); the Department of Planning and Permitting (DPP) and DTS current requirements, policies, guidelines, standards, and criteria; and these plans and specifications. This work shall also include the removing of existing pavement markers and removing or eradicating existing pavement striping and markings when called for in the plans and/or directed by the Officer-in-Charge.

The Contractor shall be responsible for field verifying all existing striping, pavement markings, and pavement markers and bringing any discrepancies to the Officer-in-Charge's attention. The Contractor shall restore all striping, pavement markings, and pavement markers as shown on the plans upon resurfacing the roadway.

SP 61.2 MATERIALS

All materials shall be lead and chromium free. Pavement markers, striping and markings shall not contain any hazardous materials at levels classified as hazardous waste under Resource Conservation and Recovery Act (RCRA) 40 CFR Part 261 subpart C

- A. Qualification of Reflectorized Traffic Paint for Temporary Markings. Only those traffic paints which have qualified in the latest completed prequalification tests conducted by the State Department of Transportation and having a Weighted Rating (W) of at least 6.5 for reflectorized white and 7.0 for reflectorized yellow at the completion of the road test shall be permitted for use on this project. Quick dry paints shall not be used.

The Contractor may use materials designed for pavement striping, such as adhesive striping, on temporary detours with the acceptance of the Officer-in-Charge. Such materials shall meet the color and reflection requirements for traffic paints.

- B. Description of Markers. The markers shall have the shape, dimensions and tolerances as shown on the plans. The markers shall be of uniform composition and free from surface irregularities, cracks, checks, chipping and other physical damage interfering with appearance or application.

The Contractor shall submit material certification and test results to the Officer-in-Charge and prior to installation of materials.

C. Type of Markers.

1. Type A - Non-Reflective White Markers and Type J Non-Reflective Yellow Markers.

Class III Ceramic Type. For use on portland cement concrete and asphalt concrete road surfaces.

Class IV Ceramic Type. For use only on portland cement concrete road surfaces.

The Class of non-reflective white marker to be used shall be at the option of the Contractor, subject to the above limitations.

2. Type B - Two-Way Clear Reflective Markers.
3. Type C - Red-Clear Reflective Markers.
4. Type D - Two-Way Yellow Reflective Markers.
5. Type E - Yellow-Clear Reflective Markers.
6. Type G - One-Way Clear Reflective Markers.
7. Type H - One-Way Yellow Reflective Markers.
8. Type DB - Two-Way Blue Reflective Markers.

SP 61.3 MARKERS

- A. Non-Reflective Markers. Type A and J pavement markers shall have the following characteristics:

1. Composition of Markers. The composition of finished markers shall conform to the following: The Class III and IV pavement markers shall consist of a heat-fired, vitreous, ceramic base and a heat-fired, opaque, glazed surface to produce the properties required in these specifications. The markers shall be produced from any suitable combination of intimately mixed clays, shales, talcs, flints, feldspars, or other inorganic material which shall meet the properties herein required. The markers shall be thoroughly and evenly matured and free from defects which affect appearance or serviceability.
2. Properties of Markers. The properties of finished markers, Class III and Class IV, shall conform to the following:
 - a. Finish. The top surface of the marker shall be convex and the radius of curvature shall be between 3-1/2 inches and 6 inches except that the radius of the 1/2 inch nearest the edge may be less. Any change in curvature shall be gradual. The top and sides shall be smooth and free of mold marks, pits,

indentations, air bubbles, or other objectionable marks or discolorations.

The bottoms of the ceramic markers shall be free from gloss or glaze and shall have a number of integrally formed protrusions approximately 0.050 inch projecting from the surface in a uniform pattern of parallel rows.

Each protrusion shall have a face parallel to the bottom of the marker. The area of each parallel face shall be between 0.01 and 0.065 square inches and the combined area of these faces shall be between 2.2 and 4.4 square inches.

The protrusions shall be circular in section.

The number of protrusions should be not less than 48 nor more than 200.

To facilitate forming and mold release, the sides of each protrusion may be tapered. This taper shall not exceed 15 degrees from perpendicular to the marker bottom. Markers manufactured with protrusions whose diameter is less than 0.15 inch may have an additional taper not exceeding 30 degrees from perpendicular to the marker bottom and extending not more than one-half the total height of the protrusion.

The overall height of the marker shall be between 0.68 to 0.80 inch.

- b. Glaze Thickness. The thickness of the glazed surface shall be not less than 0.007 inch at any point located more than 1/4 inch from the edge of the marker circumference. The glaze thickness shall be measured on a fractured edge with a calibrated reticle of a microscope of at least 25 power.
- c. Moh Hardness. The glazed surface of the marker shall have a hardness of a 6 minimum in the Moh hardness scale. This shall be determined relative to the mineral orthoclase which has a hardness of 6. With moderate hand pressure, it must be possible to scratch orthoclase with the marker but not possible to scratch the marker with the orthoclase.
- d. Directional Reflectance (Type A markers only). The 45°, 0° directional reflectance of the marker when tested in accordance with ASTM E 97, shall have the following values:

Glazed Surface	75 minimum
Body of Marker	65 minimum

The test on the glazed surface shall be made on the top of the convex surface of the marker. The test on the body of the marker shall be made on a flat surface of the marker from which the glaze has been removed by grinding with carborundum wheel.

- e. Yellowness Index (Type A markers only). The yellowness index of the marker when tested in accordance with ASTM E 313 shall have the following values:

Glazed Surface	0.07 maximum
Body of Marker	0.12 maximum

The test on the glazed surface shall be made on the top of the convex surface of the marker. The test on the body of the marker shall be made on a flat surface of the marker from which the glaze has been removed by grinding with a carborundum wheel.

- f. Color (Type J markers only). The chromaticity of the glazed surface of the marker shall be within the following limits:

Purity	76 to 96 percent
Dominant Wave Length	579 to 585 mu
Total Luminous Reflectance (Y value)	0.41 minimum

Chromaticity measurements shall be made in accordance with California Test Method No. 660.

- g. Water Absorption. The average water absorption of the ceramic marker when tested in accordance with ASTM C 373 shall not exceed 2.0 percent of the dry weight of the test piece.
- h. Autoclave Test. The glazed surface of the marker shall not craze, spall or peel when subjected to one cycle at 100 psi for one hour of the autoclave test when tested in accordance with ASTM C 424.
- i. Strength Test. A random sample of 5 markers of each type and/or class used shall be selected for the load test. Each Class III marker shall support a minimum load of 1500 pounds and each Class IV marker shall support a minimum load of 750 pounds when the load is applied in the following manner: The base of the marker shall be made flat using plaster of paris or some other suitable material. Sufficient amount of material shall be applied to the base of the marker to fill the spaces around the protrusions up to the faces of the protrusions. The protrusions shall not protrude from the prepared finished base. The prepared marker shall be centered, base down, over the open end of a

vertically positioned hollow metal cylinder. The cylinder shall be one inch high, with an internal diameter of 3 inches and a wall thickness of 1/4 inch. A load necessary to break the marker shall be applied at a speed of 0.2 inch per minute to the top of the marker through a one inch diameter solid metal cylinder centered on the top of the marker. Failure shall consist of a breakage of the marker at a load of less than 1500 pounds when applied to Class III markers or less than 750 pounds when applied to Class IV markers.

j. Sampling. Twenty markers selected at random shall constitute a representative sample for each batch consisting of 10,000 markers or less. Forty markers shall constitute a representative sample for lots consisting of more than 10,000 markers. The lot size shall not exceed 25,000 markers. However, if a batch represents less than 100 markers, the Officer-in-Charge may delete sampling and may accept the markers based on certification of compliance and certified test results.

k. Tolerances.

1) Three test specimens shall be randomly selected from the sample for each test except as noted in (i) above, and tested for compliance in accordance with these specifications. Should any one of the specimens fail to comply with the requirements of these specifications, additional samples consisting of double the number of samples originally taken shall be tested. The failure of any one of these additional samples shall be cause for rejection of the entire lot or shipment represented by the sample.

2) At the discretion of the Officer-in-Charge, a resample may be taken consisting of double the number of samples originally taken. Tolerances for resamples shall be in the same ratio as specified above.

l. Packaging. Shipments shall be made in containers which are acceptable to common carriers and packaged in such a manner as to insure delivery in perfect condition. Any damaged shipments shall be replaced by the Contractor. Each package shall be clearly marked as to the name of the manufacturer, type, color, quantity enclosed, lot and/or batch number, and date of manufacture.

B. Reflective Pavement Markers. Reflective pavement markers shall be of the prismatic reflector type consisting of a methyl methacrylate or suitably compounded acrylonitrile butadiene

styrene (ABS) shell filled with a mixture of an inert thermosetting compound and filler material. The exterior surface of the shell shall be smooth and contain one or two methyl methacrylate prismatic reflector faces of the color specified.

The reflective lens shall not contain any voids or air space and the back of the lens shall be metallized.

The shell shall be fabricated in a manner that shall provide a mechanical interlock between the thermosetting compound and the shell. The thermosetting compound shall bond directly to the backside of the metallized lens surface.

The base of the marker shall be flat (the deviation from a flat surface shall not exceed 0.050 inch), rough textured and free from gloss or substances which may reduce its bond to the adhesive. The presence of a soft or resin-rich film on the surface of the base shall be cause for rejection.

Reflective markers shall conform to the following requirements:

1. Optical Performance. The specific intensity of each reflective surface, when tested at 0.2 degrees angle of divergence, shall not be less than the following specified values:

	Specific Intensity			
	<u>Clear</u>	<u>Yellow</u>	<u>Red</u>	<u>Blue</u>
0° Incidence Angle	3.0	1.5	0.75	-
20° Incidence Angle	1.2	0.60	0.30	-

NOTE:

- a. Angle of Incidence. The angle formed by a ray from the light source to the marker and the normal to the leading edge of the marker face.
- b. Angle of Divergence. The angle formed by a ray from the light source to the marker and the returned ray from the marker to the measuring receptor.
- c. Specific Intensity. The mean candle power of the reflected light at a given incidence and divergence angle for each foot candle at the reflector on a plane perpendicular to the incidence light.

$$SI = \frac{(R_L) (D^2)}{I_L}$$

Where: SI = Specific Intensity
 R_L = Reflected Light

I_L = Incident Light

D = Test Distance

- d. Test Method. The markers to be tested shall be located with the center of the reflecting face at a distance of 5 feet from a uniformly bright light source having an effective diameter of 0.2 inch. The photocell receptor width shall be 0.05 inch and shall be shielded to eliminate stray light. The distance from the center of the light source aperture to the center of the photocell shall be 0.21 inch. If a test distance of other than 5 feet is used, the source and receptor shall be modified in the same proportion as the test distance.
2. Color. The color of the reflectors when illuminated by an automobile headlight shall be clear, yellow, red, or blue color as required. Off-color reflection shall constitute grounds for rejection.
3. Strength Requirements. A random sample of 3 markers shall be selected for the load test. The marker shall support a minimum load of 2,000 pounds as applied in the following manner: The marker shall be centered, base down, over the open end of a vertically positioned hollow metal cylinder. The cylinder shall be one inch high, with an internal diameter of 3 inches and a wall thickness of 1/4 inch. A load necessary to break the marker shall be applied at a speed of 0.2 inch per minute to the top of the marker through a one-inch diameter solid metal cylinder centered on the top of the marker. Failure shall consist of either:
 - a. breakage or significant deformation of the marker at load of less than 2,000 pounds, or
 - b. significant delamination of the shell and the filler material regardless of the load required to break the marker.
4. Sampling. Six markers shall be selected at random from each batch for testing. However, if a batch represents less than 100 markers, the Officer-in-Charge may delete sampling and may accept the markers based on certification of compliance and certified test results.
5. Tolerances. Should any one of the samples selected for strength testing fail to comply with the strength requirements of these specifications, six (6) additional samples shall be tested. The failure of any of these additional six (6) samples shall be cause for rejection of the entire lot or shipment represented by the samples.

6. Packaging. Shipments shall be made in containers which are acceptable to common carriers and packaged in such a manner as to insure delivery in perfect condition. Any damaged shipments shall be replaced by the Contractor. Each package shall be clearly marked as to the name of the manufacturer, color, type, lot number, quantity enclosed, and date of manufacture.
7. The Contractor shall use Type DB reflective markers to show fire hydrant locations. The markers shall measure 4 inches by 4 inches (+ 1/2") and have a minimum area exposed to traffic of 12.5 square inches. Maximum slope of the reflective faces shall not be more than 30° nor less than 27° from the horizontal.

The lens shall be a brilliant blue color and be a true cube-corner type reflex reflector molded of optic grade methyl methacrylate (plastic).

The shell shall be white, molded of high impact acrylonitrile butadiene styrene (ABS).

HYDRANT MARKER LOCATION

Figure 1
TWO LANE STREET

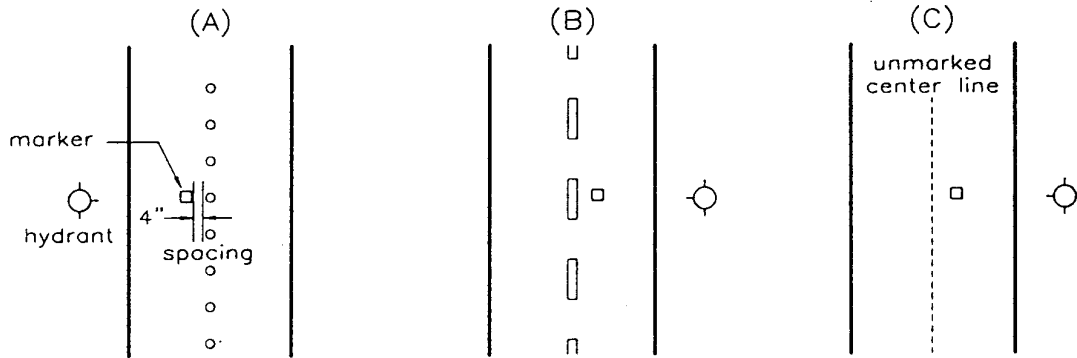


Figure 2
DIVIDED STREET

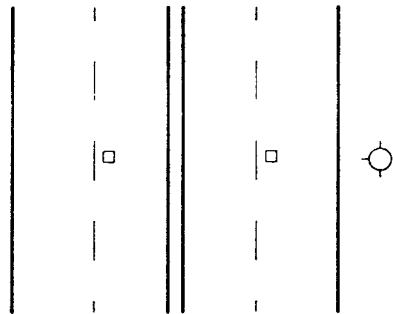


Figure 3
MULTI-LANE STREET WITH
TURN LANE

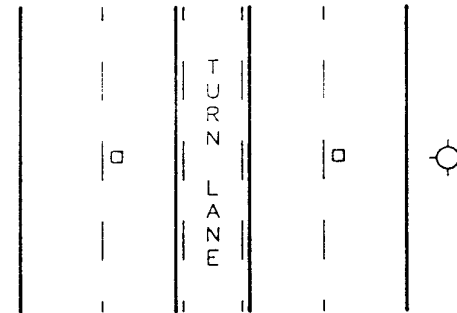


Figure 4
TWO LANE STREET
AT INTERSECTION

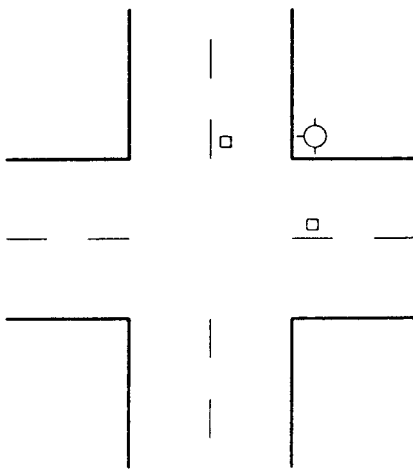


Figure 5
FOUR LANE STREET WITH TURN LANE
AT INTERSECTION

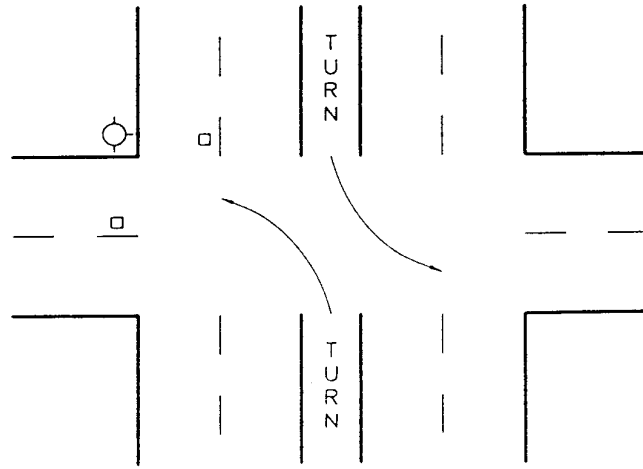


DIAGRAM A: TWO LANE HIGHWAY

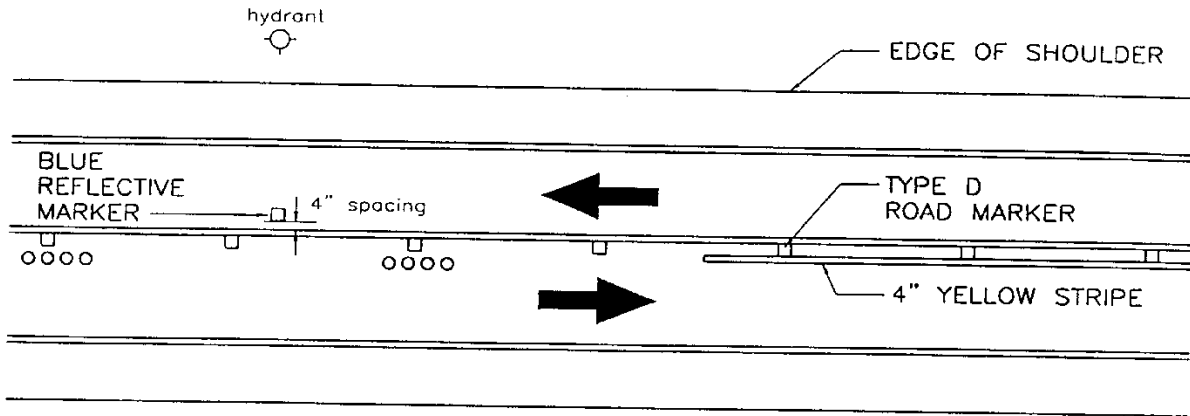


DIAGRAM B: TWO LANE HIGHWAY

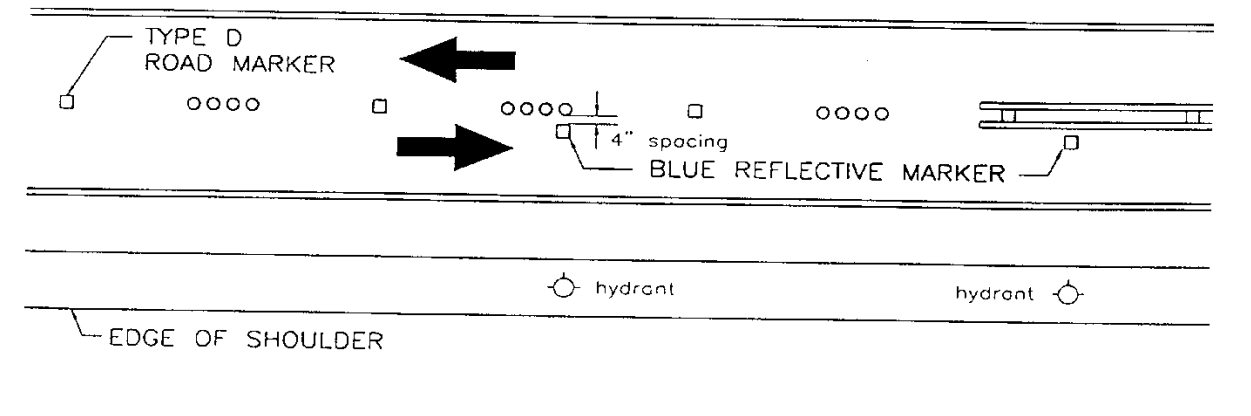
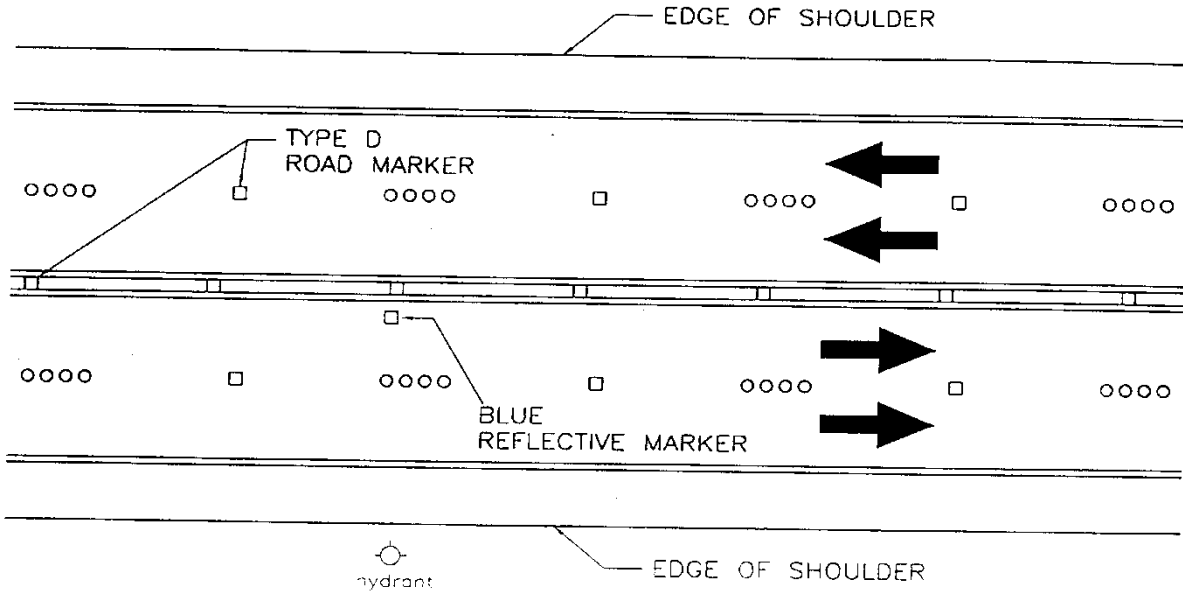


DIAGRAM C: MULTI-LANE HIGHWAY



- C. Certification. Prior to installing the pavement markers, the Contractor shall submit to the Officer-in-Charge a certificate of compliance and certified test results indicating that all types of markers conform to the specifications.

SP 61.4 ADHESIVE FOR PAVEMENT MARKERS

Epoxy adhesive or bituminous adhesive shall be used in accordance with this specification. Certificate of compliance and certified test results shall be submitted for pavement marker adhesives.

Epoxy Adhesive

All adhesives shall have a white A epoxy component and a black B curing agent component, each packaged separately. The mixing ratio of Component A to Component B shall be one-to-one by volume. The color of the material when mixed shall be approximately that of Color Nos. 26132 to 21652 of Federal Standard No. 595-A. The Standard Set Type is a compositional specification, together with test requirements. The Rapid Set type is based on laboratory test requirements only. No volatile solvents or thinners shall be present in the epoxy adhesives.

Requirements. The adhesive shall have the following properties:

1. Pot Life. The pot life shall be 12 minutes maximum and 7 minutes minimum for Standard Set Type and 5 minutes minimum for Rapid Set Type when tested as follows at 77°F ±3°F: Mix equal volumes of components A and B in an 8-ounce, unwaxed paper cut 2 inches ±1/4 inch at base to give a 170 grams ±10 grams total mass. Mix 60 seconds ±5 seconds before timing for pot life. Test with a tongue depressor with minimum stirring. Record the time the material becomes unusable as the pot life. With most materials this shall be approximately the time a hard lump forms in the center.
2. Shear Strength. When tested as follows, the shear strength shall be not less than 1,000 psi for Standard Set Type and 900 psi for Rapid Set Type.

Bond three concrete blocks 2 inch x 3-1/2 inch x 7 inch of 7-sack concrete together with the 7-inch sides parallel forming 2 areas of contact 3-1/2 inch x 3-1/2 inch by overlapping the blocks. The test specimen then has a base of 2 blocks and a second surface formed by the center block. Apply the adhesive to the contact surfaces and allow to cure for 24 hours at 77°F ±3°F. Cap the base of the specimen with capping compound and test at a load rate of 10,000 pounds per minute. A swivel type head must be used at the top of the testing press. Computations are based on a total area of 24.5 square inches (shear strength = total load/24.5).

3. Viscosity. The viscosity of each component when measured in a 3/4 filled standard round quart paint can shall be between 1.0 x 10⁵ and 3.0 x 10⁵ centipoises for Standard Set Type and 0.8 x 10⁵ and 2.2 x 10⁵ centipoises for Rapid Set Type when measured as follows: Stir the components vigorously for 30 seconds with

a spatula. Remove entrained air by vigorously tamping and measure viscosity within 10 minutes after stirring. Use Brookfield Viscometer, Model RVT at 5.0 RPM with a Model C Brookfield Helipath Stand and Helipath TD Spindle or approved substitute having a crossarm length of 0.804 inches for Standard Set Type and T.E. Spindle for Rapid Set Type. Use weight included in spindle set. Component and ambient temperature is to be 77°F ±3°F at time of measurement. Reading shall be taken at approximately the center of the vertical travel of the spindle.

4. Viscosity--Shear Ratio.

$$\frac{\text{Viscosity at 0.5 RPM}}{\text{Viscosity at 2.5 RPM}}$$

This ratio shall be 2.0 minimum for Standard Set Type and 1.8 minimum for Rapid Set Type for Component A and 1.9 minimum for Component B. Take the above viscosities at the same time and conditions as in Subsection 3 above.

5. Bond Strength.

- a. Clean a 4 inch x 4 inch area on a flat surface of a concrete block made with 7-sack concrete and having a tensile strength in excess of 250 psi.
- b. Use the equipment and load described in California Test Method No. 420. Condition test equipment, concrete and epoxy at test temperature for 24 hours before test.
- c. Mix adhesive on a tin plate with a trowel or spatula for 60 seconds ±5 seconds. Immediately start timing, place adhesive on pipe cap and press firmly in place on concrete. Just before the required test time, insert the dynamometer hook into pipe cap.
- d. After curing 3-1/3 hours for Standard Set Type and 25 minutes for Rapid Set Type at 77°F ±3°F measured from the end of the mixing period, the bond strength shall be at least 200 psi.

6. Weight Per Gallon, Pounds at 77°F ±3°F (Standard Set Type).

Component A	11.5 - 11.8
Component B	11.7 - 12.1

Composition:

STANDARD SET TYPE

Component A	Parts by Weight
Epoxy Resin ¹	100.0
Titanium Dioxide, TT-P-422, Type III or IV	7.31
Resin Grade Asbestos ²	5.00
Talc ³	37.64

Component B

N-Aminoethyl piperazine ¹	23.16
Nonylphenol ⁵	52.00
Carbon Black, TT-P-343, Form 1, Class B	0.22
Talc ³	77.37
Resin Grade Asbestos ²	1.00

¹Viscosity, 5-7 poises at 25°C; epoxide equivalent 175-195; Color (Gardner), 5 maximum; manufactured from epichlorohydrin and bisphenol A. The reactive diluent shall be butyl glycidyl ether.

²Specific gravity, grams per ml., 2.45; moisture content, % by weight, 2.0 maximum; surface area, square meters per gram, 60 approximately; reflectance, G.E. brightness, 72-76; nature of surface charge, electropositive (cationic); pH in water, 9.5; bulking value, gallons per 100 lbs., 4.8; oil absorption (DOP), pound per 100 lbs., 120; refractive index, n_d 25°C., 1.54-1.56; wet bulk density in water, after dispersion, 2 grams per liter, settling after 1 hr., 100 ml. clear maximum; dry bulk density, pounds per cubic foot, 4.

³Percent passing U.S. No. 325 sieve, 94-96; maximum particle size, 70 microns, oil absorption (Gardner-Coleman), 6-7 ml. per 20 grams; fineness in oil (Hegman) 1-2; specific surface, 0.5-0.6 square meter per gram; consistency (40% suspension in linseed oil) 55-60 KU.

⁴Color (ALPHA) 50 maximum; amine value 1250-1350 based on titration which reacts with the 3 nitrogens in the molecule; appearance clear and substantially free of suspended matter.

⁵Color (ALPHA) 50 maximum; hydroxyl number 245-255; distillation range, °C. at 760 mm first drop 295 minimum, 5% 298 minimum, 95% 325 maximum; water, % (K.F.) 0.05 maximum.

Directions for use:

Any settling of fillers or pigments in Components A or B shall be completely redispersed to provide a homogeneous mix before the components are used. Just before use, Components A and B shall be mixed in a one-to-one ratio by volume.

When the Rapid Set Type adhesive is used, the components shall be mixed by a 2-component type automatic mixing and extrusion apparatus. The temperature of the Rapid Set Type adhesive shall be maintained at 65°F. to 85°F. before mixing. The temperature of the Standard Set Type adhesive shall be maintained at 60°F. to 100°F. before mixing. Any heating of epoxy adhesive shall be done by the application of indirect heat.

Packaging and Labeling of Adhesive. Each adhesive component shall be packaged in containers not larger than 5 gallons in volume. The containers shall be new steel, not less than No. 24 gage and shall otherwise meet Interstate Commerce shipping standards. Each container shall be clearly labeled with designation (Component A or B), type (Standard or Rapid Set), manufacturer's name, date of manufacturer, batch number (a batch shall consist of a single charge of all components in a mixing chamber), directions for mixing, and the following warning:

"CAUTION

This material will cause severe dermatitis if it is allowed to come in contact with the skin or eyes. Use gloves and protective creams on the hands. Should this material contact the skin, wash thoroughly with soap and water. Do not attempt to remove this material from the skin with solvents. If any gets in the eyes, flush for 10 minutes with water and secure immediate medical attention."

Sampling. One quart sample of each of the components (A and B) from each batch shall be sampled for testing.

Certification. The Contractor shall submit to the Officer-in-Charge a certificate of compliance indicating that all types of adhesives conform to the requirements of the specifications.

Bituminous Adhesive

Bituminous adhesive shall conform to the following requirements:

1. Properties and Test Methods

BITUMINOUS ADHESIVE PROPERTIES AND TEST METHODS			
Property	Min	Max	Test Method
Softening Point, degrees F	200	-	ASTM D 36
Penetration, mm, 100g, 5 sec., 77 degrees F	1.0	2.0	ASTM D 5
Filler Content, percent by weight (Insoluble in 1, 1, 1 Trichloroethane)	65	75	ASTM D 2371
Brookfield Thermosel Viscosity, centipoise, No. 27 Spindle, 20 RPM, 400 degrees F	3000	6000	ASTM D 4402
Flash Point, C.O.C., degrees F	550	-	ASTM D 92

2. Filler Properties. Filler material used in bituminous adhesive shall be Type PC, Grade III, calcium carbonate conforming to ASTM D 1199, and shall conform to fineness specified in the Bituminous Adhesive Filler Fineness table.

BITUMINOUS ADHESIVE FILLER FINENESS	
Sieve Sizes	Percent Passing
No. 100	100
No. 200	95
No. 325	75

3. Packaging and Labeling. Adhesive shall be packaged in self-releasing, stacking, cardboard containers, approximately 10-inch cubes. Containers shall have net weight of about 62 pounds. Containers shall be labeled with manufacturer, quantity, and batch number. Words "Bituminous Adhesive for Pavement Markers" shall be printed in bold lettering on label.

SP 61.5 REFLECTIVE THERMOPLASTIC COMPOUND PAVEMENT MARKINGS

A. General. Reflective thermoplastic compound pavement markings shall be a substance, free of volatiles (including, but not limited to lead and chromium), which is machine applied to the pavement surface in a hot molten state and which, after cooling to the ambient temperature, and without polymerization or other chemical change, forms a traffic marking stripe of the quality and appearance as specified herein.

The material used shall be an alkyd type product especially compounded for traffic markings.

The installed stripe shall not be slippery when wet.

The compound shall not deteriorate by contact with sodium chloride, calcium chloride, oil content of pavement materials, or from oil droppings from traffic.

In the plastic state, the material shall not give off fumes which are toxic or otherwise injurious to persons or property. The material shall not break down or deteriorate if held at the plastic temperature for a period of four hours, or by reason of 4 reheatings to the plastic temperature.

There shall be no obvious change in color of the material as a result of up to 4 reheatings, or from batch to batch.

To insure the best possible adhesion, the compound shall be installed in a melted state of a minimum temperature of 375°F, and the material shall not scorch or discolor if kept at temperatures between 380° to 450° Fahrenheit for up to 4 hours.

The pigmented binder shall be well dispersed and free from all skins, dirt, foreign objects, or such ingredients as will cause bleeding, staining, or discoloration.

After application and proper drying time, the material shall show no appreciable deformation or discoloration under local traffic conditions, and in an air and/or road temperature ranging from 0 to 120° Fahrenheit.

Under this specification, the term "drying time" shall be defined as the minimum elapsed time, after application, when the stripe shall have and retain the characteristics required by the preceding sections. In addition, the drying time shall be established by the minimum elapsed time after application, after which normal local traffic will leave no impression or imprint on the applied marking.

The drying time shall not exceed a characteristic straight line curve, the lower limits of which are 2 minutes at 50°F, the upper limits of which are 15 minutes at 90°F, both temperatures measured at a maximum relative humidity of 70 percent.

The stripe shall maintain its original dimensions and placement. The exposed surface shall be free from tack. Cold ductility of the material shall be such as to permit normal movement with the road surface without chipping.

The marking shall have a uniform cross section. Pigment shall be evenly dispersed throughout the material. The density and character of the material shall be uniform throughout its thickness.

The material shall not smear or spread under normal traffic conditions at temperatures below 120°F.

The filler to be incorporated with the resins or binders shall be a white calcium carbonate or approved substitute filler.

The white thermoplastic shall have a pigment containing not less than 6 percent per Titanium Dioxide, and, after setting, shall be pure white, free from dirt or tint.

Yellow reflectorized thermoplastic compound shall be "Federal Yellow".

The binder shall consist of a mixture of non-drying synthetic resins at least one of which is solid at room temperature. The total binder content of the thermoplastic compound shall be not less than 15 percent nor more than 35 percent by weight.

The material shall not change in its color and brightness characteristics after prolonged exposure to sunlight.

During manufacture, reflectorizing beads shall be mixed into the material to the extent of not less than 20 percent nor more than 50 percent by weight of the material. The beads that are applied to the surface of the material shall be automatically applied at a uniform rate of approximately 3 pounds of glass beads to every 100 square feet of line.

The glass beads used in the formulation shall have a refractive index of not less than 1.51 when tested by the liquid immersion method at 25°C; shall consist of 70 percent min. by count of true spheres; shall be free from air inclusions; and shall have the following graduation:

U. S. Sieve Number	Percent Passing
30	90 - 100
40	35 - 100
100	0 - 10

Not less than 70 percent of the spheres shall meet the following requirements:

1. The surface of the spheres shall be smooth, lustrous, and free from film scratch and pits.
2. The spheres shall be clear and transparent and shall not be oviolate in shape or fused spheroids.
3. The spheres shall show high autocollimating efficiency. Not more than one percent shall be black, amber, or milky.

The glass beads dropped on the applied marking shall have a refractive index of not less than 1.51 when tested by the liquid immersion method of 25°C., shall consist of 70 percent min. by count of true spheres; shall be free from air inclusion; and shall have the following gradation:

U. S. Sieve Number	Percent Passing
20	90 - 100
80	0 - 10

Not less than 70 percent of the spheres shall meet the following requirements:

1. The surface of the spheres shall be smooth, lustrous, and free from film scratch and pits.
2. The spheres shall be clear and transparent and shall not be ovoid in shape or fused spheroids.
3. The spheres shall show high autocollimating efficiency. Not more than one percent shall be black, amber, or milky.

B. Specifications and Tests.

1. Color.

- a. White. Initially white; as demonstrated by a standard color difference meter such as the Gardner Color Difference Meter manufactured by Gardner Laboratories, Inc., Bethesda, Maryland, or approved substitute, the material shall show deviations from a magnesium oxide standard not greater than the following:

Scale Definition	Mag. Oxide Standardized Sample	
Rd Reflectance	100	70 minimum
a Redness-Greenness	0	-5 to +5
b Yellowness-Blueness	0	-10 to +10

- b. Yellow. Initially yellow; equal to standard color chips using Federal test method standard 141 Method 4252.

2. Color Retention. The retention of the initial color shall be determined as follows: Specimens shall be prepared and tested from the samples submitted in accordance with ASTM D 620-57T, "Tentative Method of Test for Colorfastness of Plastics". The ultraviolet light source shall be as specified from the test procedure or optionally may be a General Electric 275 watt sun lamp bulb, type RS, with built-in reflector, or approved substitute. After 100 hours of exposure, specimens shall show no perceptible color change when compared visually with an unexposed specimen.

3. Water Absorption. Material shall have not more than 0.5 percent by weight of retained water, when tested by ASTM D 570, procedure a.
4. Softening Point. Material shall have a softening point of not less than 90°C, as determined by ASTM E 28.
5. Specific Gravity. Specific gravity of compound at 25°C. shall be from 1.9 to 2.5.
6. Impact Resistance. The impact resistance shall not be less than 15 inch-pounds at 77°F. after the material has been heated for 4 hours at 400°F. and cast into bars of one-inch cross sectional area and three inches long and placed with one-inch extending above the vise in a cantilever beam (Izod Type) tester using the 25-inch pound scale. See ASTM D 256 for description of this instrument.
7. Bond Strength. When 2 concrete blocks 2 inches by 3-1/2 inches by 7 inches are cemented together on the 3-1/2-inch by 7-inch faces with a 1/16 to 1/8-inch layer of the thermoplastic traffic line material and tested according to ASTM C 321, the bond strength shall not be less than 150 pounds square inch.
8. Indentation Resistance. The reading of the Shore Durometer, Type A, as described in ASTM D 2240 after 15 seconds shall not be less than the amounts herein designated when the material is tested after heating for 4 hours at 400°F., and cooled to the following temperatures:

Temperature	Reading
115°F.	65
77°F.	95
40°F.	95

- C. Packaging. Each unit container shall be clearly and adequately marked to indicate the color of the material, the process batch number or similar manufacturer's identification, the manufacturer's name and location of plant, and the date of manufacturer.

The material shall be delivered to a designated area in unit containers as processed by the manufacturer. Each unit container when filled shall weigh no less than 24 lbs. or more than 52 lbs.

- D. Warranty. Thermoplastic compound pavement marking material furnished and installed under this specification shall be

guaranteed by the Contractor against failure due to poor adhesion resulting from defective materials or methods of application.

- E. Equipment. The material shall be applied to the pavement by an extrusion method wherein one side of the shaping die is the pavement and the other 3 sides are part of the equipment.

The equipment shall provide continuous mixing and agitation of the material. Conveying parts of the equipment shall be constructed to pavement accumulation and clogging. All parts of the equipment which come in contact with the material shall be easily accessible and exposable for cleaning and maintenance.

All mixing and conveying parts including the shaping die shall maintain the material at the plastic temperature.

The equipment shall assure continuous uniformity in the dimensions of the stripe. The thickness of the material on the pavement shall be no less than 3/32 inch and no more than 3/16 inch measured as an average in any three foot length.

The applicator shall cleanly cut off square stripe ends and shall be capable of applying "skip" lines. The use of pans, aprons or similar appliances which the die overruns shall not be permitted.

Beads applied to the surface of the completed stripe shall be applied by an automatic bead dispenser attached to the liner in such a manner that the beads are dispensed almost instantly upon the completed line. The bead dispenser shall be equipped with an automatic cutoff control synchronized with the cutoff of the thermoplastic material.

The equipment shall be constructed to provide for varying die widths to produce varying widths of traffic markings.

A special kettle shall be provided for melting and heating the composition. The kettle shall be equipped with an automatic thermostatic control device so that heating can be done by controlled heat transfer liquid rather than direct flame, to provide positive temperature control and prevent overheating of the composition.

The applicator and kettle must be equipped and arranged to satisfy the requirements of the National Fire Underwriters.

The applicator shall be mobile and maneuverable to the extent that straight lines can be followed and normal curves can be made in a true arc.

The applicator shall be capable of containing a minimum of 125 pounds of molten material.

- F. Application. The Contractor shall clean off dirt, blaze, paint, tape and grease where necessary and as directed by the Officer-in-Charge.

The material may be installed in variable widths from 2 inches to 12 inches.

On pavements containing less than 6 percent bituminous asphalt and on all concrete pavements, the Contractor shall prestripe the application area with a binder material as recommended by the manufacturer.

The compound shall be installed in a melted state at temperatures of 380° to 450° Fahrenheit.

The minimum installed thickness of the line as viewed from a lateral cross section shall be not less than 3/32nds of an inch at the edges, nor less than 1/8th of an inch in the center. The measures shall be taken as an average throughout any 36-inch section of the line.

The new line when applied over an old line of compatible material shall bond itself to the old line in such a manner that no splitting or separation takes place during its useful life.

The finished lines shall have well defined edges and be free of waviness.

SP 61.6 CONSTRUCTION REQUIREMENTS

- A. General. Pavement markers and markings shall be applied to surfaces that have been thoroughly cleaned and are free of dirt, dust, curing compound, grease, oil, moisture, loose aggregates, unsound layers and any other material which would adversely affect the bond of the adhesive or paint.

In the installation of pavement markers, the cleaning of portland cement concrete and asphalt concrete surfaces shall be by blast cleaning. Clean, newly placed asphalt concrete need not be blast cleaned unless the surface contains an abnormal amount of asphalt or the surface is contaminated with dirt, grease, oil or any other material which would adversely affect bonding.

Permanent pavement markers, striping and markings shall be applied no sooner than 7 calendar days nor later than 14 calendar days after completion of the pavement. If bituminous adhesive is used, apply pavement markers not less than 7 days after completing pavement. If epoxy adhesive is used, apply markers not less than 14 days after completing pavement.

Unless otherwise specified, the Contractor shall establish control points, satisfactory to the Officer-in-Charge, spaced at intervals that shall insure accurate location of pavement markers and striping. Markers and markings shall not be applied when moisture or foreign matter is present on the pavement surface or when wind conditions are such as to cause dust to be deposited on the prepared areas or to prevent satisfactory application of the marker adhesive or marking.

The Contractor shall paint temporary guidelines and outline of arrows, legends and crosswalks with a 2" wide brushed line on the day the roadway is opened to traffic which shall be reviewed by the Officer-in-Charge before permanent lines are installed.

The Contractor shall furnish and place all warning and directional signs necessary to direct and control the traffic during marker installation or the striping operations. Warning signs shall be set up before the beginning of each operation and extra signs shall be kept well ahead of the marking equipment.

The Contractor shall install all markers and apply all pavement striping before opening roadways to public traffic except that when connections to existing pavements are made or when temporary detours carry public traffic, the Contractor shall mark or stripe the connecting pavements on the day that the roadway is open to traffic.

If the Contractor is unable to provide the permanent pavement markings and it is necessary to run public traffic over roadways soon after paving, the Contractor shall paint, on the day of each day's paving, temporary guide dashes at the traffic stripe or marker location on the pavement, as guidance for drivers, until the permanent markings can be placed. The Contractor shall maintain and repaint, if necessary, all temporary markings until the permanent striping and/or markers are installed. This work shall be considered as included in the items of paving, pavement markers and/or pavement striping, and no separate payment shall be made therefor.

- B. Pavement Markers. Use bituminous adhesive or standard set type epoxy adhesive to bond pavement markers to pavement. If directed by the Officer-in-Charge, the Contractor shall use Rapid Set Type adhesive for the Standard Set Type adhesive at no extra cost to the HHFDC.

Submit samples of the markers and adhesives proposed for use to the Officer-in-Charge, for testing and review, at least 10 calendar days before the date of their intended use.

Heat and dispense bituminous adhesive from equipment that can maintain required temperature.

The adhesive shall be placed uniformly on the cleaned pavement surface or on the bottom of the marker in a quantity sufficient to result in complete coverage of the area of contact of the marker with no voids present and with a slight excess after the marker has been pressed in place. The marker shall be placed in position and pressure applied until firm contact is made with the pavement. Excess adhesive around the edge of the marker, excess adhesive on the pavement, and adhesive on the exposed surfaces of the markers shall be immediately removed. Soft rags moistened with mineral spirits conforming to Federal Specification TT-T-291E or kerosene may be used, if necessary, to remove adhesive from exposed faces of pavement markers. No

other solvent shall be used. The marker shall be protected against impact until the adhesive has hardened to the degree designated by the Officer-in-Charge.

The adhesive requires that the mixing operation and placing of the markers be done rapidly. When hand mixing or machine mixing the Standard Set Type adhesive, all markers shall be aligned and pressed into place within 5 minutes after mixing is started. When hand mixing Standard Set Type adhesive, not more than one quart shall be mixed at one time. Any mixed batch which becomes viscous so that the adhesive cannot be readily extruded from under the marker on application of slight pressure shall not be used.

When the Rapid Set Type adhesive is used, the components shall be mixed by a 2-component type automatic mixing and extrusion apparatus, the markers shall be placed within 60 seconds after the adhesive has been mixed and extruded and no further movement of the marker shall be allowed.

Automatic mixing equipment for the epoxy adhesive shall use positive displacement pumps and shall properly meter the components in the specific ratio, ± 5 percent by volume of either component. At the beginning of each day and at any other time directed by the Officer-in-Charge, the ratio shall be checked by the Contractor in the presence of the Officer-in-Charge. This check shall be made by disconnecting the mixing heads, or using suitable bypass valves, and filling 2 suitable containers with the unmixed components. The mixing head shall properly mix 2 components so that there is no trace of black or white streaks in the mixed material.

The Standard Set Type adhesive shall not be used when either the pavement or the air temperature is less than 50°F. The Rapid Set Type adhesive shall not be used when either the pavement or the air temperature is less than 30°F. No markers shall be installed if the relative humidity of the air is greater than 80 percent or if the pavement is not surface dry. The Officer-in-Charge shall be the judge as to when the adhesive has set sufficiently to bear traffic. Where bituminous adhesive is used, protect marker against impact until adhesive has hardened to the degree designated by the Officer-in-Charge. Where epoxy adhesive is used, protect pavement markers against impact until adhesive has hardened, using the following table as a guide; however, the times shown may vary, depending upon field conditions:

TIME TO BEAR TRAFFIC

<u>Temperature*</u> (°F)	<u>Standard Set Type</u> (Hours)	<u>Rapid Set Type</u> (Minutes)
100	1-1/2	15
90	2	20
80	3	25
70	4	30
60	5	35
50	7	45
40	No Application	65
30	Below 50°F	85
		No Application Below 30°F

*The temperature indicated is either pavement surface or air temperature, whichever is lower. The hardness of the rim of epoxy around the marker shall not be used as an indication of the degree of cure of the epoxy under the marker.

Types A and J pavement markers that are used to delineate 10-foot lane stripes shall be installed in sets of four markers as called for on the plans. Installation of fractional sets (i.e., one, two or three markers) shall not be permitted. The length of the 10-foot stripe and 30-foot gap may vary plus or minus one foot to properly distribute the spacing of stripes.

No pavement markers shall be installed over longitudinal or transverse joints of the pavement surface.

- C. Pavement Striping and Markings. Pavement striping and markings shall be of the length, width and placement specified and shall conform to the Department of Transportation Services Standards. Pavement arrows, legends, and crosswalks shall be applied with appropriate templates (refer to the MUTCD 2009 or current Edition).

No stripe shall be less than the specified width. No stripe shall exceed the specified width by more than 1/2 inch. The length of the 10-foot marked or painted segment for skip stripe may vary plus or minus one foot and the 30-foot gap between segments may vary plus or minus one foot. The alignment of the stripe shall not deviate from the intended alignment by more than one inch on tangents and on curves up to and including one degree. On curves exceeding one degree, the alignment of the stripe shall not deviate from the intended alignment by more than 2 inches.

When necessary to correct a deviation which exceeds the permissible tolerance in alignment, that portion of the stripe so affected shall be removed plus an additional 30 feet in each direction, and a new stripe then provided in accordance with these specifications.

All stripes, segments of stripes and markings shall present a clean cut, uniform appearance. All striping and markings which fail to meet the requirements specified herein, or are marred or damaged by traffic or from other causes, shall be corrected prior to acceptance by the HHFDC at the Contractor's expense. All misted areas, drip and spattered paint shall be removed to the satisfaction of the Officer-in-Charge.

The freshly painted temporary stripe shall be protected by cones or other satisfactory devices until the traffic paint is dry and will not transfer to car tires. All stripes damaged by traffic, or pavements marked by traffic crossing wet paint shall be repaired or corrected as specified below.

The Contractor shall submit to the Officer-in-Charge test specimens as requested. Test films shall be applied to a suitable plane rigid surface. The area shall be of sufficient size to permit film thickness measurement to be made at least one (1) inch from any edge.

- D. Removing Existing Pavement Markers, Striping and Markings for Restriping Applications. Existing pavement markers, striping, and markings shall be removed by methods that cause the least possible damage to the pavement or surfacing. Existing pavement markings and striping may contain lead.

Where specified on the plans, existing pavement striping and markings shall be removed to the fullest extent possible by methods that shall not materially damage the surface or texture of the pavement, or leave impressions on the roadway that could be confused with permanent striping during inclement weather or night driving conditions. Any damage to the pavement or surfacing caused by the removal operations shall be repaired by the Contractor at their expense by methods acceptable to the Officer-in-Charge. Removal, reuse, and disposal of all surplus materials shall be in compliance with all Federal, State, County, and OSHA requirements and regulations. This work shall be considered as included in the items of paving, pavement markers, and/or pavement striping, and no separate payment shall be made thereafter.

Painting over the existing striping and markings shall not be permitted. Burning off existing striping and markings shall be permitted using an acceptable method using excess oxygen.

Sand or other material deposited on the pavement as a result of removing pavement markers, traffic striping and markings shall be removed as the work progresses. Accumulation of sand or other material which may constitute a hazard to traffic shall not be permitted.

Extraneous traffic striping and markings shall be removed before any change is made in the traffic pattern.

SP 61.7 REMOVAL OF TEMPORARY TAPE TRAFFIC MARKINGS

The Contractor shall remove all temporary tape striping placed to delineate traffic lanes, crosswalks, stop bars, etc., prior to the lay down of the finish asphalt concrete mix layer.

SP 61.8 MEASUREMENT AND PAYMENT (for applicable pay items included in the Offer)

The Officer-in-Charge will not measure the raised pavement markers, striping, and markings for payment. The Officer-in-Charge will not pay for raised pavement markers, striping, and markings separately and will consider the cost for raised pavement markers, striping, and markings as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents.

Pavement striping and markings include but are not limited to: thermoplastic pavement striping and markings, including International crosswalk markings, islands, gore striping, curb markings, guide lines, yield lines, stop bar, transverse striping, pavement arrows, legends, symbols, words, sharrows, and helmeted bicyclist symbol and arrow.

The Officer-in-Charge will not measure removal of existing extraneous pavement markers/striping for payment. The Officer-in-Charge will not pay for the accepted removal of existing extraneous pavement markers/striping and will consider the cost for this work as included in the contract prices for the various pavement markers/striping contract pay items. The cost is for the work prescribed in this section and the contract documents.

The Officer-in-Charge will not measure the temporary pavement markings installed for the longitudinal guidance of public traffic over reconstructed areas, cold planed surfaces, newly paved surfaces or other unmarked or scarified areas for payment. The Officer-in-Charge will not pay for the accepted temporary pavement markings installed for the longitudinal guidance of public traffic over reconstructed areas, cold planed surfaces, newly paved surfaces or other unmarked or scarified areas separately and will consider the cost for this work as included in the contract prices for the various pavement markers/striping contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 61

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 62 - VEHICLE DETECTOR LOOP

SP 62.1 DESCRIPTION

This work shall consist of installing vehicle detector loops in accordance with this special provision and the project plans. The exact number, locations, and layout will be determined in the field by the Traffic Control Branch of the Department of Transportation Services, telephone 768-8388.

The Contractor shall install new vehicle detector loops within 14 calendar days after removal of existing vehicle detector loops. For downtime of 14 to 30 calendar days, the Contractor shall furnish and install approach-only microwave vehicle detector at affected locations. For downtime of 30 calendar days or more, the Contractor shall furnish and install video detection system, or other vehicle detector as directed by the Officer-in-Charge.

Removal and replacement of vehicle loop detectors shall be shown on the Contractor's project performance schedule, and three week look ahead schedules. The Contractor shall not remove existing vehicle loop detectors until the Contractor's performance schedule and three week look ahead schedules are accepted by the Officer-in-Charge.

SP 62.2 MATERIALS

A. Vehicle Detector Loop Cable

Vehicle Detector Loop Cable shall be Type 4 Cable; 12 AWG stranded THHN conductor; 600 volts; inserted into polyethylene tube, 0.25-inch maximum diameter; and IMSA Specification No. 51-5 certified.

B. Sealant for Vehicle Detector Loop

Sealant shall be epoxy sealant, hot applied rubberized sealant, or high performance detector loop sealant. Certificate of compliance and certified test results shall be submitted for sealant.

1. Epoxy Sealant. Epoxy sealant shall be high-viscosity, liquid epoxy formulated primarily for use in sealing inductive wire loops and leads embedded in HMA and portland cement concrete for traffic signal controls and vehicle counters. Epoxy sealant shall cure rapidly. Epoxy sealant shall be placed on grades up to 15 percent without excessive flow of material.

(A) Composition.

TABLE 62-1 - EPOXY SEALANT COMPONENTS	
Component A	Parts by Weight
Epoxy Resin ¹	85.00
Orthocresol Glycidyl Ether ²	15.00
Titanium Dioxide (ASTM D 476 Type III or IV)	2.00
Colloidal Silica ³	1.50
Glycerine (ASTM D 1257)	0.50
Silicone Anti-Foam, Type Q	0.01
Component B	Parts by Weight
High Functionality Polymercaptan Hardener ⁴	40.00
N-Aminoethyl Piperazine ⁵	10.00
2, 4, 6-Tri (Dimethyl-aminomethyl) Phenol ⁶	4.00
Polysulfide Polymer ⁷	48.94
Colloidal Silica ³	1.00
Glycerine (ASTM D 1257) ⁸	0.50

TABLE 62-1 - EPOXY SEALANT COMPOSITION (CONTINUED)	
Carbon Black	0.10
Silicone Anti-Foam, Type Q	0.01
<p>¹ Di glycidyl ether of bisphenol A, viscosity, 100-160 poise at 25 degrees C; epoxide equivalent 180-200. Color, Gardner 1933, 3 max.</p> <p>² Viscosity at 25 degrees C., 5-10 Centipoise. Weight per gallon 9.00-9.10 pounds. Epoxide equivalent 180-200.</p> <p>³ SiO₂, (moisture-free basis), 99 percent minimum; refractive index, 1.46; surface area, 175-225 square meters per gram; particle size 0.015 microns; pH (4 percent aqueous dispersion), 3.5-4.2; pour density, 2.3 lbs./cu. ft. maximum; free moisture at 105 degrees C., 1 percent maximum.</p> <p>⁴ Liquid polymercaptan resin, viscosity 100-130 poise at 25 degrees C; specific gravity 1.14-1.16; mercaptan value, 3.6 meg/gram. Color, Gardner 1933, 1.</p> <p>⁵ Color (APHA) 50 maximum, amine value 1250-1350 based on titration that reacts with the 3 nitrogens in the molecule; appearance clean and substantially free of suspended matter.</p> <p>⁶ Formula weight 265; specific gravity at 25 degrees C; distillation range 96 percent at 130 degrees C to 160 degrees C (0.5-1.5 mm.); flash point, Tag Open Cup, 300 degrees F minimum; water content 0.06 percent maximum.</p> <p>⁷ Specific gravity, 1.24-1.30 at 20 degrees/20 degrees C; viscosity, 700-1200 centipoises, Brookfield at 25 degrees C; pH water extract, 6.0-8.0; moisture content, 0.1 percent maximum; pour point, -15 degrees F; average molecular weight, 1000; flash point, degrees F, Cleveland Open Cup, 390 minimum; sulfur content, percent, 36-40; color, Hellige, 9-12. The product shall be difunctional mercaptan made from 8 mole percent of bis (2-chloroethyl) phenol and 2 mole percent of trichloropropane.</p> <p>⁸ Surface area, square meters/gram, 80-150; particle diameter millicrons, 18-30; pH, 7.0-8.5; fixed carbon (moisture free), percent, 96-98; volatile matter, 1-4; oil absorption, stiff past endpoint, cc/gram, 0.75-0.90.</p>	

(B) Characteristics of Components.

TABLE 62-2 - EPOXY SEALANT COMPONENT CHARACTERISTICS		
Characteristics	Component A	Component B
Viscosity, Poise, Brookfield	100 - 250	100 - 250
Shear Ratio (minimum)	2.0	1.8

(C) Characteristics of Combined Components.

TABLE 62-3 - EPOXY SEALANT COMBINED COMPONENT CHARACTERISTICS	
Gel Time, minutes (minimum)	13 to 18
On 1/8-inch cast sheet, cured 18 hours at 77 degrees F ±5 hours at 158 degrees F.	
Tensile Strength, psi (minimum)	400
Elongation, percent (minimum)	90
Shore D Hardness (minimum)	45
Color of Mixed Components	Color No. 26081 to Color No. 26173 of Federal Standard No. 595B

(D) Directions for Use. Mixing ratio by volume shall be one part of Component "A" to one part of Component "B". Only the amount that can be used within 10 minutes shall be mixed from the time mixing operation starts.

2. Hot Applied Rubberized Sealant. Hot applied rubberized sealant shall be flexible and suitable to seal inductive wire loops embedded in HMA and portland cement concrete pavements for traffic signal work and vehicle counters. Sealant shall be non-tracking under traffic; and at application temperatures, sealant shall be a thin, free flowing fluid that penetrates saw cuts and self-levels to permit uniform applications. Sealant shall be melted and applied to pavements using pressurized application unit. Sealant shall be relatively stiff but remain flexible at low pavement surface temperatures. Test results shall conform to the following:

TABLE 62-4 - HOT APPLIED RUBBERIZED SEALANT	
TESTS	SPECIFICATIONS
Penetration, 77 degrees F (maximum)	25 to 35
Flow, 140 degrees F, mm (maximum)	0 to 5
Resilience, 77 degrees F, percent (minimum)	40
Softening Point, degrees F (minimum)	180
Ductility, 77 degrees F, cm, (minimum)	30
Mandrel Bend, 0 degrees F, 180 degrees 5s, 1/2-Inch Diameter	-
Recommended Pour Temperature, degrees F	380
Safe Heating Temperature, degrees F	410
Viscosity, 375 degrees F, poise	30
Unit Weight, pounds/gallon	10.0
Coverage, 1/2-Inch x 1/2-Inch Crack, pounds per 100 foot	13.0

3. High Performance Detector Loop Sealant. Sealant shall provide environmental protection for loop vehicle detection system wires. Sealant material shall have sufficient compressive yield strength to withstand normal vehicular traffic and shall have sufficient flexibility to withstand normal movement in asphalt and concrete road pavements. Sealant material shall protect loop wire from moisture, penetration, fracture, and shear forces.

(A) General. Sealant shall have the following characteristics:

(1) One-part elastomeric compound requiring no mixing, measuring, or application of heat prior to or during its installation.

(2) Cure only in presence of moisture when within its stated shelf life and when contained in original undamaged packaging. Rate of cure depends upon temperature and relative humidity at time of installation. Cool, dry weather will slow curing; warm, humid weather will accelerate curing.

(3) Flow characteristics that ensure complete encapsulation of wires.

(4) Viscosity such that sealant remains in detector sawcut in sloped roadbed areas during or after application.

(5) Enables vehicular traffic to pass over properly filled 1/4-inch- to 3/8-inch-wide sawcut immediately after installation. Sealant shall not pull out of sawcut during curing.

(6) Exhibits minimal shrinkage during curing.

(7) Sealant shelf life, in undamaged containers when stored below 80 degrees F, shall be as follows:

(a) Liter ply packs: Nine months after receipt.

(b) Five gallon pails (containing 4.5 U.S. gallons): 12 months after receipt.

(c) Gallon drums (containing 50 U.S. gallons): 12 months after receipt.

(8) Permits cleanup with cleaner that shall not threaten or cause harm to workers or environment.

(B) Retention Test. Percent by weight retention test used to measure non-flow properties of one-component sealant shall conform to the following.

- (1) Equipment and Materials:
 - (a) Balance.
 - (b) Tongue Depressor.
 - (c) Two ounce ointment cans or approved substitute.
 - (d) One-inch wide masking tape.
 - (e) Percent retention (aluminum) test fixture.
 - (f) Becton Dickinson (B-D) 10 c.c. syringe.
 - (g) Sample of sealant to be tested.
- (2) Procedure:
 - (a) Put strip of masking tape on both ends of test fixture completely covering slot.
 - (b) Weigh fixture with masking tape.
 - (c) Stir sample for one minute prior to testing. Test sample of sealant at 75 to 79 degrees F.
 - (d) Fill syringe with sample and inject sample into test fixture slot.
 - (e) Scrape off excess sealant from top of test fixture with tongue depressor. Sealant shall fill test fixture slot and shall be level with top of test fixture.
 - (f) Re-weigh test fixture with sample material filling slot.
 - (g) Put fixture on top of two-ounce ointment cans and remove masking tape from sides.
 - (h) Wipe off and discard sealant on pieces of masking tape. Do not discard pieces of masking tape.

C. Approach-Only Microwave Vehicle Detector

Approach-only microwave vehicle detector shall be capable of detecting motion of every vehicle type, including mopeds, moving in only one direction utilizing a very low power microwave beam.

The detector's range shall be from 3 feet to 100 feet or greater. Base the cone of the detector on a 16 degrees field of view with a maximum width of 18-1/2 feet at 60 feet. The

detector shall have two field adjustment controls, those being range control and time delay extension.

The extension timer shall be capable of extending the detector output from at least 0.5 to 7.5 seconds. Begin the extension with the termination of the detected vehicle output and continue for the duration of the selected extension time interval.

The microwave unit shall have a Federal Communication Commission (FCC) certification. The detector shall work at the frequency of 10.525 Ghz as allowed under the FCC Rules, Part 15. The detector shall be self-contained except for the power source that shall operate at both 10VAC to 24VAC and 12VDC.

The unit shall have an electro-mechanical two AMP SPDT Relay to send a signal to the controller. The unit shall employ a circuit for power failure to put relay to a close position (recall) during a power failure.

The detector shall have a monitoring circuit for the transceiver (Gunn diodes) that will failsafe the relay to a closed position (recall). Except for the range adjustment, tuning will be automatic. The Officer-in-Charge will allow a five minute warm up period for diodes. There shall be no tuning controls of any kind which require an operator.

The detector shall work while installed on the side of a pole, on top of a pole, or overhead at the height of between 12 and 18 feet above the pavement. Encase each detector in a finished fabricated aluminum case with no larger than a 4-inch square, high impact plastic opening in front of the antenna.

Each detector case shall be water resistant without the use of silicone gels or any other materials that will deteriorate with ultra-violet rays. Size of the detector shall be no greater than:

Height:	4.5 inches
Width:	4.5 inches
Depth:	7.5 inches

Mounting bracket supplied shall be for side, top, or overhead mounting. The detector shall be capable of continuous operation over a temperature range of -35 degrees F. to 165 degrees F.

The manufacturer shall test all microwave units to meet FCC specifications. The manufacturer shall supply a medical statement as to the safety of the unit to the general public, specifically to persons with pace-makers.

D. Video Detector System

The video detector system shall be capable of monitoring all licensed vehicles on the roadway, and providing video detection for areas whenever the existing loop detectors become inoperable due to construction.

1. Video Image Processor (VIP). The processor boards shall fit directly into the 170 rack without an interface box. The processor unit shall monitor two cameras. Video inputs to the unit shall enter through the input file detector rack edge connector. The VIP Unit shall be located on one module.

The VIP unit shall be capable of software download via serial port from an IBM compatible personal computer with a current version of the Microsoft Windows NT operating system.

The VIP shall meet the following requirements:

- a. 2 camera inputs.
- b. 24 digital outputs, 20 digital inputs.
- c. Fits direct into a 170 rack without additional adapter.
- d. 24 direction sensible detector probes zones per camera, including up to 6 counting probes per camera, standard or turning movement.
- e. Stores counts data, retrievable via RS232 port on the front.
- f. Detection results of all detection probes can be combined with the inputs to the related outputs (AND, OR, NOT).
- g. 4 configurations stored on board.
- h. Modifications with no interruption on all probes.
- i. Setup via keypad and monitor or laptop computer.
- j. Software update via RS232.

The video detection (Main) board shall have the following on the front:

- k. One Male DB9 for connection with the first expansion board.
- l. One Female DB9 for setup with keypad (Service port).

- m. LED's for outputs on board, power, Video Cam 1 and Video Cam 2, Communication with expansions.
- n. One video output for setup via keypad.
- o. A switch to select which image to be on the service output.

The input/output expansion board shall have the following on the front:

- p. LED's for power, Expansion communication, In/output activity.
- q. 2 DB9 ports for communication with Master or other expansion boards.
- r. A 8-dipswitch device to select the following:

Input or Output
Range: 1-12 or 13-24
Input or Output Number

- 2. Video Camera. The unit shall be a high resolution, 1/3 image format CCD camera, designed for professional video surveillance systems. Incorporating the latest in CCD technology, the video camera shall provide detailed video without lag, image retention, or geometric distortion.

Temperature range	-10 to +50 degrees Celsius
Humidity	85% Relative Humidity
Dimensions	47 mm (W) x 47 mm (H) x 83 mm (D)
Weight	200 Grams
Camera Mounting Slots	1/4-20, Top and Bottom
Connectors	BNC for Video Out
Lens Mount	CS
Finish	Off-white
Rated Input Voltage	24 Volts AC, 60 Hertz or 12 Volts DC
Imager	Interline transfer CCD 1/3" Format
Sync System	Phase Adjustable Line Lock/Internal Selectable

Active Picture Elements	768 H x 494 V
Horizontal Resolution	580 TVL
Signal to noise ratio	> 48 dB
AGC	18 dB
Video out	1.0 volts peak-to-peak +/- 0.1 volt @ 75 Ohms

3. Video Camera Housing. The environmental housing shall be an aluminum enclosure designed for outdoor CCD camera installations. The camera housing shall be non-pressurized.

Temperature range	-40 to +50 degrees Celsius
Dimensions	449 mm (W) x 96 mm (H) x 111 mm (D)
Weight	1350 g
Housing Mounting	Three 1/4-20 tapped holes
Camera mounting	Removable cradle assembly
Cable entry	Three liquid-tight fittings that will accept cable diameters of: One fitting - 2 to 7 mm and Two fittings - 3 to 10 mm
Finish	Off-white semi-gloss polyurethane
Construction	Extruded aluminum housing, aluminum rear- end cap, aluminum front cap with glass faceplate, and aluminum cradle. A sunshield shall be included.
Window	3 mm thick glass that includes a thermostatically controlled window heater/ defogger strip

Rated input voltage	115 Volts AC 60 Hertz
Voltage range	108 Volts AC to 132 Volts AC
Output voltage	24 Volts AC 60 Hertz
Nominal power	30 Watts
a.	Enclosure Protection. Waterproof and dust-tight in a NEMA-4, IP65, enclosure Type 3.
b.	Camera Lens - Motorized Zoom. The camera lens shall be a motorized zoom-auto iris 6.3 mm to 38 mm.
Image format	1/3 inch
Focal length	6.5 - 39 mm
Iris range	f/1.0 - f/360
Focusing range	Inf. To 1.0 m
Back focus length	11.76 mm
Weight	500 g
Lens mount	CS
Iris control	Auto (DC+8~16V: Fixed Voltage, Max. 60 mA)
Focus control	Motorized (DC+4V~12V, Max. 40 mA)
Zoom control	Motorized (DC+4V~12V, Max. 40 mA)
Dimensions	60 mm (W) x 70 mm (H) x 98.9 mm (D)
c.	Surge Suppressor. A video interface panel shall be available for installation inside the traffic signal controller cabinet. The panel shall provide coaxial cable connection points and an EDCO CX06-BNCY or approved substitute transient suppressor for each image sensor.
Peak Surge Current (8x20 us)	5KA
Technology	Hybrid, Solid State
Attenuation	0.1db @ 10 MHz
Response Time	<1 nanosecond

Protection	Line to Ground
Shield to Ground	(isolated shield modules)
Clamp Voltage	6 Volts
Connectors	BNC
Impedance	75 Ohms
Temperature	-40 to +85 degrees Celsius
Humidity	0-95% non-condensing
Dimensions	4.5" x 1.5" x 1.25"
UL Listed	UL 497B

- d. Power/Video Cable. Power/video cable from the signal controller cabinet to the video camera shall be a continuous King Wire #341667-00, 5C #18 AWG stranded 7/26, plus RG-59/U Type Coax 20 AWG, or ACHD approved substitute color coded red, black, blue, white and brown.

SP 62.3 CONSTRUCTION DETAILS

- A. Vehicle detector loops shall be installed in accordance with the details shown on the plans.
- B. The locations of vehicle detector loops as shown on the project plans are approximate. The exact number, locations, and layout shall be determined in the field by the Traffic Control Branch of the Department of Transportation Services.
- C. After reconstruction of pavement area, with a power saw, cut a slot deep enough in the road surface for the number of wires to be installed.
 - 1. Do not cut the slot unnecessarily deep. Keep the loop as close to the surface as possible, away from metal reinforcing.
 - 2. The width of the slot is approximately 3/8 inch.
 - 3. Saw cuts shall be blown clean and dry with compressed air to remove all excess moisture and debris.
 - 4. Knock off all sharp edges or corners of the saw slot that might damage insulation. For repairing damaged saw cuts, all loose spalled material shall be cleaned away from saw cut, chipping back to sound asphalt concrete or portland cement concrete and all loose material cleaned from loop wires. Sealant shall be

used for repair work on existing spalls, cracks, and other deformations in and around saw cuts, housing inductive loops, and leads.

- D. Using Type 4 cable, construct the loop.
 - 1. Use three (3) turns per loop, unless otherwise directed by the Officer-in-Charge.
 - 2. Tamp the wire all the way down in the slot using a blunt wooden instrument. (Do not use a screwdriver or sharp object that might skin the insulation.)
 - 3. The wire shall not be pulled tight in the saw slot as a hot joint sealant may cause expansion.
 - 4. After the detector loop is property installed, place sealant in the saw cut slot above the detector loop wire.

- E. For vehicle detector loops constructed in portland cement concrete pavement (PCCP), adjust loop layout as needed so each individual detector loop is located entirely within a single PCCP panel. Maintain 18-inch minimum clearance from any PCCP joint to the detector loop.

SP 62.4 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure vehicle detector loops for payment. The Officer-in-Charge will not pay for vehicle detector loops separately and will consider the cost for vehicle detector loops as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents.

END OF SECTION SP 62

The following Section shall be made part of the Standard Specifications:

"SECTION SP 64 - DIRECTIONAL, REGULATORY AND WARNING SIGNS

The following special provisions for the traffic control system shall supplement and modify the Standard Specifications for Public Works Construction, Department of Public Works, City and County of Honolulu, September 1986, and shall include the "Manual on Uniform Traffic Control Devices for Streets and Highways", 2009 or current Edition (MUTCD).

Whenever reference is made to any of the standards and codes, the reference shall be construed to mean the code, order, or standard that is in effect on the day the Notice to Contractors for the work is dated.

SP 64.1 SCOPE OF WORK

This work shall consist of furnishing and installing signs, sign panels and sign structures, removing and storing signs and performing all work according to the requirements of the contract. The Contractor shall locate and protect existing utilities per SP 150.3 CONTRACTOR'S DUTY TO LOCATE AND PROTECT UTILITY.

SP 64.2 MATERIALS

Concrete for sign structures shall be of class specified on the plans and shall conform to the requirements of Section 39 (PORTLAND CEMENT CONCRETE) of the Standard Specifications. Other materials shall meet the requirements specified in the following sections:

A. Aluminum Traffic Sign Blanks Description. This work shall consist of furnishing traffic sign blanks of the shape and dimensions shown on the plans.

Materials. The aluminum sheets and plates to be used for the fabrication of sign blanks, specified herein, shall conform to ASTM Designations: B209-68, Standard Specification for aluminum-alloy sheet and plate. The materials used shall be such as to produce sign blanks that conform to the following requirements.

(1) Alloy. 6061-T6 flat sheet.

(2) Dimensions:

(a) Holes. Two (2) 3/8-inch diameter holes.

(b) Thickness, Width, Length, Corner Radii and Locations of Holes. As per the "Manual on Uniform Traffic Control Devices for Streets and Highways", 1978 Edition.

(3) Finish. Alodine 1200 conversion coated finish after all fabrication performed to ensure coating of all exposed edges and hole sides except 36" x 36" pentagon blanks which shall be painted with two (2) coats of yellow baked enamel one (1) side. Said pentagon blanks shall be alodine coated

prior to the application of the yellow enamel. The yellow paint shall match Scotchlite Brand Reflective Sheeting No. 2271 Yellow, or approved substitute.

(4) General Quality. All sign blanks shall be flat, free from burrs and rough edges, degreased, cleaned and ready for application for paint and reflective sheeting material over the alodine 1200.

B. Reflective Sheeting Material, Enclosed Lens for Traffic Control signs.

(1) Description.

(a) The reflective sheeting shall consist of spherical lens elements embedded with a transparent plastic having a smooth, flat outer surface. The sheeting shall be weather resistant and shall have a protected precoated adhesive backing.

(b) The reflective sheeting may be applied either mechanically or manually to recommended surfaces such as galvanized steel and/or aluminum. The reflective sheeting adhesive for mechanical vacuum-heat application shall be heat activated and the sheeting shall be pre-perforated. The reflective sheeting adhesive for hand mounting application shall be pressure sensitive and sheeting will not be pre-perforated.

(2) Performance Characteristics.

(a) Film.

1. General. The reflective sheeting shall have sufficient strength and flexibility so that it can be handled, processed and applied according to the recommendations of the sheeting manufacturer without appreciable stretching, tearing, or other damage. It shall permit application over and conformance to moderate, shallow embossing characteristic of certain sign borders and symbols. Following liner removal, the reflective sheeting shall not shrink more than 1/32" in 10 minutes nor more than 1/8" in 24 hours in any dimension per 9" square at 72°F and 50 percent Relative Humidity (RH).

2. Surface. The sheeting surface shall be smooth and flat, facilitate cleaning and wet performance, and exhibit 85° gloss meter rating of not less than 40 (ASTM-D-523-62T). The sheeting surface shall be readily processed and compatible with recommended transparent and opaque process colors and show no loss of the color coat with normal handling, cutting, and application. The sheeting shall permit cutting and color processing at temperatures of 60°-100°F and relative humidities of 20-80 percent. The sheeting shall be heat resistant and permit force curing without staining of unapplied sheeting at temperatures of up to 150°F and up to 200°F in applied sheeting. The sheeting surface shall be solvent resistant such that it may be cleaned with gasoline, VM&P Naphtha, mineral spirits, turpentine, methanol and xylol.

(b) Adhesive. The reflective sheeting shall include a precoated pressure sensitive or tack free heat activated adhesive, either of which may be applied without necessity of additional adhesive coats on the reflective sheeting or application surface. The protective liner attached to

the adhesive shall be removed by peeling without soaking in water or other solvents and shall be easily removed after accelerated storage for 4 hours at 150°F under weight of 2.5 pounds per square inch. The adhesive shall form a durable bond to smooth, corrosion and weather resistant surfaces. The reflective sheeting, applied to cleaned and etched aluminum test panels shall adhere securely, 48 hours after application at temperatures of -30° to 200°F. The adhesive bond shall be sufficient to render the applied sheeting vandal resistant and prevent its shocking off when jabbed with a spatula at -10°F. The sheeting shall resist peeling from the application surface when a 5 lb./in. width force is applied as outlined in ASTM-D-903-49.

(c) Color. The diffuse day color of the reflective sheeting shall conform to the requirements of Table 1 and shall be determined in accordance with ASTM E-97-55 "STANDARD METHOD OF TEST FOR 45-DEG DIRECTIONAL REFLECTANCE OR OPAQUE SPECIMENS BY FILTER PHOTOMETRY". (Geometric characteristics must be confined to illumination incident within 10 degrees of, and centered about, a direction of 45 degrees from the perpendicular to the test surface. Conditions of illumination observation must not be interchanged.) The standards to be used for reference shall be the MUNSELL PAPERS designated in Table 1. Papers must be recently calibrated on a spectrophotometer. The test instrument shall be one of the following:

1. GARDENER Multipurpose Reflectometer.
2. GARDENER Model AC-2a Color Difference Meter.
3. MEECO Model V Colormaster.
4. HUNTERLAB D25 Color Difference Meter.
5. Approved substitute.

TABLE 1

CIE CHROMATICITY COORDINATE LIMITS

	<u>x</u>	<u>y</u>	<u>x</u>	<u>y</u>	<u>x</u>	<u>y</u>	<u>x</u>	<u>y</u>
White	.320	.310	.360	.360	.338	.377	.300	.328
Yellow	.482	.450	.532	.465	.505	.494	.475	.485
Red	.602	.317	.664	.336	.644	.356	.575	.356
Green	.140	.354	.179	.372	.147	.435	.120	.420
Blue	.147	.075	.176	.091	.176	.151	.106	.113
Orange	.535	.375	.535	.399	.582	.417	.607	.393

	(Y)		Ref. Std. MUNSELL PAPER
	Reflectance Min.	Limit Max.	
White	34.0		5.1GY6.91/1.2
Yellow	29.0	40.0	1.25Y6/12
Red	8.0	11.0	8.2R3.78/14.0
Green	4.0	7.0	.65/BG2.84/8.45
Blue	1.0	2.4	5.8PB1.32/6.8
Orange	19.77	30.05	2.5YR5.5/14.0

(d) Photometric.

1. Background. The reflective sheeting shall have the following minimum brightness values at .2° and .5° and 1.5° divergence expressed as average candlepower per footcandle per square foot (candle as per lux per square meter) of material. Measurements shall be conducted in accordance with standard testing procedures for reflex-reflectors specified in Federal Specifications L-S-300A, "Sheeting and Tape, Reflective, Non-exposed Lens Adhesive Backing" or as amended.

Div. Ang.	.2°	White		.2°	Yellow	
		.5°	1.5°		.5°	1.5°
Inc. Ang.						
-4°	70	30	4	50.0	25.0	5.0
40°	14.5	8.5	1.5	11.5	7.0	1.5

Div. Ang.	.2°	Red			Blue			Green		
		.5°	1.5°	.2°	.5°	1.5°	.2°	.5°	1.5°	
Inc. Ang.										
-4°	14.5	7.5	1.0	4	2	0.6	9	4.5	1.0	
40°	3.0	1.5	0.3	0.9	0.4	0.08	1.8	1.5	0.2	

Div. Ang.	.2°	Orange	
		.5°	1.5°
Inc. Ang.			
-4°	25.0	13.5	1.5
40°	1.0	0.8	0.1

2. Applied or Demountable Copy. Reflective sheeting for all sign copy including letters, numerals, symbols, borders, and route markers shall be white which has been carefully selected by the manufacturer for uniformity of day and night appearance. No further matching shall be necessary.

3. Rainfall Performance. The brightness of the reflective sheeting, totally wet by rain, shall not be less than 90 percent of the above values. Wet performance measurements shall be conducted in conformance with standard rainfall test specified in Federal Specifications L-S-300A.

(e) Durability.

1. Processed and applied to recommended sign base materials in accordance with recommended procedures, the reflective sheeting shall be weather resistant and following cleaning, shall show no appreciable discoloration, cracking, crazing, blistering, or dimensional change and not less than 80 percent of the specified wet or dry minimum brightness values. Exposed under the same conditions, the reflective sheeting shall not support fungus growth and accumulate dirt to the extent that the reflective brightness before cleaning is less than 75 percent of the reflective brightness after cleaning when measured at 0.2° divergence and -4° incidence angles.

2. The sheeting surface may be readily refurbished by cleaning and clear overcoating in accordance with the manufacturer's recommendations.

C. Steel Tube for Sign Post. This work shall consist of furnishing steel tubes for mounting of traffic signs.

Materials: The steel tubes for traffic signs shall conform to the following requirements:

(1) The steel tube shall conform to the standard specification for Cold-Rolled Carbon Steel sheets, commercial quality ASTM Designation A 653.

(2) The cross section of the tube shall be a square tube formed of 12 gauge (.105" U.S.S. Gauge) steel, carefully rolled to size and welded in the corner.

(3) All sides shall have evenly spaced predrilled 7/16" diameter holes one inch on center four sides along length of the tube.

(4) Tube shall be 2" x 2" square.

(5) The furnished members shall be straight and shall have smooth uniform finish. It shall be possible to telescope consecutive size of tubes freely with a minimum amount of play. All holes and cut off ends shall be free from burrs.

(6) The length of the tube shall be 12 feet with a length tolerance of ±1/4".

(7) All tubes shall be weather protected by galvanizing. Tubes shall be formed from cold-rolled steel strip which has been zinc coated, commercial quality (1.25 oz.) conforming to ASTM Specification A 525.

D. Fasteners for Signs. Post clips for extruded aluminum sign panels shall be of aluminum conforming to the requirements of ASTM B 108, alloy 356-T6. Post clip bolt assemblies shall have bolts of aluminum conforming to the requirements of ASTM B 211, alloy 2024-T4, lock nuts of aluminum conforming to the requirements of ASTM B 211, alloy 2017-T4, (0.0002-inch anodic coating thickness with dichromate or boiling water seal) and flat washers of aluminum alloy.

SP 64.3 CONSTRUCTION METHOD: MOUNTING SIGNS, REMOVAL OF EXISTING SIGNS AND APPLICATION OF REFLECTIVE SHEETING

Permanent signs shall be erected on post or as shown on the plans or as directed. The post shall be set plumb at the required locations. All work shall be executed in the best workmanlike manner.

Removal of Existing Signs. Existing regulatory and warning signs and markers not to be incorporated in the completed project shall be removed and stored as directed. Remove sign post and base where indicated on the drawing, backfill, and restore areas.

The reflective sheeting may be applied either mechanically or manually to recommended surfaces such as galvanized steel and/or aluminum. The reflective sheeting adhesive for mechanical vacuum-heat application shall be heat activated and the sheeting shall be pre-perforated. The reflective sheeting adhesive for hand mounting application shall be pressure sensitive and sheeting will not be pre-perforated.

SP 64.4 MEASUREMENT AND PAYMENT

The number of sign assemblies will be measured as complete units of the type and design specified in the Offer.

The Officer-in-Charge will measure sign assemblies per each in accordance with the contract documents. The Officer-in-Charge will pay for the accepted sign assemblies at the contract price per each. Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents.

Removal and disposal of existing signs and/or posts will not be paid for directly but shall be considered as included in the prices bid for sign assemblies."

END OF SECTION SP 64

The following Section shall be made part of the Standard Specifications:

"SECTION SP 100 - GEOGRID

SP 100.1 DESCRIPTION

This section describes furnishing and placing triaxial geogrid as a base reinforcement on a woven geotextile. A triaxial geogrid is a polymeric grid formed by a regular network of integrally connected, oriented in three substantially equilateral directions tensile elements.

SP 100.2 MATERIALS

Tensor TriAx TX7 Geogrid or approved substitute.

Geogrid shall conform to the following:

Index Properties	Longitudinal	Diagonal	Transverse	General
Rib pitch ⁽²⁾ , mm (in)	40 (1.60)	40 (1.60)	-	
Mid-rib depth ⁽²⁾ , mm (in)	-	2.0 (0.08)	1.6 (0.06)	
Mid-rib width ⁽²⁾ , mm (in)	-	1.0 (0.04)	1.3 (0.05)	
Rib shape				Rectangular
Aperture shape				Triangular

Notes:

1. Nominal dimensions.

SP 100.3 SUBMITTALS

- A. Submit geogrid product data sheet and certification from the manufacturer that the geogrid product supplied meets the requirements specified in this section at least 10 work days before the start of construction.
- B. Submit manufacturer's installation instructions at least 10 work days before the start of construction.
- C. Submit geogrid product sample approximately 4 inches by 7 inches or larger at least 10 work days before the start of construction.

SP 100.4 CONSTRUCTION

- A. The Contractor shall examine the geogrid upon delivery to verify that the proper material has been delivered. The geogrid shall be inspected by the Contractor to be free of flaws or damage occurring during manufacturing, shipping, or handling.
- B. Subgrade Preparation. Prepare subgrade in accordance with the section on Woven Geotextile. The subgrade after placement of woven geotextile shall be level to ensure the geogrid is laid flat and level.
- C. Install geogrid in accordance with the manufacturer's recommendations. Unroll geogrid smoothly on prepared surface in

longitudinal direction. Do not drag geogrid. Remove wrinkles and folds by stretching and anchoring. Overlap geogrid a minimum of 12 inches at longitudinal and transverse joints. Overlapping along joints between traffic lanes is not required.

- D. Geogrid Placement. Align geogrid and pull it taut to remove wrinkles. Anchor geogrid in place with washer and pin or large, heavy-gauge staples in accordance with the manufacturer's recommendation. On curves, fold or cut geogrid to conform to curve, with appropriate overlap or seam. Do not operate tracked or rubber-tired equipment directly on the geogrid.
- E. Untreated aggregate base course shall be placed, spread, and compacted in a manner to avoid development of wrinkles in the geogrid and/or movement of the geogrid. A minimum loose base course thickness of 6 inches is required on the geogrid prior to operation of any equipment over the geogrid. Turning of vehicles shall be kept to a minimum to prevent displacing the base course and damaging the geogrid. Sudden braking and sharp turn movements shall be avoided. Do not end dump base course directly onto the geogrid. Spread base course by mechanical means to allow base course to cascade onto the geogrid.
- F. Geogrid Exposure Following Placement. Limit time exposure of geogrid to natural elements, between placement and cover, to a maximum of one day. Construction equipment and vehicular traffic shall not be allowed directly on geogrid.
- G. Damage Repair. Geogrid shall be considered damaged if it is torn or punctured, if overlaps are disturbed, or if there is evidence of subgrade pumping, intrusion, or roadbed distortion. Repair damaged geogrid by removing material around damaged or displaced area and by replacing damaged geogrid with a patch of same type of geogrid. Overlap existing geogrid a minimum of 3 feet from edge of damaged area. Replace and compact removed untreated aggregate base course material. Repair all damage and replace any roll of geogrid damaged before, during, and after installation at no additional cost to the HHFDC.

SP 100.5 MEASUREMENT AND PAYMENT

The Officer-in-Charge will measure the geogrid material per roll for payment as an Additional Work Item "Additional Geogrid (Material Only)" in accordance with the contract documents. The Officer-in-Charge will pay for the accepted geogrid material at the contract price per roll as an Additional Work Item "Additional Geogrid (Material Only)". Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents.

The Officer-in-Charge will measure the labor and placement of the geogrid material per square yard for payment as an Additional Work Item "Additional Geogrid Placement (Installation)" in accordance with the contract documents. The Officer-in-Charge will pay for the accepted labor and placement of the geogrid at the contract price per square yard as an Additional Work Item "Additional Geogrid Placement (Installation)". Payment shall be full compensation for furnishing the necessary material, equipment, and labor to

complete the work in place prescribed in this section and the contract documents."

END OF SECTION SP 100

The following Section shall be made part of the Standard Specifications:

"SECTION SP 101 - WOVEN GEOTEXTILE

SP 101.1 DESCRIPTION

This section describes furnishing and placing woven geotextile as a base reinforcement on a prepared subgrade. Provide a pervious sheet of polypropylene, ultraviolet resistant filaments woven into a nonraveling fabric with uniform thickness and strength. The woven fabric shall have the following manufacturer certified minimum average roll properties as determined by ASTM D4759.

SP 101.2 MATERIALS

Mirafi HP370 Woven Geotextile or approved substitute.

Woven Geotextile shall conform to the following:

Mechanical Properties	<u>Woven Geotextile</u>	
	Min.	Average Roll Value
	MD	CD
	(machine direction)	(cross machine direction)
A. Grab tensile strength (ASTM D4632)	450 lbs	320 lbs
B. Grab tensile elongation (ASTM D4632)	12 percent	10 percent
C. Trapezoidal tear strength (ASTM D4533)	150 lbs	160 lbs
D. CBR Puncture strength (ASTM D6241)	1300 lbs	
E. Flow rate (ASTM D4491)	40 gal/min/ft ²	
F. Permittivity (ASTM D4491)	0.9 sec ⁻¹	
G. Apparent Opening Size (ASTM D4751)	40 U.S. Sieve (mm)	
H. Pore size O ₉₅ ¹ (ASTM D6767)	292 microns	
I. Pore size O ₅₀ ¹ (ASTM D6767)	158 microns	
J. Ultraviolet Degradation (ASTM D4355)	80 percent strength retained at 500 hours	

SP 101.3 SUBMITTALS

- A. Submit woven geotextile product data sheet and certification from the manufacturer that the woven geotextile product supplied meets the requirements specified in this section at least 10 work days before the start of construction.
- B. Submit manufacturer's installation instructions at least 10 work days before the start of construction.
- C. Submit woven geotextile product sample approximately 4 inches by 7 inches or larger at least 10 days prior to the start of construction.

SP 101.4 CONSTRUCTION

- A. Prior to placement of the woven geotextile, the subgrade shall be cleaned of all loose or soft materials.

Perform additional excavation below the subgrade level to the depth as indicated and in areas as indicated. Clean the excavated subgrade of all loose or soft material. Replace the excavated soil material with compacted aggregate base course after the placement of the woven geotextile and geogrid. The Contractor shall take steps to minimize disturbing the clayey subgrade. Wheel traffic directly on the subgrade is prohibited. The subgrade shall be protected from exposure to weather elements during grading. Exercise care to minimize drying and cracking of the clayey subgrade soils prior to the placement of the woven geotextile, geogrid and base course. If shrinkage cracks appear on the subgrade, the subgrade shall be scarified; thoroughly moisture conditioned to between 3 and 6 percent wet of the optimum moisture content, and compacted to close all cracks.

- B. Line the prepared subgrade with woven geotextile. Overlap geotextile a minimum of 12 inches at longitudinal and transverse joints. Overlapping along joints between traffic lanes is not required. After placement of woven geotextile, place geogrid directly above the geotextile in accordance with the Geogrid section.

SP 101.5 MEASUREMENT AND PAYMENT

The Officer-in-Charge will measure the woven geotextile material per roll for payment as an Additional Work Item "Additional Woven Geotextile (Material Only)" in accordance with the contract documents. The Officer-in-Charge will pay for the accepted woven geotextile material at the contract price per roll as an Additional Work Item "Additional Woven Geotextile (Material Only)". Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents.

The Officer-in-Charge will measure the labor and placement of the woven geotextile material per square yard for payment as an Additional Work Item "Additional Woven Geotextile Placement (Installation)" in accordance with the contract documents. The Officer-in-Charge will pay for the accepted labor and placement of the woven geotextile at the contract price per square yard as an Additional Work Item "Additional Woven Geotextile Placement (Installation)". Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents."

END OF SECTION SP 101

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 104 - COLD PLANING OF EXISTING PAVEMENT

SP 104.1 DESCRIPTION

This section describes removing the existing road pavement by a cold planing or scarifying process.

This work shall also eliminate or minimize any unevenness, i.e., lip, at the edge of the newly resurfaced roadway; and thus, providing a relatively smooth surface for pedestrian traffic.

All manholes and handholes, valve boxes, monument cases, and other pavement penetrations shall be referenced and temporarily adjusted to the Officer-in-Charge's satisfaction to the finished grade. Temporary transitions, where required, shall be constructed before opening the roadway to traffic.

SP 104.2 DETAILS

Cold Planing. The work covered by cold planing shall consist of furnishing all labor, equipment, tools, materials and supervision necessary to complete operations of planing existing asphalt concrete pavements, including removing and reusing, recycling, or disposing of all surplus materials in compliance with all Federal, State, County and OSHA requirements and regulations. Pavement striping and markings may contain lead.

The planing machine shall be self-propelled and be especially designed and built for grinding flexible and rigid pavements. It shall plane without tearing or gouging the underlying surface and blade material into a windrow. The machine shall consist of a 60" minimum width cutting drum with carbide tip teeth. Drum lacing patterns shall permit a grooved or smooth surface finish as selected by the Officer-in-Charge and the drum shall be totally enclosed in a shroud to prevent discharge of any loosened material into adjacent work areas. The machine shall be capable of operating at speeds from 5 to 50 feet per minute and designed so that the operator can observe the work without leaving their control area. A 0" to 3" deep cut to predetermined grade may be required on one pass. The machine shall be adjustable as to crown and depth by tilting the drum axis and a guidance system furnished to assist operator to control grade and match adjacent pavements or cuts. A dust suppression system with 1500 gallon minimum water storage tanks and two high pressure spray bars with spiral nozzles shall be standard equipment. The equipment shall be demonstrated to have been operated successfully on similar work completed prior to the award of this contract. The equipment shall meet the standards or be lower than the allowable limits set by the Air Quality Act of 1969 for noise and air pollution.

The Contractor shall furnish one or more planing machines operated by experienced workers. The surface tolerance produced so that a ten-foot straight edge laid laterally will indicate variances of less than 3/8" (except in crown area) and a ten-foot straight edge laid longitudinally will indicate variances of less than 3/16". Removal shall consist of (1) planing and cutting the pavement to form a keyway header cut or full width regrading, plus; (2) removing and disposing of the loosened material.

Construct transitions/tapers at drop-offs in accordance with Section SP 151.2.

If shrinkage cracks appear in the subgrade, the subgrade should be scarified and thoroughly moisture conditioned (between optimum moisture content and 3% wet of optimum moisture content) and recompacted.

If local wet area is encountered in silt or sandy subgrade due to seepage water, the subgrade should be scarified and thoroughly mixed with cement (one (1) bag of cement for 5'x10' area 6" deep) and recompacted.

If any soft areas that exhibit pumping or rutting are encountered, the base/subgrade shall be overexcavated and replaced with 8-inches aggregate base course (or as directed by the Officer-in-Charge), geogrid, and woven geotextile. Refer to the detail called "Soft Subgrade Replacement with Aggregate Base Course".

During construction, the Contractor shall not overstress the subgrade. Heavy trucks or equipment are not allowed to travel on the unprotected subgrade.

The Contractor shall assume that all existing pavement striping and markings may have been installed with lead containing paint. The Contractor may remove striping and markings with the operations of planing existing asphalt concrete pavement and reuse, recycle, or dispose of all surplus materials in accordance with all Federal, State, County, and OSHA requirements and regulations.

Should any soft areas be encountered, the Contractor shall plan their work accordingly in order to open the road up for traffic at the end of the work day. No additional compensation shall be considered for redoing any pavement areas in order to open up the road at the end of the day.

If gutters with asphalt concrete overlay are encountered, the asphalt concrete overlay shall be removed as directed by the Officer-in-Charge. No additional payment shall be made for this work.

SP 104.3 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure cold planing for payment. The Officer-in-Charge will not pay for cold planing separately and will consider the cost for cold planing as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 104

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 105 - DRIP PANS

SP 105.1 DESCRIPTION

The Contractor shall place drip pans or absorbent material under all paving equipment during all non-working hours.

The Contractor shall be fully responsible for all Contractor-related damages due to lack of placement of drip pan(s) or absorbent material under any paving equipment during non-working hours, which results in any type of petroleum or any other environmentally hazardous spill. The Contractor shall be fully responsible for all clean-up or billed for the actual cost of clean-up by the HHFDC. Any subsequent fines imposed upon the HHFDC by the Environmental Protection Agency (EPA) and/or State Department of Health shall be back charged to the Contractor.

SP 105.2 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure drip pans or absorbent material for payment. The Officer-in-Charge will not pay for drip pans or absorbent material separately and will consider the cost for drip pans or absorbent material as included in the contract prices for the various asphalt concrete contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 105

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 106 - AEROSOL SPRAY PAINT

SP 106.1 DESCRIPTION

The Contractor shall provide six (6) cases of survey marking paint (two high visibility yellow, one black, and three white) or as requested by the HHFDC's inspector for use on the project.

Each case shall contain twelve (12) 20-ounce spray cans.

SP 106.2 MATERIAL

High visibility yellow paint shall be "Aervoe Survey Marking Paint - SAI MP YELHIVIS 20 oz" or approved substitute.

Black paint shall be "Aervoe Survey Marking Paint - SAI MP BLACK 20 oz" or approved substitute.

White paint shall be "Aervoe Survey Marking Paint - SAI MP White 20 oz" or approved substitute.

Any paint unused after completion of the project shall become the property of the HHFDC.

SP 106.3 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure aerosol spray paint for payment. The Officer-in-Charge will not pay for aerosol spray paint separately and will consider the cost for aerosol spray paint as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 106

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 107 - ASPHALT REMOVAL IN GUTTERS

SP 107.1 GENERAL

This section is for the removal of overlaid asphalt concrete pavement on existing concrete gutters, and inform the Officer-in-Charge the conditions of the exposed gutters. The Officer-in-Charge will determine if any damaged gutters shall be reconstructed.

This work shall be performed at least three weeks prior to any curb and gutter reconstruction work.

SP 107.2 CONSTRUCTION REQUIREMENTS

The Contractor shall exercise precautions not to damage the existing gutters. The Contractor shall replace any damaged gutters due to their negligence at no additional cost to the HHFDC.

Following the asphalt removal, the Contractor shall provide any transitions necessary to adjacent pavement, driveway or gutters in accordance with Section SP 151.2.

SP 107.3 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure the asphalt removal in gutters for payment separately. The Officer-in-Charge will not pay for asphalt removal in gutters separately and will consider the cost for asphalt removal in gutters as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents.

If deemed necessary, the curb and gutter, rolled curb and gutter, and gutter reconstructions will be paid at the contract price as specified in the bid Offer."

END OF SECTION SP 107

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 108 - ARBORICULTURAL WORK, INCLUDING TREE TRIMMING, ROOT PRUNING
AND TREE PROTECTION MEASURES

SP 108.1 DESCRIPTION

The Contractor shall perform any necessary arboricultural work, including tree trimming and root pruning, and ensure that tree protection measures are followed in accordance with this special provision and under the direction of the HHFDC's Project Arborist (HPA). The Contractor shall engage the services of a certified, Qualified Arborist (QA) to oversee the tree work at all times. The QA shall coordinate all arboricultural work and the protection of the trees with the prior to any work being done. A specialty contractor is required to perform the arboricultural work.

The HPA will be responsible to oversee all tree work done by the Contractor and tree protection measures. The HPA will serve as the liaison with the Officer-in-Charge and the Contractor's QA on all tree issues and protection of the trees on the project site. The HPA will recommend and direct the preventative and mitigative measures to protect the trees.

SP 108.2 CONSTRUCTION DETAILS

- A. The Contractor's QA application shall be forwarded to HHFDC for approval. The application shall include current credentials for International Society of Arboriculture (ISA) Certified Arborist and ISA Tree Risk Assessment Qualification, and documentation of experience with similar tree work. ISA credentials can be verified at the following website: <https://www.treesaregood.org/findanarborist>. The QA shall coordinate all tree work and protection with the HPA and perform work under the direct supervision of the HPA. The QA is required to be at the work site at all times when tree and root pruning work are being performed. The QA must ensure that proper tree protection guidelines are followed to prevent damage to the tree. During the execution of the tree work, the QA shall provide a telephone number to HHFDC that they can be contacted at during regular business hours.
- B. All work shall be in compliance with ANSI A-300 standards as approved by the Tree Care Industry Association and International Society of Arboriculture (ISA). Proper measures are to be taken to protect the crown and root systems of the trees from unnecessary damage from construction activity. When potentially damaging construction activities arise, i.e. major support root removal, excessive root removal on one or more sides of the tree, major crown branch removal, or tree transplanting, the QA shall closely coordinate with the HPA to ensure that such activity is performed in a manner that shall minimize damage to the tree. The QA shall ensure that the trees are provided proper care and retain good health during the demolition and construction period. Alternative procedures may be required on a tree-by-tree basis and field decisions by the HPA may be required to insure the safety and health of the trees.

- C. The Contractor shall arrange a field coordination meeting prior to the start of construction including the Contractor, QA, Sub-Contractors, Officer-in-Charge, HHFDC's Project Consultants, and the HPA to review procedures for performing tree-related work, work in the areas around trees, access routes, and storage areas, and what measures may need to be taken to protect trees during construction.
- D. Prior to any root pruning or curb reconstruction, the Contractor shall expose tree roots as directed by the HPA first for the HPA to evaluate the measures to be taken. The QA shall perform root pruning and installation of any special curb reconstruction following HPA's recommendations.
- E. Tree Protection Zone. The limits of the "Tree Protection Zone" (TPZ) shall be the area under the tree crown or as determined by the HPA. The QA shall limit activities under the crown of the trees to only those activities explicitly required to complete the construction under and/or adjacent to the tree's crown as approved by the HPA. All excavation work required under the crown of trees shall be performed under the supervision of the HPA and the QA shall be onsite at all times during the excavation. Tree trunks may be protected with the use of Tree Trunk Shields or approved substitute.

Material and topsoil stockpiling, vehicle and equipment parking, temporary roadways, construction material mixing, portable latrines and field offices shall not be located either temporarily or permanently under tree crowns unless areas have been specifically approved by the HPA.

Temporary fencing is not required. However, if the TPZ provisions are violated, the project shall stop until appropriate protection is installed either around each planter island or around each tree trunk. The temporary fencing (orange plastic) or tree trunk shield shall remain in place until work is complete unless authorized by the HPA. The Contractor shall not be allowed to file a claim for this work stoppage and all cost relating to the temporary fencing/tree trunk shield shall be at the Contractor's expense. No time extensions shall be granted for this additional work.

- F. Root pruning. To compensate for pruning of structural roots, pruning of the canopy shall be done prior to root pruning work. This work shall be performed under the direct supervision of the QA who shall adhere to the "Industry Tree Pruning Guidelines" for proper tree pruning standards.

Root pruning of roots below the surface shall be done carefully by exposing them by hand or approved equipment under the supervision of the HPA. Any roots damaged during grading or construction shall be exposed to the nearest sound tissue and cut clearly with a sharp saw under the HPA's approval. Before grading, preparation of roadbed, curbing and sidewalk, roots that are exposed and greater than 2 inches in diameter must

be pruned with a handsaw, rocksaw, narrow trencher with a sharp blade or approved root pruning equipment by the QA or Certified Tree Worker.

- G. Tree or root injury. If damage should occur during demolition or construction, the QA shall immediately report the injury to the HPA. The HPA will evaluate the injury, determine the extent of damage and decide the appropriate treatment. The QA shall submit a written report of the tree injury and treatment to the HPA and Officer-in-Charge.
- H. Unsafe tree conditions. The QA must immediately report to the HPA any unsafe tree conditions and discuss a solution to address the concern.
- I. Landscaping. The Contractor shall be responsible for the regrassing of all the grass areas and replacement that have been damaged as the result of the operations. Damaged areas shall be restored to match existing areas and finish grades.
- J. Irrigation System. The Contractor, QA and/or landscape subcontractor shall contact the HHFDC to determine the responsible party for the irrigation system and meet at the project site to test and inspect the condition of the existing irrigation system prior to the start of construction. The Contractor shall coordinate with the system owner and relocate as needed, the existing irrigation system to perform the contract work. The Contractor shall repair any damages to the existing irrigation system caused by the construction operations. The Contractor shall be responsible for all coordination, investigation, and all costs related to any needed relocations and damages.
- K. Penalties, Compensation and Mitigation. The Contractor shall not work within the TPZ, including sidewalk, planting, and roadway areas without informing the HPA of the work to be done. Work performed on or near trees without the supervision of the QA and/or HPA may result in the immediate termination of work. Failure to notify the HPA or having the QA on site shall result in penalties of \$125.00 for each incident. For partial injury or total tree loss, the Contractor shall pay the HHFDC the value of any existing trees, provided that such tree died, sustained damage, and/or required care or removal due to failure of the Contractor to provide adequate protection, or full compliance with the appropriate tree protection measures.

The value of the tree shall be determined by the HPA based on the methods of tree appraisal as set forth in *Guide for Plant Appraisal* (9th edition). Any wound or infliction to trees remaining on site constitutes a partial injury violation. Partial injury includes but is not limited to a) mechanical injuries as breaks, rips, punctures, holes, splits, cracks, tears and other wounds to tree trunk, branches or roots caused by persons, tools, vehicles, equipment or other large object associated with construction activity, b) crushed roots caused by persons or equipment, c) compacted soil caused by vehicles

or heavy equipment, d) chemical contamination by persons or equipment on construction site, e) unapproved grade level changes, and f) improper pruning procedures.

- L. Reset Existing Tree Well Cover. Prune tree roots/canopies under the direct supervision of the QA. Reset tree well cover shall be flush with surrounding sidewalk grade. If backfill is required to reset tree well cover, provide topsoil/sand mix and compact to required grade. Topsoil/sand mix shall be approximately 2 parts topsoil to 1 part sand.
- M. Enlarged Tree Well. Prune tree roots/canopies under the direct supervision of the QA. Enlarge existing tree wells according to detail shown in the project plans. Concrete work shall be in accordance with Section SP 42 - Concrete Sidewalk.

SP 108.3 MEASUREMENT AND PAYMENT (for applicable pay items included in the Offer)

The Officer-in-Charge will measure the root pruning and tree canopy trimming together per each tree in accordance with the contract documents. The Officer-in-Charge will pay for the accepted root pruning and tree canopy trimming together at the contract price per each tree. Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents.

The Officer-in-Charge will not measure the pruning of tree canopies to provide clearance for equipment for payment. The Officer-in-Charge will not pay for the accepted pruning of tree canopies to provide clearance for equipment separately and will consider the cost of tree canopy pruning to provide clearance for equipment as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents.

The Officer-in-Charge will pay for any accepted additional arboricultural work as directed by the Officer-in-Charge on an allowance basis. Payment will be full compensation for the work directed by the Officer-in-Charge. Payment will be deducted from the allowance set in the Offer and shall be included in the monthly estimate for the progress payment upon submittal of paid invoices, with sufficient documentation to account for the costs of all labor, equipment, materials, and any other items invoiced. The unused portion of the allowance item shall remain with the HHFDC upon completion of the contract."

END OF SECTION SP 108

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 150 - EXISTING UTILITIES

SP 150.1 DESCRIPTION

This section shall supplement Subsection 12.3 "PROTECTION OF EXISTING IMPROVEMENTS", of the Standard Specifications, and Section 2.5 Utilities and Services of the HHFDC General Conditions, and Section 1.09 Execution Requirements, Part 3 Execution, Subpart 3.02 Site Utilities and Toning of the General Requirements.

SP 150.2 Contractor's Duty to Coordinate Utility Work

The Contractor shall contact and cooperate with each affected utility owner in order for the work to progress on schedule and without unreasonable disruption of such utility services. If the work calls for permanent utility service installations or corrections to, or modifications of existing utilities, the Contractor is responsible for scheduling and coordinating such work with appropriate utility owners. If the work required by the contract documents conflicts with the instructions, demands, or requirements of a utility owner, the Contractor shall notify the Officer-in-Charge immediately. The Contractor shall furnish the Officer-in-Charge with evidence that the Contractor has provided all relevant utility owners reasonable opportunity to review the drawings.

When the HHFDC has a separate agreement with a utility owner for work to be performed within the worksite, the Contractor shall make available all portions of the work and the worksite necessary for the utility owners to do their work.

The Contractor hereby holds the HHFDC harmless against all risks arising from acts or omissions of utility owners that damage the work, or create delays, disruptions, and additional cost to the Contractor in the performance of the work. Contract time for the work may be extended on account of acts and omissions of utility owners that delay the work without fault of the Contractor.

The Contractor accepts the risk of differing site conditions and the Contractor accepts the conditions at the construction site as they may eventually be found to exist. Any damages to existing utilities shall be repaired wholly at the Contractor's own cost and expense. If the Officer-in-Charge determines that the existing site conditions requires a design change to the project, a price adjustment may be permitted by the Officer-in-Charge.

The Contractor may relocate or adjust the utility lines or service connections for its convenience with the permission of the owner of the utility and the Officer-in-Charge at no increase in contract price or contract time.

SP 150.3 Contractor's Duty to Locate and Protect Utility

A. Before beginning any work at the worksite, the Contractor shall research, ascertain and identify the exact horizontal location and depth of all utilities within the project area where a conflict could occur with the

proposed work. The Contractor may probe for utilities at critical locations with approval of the Officer-in-Charge, utilize the One-Call Center system, use electromagnetic locating systems, ground penetrating radar systems, or other utility locating systems, research as-built information from the utility companies/agencies and other development/project plans to obtain the utility information. The location of existing utilities shown on the plans is approximate and does not accurately reflect all the utilities.

B. Within one (1) month after notice-to-proceed or at least two (2) weeks prior to proceeding with any work which may affect utilities, the Contractor shall submit to the Officer-in-Charge in writing, all locations where a conflict between an existing utility and the proposed work exists. Based on the redesign and change in work, a time extension may be granted. No cost claims related to the time extension shall be granted.

C. The Contractor shall acquaint all personnel working near utilities with the type, size, location, and depth of the utilities, as well as the consequences that might result from disturbances. The Contractor shall take reasonable steps to protect the utilities and prevent service disruption.

D. Whenever the Contractor damages a utility or causes any interruption to any utility service, the Contractor shall promptly notify the Officer-in-Charge, the affected utility owner, and the appropriate governmental authorities. The Contractor shall be responsible for the safety and protection of the public and the utility. The Contractor shall cooperate with the affected utility owner, and the appropriate governmental authorities in the restoration of service. The Contractor shall be responsible for all costs associated with its repair and restoration of service at no increase in contract price or contract time. No time extensions shall be granted for time delays in coordinating with the utility companies/agency and delays in work being done by the utility companies/agency. Compensation to the utility company/agency for any repair work shall be made directly between the Contractor and the utility company/agency. It is essential that the Contractor thoroughly research and identify all potential conflicting utilities within the one-month period of NTP and exercise caution in excavating near utilities.

SP 150.4 DEPARTMENT OF ENVIRONMENTAL SERVICES

The Contractor shall notify the HHFDC and the Department of Environmental Services' Collection System Maintenance Division at 768-7272 immediately whenever a sewer facility is damaged. This number is answered 24 hours a day, 7 days a week.

All Contractor-related damages which are knowingly not reported immediately to the Collection System Maintenance Division, and results in sewer backups, spills, and overflow; the Contractor shall be billed for the actual cost of the clean-up by the City, and any subsequent fines imposed upon the City by the Environmental Protection Agency (EPA) and/or State Department of Health shall be back charged to the Contractor.

SP 150.5 HAWAIIAN ELECTRIC COMPANY (HECO)

A. The Contractor shall exercise extreme caution when the excavation and construction crosses or is in close proximity of underground electrical facilities and maintain adequate clearance for their equipment while working close to and/or under the overhead facilities.

B. The Contractor shall comply with the directions of the State of Hawaii Occupational Safety and Health Law (DOSH).

C. The Contractor shall obtain an excavation permit from HECO Mapping and Records Division, 4th floor, 820 Ward Avenue, two (2) weeks prior to start of construction.

D. For verifying the location of underground duct lines and for assistance in providing proper support and protection of the underground duct lines, the Contractor shall contact HECO Underground Division at 548-7846 a minimum of 72 hours in advance. Should a HECO inspector be required on the job site, call 543-7920.

E. Should it become necessary, any work required to relocate and/or repair HECO facilities except perhaps raising of manholes shall be done by HECO forces. The Contractor shall be responsible for all coordination.

F. The Contractor shall be liable for any damages to HECO'S existing facilities.

G. The Contractor shall report any damages to HECO's facilities to the HECO Trouble Dispatcher at 548-7961.

SP 150.6 HAWAIIAN TELCOM

The Contractor shall call HAWAIIAN TELCOM's Inspection Branch at 546-6960 a minimum of 48 hours prior to adjusting HAWAIIAN TELCOM structures.

Prior to commencing cold planing and reconstruction operations, the Contractor shall verify and locate underground communication lines, including fiber optic lines. The Contractor shall exercise due diligence in toning, locating, and protecting these communication lines. The Contractor shall be responsible for and shall pay for all damages to existing communication lines.

SP 150.7 BOARD OF WATER SUPPLY

A. Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with the Honolulu Board of Water Supply's ("Board") WATER SYSTEM STANDARDS, Volume 1, and the APPROVED MATERIAL LIST AND STANDARD DETAILS FOR WATER SYSTEM CONSTRUCTION, Volume 2, dated 2002.

B. Prior to any excavating, the Contractor shall verify in the field the location of existing water mains and appurtenances.

C. The Contractor shall notify the Board of Water Supply one week prior to commencing work on the water facilities.

Windward Area - 748-5671
Metropolitan Area - 748-5601
All Other Areas - 748-5611

D. Whenever any brick type water meter box with a cast iron frame and cover to be adjusted is encountered, the following shall apply:

1. The Contractor shall salvage the frame and cover and deliver them to the Board of Water Supply, Kalihi Yard, at 2442 Kini Place.
2. The Board of Water Supply shall replace the frame and cover, one for one, with a concrete type water meter box.
3. The Contractor shall install the concrete type meter box to the new sidewalk grade.
4. Whenever any Type III brick type meter box or bigger is encountered, the Contractor shall furnish the frame and cover.
5. Any adjustments to the existing water system required during construction to meet requirements of BWS Standards, whether shown on the plans or not, shall be done by the Contractor at no cost to the Board.

SP 150.8 DEPARTMENT OF TRANSPORTATION SERVICES (DTS)/DEPARTMENT OF INFORMATION TECHNOLOGY (DIT)

A. The Contractor shall notify the Traffic Control Branch, Department of Transportation Services at 768-8388, 72 hours prior to any construction within any signalized intersection.

B. Prior to commencing cold planing and reconstruction operations, the Contractor shall verify and locate underground traffic signal and communication lines/conduits, including fiberoptic lines/conduits. The Contractor shall exercise due diligence in toning, locating, and protecting these traffic signal and communication lines/conduits. The Contractor shall be responsible for any and all damages to existing traffic signal and communication lines/conduits, including vehicle detector loops, as a result of the work. All damages shall be repaired by the Contractor at no additional cost to the HHFDC.

C. The Contractor shall notify, immediately, any damages to existing traffic signal lines/conduits and loop detectors to the Traffic Control Branch at 564-6101.

SP 150.9 CHARTER COMMUNICATIONS, INC. (aka SPECTRUM)

A. The location of cable television (CATV) facilities shown on the plans are from existing records with varying degrees of accuracy as to its actual fixed location. The Contractor shall use extreme caution when working in close proximity of CATV facilities.

B. For any field assistance or verification of CATV facilities, the Contractor shall call the OSP Engineering Hotline at 625-8570 or send an email to: haw.engineering.research@charter.com.

C. Any work required to relocate CATV facilities shall be done by Charter Communications, Inc., and the Contractor shall be responsible for all coordination requirements and associated applicable costs.

D. Any damage to Charter Communications, Inc.'s facilities shall be reported immediately to Charter Communications, Inc.'s (aka Spectrum) Regional Operation Center (ROC) at 625-8169.

SP 150.10 HAWAII GAS

A. Hawaii Gas gas pipelines in the project area are plastic coated and cathodically protected. The Contractor shall be extremely careful when working near these gas pipelines.

B. Written clearances must be obtained from Hawaii Gas, Maps and Records Department, 515 Kamakee Street, at least five (5) working days prior to starting excavation near these gas pipelines.

C. Since gas line locations on field maps are approximate, the Contractor, after obtaining written clearance, shall call Hawaii One Call Center a minimum of five (5) working days before starting excavation to arrange for field location of existing gas pipelines. The telephone number is 811 or 1-866-423-7287.

D. The Contractor shall excavate and backfill around gas pipelines in the presence of a representative of Hawaii Gas. All backfill within six (6) inches of any gas pipeline shall be select cushion material approved by Hawaii Gas.

E. For relocation of any gas pipeline, the Contractor shall notify Hawaii Gas five (5) working days before starting work. The telephone number is 594-557. The Contractor shall provide the necessary excavation and backfill, obtain traffic permits, and restore pavement, sidewalks, and other facilities. Any relocation of gas facilities shall be done by Hawaii Gas and paid for by the Contractor.

F. The Contractor shall notify Hawaii Gas immediately after any damage has been caused to existing gas pipelines, coatings, or its cathodic protection devices. The telephone number is 535-5933, 24 hours a day. The Contractor shall be liable for any damage to Hawaii Gas facilities. Repair work on such damage shall be done by Hawaii Gas with payment for this work to be borne by the Contractor.

G. Minimum vertical and horizontal clearance between the gas pipelines and other pipelines, conduits, ductlines, or other facilities shall be 12 inches. Adequate support and protection for gas pipelines exposed in the trench shall be provided by the Contractor and approved by Hawaii Gas.

H. The Contractor shall work in an expeditious manner in order to keep uncovered gas pipelines exposed for as short a period of time as possible.

SP 150.11 HAWAII-AMERICAN WATER COMPANY

For field assistance or verification of the sewer system facilities in the Hawaii Kai area, the Contractor shall call either Mr. Robert Smith, at 396-8672 Ext. 1 or Mr. Patrick Conland, at 396-8672 Ext. 2.

SP 150.12 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure coordinating, locating, and protecting existing utilities for payment. The Officer-in-Charge will not pay for coordinating, locating, and protecting existing utilities separately and will consider the cost for coordinating, locating, and protecting existing utilities as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 150

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 151 - DESCRIPTION OF WORK

SP 151.1 EXTENT OF WORK

The project scope consists of the following, but not limited to:

- A. Cold planing, demolition, removal and disposal of existing pavements, curbs, gutters, sidewalks, trees, and other work necessary to install all new work as called for on the plans.
- B. Construction of new concrete curbs and/or gutters and sidewalks, as indicated on the plans.
- C. Resurfacing pavement with Asphalt Concrete Pavement, State Mix No. IV.
- D. Adjustment of street monuments, storm drain manholes and handholes, sewer manholes and handholes, Board of Water Supply manholes, valve boxes, and handholes, Hawaiian Telcom manholes and handholes, Hawaiian Electric Company, Inc. manholes and handholes, Hawaii Gas manholes and handholes, and all other manhole/box frames and covers and valve boxes on all streets being resurfaced/reconstructed under this contract.
- E. Restoration of all traffic signal vehicle loop detectors; and pavement striping, markings, and markers.
- F. Provision of traffic control during construction.
- G. Provision of access to all businesses during all business hours.
- H. Tree and root trimming and canopy pruning, as necessary.

Contractors must visit the site prior to bidding to verify the characteristics, extent, and amount of work to be performed, and the conditions under which it must be performed.

The Contractor shall provide pavement adjustments to existing driveways and ensure that the drainage is maintained. The final paving should not create any drainage/ponding problems. Ponding within the resurfaced pavement area shall not be accepted.

SP 151.2 PERFORMANCE OF WORK

Once resurfacing of a given street has begun, it shall be pursued to completion without undue delay. The Contractor shall not be allowed to cold plane in advance more pavement than can be resurfaced within the same working day.

The Contractor may be allowed to cold plane and complete the

resurfacing later in the week provided the Contractor shall be responsible for all complaints; safety, such as pedestrian crossings, pavement markings, temporary pop-up RPMs, traffic control, access, manhole and handhole frames, etc.; and maintaining the roadway surface, including addressing raveling, dust, base failures, transitions and removal. All cold planed areas shall be resurfaced by the end of each workweek, prior to the weekend.

The Contractor shall resurface lane-by-lane, beginning from the outer curb lanes and progress toward the inner center lane(s).

At the end of each workday, the Contractor is responsible to provide safe, temporary transitions or tapers with hot mix AC or similar stable material at all longitudinal and transverse pavement vertical grade differentials such as, but not limited to, at curb ramps, bus pads, driveways, gutter edges, and at any utility/other structures protruding above the roadway grade at the end of the day, or as directed by the Officer-in-Charge. The Contractor shall be responsible for all complaints, safety, and liability, for all areas with and without temporary transitions or tapers within the project limits. Use 6:1 maximum slope for longitudinal transitions or tapers or as approved otherwise by the Officer-in-Charge. Use 48:1 maximum slope for transverse transitions or tapers or as approved otherwise by the Officer-in-Charge. Temporary transitions or tapers shall be trimmed vertical, removed and disposed of before placing adjoining sections.

SP 151.3 PAVING PLAN

The Contractor shall submit a paving plan within 30 days of NTP to the Officer-in-Charge. The paving plan shall include the following:

1. Work phasing and sequencing, location, and integrated with traffic control plans.
2. Description and extent of work to be done per work day.
3. Schedule of work activities.
4. Construction means and methods of performing work, including proposed equipment, differences in grades, etc.
5. How finish grades will be ensured.
6. Equipment staging area.

Paving operations shall not begin until the paving plan is reviewed by the Officer-in-Charge. Submit revised paving plan to the Officer-in-Charge prior to conducting work that deviates from previously reviewed paving plan. Paving operations shall not continue until the revised paving plan is reviewed by the Officer-in-Charge.

SP 151.4 DELETION OF WORK

The Officer-in-Charge reserves the right to delete any portion of the work in the Offer and no payment shall be made for the deleted work.

SP 151.5 COORDINATION WITH REFUSE OPERATIONS

The Construction project manager shall invite Refuse Collection Branch Administrators to participate in the project preconstruction meeting.

Contractors to contact ENV Refuse Collection Branch Administrators ahead of conducting road work. Call Chris Hirota (768-3423) or Henry Gabriel (768-3433).

Refuse Collection Branch Administrators will put the Contractor in direct contact with the Superintendent at the appropriate refuse collection yard for daily/weekly coordination.

The Contractor shall provide the refuse collection yard with a work schedule. The Contractor shall plan and schedule their road work to take advantage of non-refuse collections days as much as possible. The Contractor can obtain the schedule days of refuse collection from the assigned refuse yard Superintendent.

The Contractor shall understand that all work cannot be scheduled around trash collection days and that there are delays due to weather and other factors. Therefore should road work need to occur on a refuse collection day, the Refuse Yard Superintendent shall be notified in advance (24 hours notification if possible). The Superintendent can schedule trucks to service that area first in the morning at 6am ahead of the road work.

SP 151.6 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure the temporary transitions or tapers and paving plan for payment. The Officer-in-Charge will not pay for the accepted temporary transitions or tapers and paving plan separately and will consider the cost for the temporary transitions or tapers and paving plan as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 151

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 152 - ADDITIONAL WORK

SP 152.1 GENERAL

Additional Work pay items in the Offer schedule will be used only when ordered by the Officer-in-Charge. See Section SP of the Additional Work pay item for description of the work.

SP 152.2 MEASUREMENT AND PAYMENT

The Officer-in-Charge will measure Additional Work as described in the Additional Work Unit Prices in the Offer and in the Section SP of the work item. The Officer-in-Charge will pay for the accepted Additional Work as described in the Additional Work Unit Prices in the Offer. Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in the Section SP of the work item and the contract documents.

The Officer-in-Charge will consider the cost for mobilization as included in the contract prices for the various Additional Work pay items. The calculation for the maximum allowable cost for the Mobilization pay item in the Offer schedule will not include Additional Work pay items."

END OF SECTION SP 152

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 153 - DELETION OF WORK

The Officer-in-Charge reserves the right to delete any portion of the work in the Offer and no payment shall be made for the deleted work."

END OF SECTION SP 153

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 160 - SURVEYS AND CONSTRUCTION STAKES, LINES AND GRADE

SP 160.1 GENERAL

Notwithstanding the commencement requirements of the General Conditions, the following also applies:

SP 160.2 CONTRACTOR RESPONSIBILITIES

The Officer-in-Charge shall identify bench marks and control points for the Contractor's guidance. The Contractor shall furnish all other land surveys and construction stakeout necessary for the completion and acceptance of this project. All survey work shall be laid out and checked by a Surveyor or Civil Engineer licensed in the State of Hawaii. The Contractor shall furnish a certificate or document signed by the Surveyor or Civil Engineer certifying that the completed lines, levels and elevations are in conformity with the contract.

The Contractor shall verify all lines, levels and elevations indicated in the contract before any excavation or construction begins. Any discrepancy shall be immediately brought to the attention of the Officer-in-Charge and any change shall be made in accordance with this instruction. The Contractor shall not be entitled to any additional payment if they fail to report the discrepancies before proceeding with work within the area affected by the discrepancies.

SP 160.3 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure the work under this section for payment. The Officer-in-Charge will not pay for the work under this section and will consider this work as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 160

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 170 - CERTIFICATION OF COMPLIANCE

The Officer in Charge may permit use prior to sampling and testing of certain materials or assemblies accompanied by Certificates of Compliance stating that such materials or assemblies fully comply with the requirements of the contract; when requested by the Officer in Charge, substantiating test data shall be furnished with the Certificate of Compliance. The certificate shall be signed by notarized signature of a person having legal authority to bind the manufacturer. Each lot of such materials or assemblies delivered to the work must be accompanied by a Certificate of Compliance in which the lot is clearly identified. Material or assemblies used on the basis of Certificate of Compliance may be sampled and tested at any time and if found not to be in conformity with contract requirements will be subject to rejection whether in place or not."

END OF SECTION SP 170

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 180 - LIQUIDATED DAMAGES

SP 180.1 GENERAL

When the Contractor fails to complete the work or any portion of the work within the time or times specified in the Contract or any extension thereof, it is agreed that the Contractor shall pay to the HHFDC the amount specified below.

Liquidated damage per calendar day of delay: \$1000.00

The Contractor hereby agrees to pay the amount as liquidated damages, and not by way of penalty, to the HHFDC and further authorizes the HHFDC to deduct the amount of the damages from monies due the Contractor under the Contract, computed as previously mentioned. If the monies due the Contractor are insufficient or no monies are due the Contractor, the Contractor shall pay the HHFDC the difference or the entire amount, whichever may be the case, upon demand by the HHFDC."

END OF SECTION SP 180

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 181 - AS-BUILT DRAWINGS

SP 181.1 GENERAL

The following replaces the As-Built Drawings subsection of the General Conditions:

- A. The Contractor shall maintain at the job site one (1) set of full-size contract drawings, marking them in red documenting all construction changes, alterations and/or deletions indicated or specified in the contract documents and buried or concealed construction, including location and depth of existing utilities toned.
- B. Where a choice of material or method is permitted herein or where variations in scope of or character of work from that of the original contract are authorized, the drawings shall be marked to define the construction actually provided. Where equipment installation is involved the size, manufacturer's name, model number, power input or output characteristic applicable shall be shown on the as-built construction.
- C. The representation of such change shall conform to standard drafting practice and shall include such supplementary notes, legends, and details as necessary to clearly portray the as-built construction. The changes shall be shown in legible block print. The language shall be clear and concise using industry standard terminology to eliminate need for interpretation by others.
- D. The drawings shall be maintained and updated on a monthly basis and are subject to review by the HHFDC. The update is a condition of payment for the work performed.
- E. Upon completion of the work, the Contractor shall deliver the marked-up drawings and letter of certification to the Officer-in-Charge indicating the construction is in accordance with HHFDC Standards, Specifications and as represented in attached "As-Built Drawings". The HHFDC will review the changes, alterations, and/or deletions to the original bid set. If Record Drawing tracings will be prepared, the Contractor shall also sign the following stamp in permanent black ink on the title sheet of the Record Drawing tracings:

RECORD DRAWING TRACINGS

CONTRACTOR

As-Built Drawings

Certified by: _____ **Date:** _____

Print Name: _____

Company: _____

LICENSED PROFESSIONAL ENGINEER

Prepared by: _____ **Date:** _____

Print Name: _____

Company: _____

THIS SET OF "RECORD DRAWINGS" IS BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AS "AS-BUILT" DRAWINGS AND HAS NOT BEEN FIELD VERIFIED BY THE LICENSED PROFESSIONAL ENGINEER. "RECORD DRAWINGS" ARE DRAWINGS DEFINED AS RECORD DOCUMENTS PREPARED BY THE LICENSED PROFESSIONAL ENGINEER UPON THE COMPLETION OF CONSTRUCTION. THESE DRAWINGS ARE BASED UPON THE DRAWINGS AND OTHER DATA FURNISHED BY THE CONTRACTOR AND OTHERS SHOWING THE FINAL CONSTRUCTED IMPROVEMENTS, REPRESENTING ALL FIELD MARKUPS, DESIGN CHANGES, AND CHANGES IN THE WORK MADE DURING CONSTRUCTION. THE LICENSED PROFESSIONAL ENGINEER IS NOT RESPONSIBLE FOR FIELD VERIFICATION OF THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS ON THESE DRAWINGS RESULTING FROM ERRONEOUS INFORMATION PROVIDED BY OTHERS.

SP 181.2 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure As-Built Drawings for payment. The Officer-in-Charge will pay for the accepted As-Built Drawings on a contract lump sum basis. Payment shall be full compensation for furnishing the necessary material, equipment, and labor to complete the work in place prescribed in this section and the contract documents."

END OF SECTION SP 181

The following Section shall be made part of the Standard Specifications:

"SECTION SP 190 - PRESS RELEASE

SP 190.1 DESCRIPTION

The Contractor shall provide project information for a press release to the Officer-in-Charge prior to the start of work on this project. This information shall be submitted to the Officer-in-Charge for review by the HHFDC before being publicized. It shall contain, but not be limited to, the following:

1. Map of project area, identifying the street(s) to be affected, together with a general description of work to be undertaken.
2. Date work will start and approximate date of completion.
3. Working hours and days of work.
4. Detour pattern(s), if any, and two-way traffic flow in detour area.
5. Suggestion that motorists use alternative routes, and drive with caution in construction area.
6. If the project will be constructed in phases, include phases and anticipated start and completion date.
7. Posting of No-Parking signs by the Contractor one (1) week prior to construction in the work area.
8. Telephone number for questions related to the project.
9. Any other information which will be of help to the public.

Within seven (7) calendar days from the acceptance of the performance schedule, the Contractor shall submit the schedule together with maps identifying the affected street(s) to the Neighborhood Board(s).

SP 190.2 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure the providing of press release information for payment. The Officer-in-Charge will not pay for the providing of press release information separately and will consider the cost for providing the press release information as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 190

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 191 - PROTECTION AND CONTROL OF PEDESTRIANS AND VEHICULAR TRAFFIC

SP 191.1 GENERAL

The Contractor shall, during the progress of the work, use proper precautions and methods of procedure and construction for the protection and control of pedestrians and vehicular traffic in accordance with Article 7 - Prosecution and Progress, Section 7.17 Protection of Persons and Property, of the HHFDC General Conditions, and as supplemented herein.

SP 191.2 ACCESS

During the progress of the work, the Contractor shall provide free access to water meters, water valves, and abutting public and private property. No material or obstruction of any sort shall be placed within 25 feet of any fire hydrant. Fire hydrants must be readily accessible to the Fire Department at all times.

The Contractor shall provide proper traffic bridges where necessary so that all streets, roads, lanes, alleys, driveways, and garages shall be accessible to traffic at all times. These bridges shall be constructed so that their decks are flush with the pavement, and maintained free from projecting nails, splinters, or rough edges. In lieu of the traffic bridges, the Contractor may use suitable steel plates. The bridges and/or steel plates shall be able to support all legal highway loads permitted by law and shall have a non-skid surface.

Special attention is called to private and public rights-of-way. Driveways shall be kept open unless the owners of the property using these rights-of-way are otherwise provided for satisfactorily. During the construction of driveways and driveway ramps, satisfactory accesses shall be provided by the Contractor.

In the event of the Contractor's failure to comply with the foregoing provisions, the HHFDC may, with or without notice, cause the access to be provided, and deduct the costs of such work from any moneys due or to become due the Contractor under this contract, but the performance of such work by the HHFDC shall serve in no way to release the Contractor from their liability for the safety of the public or the work.

SP 191.3 TRAFFIC CONTROL, PEDESTRIAN WALKWAYS AND WARNING SIGNS

The Contractor shall be responsible for preparing the site-specific traffic control plans (TCPs) and obtaining HHFDC reviews and approvals.

The Contractor shall become familiar with and shall meet the latest requirements of the City and County of Honolulu Department of Planning and Permitting - Traffic Review Branch (DPP) and the City and County of Honolulu Department of Transportation Services (DTS) for traffic control plans. After the execution of the contract, the Contractor shall submit a traffic control plan to the HHFDC for review. The TCPs shall meet all DPP and DTS requirements, including preparation by, or under the supervision of, a licensed professional engineer.

All traffic controls shall conform to the requirements of the City and County of Honolulu Department of Transportation Services, the current Traffic Code for Honolulu, the "Administrative Rules of Hawaii Governing the Use of Traffic Control Devices at Work Sites On or Adjacent to Public Streets and Highways in the State of Hawaii", adopted by the Director of Transportation, the Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI - Traffic Controls for Street and Highway Construction and Maintenance Operations", and the provisions hereunder. The Contractor shall notify the HHFDC at least five (5) working days prior to removal of any existing traffic control sign or device within the Project Contract Limits.

The Contractor shall so conduct their operations as to minimize inconvenience to traffic and they shall have under construction no greater amount of work than they demonstrate that they can handle properly with due regard for the rights of the public.

The Contractor shall cooperate with the Officer-in-Charge, the HHFDC and other authorized persons in locating all warning signs, lights, walkways and detours required under this section. If the Contractor fails to promptly provide adequate warning signs, lights, walkways and detours, the HHFDC may, at its option, so provide them at the Contractor's expense. The Contractor shall pay the cost of such work to the HHFDC, or the HHFDC may deduct the cost from any moneys due the Contractor from the HHFDC.

The Contractor shall provide and post signs banning parking on streets to be worked on 24 hours prior to the work. The Contractor shall also cover all existing parking regulation signs and uncover them after the completion of resurfacing. The signs shall conform to the following requirements.

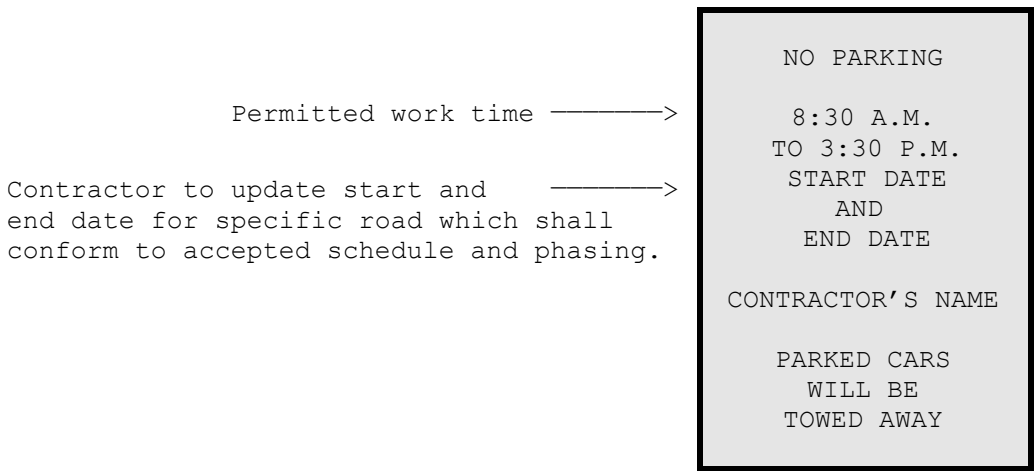
Signs shall be mounted on 4-foot-high portable stands.

Size--18" x 24" x 0.063" with 1-1/2" radius corners.

Materials--Aluminum conforming to ASTM Designation B 209-68. Paint shall be 3M Scotchlite Process Color or approved substitute.

Color--Red lettering on white reflectorized background except at the upper left corner where the word "No" shall be white lettering on red background.

Information on Signs--The signs shall contain the information noted and conform to the layout as shown on the following schematic drawing.



The type of sign required is available for examination at the City and County of Honolulu Division of Road Maintenance Office at 99-1077 Iwaena Street.

Sample--The Contractor shall submit to the Officer-in-Charge for review, a full-scale sample of the sign and stand, not later than 3 calendar days after formal execution of the contract.

Number of Signs--The Contractor shall have a minimum of 25 signs available for posting at locations to be determined by the Officer-in-Charge.

SP 191.4 RESTRICTIONS

While construction is in progress within any street within the Project Contract Limits, the Contractor shall provide and maintain traffic lanes in good condition in accordance with the following requirements.

- A. Normal Hours: 8:30 a.m. to 3:30 p.m., Monday to Friday.
 - 1. During working hours, the Contractor shall provide two (2) lanes of roadway open to traffic at all times. On streets too narrow to make this practicable, the Contractor may work in one-half the roadway, keeping the other half open to traffic. The Contractor shall take adequate measures to ensure that service by the buses of the Oahu Transit

Service of Honolulu, Inc. is not interrupted by this project.

2. During non-working hours, all trenching located within the existing pavement area shall be covered and all lanes shall be opened to traffic. The Contractor shall construct proper bridges and approach ramps as required (non-skid steel plates may be used) to provide for the smooth flow of traffic. All trenches within the sidewalk areas shall be covered, providing safe passageways for pedestrians.
 3. The Contractor shall notify the HHFDC, Honolulu Police Department, Honolulu Fire Department and Oahu Transit Services of Honolulu, Inc. 14 calendar days prior to any work blocking any street within the Project Contract Limits during construction.
 4. The Contractor shall notify the HHFDC and the Traffic Control Branch, Department of Transportation Services, telephone 768-8388, 72 hours prior to any construction within any signalized intersection. The Contractor shall be responsible for any and all damages to existing traffic signal conduits and loop detectors as a result of their work. All damages shall be repaired by the Contractor.
- B. Failure to open lanes to traffic. Rental fees shall be assessed for failure to open lanes to traffic during peak hours. Morning and afternoon peak hours shall be from 5:30 a.m. to 8:30 a.m. and 3:30 p.m. to 6:30 p.m., respectively, Monday through Friday.

In addition to all other remedies available to the HHFDC for Contractor's breach of the terms of the contract, the Officer-in-Charge will assess the rental fees in the amount of \$100.00 for every one-to fifteen-minute increment for each roadway lane closed to the public use or occupied beyond the time periods authorized in the contract or by the Officer-in-Charge. The maximum amount assessed per day shall be \$1,000.00. The HHFDC may, at its discretion, deduct the amount from monies due or that may become due under the contract. The rental fee may be waived in whole or part if the Officer-in-Charge determines that the unauthorized period of lane closure or occupancy was due to factors beyond the control of the Contractor.

SP 191.5 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure the traffic control for payment. The Officer-in-Charge will not pay for the accepted traffic control separately and will consider the cost for traffic control as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents.

Additional traffic control devices and additional police officers are only required as directed by the Officer-in-Charge. Additional traffic control devices and additional police officers are not to be used for additional quantities or work items that are needed to do the required work.

The Officer-in-Charge will pay for the accepted additional traffic control devices on a force account basis. Payment for the maintenance and removal operations for additional devices will also be on a force account basis. Payment will be full compensation for the work directed by the Officer-in-Charge and will be deducted from the force account set in the Offer. The unused portion of the force account item shall remain with the HHFDC upon completion of the contract.

The Officer-in-Charge will pay for any accepted additional police officers as directed by the Officer-in-Charge on an allowance basis. Payment will be full compensation inclusive of administrative fees charged by the Honolulu Police Department for the work directed by the Officer-in-Charge. Payment will be deducted from the allowance set in the Offer and shall be included in the monthly estimate for the progress payment upon submittal of paid invoices, with sufficient documentation to account for the costs of all labor, equipment, materials, and any other items invoiced. The Contractor shall collect and maintain sufficient documentation to validate reimbursement under this Section. The Contractor shall submit records of the work performed at the end of each day on Daily Force Account Report sheets issued by the Officer-in-Charge to justify labor, equipment, and material costs. The unused portion of the allowance item shall remain with the HHFDC upon completion of the contract."

END OF SECTION SP 191

The following Section shall be made part of the Standard Specifications:

"SECTION SP 192 - PRIOR NOTICE OF REMOVAL OF SURFACE ENCROACHMENT

Wherever the project requires the removal of surface encroachments such as privately-owned plants and shrubbery from the roadway right-of-way, the Contractor shall notify the affected owners of the impending action. The notice shall be given at least two weeks in advance of the commencement of the removal. It shall contain the construction starting date and the location of plants or other encroachments to be removed for each owner. This requirement may be modified or waived by the Officer-in-Charge when conditions warrant or if acceptable alternatives are submitted by the Contractor."

END OF SECTION SP 192

The following Section shall be made part of the Standard Specifications:

"SECTION SP 193 - NOTIFICATION OF PROPERTY OWNERS AFFECTED BY THE PROJECT

SP 193.1 DESCRIPTION

The Contractor shall notify all owners of properties, tenants, and businesses abutting the project site and along any detour routes of the impending construction work in writing (notification flier) at least 14 calendar days prior to commencing construction.

In addition to the above, when work within private property is required, the Contractor shall notify each property owner affected by such work of the approximate starting date and total duration of the work within their property. This notification shall also be made in writing (notification flier) at least 14 calendar days prior to commencing the work.

In either case, a draft letter of the notification shall be submitted to the Officer-in-Charge for review.

SP 193.2 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure notification of property owners affected by the project for payment. The Officer-in-Charge will not pay for notification of property owners affected by the project separately and will consider the cost for such notification as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 193

The following Section shall be part of the Standard Specifications:

"SECTION SP 194 - PERMITS AND REGULATIONS

SP 194.1 GENERAL

The Contractor shall obtain all permits and licenses; pay all charges, fees, and taxes; give all notices; and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified.

These may include, but, are not limited to, the following:

- A. Solid Waste Permits.
- B. Stockpiling permit.
- C. Community Noise permit.
- D. Environmental Permits/Certification

As applicable, the Contractor shall be familiar with the latest requirements of the National Pollutant Discharge Elimination System (NPDES) Permits (Form C), Clean Water Act, and all other required environmental permits. If the required permits or certification have not been obtained by the HHFDC, or if the Contractor triggers a permit by their means and methods, the Contractor shall apply for and obtain the required permits or certification and pay for the applicable filing fees.

(a) NPDES Permit Authorizing Discharges of Storm Water Associated with Construction Activity

(1) NPDES Permitted Projects. The HHFDC will apply for the NPDES Notice of General Permit Coverage (NGPC) from the State of Hawaii, DOH-CWB authorizing discharges of storm water associated with construction activity and will prepare the required Storm Water Pollution Prevention Plan (SWPPP). The Contractor shall complete the SWPPP. The permit will be issued for the disturbed areas and discharge points identified in the NPDES Notice of Intent (NOI) and NPDES Permit. The Contractor shall be responsible to comply with all requirements and conditions of the NPDES Permit, including, but not limited to, updating, completing, and submitting to the Officer-in-Charge for acceptance, the updated construction schedule and SWPPP, which includes a Site-Specific Best Management Practices (BMP) Plan.

The Contractor shall assess whether they will be triggering another NPDES Permit per their means and methods; and if so, the Contractor shall be responsible for preparing the required NPDES NOI application and shall be responsible for all related fees.

(A) NPDES General Permitted Project - If there is any additional disturbed area as defined by the NPDES Program, or any additional discharge points, an NPDES

General or NPDES Individual Permit Authorizing Discharges of Storm Water Associated with Construction Activity is required for the project. The Contractor shall prepare the State Department of Health, Clean Water Branch, NPDES NOI Form C, as required by the project, and any other documents such as the SWPPP for the Officer-in-Charge's review and acceptance. After receiving approval, the Contractor shall submit the permit application to the DOH-CWB.

The Contractor shall prepare and submit the NPDES NOI Form C and the SWPPP and any other documents for the Officer-in-Charge's review and acceptance. The NPDES NOI Form C shall not be submitted to the DOH-CWB until the Officer-in-Charge has reviewed and accepted it. Submit all supplemental documentation and the final NPDES NGPC or NPDES Individual Permit to the Officer-in-Charge.

(b) NPDES Permit Authorizing Discharges Associated with Construction Activity Dewatering

(1) Non-NPDES Permitted Project. If the project does not have a NPDES Permit Authorizing Discharges Associated with Construction Activity Dewatering and the dewatering activities require discharge of dewatering effluent into State waters or drainage systems, the Contractor shall obtain an NPDES General Permit or NPDES Individual Permit authorizing discharges associated with construction activity dewatering from the DOH-CWB. The Contractor shall prepare an NPDES NOI Form G and submit to the Officer-in-Charge for review and acceptance prior to submission to the DOH-CWB. After the Contractor receives the Officer-in-Charge's acceptance, submit permit application (NPDES NOI Form G) to DOH-CWB. Submit copies of all NPDES NOI Form G, as required by the project, and any other documents including amendments to the SWPPP to the Officer-in-Charge. Submit all supplemental documentation and the final NPDES NGPC or NPDES Individual Permit to the Officer-in-Charge.

SP 194.2 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure permits for payment. The Officer-in-Charge will not pay for the accepted permits separately and will consider the cost for permits as included in the contract prices for the various contract pay items. The cost is for the work described in this section and the contract documents."

END OF SECTION SP 194

The following section shall be made part of the Standard Specifications:

"SECTION SP 195 - ENVIRONMENTAL POLLUTION CONTROL

SP 195.1 GENERAL

This section shall supplement any provision for Environmental pollution and hazardous materials, substances and/or waste control of the General Conditions.

SP 195.2 DESCRIPTION

The Contractor shall comply with the requirements of Hawaii Administrative Rules (HAR) Chapter 11-54 Water Quality Standards and Chapter 11-55 Water Pollution Control. In addition, the Contractor shall be responsible for updating, completing, and implementing the Storm Water Pollution Prevention Plan (SWPPP), including, but not limited to, the Site-Specific Best Management Practices (BMPs), to prevent polluted run-off from discharging from the project site to any established Municipal Separate Storm Sewer System (MS4), drainage systems, private property, or State receiving waters. The Contractor shall be responsible for updating the SWPPP as required.

This section describes the following:

- A. The Contractor shall update and complete a SWPPP using the SWPPP template to reflect their means and methods, including, but not limited to: detailed plans, diagrams, maps and figures, and Site-Specific BMP Plans; constructing, maintaining, and repairing temporary water pollution, dust, and erosion control measures at the project site and project staging areas, including local material sources, work areas and haul roads; removing and disposing hazardous wastes; control of fugitive dust (defined as uncontrolled emission of solid airborne particulate matter from any source other than combustion); and in compliance with HAR 11-54 and HAR 11-55. Potential pollutant identification and mitigation measures are listed in the SWPPP template.

Requirements of this section also apply to, but are not limited to, the following: construction support activities, including concrete or asphalt batch plants, rock crushing plants, equipment staging yards/areas, material storage areas, excavated material disposal areas, and borrow areas located outside the HHFDC and/or DHHL Rights-of-Way. These requirements apply to construction support activities that are established for the sole benefit and use of the project, and not commercial sources.

- B. Work associated with construction storm water, dewatering, and hydrotesting activities and complying with conditions of the National Pollutant Discharge Elimination System (NPDES) permit(s) authorizing discharges of storm water associated with construction activity, discharges associated with construction activity dewatering, and discharges of hydrotesting waters.
- C. Determination and characterization of fill material.

SP 195.3 MATERIALS

Comply with applicable materials described in the latest City and County of Honolulu Storm Water BMP Manual Construction. In addition, the materials shall comply with the following:

- A. Slope Drains. Slope drains may be constructed of pipe, fiber, mats, erosion control fabric, geotextiles, rubble, portland cement concrete, bituminous concrete, plastic sheets, or other materials acceptable to the Officer-in-Charge.
- B. Mulches. Mulches shall be recycled materials include bagasse, hay, straw, wood cellulose, bark, wood chips, or other materials acceptable to the Officer-in-Charge. Mulches shall be clean and free of noxious weeds and deleterious materials.
- C. Grass. Grass shall be a quick growing species such as rye grass, Italian rye grass, or cereal grasses. Grass shall be suitable to the area and provide a temporary cover that will not compete later with permanent cover. Alternative grasses are allowable if acceptable to the Officer-in-Charge.
- D. Fertilizer and Soil Conditioners. Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Officer-in-Charge. Fertilizer shall conform to Standard Specification Section 51.2(G) - Fertilizer.
- E. Hydro-mulching. Hydro-mulching used as a BMP shall consist of materials in SP 195.3 (B) - Mulches, 195.3 (C) - Grass, and 195.3 (D) - Fertilizer and Soil Conditioners. Submit hydro-mulching mix and irrigation plan for the Officer-in-Charge's acceptance. Potable water shall be used. Submit alternate sources of irrigation water for the Officer-in-Charge's acceptance. Install non-vegetative controls including mulch or rolled erosion control products while the vegetation is being established. Water and fertilize grass. Apply fertilizer as recommended by the manufacturer. Replace grass the Officer-in-Charge considers unsuitable or sick. Remove and dispose of trash and debris. Remove invasive species. Mow as needed to prevent site or signage obstructions, fire hazard, or nuisance to the public. Do not remove down stream sediment control measures until the vegetation is uniformly established, including no large bare areas, and provides 70 percent of the density of pre-disturbance vegetation. Temporary vegetative stabilization shall not be used longer than one year.
- F. Silt Fences. Silt fences shall be synthetic filter fabric mounted on posts and embedded in compacted ground in accordance with contract documents, and shall be in compliance with ASTM D6462, Standard Practice for Silt Fence Installation.
- G. Berms. Berms shall be gravel or sand wrapped with geotextile material. Alternate materials are allowable if acceptable to the Officer-in-Charge.

Alternative materials or methods to control, prevent, remove and dispose pollution are allowable if acceptable to the Officer-in-Charge.

SP 195.4 CONSTRUCTION

A. Preconstruction Requirements.

(a) Water Pollution, Dust, and Erosion Control Meeting. The Contractor shall schedule a water pollution, dust, and erosion control meeting after the SWPPP is accepted by the Officer-in-Charge. Meeting shall be scheduled 14 calendar days before start of construction work. The meeting shall include, but not be limited to, discussion of sequence of work, plans and proposals for water pollution, dust, and erosion control. The meeting shall include, but not be limited to, the Officer-in-Charge, project inspector, the HHFDC's design project manager and consultant, the HHFDC's environmental consultant, the Contractor, and all subcontractors.

(b) Water Pollution, Dust, and Erosion Control Submittals. The Contractor shall submit a SWPPP to the Officer-in-Charge within thirty (30) calendar days of contract execution. Submission of complete and acceptable SWPPP is the sole responsibility of the Contractor. Additional contract time shall not be issued for delays due to incompleteness. The SWPPP shall include, but is not limited to, the following:

(1) Written description of activities to minimize water pollution and soil erosion into State waters, drainage or sewer systems. The description shall include at a minimum:

- (A) An identification of potential pollutants and their sources.
- (B) A list of all materials and heavy equipment to be used during construction.
- (C) Descriptions of the methods and devices used to minimize the discharge of pollutants into State waters, drainage or sewer systems.
- (D) Details of the procedures used for the maintenance and subsequent removal of any erosion or siltation control devices.
- (E) Methods of removing and disposing hazardous wastes encountered or generated during construction.
- (F) Methods of removing and disposing concrete and asphalt pavement cutting slurry, concrete curing water, and hydrodemolition water.
- (G) Spill control and Prevention and Emergency Spill Response Plan.
- (H) Fugitive dust control, including dust from grinding, sweeping, or brooming off operations or combination thereof.
- (I) Methods of storing and handling of oils, paints and other products used for the project.
- (J) Material storage and handling areas, and other staging areas.

- (K) Concrete truck washouts.
- (L) Concrete waste control.
- (M) Fueling and maintenance of vehicles and other equipment.
- (N) Tracking of sediment offsite from project entries and exits.
- (O) Litter management.
- (P) Sanitary Waste facilities.
- (Q) Other factors that may cause water pollution, dust and erosion control.

(2) Plans indicating location of water pollution, dust and erosion control devices; plans and details of BMPs to be installed or utilized; areas of soil disturbance in cut and fill, indicate areas used for staging and storage including items (A) through (Q) above, areas for storage of aggregate (indicate type of aggregate), asphalt cold mix, soil or solid waste, equipment and vehicle parking, and areas where vegetative practices are to be implemented. Plans indicating intended drainage pattern, using flow arrows, through work area and staging areas. Include separate drawing for each phase of construction that alters drainage patterns and indicate approximate date when device(s) will be installed and removed.

(3) Construction schedule.

(4) The Contractor shall identify an individual as the designee responsible for the implementation, inspection, and oversight of an approved Erosion and Sediment Control Plan (ESCP) and/or SWPPP during construction and shall be the designated ESCP Coordinator for the project. This individual must have a current ESCP Coordinator Certificate from the City and County of Honolulu Department of Planning and Permitting. Include home and business telephone numbers, fax numbers, and e-mail addresses.

(5) Description of fill material to be used.

(6) For NPDES-Permitted projects, information required for compliance with the conditions of the NPDES Notice of General Permit Coverage (NGPC) or NPDES Individual Permit.

(7) Site-Specific BMP Plan (SSBMPP)/SWPPP Review Checklist. The Contractor shall submit the completed checklist to the Officer-in-Charge along with the SWPPP.

The Contractor shall date and sign the SWPPP, and keep an updated and accepted copy on site (i.e. at project office, in foreman's truck, etc.) throughout the duration of the project. The SWPPP shall be made available at the time of an on-site inspection or upon request by the Officer-in-Charge, HHFDC Third-Party Inspector, and or DOH/EPA Representative. Modify the SWPPP, if necessary, by creating an Amendment to conform to the revisions. Include the actual date of installation and removal of Site-Specific BMP measures.

Obtain written acceptance by the Officer-in-Charge before implementing revised Site-Specific BMPs in the field. Amendments to the SWPPP shall be kept with the original SWPPP and clearly labeled.

Follow the latest version of the guidelines in the "City and County of Honolulu Storm Water Best Management Practice Manual Construction", in developing, installing, and maintaining BMPs for all projects. The manual can be obtained by downloading from the City and County of Honolulu's website at www.cleanwaterhonolulu.com. Follow City and County of Honolulu's "Rules for Soil Erosion Standards and Guidelines". For any conflicting requirements between the Manual and applicable contract documents, the applicable strictest requirements shall govern. Should a requirement not be clearly described within the applicable contract documents, notify the Officer-in-Charge immediately for interpretation. For the purposes of clarification "applicable contract documents" include the construction plans, standard specifications, special provisions, Permits, and the SWPPP, when applicable.

(A) Non-NPDES Permitted Project - The Contractor shall indicate in their SWPPP, the total acreage of disturbed area as defined by the NPDES Program. Disturbed area for the project is cumulative. If the total disturbed area is one acre or more see SP 194.1.

(B) NPDES Permitted Project - If there is any additional disturbed area as defined by the NPDES Program or any additional discharge points, see SP 194.1.

B. Construction Requirements. Do not begin work until all submittals are completed and accepted by the Officer-in-Charge.

(a) General

(1) Install, maintain, monitor, repair and replace Site-Specific BMP measures, such as for water pollution, dust, and erosion control; installation, monitoring, and operation of dewatering and hydrotesting activities; removal and disposal of hazardous waste, removal and disposal of solid waste, concrete cutting slurry, concrete curing water; or hydrodemolition water. Site-Specific BMP measures shall be in place, functional and accepted by the Officer-in-Charge prior to initiating any ground disturbing activities.

(2) BMP measures shall be in place and operational (such as shaping the earthwork to control and directing the runoff) at the end of workday or as required by the timeframes in Table 195.1. Shaping earthwork may include constructing earth berms along the top edges of embankments if acceptable to the Officer-in-Charge.

(3) Cleanup and remove any pollutant that can be attributed to the Contractor.

(4) Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.

(5) Limit maximum surface area of earth material exposed at any time to 300,000 square feet. Do not expose or disturb surface area of earth material (including clearing and grubbing) until BMP measures are installed and accepted by the Officer-in-Charge. Protect temporarily or permanently disturbed soil surface from rainfall impact, runoff and wind before end of workday.

(6) Properly maintain all Site-Specific BMP measures.

(7) The Contractor's designated representative specified in Subsection 195.4 A.(b)(4) shall address any BMP deficiencies or administrative non-compliance concerns brought up by the Officer-in-Charge immediately, including weekends and holidays, and complete work to fix the deficiencies and within the timeframes listed in Table 195.1.

(b) SWPPP Amendments. Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages. Install or modify Site-Specific BMP measures due to change in Contractor's means and methods, or for conditions which require a change to the Site-Specific BMP Plan. All Amendments to the SWPPP shall be submitted to the Officer-in-Charge for acceptance prior to implementation in the field.

(c) Rain Gauge and Rain Gauge Data Log. Furnish and install rain gauge in a secure location prior to starting field work, which includes the installation of Site-Specific BMPs. Provide rain gauge with a tolerance of at least 0.05 inches of rainfall. Install rain gauge at the project site in an area that will not deter rainfall from entering the gate opening. Do not install in a location where rainwater may splash into the rain gauge. The rain gauge installation shall be stable and plumbed. Maintain rain gauge and replace rain gauge that is stolen, does not function properly or accurately, is worn out, or needs to be relocated. Do not begin field work until rain gauge is installed and Site-Specific BMPs are in place. If the Contractor proposes to use a rain gauge nearby, the Contractor shall submit the location and website to the Officer-in-Charge for review and approval. Keep daily rain gauge logs readily available on-site and submit a copy of the rain gauge logs weekly to the Officer-in-Charge.

(d) Inspections and Reporting. The Contractor shall conduct Weekly and Rainfall Event inspections. Inspect, prepare a written inspection report, and make repairs to BMP measures at the following intervals:

(1) Weekly.

(2) Within 24 hours of any rainfall of 0.25 inch or greater which occurs in a 24-hour period. If the project has an NPDES Individual Permit, conduct rainfall event inspections as required by the permit.

(3) Daily during periods of prolonged rainfall.

(4) When existing erosion control measures are damaged or not operating properly as required by Site-Specific BMP Plan or SWPPP.

(5) Maintain records of inspections of Site-Specific BMPs. Keep continuous records for duration of the project. Submit copy of Inspection Reports to the Officer-in-Charge within 24 hours after each inspection.

(e) Monthly Compliance Reports. The Contractor shall complete a Monthly Compliance Report within 2 working days of the end of the month. The Monthly Compliance Report shall document any instances of non-compliance and corrective actions, discharges, and major incidents reported to DOH that occurred within the month. The report shall be kept on-site and made available by the end of the next business day when requested by DOH.

(f) Receiving State Waters Inspections Report for NPDES Individual Permits. The Contractor shall inspect, at a minimum of once per week, the receiving state waters, storm water runoff and control measures and BMPs to detect violations of and conditions which may cause or contribute to a violation of the basic water quality criteria as specified in the Hawaii Administrative Rules, Chapter 11-54, Section 11-54-4. The Contractor shall visually inspect storm water discharges and receiving state waters for turbidity, color, floating oil and grease, floating debris and scum, materials that will settle, substances that will produce taste in the water or detectable off-flavor in fish, and inspect for items that may be toxic or harmful to human or other life. If any of these are observed, the Contractor shall conduct an inspection of the project site to determine if there were polluted discharge originating from the site. The Contractor shall notify the Officer-in-Charge immediately upon discovery of discharges from the project site. Any discharge from the site shall be isolated, contained, reported and documented following the procedures in the SWPPP.

The Contractor shall document the inspections of the State Receiving Waters and submit a copy of the inspection reports to the Officer-in-Charge within 24 hours of conducting the inspection.

(g) Construction Discharge Report. If a discharge of non-storm water or polluted storm water discharge has or may have potentially entered a storm drain or Receiving State Waters, if

a discharge (e.g. spill) has occurred, if a polluted discharge is observed leaving the projects limits, or if there is evidence of an unreported polluted discharge leaving the projects limits prior to inspection (such as a silty trail, eroded areas beyond project limits), the Contractor shall complete a Construction Discharge Report. If the discharge is a result of construction activities, the Contractor shall immediately stop the activity which caused the discharge and isolate and contain the discharge. The Contractor shall immediately inform the Officer-in-Charge. If the discharge involves hazardous materials or poses a threat to the public or environment, the Contractor shall call 911, and notify the responsible parties and follow the protocols listed in the project's Emergency Spill Response Plan.

The Contractor shall submit a complete Construction Discharge Report to the Officer-in-Charge within 24 hours of the discovery of the discharge.

Best Management Practices

The Contractor shall implement as appropriate the following BMPs, but not limited to:

(1) Sediment Track-Out. Install and maintain stabilized construction entrance to minimize tracking of dirt and mud onto roadways. See BMP Manual or construction plans for requirements on size of rock and minimum dimensions. Install and maintain wheel wash, as required. Restrict traffic to stabilized construction areas only. Clean dirt, mud, or other material tracked onto the road, sidewalk, or other paved area by the end of the same day in which the track-out occurs. Modify stabilized construction entrances to prevent dirt or mud from being tracked onto road. Stabilize entire access roads, if necessary.

(2) Dust Control and Sediment Containment. Cover exposed surface of materials completely with tarpaulin or similar device when transporting aggregate, soil, excavated material or material that may be source of fugitive dust.

Cover stockpiles with sheet plastic or similar device and install perimeter control around stockpiles when stockpiles are not in use.

(3) Sanitary/Septic Waste. Provide secondary containment for portable sanitary waste facilities and secure to prevent falling over.

(4) Stabilization. Immediately initiate stabilizing areas with exposed soil upon completion of earth-disturbing activities for areas permanently or temporarily ceased on any portion of the site. Earth-disturbing activities have permanently ceased when clearing and excavation activities within any area of the construction site that does not have permanent structures has been completed. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation activities within any area of the site that does not have permanent structures

will not resume for a period of 14 or more calendar days, but such activities will resume in the future. The term "immediately" is used in this section to define the deadline for initiating stabilization measures. "Immediately" means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased.

For all projects stabilization shall be as follows:

(i) For construction areas discharging into waters not impaired for nutrients or sediments, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.

(ii) For construction areas discharging into nutrient or sediment impaired waters, complete initial stabilization within 7 calendar days after the temporary or permanent cessation of earth-disturbing activities.

Any of the following types of activities constitutes initiation of stabilization:

(i) Prepping the soil for vegetative or non-vegetative stabilization;

(ii) Applying mulch or other non-vegetative product to the exposed area;

(iii) Seeding or planting the exposed area;

(iv) Starting any of the activities in items (1) - (3) above on a portion of the area to be stabilized, but not on the entire area; and

(v) Finalizing arrangements to have stabilization product fully installed in compliance with the deadline for completing initial stabilization activities.

Any of the following types of activities constitutes completion of initial stabilization activities:

(i) For vegetative stabilization, complete all activities necessary to initially seed or plant the area to be stabilized; and/or

(ii) For non-vegetative stabilization, complete the installation or application of all such non-vegetative measures.

If the Contractor is unable to meet the deadlines aforementioned due to circumstances beyond the Contractor's control, and the Contractor is using

vegetative cover for temporary or permanent stabilization, the Contractor shall provide to the Officer-in-Charge a Plan for acceptance and the Contractor shall implement the accepted Plan. The Plan shall consist of the following.

(i) Immediately initiate and provide a timeframe, to complete the installation of temporary non-vegetative stabilization measures to prevent erosion;

(ii) Provide a schedule to complete all soil conditioning, seeding, watering or irrigation installation, mulching, and other required activities related to the planting and initial establishment of vegetation as soon as practicable on the site; and

(iii) Provide a justification to the Officer-in-Charge of the circumstances that prevent the Contractor from meeting the deadlines above for stabilization and the schedule the Contractor shall follow for initiating and completing initial stabilization and as agreed to by the Officer-in-Charge.

(iv) Follow the applicable requirements of the specifications and special provisions including Standard Specifications Section 51 - Planting Trees, Shrubs, Ground Cover and Grass.

(v) Immediately after seeding or planting the area to be vegetatively stabilized, to the extent necessary to prevent erosion on the seeded or planted area, select, design, and install non-vegetative erosion controls that provide cover (e.g., mulch, rolled erosion control products) to the area while vegetation is becoming established. Period of maintenance, final inspection, and acceptance shall be in accordance with the requirements of Subsection 51.5 (Planting Trees, Shrubs, Ground Cover and Grass - Period of Maintenance) and Subsection 51.6 (Planting Trees, Shrubs, Ground Cover and Grass - Final Inspection and Acceptance) of the Standard Specifications unless otherwise specified in the contract documents.

(vi) Protect exposed or disturbed surface area with mulches, grass seeds or hydromulch. Spray mulches at a rate of 2,000 pounds per acre. Add tackifier to mix at a rate of 85 pounds per acre. Apply grass seeds at a rate of 125 pounds per acre. For hydromulch, use the ingredients and rates required for mulches and grass seeds. Submit recommendations from a licensed Landscape Architect when deviating

from the application rates above.

(vii) Apply fertilizer to mulches, grass seed or hydromulch per manufacturer's recommendations. Submit recommendations from a licensed Landscape Architect when deviating from the manufacturer's recommendations.

(viii) Install velocity dissipation measures when exposing erodible surfaces greater than 15 feet in height.

(ix) Chemicals may be used as soil stabilizers for either or both erosion and dust control, if acceptable to the Officer-in-Charge.

(x) Provide temporary slope drains of rigid or flexible conduits to carry runoff from cuts and embankments. Provide portable flume at the entrance. Shorten or extend temporary slope drains to ensure proper function.

(xi) Protect ditches, channels, and other drainageways leading away from cuts and fills at all times by either hydro-mulching the lower region of embankments in the immediate area, installing check dams and siltation control devices, or implementing other methods acceptable to the Officer-in-Charge.

(xii) Provide for controlled discharge of waters impounded, directed, or controlled by project activities or erosion control measures.

(xiii) Protect finished and previously seeded areas from damage and from spillover materials placed in upper lifts of embankment.

TABLE 195.1 Timeframes for Addressing Non-Compliances (BMP Deficiencies)

Type of Non-Compliance	Examples	Timeframe to Complete**
Track Out	Any time vehicles leaving a construction site track sediment/ gravel off-site (e.g., onto the roadway)	End of same work day as it occurs
Drain Inlet Protection	Inlet protection BMPs require maintenance	End of same work day during which it is found
Routine Maintenance	Maintenance of BMPs that were installed per accepted BMP Plan	Close of the next work day
Significant Repair	Repair to BMPs that were heavily damaged (e.g. damaged due to a storm event or other major event)	No later than 7 calendar days from time of discovery
New Sediment Erosion Control BMP	Installation of additional BMPs that were not on the accepted BMP Plan (this requires an amendment)	No later than 7 calendar days from time of discovery
Replacement Sediment Erosion Control BMP	Major replacement of BMPs already installed	No later than 7 calendar days from time of discovery
Stabilization (Non-Vegetative)	Installation of temporary non-vegetative stabilization measures to prevent erosion	7 calendar days
Stabilization (Vegetative)	All activities necessary to initially seed or plant the area to be stabilized	7 calendar days
<p>Note: (**) The Contractor shall commence corrective action immediately and the timeframe to complete these non-compliances may be more stringent if there is an impending storm, if there is potential for imminent discharge, or if the Officer-in-Charge designates a more stringent timeframe.</p>		

(h) Third-Party Inspections. Address any Site-Specific BMP deficiencies brought up by the HHFDC's Third-Party Inspector in the timeframes listed in Table 195.1; or as required by the HHFDC's Third-Party Inspection Program. The most stringent of these timeframes governs. The Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants. When installation of a new pollution prevention control or a significant repair is needed, complete installation or repair no later than seven (7) calendar days from the time of notification/Contractor discovery or in the timeframe designated by the Officer-in-Charge. Notify the Officer-in-Charge and document why it is infeasible to complete the installation or repair within seven (7) calendar days and complete the work as soon as practicable and as agreed to by the Officer-in-Charge. Address Site-Specific BMP deficiencies discovered by the Contractor within the timeframes listed in Table 195.1.

(i) Failure to Address Deficiencies. The Contractor's failure to satisfactorily address these Site-Specific BMP deficiencies, the Officer-in-Charge reserves the right to employ outside assistance or use the Officer-in-Charge's own labor forces to provide necessary corrective measures. The Officer-in-Charge will charge the Contractor such incurred costs plus any associated project engineering costs. Failure to apply Site-Specific BMP measures may result in one or more of the following: suspension, or cancellation of Contract with the Contractor being fully responsible for all additional costs incurred by the HHFDC as well as any fines or penalties.

(j) Discharges of Storm Water Associated with Construction Activity. If an NPDES Permit is triggered due to the Contractor's means and methods, see SP 194.1, the Contractor shall not begin construction activities until all required conditions of the permit are met and submittals detailed in this Section and SP 194.1 are completed and accepted by the Officer-in-Charge.

The Contractor shall review the effectiveness and adequacy of the implemented Site-Specific BMP Plans and Erosion and Sediment Control Plan at a minimum of once a week.

If the Officer-in-Charge determines and notifies the Contractor that the Site-Specific BMP Plan(s) and/or the Erosion and Sediment Control Plan are ineffective, inadequate and do not meet the requirements of the NGPC/NPDES Individual Permit, the Contractor shall immediately cease all work and construction activity associated with and contributing to the unauthorized discharge. If the Contractor observes an unauthorized discharge, the Contractor shall immediately notify the Officer-in-Charge of the unauthorized discharge upon discovery and immediately cease the construction activity causing the discharge. The Contractor shall take immediate remedial actions as appropriate to isolate and contain the discharge, investigate the cause, cleanup, and modify the Site-Specific BMP Plans, and Erosion and Sediment Control Plan to prevent the unauthorized discharge to the satisfaction of the Officer-in-Charge.

The Contractor shall prepare and submit a revised written Site-Specific BMP Plan(s) to the Officer-in-Charge for review and acceptance within 24 hours from discovery of the unauthorized discharge. All work and construction activity associated with and contributing to the unauthorized discharge shall not resume until adequate mitigative measures are implemented, appropriate corrective actions are taken, and the revised Site-Specific BMP Plan(s) are accepted by the Officer-in-Charge.

(k) Discharges of Hydrotesting Waters. If work includes removing, relocating or installing waterlines, and the Contractor elects to flush waterline or discharge hydrotesting effluent into State waters or drainage systems, see SP 194.1. The Contractor shall not begin hydrotesting activities until DOH-CWB has issued an NPDES Permit and all required conditions of the permit are met and submittals detailed in this Section and SP 194.1 are completed and accepted by the Officer-in-Charge.

(1) Discharges Associated with Construction Activity Dewatering. If dewatering activities require effluent discharge into State waters or drainage systems, see SP 194.1. The Contractor shall not begin dewatering activities until DOH-CWB has issued an NPDES Permit and all required conditions of the permit are met and submittals detailed in this Section and SP 194.1 are completed and accepted by the Officer-in-Charge.

The Contractor shall conduct dewatering operations in accordance with the conditions in the NPDES Permit.

The Contractor shall review the effectiveness and adequacy of the implemented Site-Specific Dewatering Plan and other related plans during any dewatering operations. The Officer-in-Charge will determine the frequency of review.

The Contractor shall be responsible for monitoring the discharge effluent as indicated in the NPDES Permit, reviewing the monitoring results, and submitting the monitoring results to the Officer-in-Charge immediately when they become available to determine the effectiveness and adequacy of the site-specific plans.

If the monitoring results of the discharge effluent indicate pollutant levels exceeding the discharge limits or if the Officer-in-Charge determines that the site-specific plan(s) are ineffective, inadequate and do not meet the requirements of the NGPC, the Contractor shall immediately cease all discharge of effluent into State receiving waters, and take immediate and appropriate action by modifying the site-specific plan(s).

The Contractor shall notify the Officer-in-Charge immediately after discovering that pollutant levels of the discharge effluent exceeded the discharge limits and provide an explanation of the origin of the pollutant. The Officer-in-Charge will report the monitoring results and pollutant origin to the DOH-CWB within 24 hours after becoming aware that pollutant levels exceeded the discharge limit.

The Contractor shall prepare and submit a revised written site-specific plan(s) to the Officer-in-Charge for review and acceptance within 24 hours after discovering pollutant levels exceeding the discharge limitations.

The discharge of effluent into State receiving waters shall not resume until adequate mitigative measures are implemented, appropriate corrective actions are taken, and the revised site-specific plan(s) is accepted by the Officer-in-Charge.

(m) Solid Wastes. Submit the signed and dated Solid Waste Disclosure Form for Construction Sites with the SWPPP. If there are any revisions to the information on the Solid Waste Disclosure Form, the form shall be resigned, dated, and submitted to the Officer-in-Charge, prior to taking solid waste to that facility. Submit monthly a copy of all the disposal receipts

from the facilities permitted by the Department of Health to receive solid waste to the Officer-in-Charge. Provide documentation from any intermediary facility where the solid waste is handled or processed, as directed by the Officer-in-Charge.

All material not used on the project may be reused, recycled, or disposed of in compliance with all Federal, State, City, and OSHA requirements and regulations. The Contractor should be aware that the roadway pavement striping and markings may contain lead.

(n) Construction BMP Training. The Contractor and their Sub-contractors responsible for installing or maintaining Site-Specific BMPs in the field shall attend Construction Best Management Practices Training. The Contractor shall keep training logs updated and readily available on-site.

SP 195.5 NON-COMPLIANCE

The Officer-in-Charge will notify the Contractor of any non-compliance with the foregoing provisions and the action to be taken. If the Contractor fails or refuses to comply promptly, the Officer-in-Charge may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No extension of time or payment for excess costs or damages shall be made for the time lost due to such stop action. In addition, the Contractor shall be responsible for all citations, fines, and penalties for any non-compliance.

SP 195.6 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure environmental pollution control for payment. The Officer-in-Charge will not pay for environmental pollution control separately and will consider the cost for environmental pollution control as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents.

The Officer-in-Charge will pay for any accepted additional water pollution, dust and erosion control as directed by the Officer-in-Charge on an allowance basis. Payment will be full compensation for all work prescribed in this section, and any other work directed by the Officer-in-Charge. Payment will be deducted from the allowance set in the Offer and shall be included in the monthly estimate for the progress payment upon submittal of paid invoices, with sufficient documentation to account for the costs of all labor, equipment, materials, and any other items invoiced. The Contractor shall collect and maintain sufficient documentation to validate reimbursement under this Section. The Contractor shall submit records of the work performed at the end of each day on Daily Force Account Report sheets issued by the Officer-in-Charge to justify labor, equipment, and material costs. The unused portion of the allowance item shall remain with the HHFDC upon completion of the contract.

The Officer-in-Charge will not measure for the determination and characterization of fill material. The Officer-in-Charge will not pay for the determination and characterization of fill material but will consider the cost of the determination and characterization of fill material as included in the

contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents.

No progress payment will be authorized until the Officer-in-Charge reviews the SWPPP, or when the Contractor fails to maintain the project site in accordance with the accepted SWPPP.

For all citations, fines or penalties received from the Environmental Protection Agency (EPA), State Department of Health (DOH), U.S. Army Corps of Engineers (USACE), the City and County of Honolulu, or any other regulatory agency for non-compliances, including, but not limited to, non-compliance with the conditions of the NPDES Permit, 401 Water Quality Certification, and U.S. Army Corps of Engineer Permit(s) or violations of the Clean Water Act, the Contractor shall reimburse the HHFDC within 30 calendar days for the full amounts of each of the outstanding costs, or the Officer-in-Charge will deduct the cost from the progress payment."

END OF SECTION SP 195

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 198 - SAFETY PRECAUTIONS AND PROTECTION OF PROPERTY

SP 198.1 PROTECTION OF THE PUBLIC

The Contractor shall at all times provide adequate protection to passing pedestrians and vehicular traffic and shall erect and maintain suitable barriers, fences, warning signs and other necessary devices to protect the public in accordance with Article 7 - Prosecution and Progress, Section 7.17 Protection of Persons and Property, of the HHFDC General Conditions, and as supplemented herein. The general area must be kept clear at all times.

SP 198.2 DUST NUISANCE

The Contractor shall take proper precautions to minimize the creation of dust during their operations and shall take all necessary steps to prevent dust from entering the adjacent buildings and private property.

SP 198.3 PROTECTION OF PROPERTY

The Contractor shall continually maintain adequate protection for all their work from damage and shall protect all HHFDC, DHHL, and adjacent private systems located at or adjacent to the jobsite. All existing fences and stone retaining walls shall be maintained in their existing condition. Any removal or alteration of such walls shall be performed only after receiving written permission of the landowner. A copy of the letter shall be submitted to the Officer-in-Charge seven (7) days prior to modifying the wall. The Contractor shall repair, replace or pay the expense of repair for damages resulting from their fault or negligence.

SP 198.4 MEASUREMENT AND PAYMENT

The Officer-in-Charge shall not measure safety precautions and protection of property for payment. The Officer-in-Charge shall not pay for safety precautions and protection of property separately and shall consider the cost for safety precautions and protection of property as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 198

The following Section shall be made a part of the Standard Specifications:

"SECTION SP 199 - CONSTRUCTION AREA APPEARANCE

SP 199.1 GENERAL

The Contractor shall throughout the duration of the project keep all streets, sidewalks and driveways free from all debris produced from the project. The Contractor shall keep the project and surrounding area neat and free from dust nuisance. The HHFDC may require supplementary measures as necessary.

Upon completion of each phase of the project, the Contractor shall immediately remove all excess material and thoroughly clean the affected area.

Work includes, but is not limited to, removal of excess or splashed concrete on covers of utility boxes, street light standards, traffic signal standards and on any structures without discoloring or damaging the existing items.

SP 199.2 COMPLETION OF WORK

Upon completion of the work, the Contractor shall remove all equipment, signs, and unused materials provided for the work and shall restore the project site to a neat and clean condition and do all the other required cleaning as specified above.

SP 199.3 NON-COMPLIANCE

Should the Contractor fail to comply with the foregoing provisions, the HHFDC may, with or without notice, cause the cleaning to be done and deduct the cost of such work from any moneys due the Contractor under this contract.

SP 199.4 MEASUREMENT AND PAYMENT

The Officer-in-Charge will not measure work under this section for payment. The Officer-in-Charge will not pay for work under this section separately and will consider the cost for the work as included in the contract prices for the various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION SP 199

The following section shall be made a part of the Standard Specifications:

"SECTION SP 204 - ARCHAEOLOGICAL MONITORING

SP 204.1 GENERAL

In the event that any subsurface archaeological sites or remains of historic value such as artifacts or charcoal deposits are encountered, the Contractor shall stop work, protect the find from further damage and immediately notify the Officer-in-Charge, the Honolulu Police Department, and the State Historic Preservation Division, Department of Land and Natural Resources by phone at (808) 692- 8015 to assess the significance of the find and recommend appropriate mitigation measures, if necessary. Inadvertent finds of human remains shall be treated in accordance with the provisions of Chapter 6E-43.6, HRS and HAR 13-300-40. Subsequently, if HHFDC or the State Historic Preservation Officers require it, the Contractor shall engage the services of a professional archaeologist to assist HHFDC to work and coordinate with the State Historic Preservation Officers.

SP 204.2 QUALIFIED ARCHAEOLOGIST REQUIREMENTS

A Qualified Archaeologist shall be approved by the State Historic Preservation Division (SHPD), meet minimal National Park Service standards as an archaeologist, and shall have the following professional qualifications:

- A. A graduate degree from an accredited institution in archaeology, or anthropology, with a specialization in archaeology, or an approved substitute field;
- B. At least one year of cumulative archaeological experience in Hawaii or the Pacific;
- C. At least four months of supervised archeological field and analytic experience in Hawaii;
- D. At least one year of archaeological research, administration, or management at a supervisory level with at least four months of field experience;
- E. A demonstrated ability to carry research to completion, as shown by completed theses, publications, and manuscripts; and
- F. A demonstrated knowledge of historic preservation laws, rules, and guidelines.

A link for the list of permitted Archaeological Consultants in the State of Hawaii is available on the page below:

<http://dlnr.hawaii.gov/shpd/about/branches/archaeology/>

The Contractor shall submit the qualifications of the archaeologist prior to the start of the archaeologist work.

SP 204.3 MONITORING

Archaeologist's Role. The Qualified Archaeologist shall have the authority to stop work immediately in the area of any findings so that

documentation can proceed and appropriate treatment can be determined. In addition, the Qualified Archaeologist shall have the authority to slow and/or suspend construction activities in order to ensure that the necessary archaeological sampling and recording can take place.

SP 204.4 MEASUREMENT AND PAYMENT

The Officer-in-Charge will pay for archaeological monitoring on an allowance basis only as authorized by the Officer-in-Charge. Payment will be full compensation for all work prescribed in this section, and any other archaeological-related work directed by the Officer-in-Charge. The unused portion of the allowance item shall remain with the HHFDC upon completion of the contract."

END OF SECTION SP 204

APPENDIX

Years 2022 and 2023
Holidays to be observed by the
HAWAII STATE GOVERNMENT

www.dhrd.hawaii.gov
 Website where State Holiday Schedule posted

Year 2022 HAWAII STATE HOLIDAYS

<u>(Hawaii Rev. Statutes, Sec. 8-1)</u>	<u>Day Observed in 2022</u>	<u>Official Date Designated in Statute/Constitution</u>
New Year's Day.....	Dec. 31 Friday	The first day in January
Dr. Martin Luther King, Jr. Day.....	Jan. 17 Monday.....	The third Monday in January
Presidents' Day.....	Feb. 21 Monday.....	The third Monday in February
Prince Jonah Kuhio Kalaniana'ole Day.....	Mar. 25 Friday	The twenty-sixth day in March
Good Friday.....	April 15 Friday.....	The Friday preceding Easter Sunday
Memorial Day.....	May 30 Monday.....	The last Monday in May
King Kamehameha I Day.....	June 10 Friday	The eleventh day in June
Independence Day.....	July 4 Monday.....	The fourth day in July
Statehood Day.....	Aug. 19 Friday.....	The third Friday in August
Labor Day.....	Sept. 5 Monday.....	The first Monday in September
General Election Day	Nov. 8 Tuesday.....	The first Tuesday in Nov. following the first Monday of even numbered years. (<i>Hawaii State Constitution, Article 2 – Section</i>)
Veterans' Day.....	Nov. 11 Friday	The eleventh day in November
Thanksgiving.....	Nov. 24 Thursday.....	The fourth Thursday in November
Christmas.....	Dec. 26 Monday	The twenty-fifth day in December

Year 2023 HAWAII STATE HOLIDAYS

<u>(Hawaii Rev. Statutes, Sec. 8-1)</u>	<u>Day Observed in 2023</u>	<u>Official Date Designated in Statute/Constitution</u>
New Year's Day.....	Jan. 02 Monday.....	The first day in January
Dr. Martin Luther King, Jr. Day.....	Jan. 16 Monday.....	The third Monday in January
Presidents' Day.....	Feb. 20 Monday.....	The third Monday in February
Prince Jonah Kuhio Kalaniana'ole Day.....	Mar. 27 Monday	The twenty-sixth day in March
Good Friday.....	April 7 Friday.....	The Friday preceding Easter Sunday
Memorial Day.....	May 29 Monday.....	The last Monday in May
King Kamehameha I Day.....	June 12 Monday.....	The eleventh day in June
Independence Day.....	July 4 Tuesday.....	The fourth day in July
Statehood Day.....	Aug. 18 Friday.....	The third Friday in August
Labor Day.....	Sept. 4 Monday.....	The first Monday in September
Veterans' Day.....	Nov. 10 Friday	The eleventh day in November
Thanksgiving.....	Nov. 23 Thursday.....	The fourth Thursday in November
Christmas.....	Dec. 25 Monday	The twenty-fifth day in December

FOOTNOTES: For use solely by State government agencies. Federal government and local banking holidays may differ. For State agencies that operate on other than Monday-Friday 7:45 AM to 4:30 PM schedules, also refer to appropriate collective bargaining agreements. **Created by the Department of Human Resources Development 7/19/2021** subject to change.

ESTIMATE FOR CHANGE ORDER

(General and Subcontractor)

DATE _____

PROJECT: _____

HHFDC JOB NO. _____ CONTRACTOR _____

Ref: Bulletin No. _____ PCD No. _____ Field Order _____

Work Description _____

MATERIALS

Unit	Description	Unit Prices	Subtotal
_____	_____	\$ _____	\$ 0.00
_____	_____	\$ _____	\$ 0.00
_____	_____	\$ _____	\$ 0.00
_____	_____	\$ _____	\$ 0.00
ea	_____	\$ _____	\$ 0.00
ea	_____	\$ _____	\$ 0.00

TOTAL FOR MATERIALS..... \$ 0.00 (1)

LABOR

Classification	Hours	Hourly Rate	Fringe	
_____	_____	\$ _____	\$ _____	\$ 0.00
Fringe	0	\$ _____	\$ _____	\$ 0.00
_____	_____	\$ _____	\$ _____	\$ 0.00
Fringe	0	\$ _____	\$ _____	\$ 0.00
_____	_____	\$ _____	\$ _____	\$ 0.00
Fringe	0	\$ _____	\$ _____	\$ 0.00
_____	_____	\$ _____	\$ _____	\$ 0.00
Fringe	0	\$ _____	\$ _____	\$ 0.00
_____	_____	\$ _____	\$ _____	\$ 0.00
Fringe	0	\$ _____	\$ _____	\$ 0.00

SUBTOTAL FOR LABOR \$ 0.00 (2) \$ 0.00 (3)

TOTAL FOR LABOR (Fringes & Wages) (2) + (3) \$ 0.00 (4)

SUBTOTAL (MATERIALS & LABOR) (1) + (4) \$ 0.00 (5)

Overhead & Profit (20%) of (5)..... \$ 0.00 (6)

Insurance & Taxes (_____ % of (3) (see Note A)..... \$ 0.00 (7)

TOTAL (MATERIALS & LABOR) (5)+(6)+(7) \$ 0.00 (8)

ESTIMATE FOR CHANGE ORDER

(General and Subcontractor)

EQUIPMENT

Type or Class	Hours	Hourly Rate	
		\$	0.00
		\$	0.00
		\$	0.00
		\$	0.00
		\$	0.00
		\$	0.00
		\$	0.00
TOTAL FOR EQUIPMENT			\$ 0.00 (9)

SUBCONTRACTORS

Name	
	\$
	\$
	\$
	\$
	\$
	\$
	\$
SUBTOTAL FOR SUBCONTRACTORS	
	\$ 0.00 (10)
Overhead & Profit 10% of (10)	\$ 0.00 (11)
TOTAL FOR SUBCONTRACTORS (10)+(11).....	\$ 0.00 (12)
TOTAL (MATERIAL, LABOR, EQUIPMENT & SUBCONTRACTORS) (8)+(9)+(12)	\$ 0.00 (13)
Bond Fee (%) of (13) if applicable (see Note B).....	\$ 0.00 (14)
General Excise Tax 4.5% on (13)	\$ 0.00 (15)
TOTAL FOR CHANGE ORDER (13)+(14)+(15)	\$ 0.00 (16)

- Notes: A Contractor to enter insurance & tax rate and submit proof of such
 B Contractor to enter bond rate and submit proof of such



STATE OF HAWAII

SUPPLEMENTAL CONTRACT NO. ____
TO CONTRACT

(Insert contract number or other identifying information)

This Supplemental Contract No. _____, executed on the respective dates indicated below, is effective as of _____, between the Hawaii Housing Finance and Development Corporation _____, State of Hawaii

(Insert name of state department, agency, board or commission)

("STATE"), by its Executive Director _____, (Insert title of state officer executing contract)

(hereafter also referred to as the HEAD OF THE PURCHASING AGENCY or designee ("HOPA")), whose address is _____, and

_____ ("CONTRACTOR"),

a _____ (Insert corporation, partnership, joint venture, sole proprietorship, or other legal form of the CONTRACTOR)

under the laws of the State of _____, whose business address and federal and state taxpayer identification numbers are as follows: _____

RECITALS

A. WHEREAS, the STATE and the CONTRACTOR entered into Contract

(Insert contract number or other identifying information)

dated _____, _____, which was amended by Supplemental Contract No(s). _____
dated _____, _____, which was amended by Supplemental Contract No(s). _____
dated _____, _____, which was amended by Supplemental Contract No(s). _____
dated _____, _____ (hereafter collectively referred to as "Contract"), whereby the CONTRACTOR agreed to provide the goods or services, or both, described in the Contract; and

B. WHEREAS, the parties now desire to amend the Contract.

NOW, THEREFORE, the STATE and the CONTRACTOR mutually agree to amend the Contract as follows: (Check Applicable box(es))

- Amend the SCOPE OF SERVICES according to the terms set forth in Attachment-S1, which is made a part of the Contract.
Amend the COMPENSATION AND PAYMENT SCHEDULE according to the terms set forth in Attachment-S2, which is made a part of the Contract.
Amend the TIME OF PERFORMANCE according to the terms set forth in Attachment-S3, which is made a part of the Contract.
Amend the SPECIAL CONDITIONS according to the terms set forth in Attachment-S6 SUPPLEMENTAL SPECIAL CONDITIONS, which is made a part of the Contract.
Recognize the CONTRACTOR'S change of name.

FROM: _____

TO: _____

As set forth in the documents attached hereto as Exhibit _____, and incorporated herein.

A tax clearance certificate from the State of Hawaii is is not required to be submitted to the STATE prior to commencing any performance under this Supplemental Contract.

A tax clearance certificate from the Internal Revenue Service is is not required to be submitted to the STATE prior to commencing any performance under this Supplemental Contract.

The entire Contract, as amended herein, shall remain in full force and effect.

IN VIEW OF THE ABOVE, the parties execute this Contract by their signatures, on the dates below, to be effective as of the date first above written.

STATE

(Signature)

(Print Name)

(Print Title)

(Date)

CONTRACTOR

CORPORATE SEAL
(If available)

(Name of Contractor)

(Signature)

(Print Name)

(Print Title)

(Date)

APPROVED AS TO FORM:

Deputy Attorney General

* Evidence of authority of the CONTRACTOR'S representative to sign this Contract for the CONTRACTOR must be attached.

HHFDC Payment Progress Schedule "BREAKDOWN"

Payment Request No:

(A)	(B)	(C)	(D)	(C) x (D)	(E) x 5%	(E) - (F)	Prior (G)	(G) - (I)
Description of Work	Account Number	Contract Amount	Percent Complete	Amount Earned to Date	Retention	Net Amount Earned	Previous Payments Received	Amount Due
Roads/Parking Areas	1450	236,000.00	0.00%	0.00	0.00	0.00	0.00	0.00
Concrete Walkways	1450	175,000.00	60.00%	105,000.00	5,250.00	99,750.00	83,125.00	16,625.00
Exterior Stairs/Steps	1450	75,000.00	50.00%	37,500.00	1,875.00	35,625.00	21,375.00	14,250.00
Fencing/Retaining Walls	1450	125,000.00	25.00%	31,250.00	1,562.50	29,687.50	29,687.50	0.00
Ground Work	1450	225,000.00	75.00%	168,750.00	8,437.50	160,312.50	149,625.00	10,687.50
Onsite Infrastructure	1450	200,000.00	65.00%	130,000.00	6,500.00	123,500.00	76,000.00	47,500.00
Electrical Distribution Systems	1450	250,000.00	50.00%	125,000.00	6,250.00	118,750.00	47,500.00	71,250.00
Site Lighting	1450	50,000.00	15.00%	7,500.00	375.00	7,125.00	7,125.00	0.00
Landscaping	1450	115,000.00	0.00%	0.00	0.00	0.00	0.00	0.00
Miscellaneous Site Work	1450	275,000.00	75.00%	206,250.00	10,312.50	195,937.50	182,875.00	13,062.50
Roofing	1460	434,000.00	70.00%	303,800.00	15,190.00	288,610.00	247,380.00	41,230.00
Heat/Cooling Systems	1460	20,000.00	80.00%	16,000.00	800.00	15,200.00	15,200.00	0.00
Exterior Structural Work	1460	25,000.00	66.80%	16,700.00	835.00	15,865.00	15,859.72	5.28
a. Conc Spall Repair	1460	25,000.00	62.00%	15,500.00	775.00	14,725.00	1,570.00	13,154.86
Waterproofing/Coating	1460	237,000.00	100.00%	237,000.00	11,850.00	225,150.00	225,150.00	0.00
Walkways/Lanais	1460	75,000.00	70.00%	52,500.00	2,625.00	49,875.00	17,812.50	32,062.50
Exterior Stairs	1460	80,000.00	50.00%	40,000.00	2,000.00	38,000.00	28,500.00	9,500.00
a. Conc Crack Repair	1460	20,000.00	0.70%	140.00	7.00	133.00	128.25	4.75
Electrical Systems	1460	367,450.00	55.00%	202,097.50	10,104.88	191,992.62	190,000.00	1,992.62
a. Install Metal Raceways	1460	18,750.00	40.00%	7,500.00	375.00	7,125.00	0.00	7,125.00
b. Install Copper Wires	1460	13,800.00	40.00%	5,520.00	276.00	5,244.00	0.00	5,244.00
Resident Protection	1460	24,000.00	100.00%	24,000.00	1,200.00	22,800.00	22,800.00	0.00
Mechanical System	1460	730,000.00	85.00%	620,500.00	31,025.00	589,475.00	554,800.00	34,675.00
Termite Control	1460	3,000.00	100.00%	3,000.00	150.00	2,850.00	2,850.00	0.00
Doors	1460	57,000.00	40.00%	22,800.00	1,140.00	21,660.00	21,660.00	0.00
Windows	1460	98,000.00	80.00%	78,400.00	3,920.00	74,480.00	46,550.00	27,930.00
Accessibility Work	1460	25,000.00	60.00%	15,000.00	750.00	14,250.00	9,500.00	4,750.00
Building Miscellaneous	1460	315,868.00	50.00%	157,934.00	7,896.70	150,037.30	150,037.30	0.00
Kitchen Work	1460	525,000.00	35.00%	183,750.00	9,187.50	174,562.50	124,687.50	49,875.00
Interior Stairs	1460	5,000.00	10.00%	500.00	25.00	475.00	0.00	475.00
Flooring	1460	100,000.00	44.00%	44,000.00	2,200.00	41,800.00	41,800.00	0.00
Bathroom Work	1460	295,625.00	35.00%	103,468.75	5,173.44	98,295.31	98,295.31	0.00
a. Patch opening to tub drain	1460	4,375.00	0.00%	0.00	0.00	0.00	0.00	0.00
Hazardous Material Abatement	1460	100,000.00	100.00%	100,000.00	5,000.00	95,000.00	95,000.00	0.00
Appliances	1465	2,000.00	20.00%	400.00	20.00	380.00	0.00	380.00
SUBTOTAL		5,326,868.00	57.48%	3,061,760.25	153,088.01	2,908,672.24	2,506,893.22	401,779.01
Change Orders								
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(I)	(J)
Description of Work	Account Number	Contract Amount	Percent Complete	Amount Earned to Date	Retention	Net Amount Earned	Previous Payments Received	Amount Due
CO #1-Electrical Distr. Sys.	1450	5,000.00	20.00%	1,000.00	50.00	950.00	0.00	950.00
CO #1-Electrical Systems	1460	15,000.00	0.00%	0.00	0.00	0.00	0.00	0.00
CO #2-Kitchen Work	1460	3,000.00	75.00%	2,250.00	112.50	2,137.50	0.00	2,137.50
CO #		0.00	0.00%	0.00	0.00	0.00	0.00	0.00
CO #		0.00	0.00%	0.00	0.00	0.00	0.00	0.00
CO #		0.00	0.00%	0.00	0.00	0.00	0.00	0.00
TOTAL		23,000.00	14.13%	3,250.00	162.50	3,087.50	0.00	3,087.50

1450	1,731,000.00	46.92%	812,250.00	40,612.50	771,637.50	597,312.50	174,325.00
1460	3,616,868.00	62.27%	2,252,360.25	112,618.02	2,139,742.23	1,909,580.72	230,161.51
1465	2,000.00	20.00%	400.00	20.00	380.00	0.00	380.00
TOTAL	5,349,868.00	57.29%	3,065,010.25	153,250.52	2,911,759.73	2,506,893.22	404,866.51

CONTRACTOR'S CERTIFICATION OF PAYMENT

I hereby certify, to the best of my knowledge and belief, that:

- (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
- (2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements;
- (3) Any money paid to the prime contractor from previous payments have been dispersed to subcontractors and suppliers within ten (10) days after receipt of the money, in accordance with the terms of the subcontract agreements;
- (4) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

[103-10.5: H.R.S. - Prompt Payment and HUD-5370, General Conditions, Item 27]

**** NOTE: This form shall be submitted with each and every payment request.**

Company Name _____

Print Name and Title _____

Signature _____

Date _____ Payment Request No. _____

HHFDC Job # _____ Contract # _____

Job Title: _____

CERTIFICATION OF COMPLIANCE FOR FINAL PAYMENT
(Reference §3-122-112, HAR)

Reference: _____
(Contract Number) (IFB/RFP Number)

_____ affirms it is in
(Company Name)
compliance with all laws, as applicable, governing doing business in the State of Hawaii to include the following:

1. Chapter 383, HRS, Hawaii Employment Security Law – Unemployment Insurance;
2. Chapter 386, HRS, Worker’s Compensation Law;
3. Chapter 392, HRS, Temporary Disability Insurance;
4. Chapter 393, HRS, Prepaid Health Care Act; and

maintains a “Certificate of Good Standing” from the Department of Commerce and Consumer Affairs, Business Registration Division.

Moreover, _____
(Company Name)
acknowledges that making a false statement shall cause its suspension and may cause its debarment from future awards of contracts.

Signature: _____

Print Name: _____

Title: _____

Date: _____

CONTRACTOR'S WAIVER AND RELEASE OF LIEN

The undersigned, _____ ("CONTRACTOR"), has furnished to Hawaii Housing Finance and Development Corporation ("HHFDC"), labor and materials for incorporation or use in improvements on the following job:

**Kaiau Avenue Roadway Rehabilitation Project - Phase I
Oahu, Hawaii
HHFDC Job No.: 22-009-K85-S**

situated on real property, being
Tax Key: 1-9-1-016:073; 1-9-1-119:125; 1-9-1-016:118; 1-9-1-091:169
located at Honouliuli, Ewa (Kapolei), Oahu, Hawaii

In order to induce the HHFDC to pay the sum of \$ _____, to CONTRACTOR, the undersigned hereby releases the HHFDC, the State, and the owner of the above-described real property, from any claims, and do hereby expressly waive and release any and all lien rights which the undersigned have or may have, against the improvements and/or the real property described above under Section 507-41, et seq., Hawaii Revised Statutes, as amended, for the furnishing of labor and/or materials up to and including _____.

Dated this ____ day .of _____, 20__.

CONTRACTOR

By _____
Its

Witness:

(Address)

**CERTIFICATION OF COMPLIANCE
FOR
EMPLOYMENT OF STATE RESIDENTS
HRS CHAPTER 103B, AS AMENDED BY ACT 192, SLH 2011**

Project Title: _____

Agency Project No: _____

Contract No.: _____

As required by Hawai'i Revised Statutes Chapter 103B, as amended by Act 192, Session Laws of Hawai'i 2011-Employment of State Residents on Construction Procurement Contracts, I hereby certify under oath, that I am an officer of _____ and
(Name of Contractor or Subcontractor Company)
for the Project Contract indicated above, _____ was in
(Name of Contractor or Subcontractor Company)
compliance with HRS Chapter 103B, as amended by Act 192, SLH 2011, by employing a workforce of which not less than eighty percent are Hawai'i residents, as calculated according to the formula in the solicitation, to perform this Contract.

I am an officer of the **Contractor** for this contract.

I am an officer of the **Subcontractor** for this contract.

CORPORATE SEAL

(Name of Company)

(Signature)

(Print Name)

(Print Title)

Subscribed and sworn to me before this
_____ day of _____, 20__.

Doc. Date: _____ # of Pages _____ 1st Circuit

Notary Name: _____

Doc. Description: _____

Notary Public, 1st Circuit, State of Hawai'i
My commission expires: _____

Notary Signature Date

NOTARY CERTIFICATION

**CERTIFICATION OF COMPLIANCE
WITH HRS 396-18, SAFETY AND HEALTH PROGRAMS**

SUBJECT: IFB Number
IFB Name/Title

JOB NO. HHFDC Job Number

This is to certify that the undersigned will comply with the requirements of HRS § 396-18, as follows:

(A) Pursuant to HRS § 396-18, all bids and proposals in excess of \$100,000 shall include a signed certification from the bidder that a written safety and health plan for the job will be available and implemented by the notice to proceed dates of the project. The written safety and health plan shall include:

- 1) A safety and health policy statement reflecting management commitment;
- 2) A description of the safety and health responsibilities of all levels of management and supervisors on the job, and a statement of accountability appropriate to each;
- 3) The details of:
 - a. The mechanism for employee involvement in job hazard analysis;
 - b. Hazard identification, including periodic inspections and hazard correction and control;
 - c. Accident and "near-miss" investigations; and
 - d. Evaluations of employee training programs.
- 4) A plan to encourage employees to report hazards to management as soon as possible and to require management to address these hazards promptly; and
- 5) A certification by a senior corporate or company manager that the plan is true and correct.

(B) Failure to submit the required certification may be grounds for disqualification of the bid.

(C) Failure to have available on site or failure to implement the written safety and health plan by the project's Notice to Proceed Dates shall be considered willful noncompliance and be sufficient grounds to disqualify the award and terminate the contract.

BIDDER: _____

BY: _____
Signature of Person Authorized to Sign This Bid

Please Print

NAME: _____

TITLE: _____

DATE: _____

Failure to submit this form with the bid may be cause for the rejection of the bid.

DIRECTIONS FOR PREPARATION OF PERFORMANCE BOND AND
SURETY LABOR AND MATERIAL PAYMENT BOND (SURETY)

1. The surety company or guaranty company for the Surety Performance Bond and the Surety Labor and Material Payment Bond shall be listed in the current U.S. Treasury Department Circular No. 570 and be authorized and qualified to act as surety company in the State of Hawaii.
2. The name of the Principal shall be shown exactly as it appears in the contract.
3. The penal sum shall not be less than that required by the specifications or as provided hereof. Refer to section 3.7 “Requirement of Performance and Payment Bonds” and section 3.8 “Execution of the Contract”, in the HHFDC General Conditions.
4. If the Principal is a corporation, the bond shall be executed under its corporate seal. If the corporation has no corporate seal, the fact shall be stated, in which case a scroll or adhesive seal shall appear following the corporate name.
5. The official character and authority of the person(s) executing the bond for the principal or surety, if a corporation, shall be certified by the secretary thereof under the corporate seal, or there may be attached copies of so much of the records of the corporation as will evidence the official character and authority of the officer signing, duly certified by the secretary or assistant secretary, under the corporate seal, to be true copies.
6. Corporate surety requirements:
 - a. Domestic Sureties:
 - (1) An Officer or the Attorney-In-Fact must sign.
 - (a) If an Officer, attach certificate (as instructed in Item 5, above).
 - (b) If an Attorney-In-Fact, attach current authorization of the person signing.
 - b. Non-Domestic Sureties:
 - (1) A copy of the Notice of Appointment of General Agent or the General Agent’s License as issued by the Department of Commerce and Consumer Affairs, State of Hawaii, shall be attached to the bond.
 - (2) The General Agent and the Attorney-In-Fact must countersign (a) if the General Agent is a company, a corporate resolution (certified in

accordance with item 5 above) or a current Power-of-Attorney authorizing the individual to countersign the bond shall be attached to the bond. The Attorney-In-Fact must attach authorization to execute the bond on behalf of the surety.

7. The following information must be placed on the bond by the surety company:
 - a. The rate of premium in dollars per thousand; and
 - b. The total dollar amount of the premium charged.
 8. The signature of a witness shall appear in the appropriate place, attesting to the signature of such party to the bond (notary).
 9. Type or print the name underneath each signature appearing on the bond.
 10. An executed copy of the bond must be attached to each copy of the contract (original counterpart) intended for signing.
 11. Bonding assistance to small construction contractors may be available under Section 911 of the Housing and Urban Development Act of 1970. The Small Business Administration is authorized to provide a 90 percent guarantee on contracts of \$1,000,000 or below to any surety company that will provide bid or performance bonds and payment to the small construction contractor.
- * Note All Bond information may be found in Sections 3-122-221 to 3-122-228, Hawaii Administrative Rules and Sections 103D-323 and 103D-324, Hawaii Revised Statutes.

END OF SECTION

EXHIBIT A

SURETY [BID] [PROPOSAL] BOND
(11/17/98)

Bond No. _____

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Name or Legal Title of Offeror)

as Offeror, hereinafter called Principal, and _____,
(Name of Bonding Company)

as Surety, hereinafter called Surety, a corporation authorized to transact business as a Surety
in the State of Hawaii, are held and firmly bound unto _____,
(State/County Entity)

as Owner, hereinafter called Owner, in the penal sum of _____

(Required Amount of Bid Security)

Dollars (\$ _____), lawful money of the United States of America, for the payment of
which sum well and truly to be made, the said Principal and the said Surety bind ourselves, our
heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these
presents.

WHEREAS:

The Principal has submitted an offer for _____

(Project by Number and Brief Description)

NOW, THEREFORE:

The condition of this obligation is such that if the Owner shall reject said offer, or in the
alternate, accept the offer of the Principal and the Principal shall enter into a Contract with the
Owner in accordance with the terms of such offer, and give such bond or bonds as may be
specified in the solicitation or Contract Documents with good and sufficient surety for the faithful
performance of such Contract and for the prompt payment of labor and material furnished in the
prosecution thereof as specified in the solicitation then this obligation shall be null and void,
otherwise to remain in full force and effect.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Offeror)

Signature

Title

(Seal)

Name of Surety

Signature

Title

EXHIBIT B

PERFORMANCE BOND (SURETY)
(6/21/07)

KNOW TO ALL BY THESE PRESENTS:

That _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____

(Name and Street Address of Bonding Company)

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a
surety in the State of Hawaii, are held and firmly bound unto the _____,
(State/County Entity)

its successors and assigns, hereinafter called Obligee, in the amount of _____

_____ DOLLARS (\$ _____), to which payment Principal and Surety bind themselves,
their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, the above-bound Principal has signed a Contract with Obligee on
_____, for the following project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part
hereof.

NOW THEREFORE, the condition of this obligation is such that:

If the Principal shall promptly and faithfully perform, and fully complete the Contract in
strict accordance with the terms of the Contract as said Contract may be modified or amended
from time to time; then this obligation shall be void; otherwise to remain in full force and effect.

Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

In the event of Default by the Principal, of the obligations under the Contract, then after written Notice of Default from the Oblige to the Surety and the Principal and subject to the limitation of the penal sum of this bond, Surety shall remedy the Default, or take over the work to be performed under the Contract and complete such work, or pay moneys to the Oblige in satisfaction of the surety's performance obligation on this bond.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

*

Signature

Title

(Seal)

Name of Surety

*

Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT C

PERFORMANCE BOND
(11/17/98)

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Contractor, is held and firmly bound unto the

_____, its successors and assigns, as Obligee, hereinafter called
(State/County Entity)
Obligee, in the amount of _____

(Dollar Amount of Contract)

DOLLARS (\$ _____), lawful money of the United States of America, for the payment of which to the said Obligee, well and truly to be made, Contractor binds itself, its heirs, executors, administrators, successors and assigns, firmly by these presents. Said amount is evidenced by:

- Legal tender;
- Share Certificate unconditionally assigned to or made payable at sight to
Description _____;
_____;
- Certificate of Deposit, No. _____, dated _____, issued by
_____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;
_____;
- Cashier's Check No. _____, dated _____, issued
by _____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;
_____;

- Teller's Check No. _____, dated _____, issued by _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

- Treasurer's Check No. _____, dated _____, issued by _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

- Official Check No. _____, dated _____, issued by _____, drawn on _____, a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
 - Certified Check No. _____, dated _____, accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned _____;

WHEREAS:

The Contractor has by written agreement dated _____ entered into a contract with Obligee for the following Project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW, THEREFORE,

The condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, and shall deliver the Project to the Obligee, or to its successors or assigns, fully completed as in the Contract specified and free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, the covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

The amount of this bond may be reduced by and to the extent of any payment or payments made in good faith hereunder.

Signed this _____ day of _____, _____.

(Seal)

Name of Contractor

* _____
Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT D

LABOR AND MATERIAL PAYMENT BOND (SURETY)
(6/21/07)

KNOW TO ALL BY THESE PRESENTS:

That _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____,
(Name and Street Address of Bonding Company)

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a surety in the State of Hawaii, are held and firmly bound unto the _____,
(State/County Entity)

its successors and assigns, hereinafter called Oblige, in the amount of _____

_____ Dollars (\$ _____), to which payment Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above-bound Principal has signed Contract with the Oblige on _____ for the following project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payment to any Claimant, as hereinafter defined, for all labor and materials supplied to the Principal for use in the performance of the Contract, then this obligation shall be void; otherwise to remain in full force and effect.

1. Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

2. A "Claimant" shall be defined herein as any person who has furnished labor or materials to the Principal for the work provided in the Contract.

Every Claimant who has not been paid amounts due for labor and materials furnished for work provided in the Contract may institute an action against the Principal and its Surety on this bond at the time and in the manner prescribed in Section 103D-324, Hawaii Revised Statutes, and have the rights and claims adjudicated in the action, and judgment rendered thereon; subject to the Obligee's priority on this bond. If the full amount of the liability of the Surety on this bond is insufficient to pay the full amount of the claims, then after paying the full amount due the Obligee, the remainder shall be distributed pro rata among the claimants.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

*

Signature

Title

(Seal)

Name of Surety

*

Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT E

LABOR AND MATERIAL PAYMENT BOND
(11/17/98)

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Contractor, is held and firmly bound unto the

_____, its successors and assigns, as Obligee, hereinafter called
(State/County Entity)

Obligee, in the amount of _____

(Dollar Amount of Contract)

DOLLARS (\$ _____), lawful money of the United States of America, for the payment of which to the said Obligee, well and truly to be made, Contractor binds itself, its heirs, executors, administrators, successors and assigns, firmly by these presents. Said amount is evidenced by:

- Legal tender;
- Share Certificate unconditionally assigned to or made payable at sight to
Description _____;
_____;
- Certificate of Deposit, No. _____, dated _____, issued by
_____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;
_____;
- Cashier's Check No. _____, dated _____, issued by
_____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit
Insurance Corporation or the National Credit Union Administration, payable at
sight or unconditionally assigned to _____;
_____;
- Teller's Check No. _____, dated _____, issued by
_____,
drawn on _____;

a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____
_____;

Treasurer's Check No. _____, dated _____, issued by _____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____
_____;

Official Check No. _____, dated _____, issued by _____,
drawn on _____,
a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____
_____;

Certified Check No. _____, dated _____, accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____
_____;

WHEREAS:

The Contractor has by written agreement dated _____ entered into a contract with Obligee for the following Project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW, THEREFORE,

The condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every

nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, and shall promptly pay all persons supplying labor and materials for the performance of the Contract, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, the covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

AND IT IS HEREBY STIPULATED AND AGREED that this bond shall inure to the benefit of any and all persons entitled to file claims for labor performed or materials furnished in said work so as to give any and all such persons a right of action as contemplated by Sections 103D-324(d) and 103D-324(e), Hawaii Revised Statutes.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment of mechanics' liens which may be filed of record against the Project, whether or not claim for the amount of such lien be presented under and against this bond.

Signed this _____ day of _____, _____.

(Seal)

Name of Contractor

*

Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

EXHIBIT F

COMBINATION PERFORMANCE AND PAYMENT BOND
(6/21/07)

KNOW TO ALL BY THESE PRESENTS:

That we, _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____

(Name and Street Address of Bonding Company)

as surety, hereinafter called Surety, a corporation(s) authorized to transact business as a
surety in the State of Hawaii, are held and firmly bound unto the _____,
(State/County Entity)
its successors and assigns, as Obligee, hereinafter called Obligee, in the amount of

(Twice the Dollar Amount of Contract)

DOLLARS (\$ _____) (being _____)
DOLLARS as performance bond and _____
DOLLARS as payment bond, each in the amount of one hundred percent of the contract price
as required by 103D-324, Haw. Rev. Stat.), lawful money of the United States of America, for
the payment of which to the said Obligee, well and truly to be made, Contractor and Surety bind
ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally,
firmly by these presents.

WHEREAS:

The Principal has by written agreement dated _____ signed a contract with
Obligee for the following Project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part
hereof.

NOW, THEREFORE,

The condition of this obligation is such that, if Principal shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, and shall deliver the Project to the Obligee, or to its successors or assigns, fully completed as in the Contract specified and free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Principal or its agents or servants or the improper performance of the Contract by the Principal or its agents or servants or from any other cause, and shall promptly pay all persons supplying labor and materials for the performance of the Contract, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that no change, extension, alteration, deduction or addition, permitted by the Contract, in or to the terms of the Contract, or the plans or specifications pertaining thereto, shall in any way affect the obligation of the Surety on this bond; and the Surety does hereby waive notice of any such change, extension, alteration, deduction or addition in or to the terms of the Contract, or the plans or specifications pertaining thereto, or in or to the said Project.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, the covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

AND IT IS HEREBY STIPULATED AND AGREED that this bond shall inure to the benefit of any and all persons entitled to file claims for labor performed or materials furnished in said work so as to give any and all such persons a right of action as contemplated by Sections 103D-324(d) and 103D-324(e), Hawaii Revised Statutes.

The above-named Principal and Surety hereby jointly and severally agree with the Obligee that every person who has furnished labor or material to the Principal for the performance of the Contract who has not been paid in full therefor after ninety days from the completion and final settlement of any contract, may institute an action against the Principal and its sureties, and have their rights and claims adjudicated in the action, and judgment rendered thereon. If the full amount of the liability of the sureties on the bond is insufficient to pay the full amount of the claims, then, after paying the full amount due the Obligee, the remainder shall be distributed pro rata among the claimants. The Obligee shall not be liable for the payment of any costs or expenses of any such suit.

The amount of this bond may be reduced in accordance with and subject to section 3-122-225, Hawaii Administrative Rules.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

*

Signature

Title

(Seal)

Name of Surety

*

Signature

Title

*ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC

**GENERAL CONTRACTOR'S CERTIFICATION
CONCERNING LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS**

TO: Hawaii Housing Finance and Development Corporation (HHFDC)	Date: HHFDC Job Number & HHFDC Contract Number
c/o: Sheri Ann M. Abe	Project Name:

1. The undersigned, having executed a contract with **Hawaii Housing Finance and Development Corporation (HHFDC)** for the construction of the above-identified project, acknowledges that:

(a) The Labor Standards provisions are included in the aforesaid contract;

(b) Correction of any infractions of the aforesaid conditions, including infractions by any of his subcontractors and any lower-tier subcontractors, is his responsibility:

2. He certifies that:

(a) Neither he nor any firm, partnership or association in which he has substantial interest is designated as an ineligible contractor by the State Department of Labor, Chapter 104.

(b) No part of the aforementioned Contract has been or will be subcontracted to any subcontractor if such subcontractor or any firm, corporation, partnership or association in which such subcontractor has a substantial interest is designated as an ineligible Contractor pursuant to any of the aforementioned regulatory or statutory provisions.

3. He agrees to obtain and forward to the aforementioned recipient within ten (10) days after the execution of any subcontract, including those executed by his subcontractors and any lower-tier subcontractors, a Subcontractor's Certification Concerning Labor Standards and Prevailing Wage Requirements executed by the subcontractors.

4. He certifies that:

(a) **The legal name and the business address of the undersigned are:**

Phone No.: _____

Fax No.: _____

(b) The undersigned is:

(1) A SINGLE PROPRIETORSHIP	(3) A CORPORATION ORGANIZED IN THE STATE OF
(2) A PARTNERSHIP	(4) OTHER ORGANIZATION (DESCRIBE)

(c) The name, title and address of the owner, partners or officers of the undersigned are:

NAME	TITLE	ADDRESS

[3 (c) Does not require four individuals must be named. As long as the four (4) positions are filled - e.g. one individual may hold more than one position such as secretary/treasurer, the requirement is satisfied.

(d) The names and addresses of all other persons, both natural and corporate, having a substantial interest in the undersigned, and the nature of the interest are (if none, so state):

NAME	TITLE	ADDRESS

(e) The names, addresses and trade classifications of all other building construction contractors in which the undersigned has a substantial interest are (if none, so state):

NAME	TITLE	ADDRESS

(Contractor)

(Date)

By _____
(Signature)

(Typed Name and Title)

WARNING

U.S. Criminal Code, Section 1010, Title 18, U.S.C., provides in part: "Whoever makes, passes, utters or publishes any statement, knowing the same to be false shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

**SUBCONTRACTOR'S CERTIFICATION CONCERNING
LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS**

TO: Hawaii Housing Finance and Development Corporation (HHFDC)	Date:
	HHFDC Job Number & HHFDC Contract No.
c/o: Sheri Ann M. Abe	Project Name:

1. The undersigned, having executed a contract with _____
(Contractor or Subcontractor)
for _____ in the amount of \$ _____
(Nature of work)
in the construction of the above identified project, certifies that:
- (a) The Labor Standards Provisions of The Contract For Construction are included in the aforesaid contract.
 - (b) Neither he nor any firm, corporation, partnership or association in which he has a substantial interest is designated as an ineligible contractor by the State Department of Labor, Chapter 104.
 - (c) No part of the aforementioned contract has been or will be subcontracted to any subcontractor if such subcontractor or any firm, corporation, partnership or association in which such subcontractor has a substantial interest is designated as an ineligible contractor pursuant to the aforesaid regulatory or statutory provisions.
2. He agrees to obtain and forward to the contractor, for transmittal to the recipient, within ten days after the execution of any lower subcontract, a Subcontractor's Certification Concerning Labor Standards and Prevailing Wage Requirements, executed by the lower tier subcontractor, in duplicate.
- (a) The workmen will report for duty on or about _____ (Approximate month & year)
(Date)

3. He certifies that:
- (a) The legal name and the business address of the undersigned are:
Phone No. _____
Fax No. _____

(b) The undersigned is:

1) A SINGLE PROPRIETORSHIP	(3) A CORPORATION ORGANIZED IN THE STATE OF:
(2) A PARTNERSHIP	(4) OTHER ORGANIZATION (DESCRIBE)

(c) The name, title and address of the owner, partners or officers of the undersigned are:

NAME	TITLE	ADDRESS

[3 (c) Does not require four individuals must be named. As long as four (4) positions are filled - e.g., one individual may hold more than one position such as listed above, the requirement is satisfied.]

(d) The names and addresses of all other persons, both natural and corporate, having a substantial interest in the undersigned, and the nature of the interest are (If none, so state):

NAME	TITLE	ADDRESS

(e) The names, addresses and trade classifications of all other building construction contractors in which the undersigned has a substantial interest are (If none, so state):

NAME	TITLE	ADDRESS

(Subcontractor)

(Date)

By _____
(Signature)

(Print Name and Title)

WARNING

U.S. Criminal Code, Section 1010, Title 18, U.S.C., provides in part: "Whoever makes, passes, utters or publishes any statement, knowing the same to be false.....shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

(*Since the General Manager is not listed as one of the officers, any resolution or pertinent document authorizing the District or General Manager to sign any binding contracts on their behalf must be submitted.)

CONTRACTOR'S RATIO OF APPRENTICES/TRAINEES TO JOURNEYMEN

FIRM NAME: _____

PROJECT:

HHFDC JOB NO. **N/A** **HHFDC** CONTRACT NO.: _____

The following is a list of my entire work force employed on this project.

COUNTY _____ DATE WORK TO START _____

JOURNEY PERSON CLASSIFICATION (Do not list names of employees)	TOTAL	APPRENTICE/ TRAINEE	TOTAL
		CLASSIFICATION	
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

AUTHORIZED SIGNATURE _____ TITLE _____ DATE _____

NOTE: SUBMIT THIS FORM TOGETHER WITH THE APPLICABLE CERTIFICATE CONCERNING LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS.

EMPLOYEE AUTHORIZATION FOR PAYROLL DEDUCTIONS

EMPLOYER: _____

PROJECT: _____

HHFDC JOB NO. _____ **N/A** **HHFDC** CONTRACT NO. _____

EMPLOYEE: _____ SSN: _____ xxx-xx-_____

I, _____, hereby authorize my
(EMPLOYEE'S SIGNATURE)

employer, above named, to make payroll deductions not otherwise authorized by law as described below, in the amounts specified on a weekly basis, commencing with my payroll check for the week ending _____ and ending with my payroll check for the last week of my employment on the above described project:

<u>DEDUCTION</u>	<u>AUTHORIZED WEEKLY OR HOURLY AMOUNT</u>
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____

AUTHORIZED _____
DATE

OFFICER'S SIGNATURE

CERTIFICATION FOR APPLICABLE FRINGE BENEFIT PAYMENTS

Project Name: _____

HHFDC Job Number: N/A

HHFDC Contract No. _____

Classification/Name, Address & Telephone Fringe Benefits Providers

Number of Plan / Fund / Program

1) _____

Health and Welfare	_____
Pension	_____
Vacation	_____
Apprenticeship/Training	_____
Annuity	_____
Industry Improvement	_____
_____	_____
_____	_____
Total:	_____

2) _____

Health and Welfare	_____
Pension	_____
Vacation	_____
Apprenticeship/Training	_____
Annuity	_____
Industry Improvement	_____
_____	_____
_____	_____
Total:	_____

3) _____

Health and Welfare	_____
Pension	_____
Vacation	_____
Apprenticeship/Training	_____
Annuity	_____
Industry Improvement	_____
_____	_____
_____	_____
Total:	_____

4) _____

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
Total:	_____

OR: (CHECK IF APPLICABLE)

____ I CERTIFY THAT I DO NOT MAKE PAYMENTS TO APPROVED FRINGE BENEFIT PLANS, FUNDS, OR PROGRAMS.

CONTRACTOR/SUBCONTRACTOR

By _____
(SIGNATURE)

(DATE)

(TITLE)

**CERTIFICATION OF UNDERSTANDING
AND AUTHORIZATION**

Project Name: _____

HHFDC Job Number: N/A **HHFDC** Contract No.: _____

This is to certify that the principals, and the authorized payroll officer, below, have read and understand the Minutes of the Pre-construction Conference and the labor standards clause pertaining to the subject project.

The following person(s) is designated as the payroll officer for the undersigned is authorized to sign the Statement of Compliance, which will accompany our weekly certified payroll reports for this project:

Payroll Officer (Print Name)

Payroll Officer (Signature)

Phone Number and Fax Number

(IRS Employer Identification Number)

(Contractor/Subcontractor)

(Officer's Name & Title)

(Officer's Signature)

(Date)

STATE OF HAWAII
DEPARTMENT OF LABOR AND INDUSTRIAL RELATIONS, ENFORCEMENT DIVISION
(Report of Additional Classification and Wage – IF NEEDED)

Rate to Wage Determination Number: _____

*Trade Classification: _____

Project Name: _____ Project No: N/a

Location of Project: _____

City Island State

Complete one of the following paragraphs A-D to document that the classification and wage rate are prevailing in the area for your type of construction.

1. As Contractor I have surveyed the following contractors (in the area) and have found the classification of work at the following rates of pay and fringe benefits (where applicable):

<u>Contractor/Address/Phone</u>	<u>Base Rate</u>	<u>Fringe Benefits</u>	<u>Total</u>
	\$	\$	\$
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Proposed prevailing rate: _____ plus fringe benefit of _____ Total _____

Description or Work the Employee (s) will be doing: _____

2. I am currently under a labor agreement and this classification has a base rate of _____ and fringe benefit of _____ for a total of _____, according to our contract. Copy of contract enclosed ; copy of union contract has been provided your office _____.
3. I am under a union agreement or the union agreement does not state the requested classification and rate proposed; however, the employee and/or his/her representative have agreed that this classification is prevailing and has the following prevailing base rate of _____ and fringe benefits of _____ for a total amount of _____.

Employee _____ or Representative _____ Title _____

4. Attached are signed statements from the Secretary of the Trade Association representing contractors (e.g., AGC, ABC) and the Secretary of the Building Trades Council having jurisdiction (representing Labor), stating the classification is prevailing and the prevailing minimum wage rate.

(Signature of Contractor)

(Signature of Director of Labor Relations)

(Print Name)

(Print Name)

Date: _____

Date: _____

*Additional classifications needed for work not included within the scope of the classification listed in the State Department of Labor wage determination may be added after award only as provided in the labor standards contract clauses.

Any question, please call the **Hawaii Housing Finance and Development Corporation (HHFDC)**, 677 Queen Street, Suite 300, Honolulu, Hawaii, Development Support Section (**Sheri Ann M. Abe 587-3455**).

EXHIBIT 10

**CERTIFICATE FROM CONTRACTOR APPOINTING OFFICER OR EMPLOYEE
TO SUPERVISE PAYMENT OF EMPLOYEES**

Project Name _____ Date _____

Location _____ **HHFDC** Job No. N/A **HHFDC** Contract No. _____

(I) (We) hereby certify that (I am) (we are) (the prime contractor) (a sub-contractor) for _____

(Specify "General Construction," "Plumbing," "Roofing," etc.)

in the connection with construction of the above-mentioned Project, and that (I) (we) have appointed _____

_____, whose signature appears below, to supervise the payment of

(my) (our) employees beginning (Date: mm/dd/yyyy) _____; That he is in a position to have full

knowledge of the facts set forth in the payroll documents and in the statement of compliance required by the so-

called Kick-Back Statute which he/is to execute with (my) (our) full authority and approval until such time as (I)

(we) submit to the **Hawaii Housing Finance and Development Corporation (HHFDC)** a new certificate

appointing some other person for the purposes here in above stated.

(Identifying Signature of Appointee)

(Name of Firm or Corporation)

Attest (if required)

(Signature)

By: _____
(Signature)

(Print Name)

(Print Name)

(Title)

(Title)

(Date)

(Date)

NOTE: This certificate must be executed by an authorized officer of a corporation or by a member of a partnership, and shall be executed prior to and be submitted with the first payroll. Should the appointee be changed, a new certificate must accompany the first payroll for which the new appointee executes a statement of compliance required by the KickBack Statute.

In the event that the employee listed on this certificate has been replaced, it is required that a new certificate be submitted covering the new employee.

Minority Business Enterprise Activity, (MBE)

This information is used by the United States Dept. of Urban Development (HUD) to monitor and evaluate MBE activities against the total program activity and the designated minority business enterprise (MBE) goals. HUD requires the information to provide guidance and oversight for programs for the development of minority business enterprise concerning Minority Business Development. If the information is not collected HUD would not be able to establish meaningful MBE goals nor evaluated MBE performance against these goals.

Privacy Act Notice: HUD, Federal Housing Administration, is authorized to solicit the information requested in this form by virtue of Title 12, US Code, Section 1701 et seq., and regulation. It will not be disclosed or released outside the US Dept. of Housing and Urban Development without your consent, except as required or permitted by Law.

PRINT or TYPE ONLY

1. Project Name:

2. HHFDC Contract Number:

3. Amount of Contract or Subcontract: _____

4. Contractor or Subcontractor racial ethnic code of owner(s) (Circle one):

Racial Code:

1 - White Americans

4 - Hispanic Americans

2 - Black Americans

5 - Asian / Pacific Americans

3 - Native Americans

6 - Hisidic Jews

5. Women Owned? Yes _____ No _____

6. Federal ID Number (Use Social Security Number, if Federal ID Number was not issued):

____ - ____ - ____ - ____ or ____ - ____ - ____ - ____
(Federal ID No.) (SSN)

7. Name of Company:

8. Mailing Address (street, city, state, & zip code):

(Street address, suite or room number)

____ (City) _____ (State) _____ (Zip)

9. Phone Number: _____ **Fax Number:** _____

10. Owners Name: _____

Please submit this form with your first (1st) certified payroll affidavit form.