



**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII**

**SPECIAL PROVISIONS
PROPOSAL, CONTRACT,
BOND AND PLANS**

FOR

HILO BAYFRONT HIGHWAY

**INTERSECTION IMPROVEMENTS AT
WAIANUENUE AVENUE
VICINITY OF KAMEHAMEHA AVENUE**

FEDERAL-AID PROJECT NO. NH-019-2(076)

DISTRICT OF HILO

ISLAND OF HAWAII

FY 2026

NOTICE TO BIDDERS
Hawaii Revised Statutes (HRS),
Chapter 103D

The receiving of bids for **HILO BAYFRONT HIGHWAY INTERSECTION IMPROVEMENTS AT WAIANUENUE AVENUE, VICINITY OF KAMEHAMEHA AVENUE, DISTRICT OF HILO, ISLAND OF HAWAII, FEDERAL-AID PROJECT NO. NH-019-2(076)**, will begin as of the HiePRO Release Date. Bidders shall register and submit complete bids through HiePRO only. Refer to the following HiePRO link for important information on Vendor Registration: <https://hiepro.ehawaii.gov/welcome.html>.

The solicitation plans, specifications, proposal, and additional documents designated or incorporated by reference shall be available in HiePRO.

HiePRO OFFER DUE DATE AND TIME is November 10, 2026, at 2:00 p.m., Hawaii Standard Time (HST). **Bidders shall submit and upload the complete proposal to HiePRO prior to the offer due date and time. Proposals received after said due date and time shall not be considered. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HiePRO. Bidders shall not include confidential and/or proprietary documents as part of their proposal. The record of each bidder and their respective proposal shall be open to public inspection. FAILURE TO UPLOAD THE PROPOSAL TO HiePRO SHALL BE GROUNDS FOR REJECTION.**

The scope of work consists of converting the existing intersection into a single-lane roundabout (central island, truck apron, circular path and splitter islands); roadway stabilization; pavement reconstruction; landscaping improvements; electrical conduits and highway lighting; drainage improvements; installing Americans with Disabilities Act compliant sidewalks, curb ramps, and roadway crossings; installing chain link fences; installing signage and pavement

marking; work zone traffic control and/or detour roads; and adjusting and relocation of various utilities, as necessary. The estimated cost of construction is between \$20,000,000 and \$30,000,000.

To be eligible for award, bidders shall possess a valid State of Hawaii General Engineering “A” license **prior to the award of contract.**

A virtual pre-bid conference is scheduled for October 20, 2026, at 2:00 p.m., HST. Interested bidders shall contact Robert Sun, Project Manager, directly at robert.sun@hawaii.gov, no later than five working days prior to the scheduled pre-bid conference to receive the meeting invitation. All prospective bidders and/or their respective representatives are encouraged to attend, however, attendance is not mandatory. All information presented at the pre-bid conference shall be provided for clarification and information only. Any amendments to the solicitation shall be made by formal addendum and posted in HlePRO.

All Request for Information (RFI) questions and Substitution Requests shall be submitted in HlePRO **no later than October 23, 2026, at 2:00 p.m., HST.** RFI questions received after the stated deadline shall not be addressed. Substitution Requests received after the stated deadline shall not be considered. Verbal RFI(s) shall not receive a response. All responses to RFI questions shall be provided for clarification and information only and issued by formal addendum. Any amendments to the solicitation shall be made by formal addendum and posted in HlePRO.

If there is a conflict between the solicitation and information stated in the pre-bid conference, the meeting minutes, and/or the responses to RFI questions, the solicitation shall govern and control, unless as amended by formal addendum.

Campaign contributions by State and County Contractors. Contractors are hereby notified of the applicability of Hawaii Revised Statutes (HRS) § 11-355 which states that campaign contributions are prohibited from specified State or County government contractors during the term

of the contract if the contractors are paid with funds appropriated by a legislative body. For more information, contact the Campaign Spending Commission at (808) 586-0285.

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

The Equal Employment Opportunity Regulations of the Secretary of Labor implementing Executive Order (EO) 11246 has been revoked as per EO 14173. To the extent any contract document references this EO, or associated provisions, those references are inoperative.

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

Disadvantaged Business Enterprise (DBE). The U.S. Department of Transportation Regulations entitled "Participation by DBE in Department of Transportation Financial Assistance Programs", Title 49, CFR, Part 26, is applicable to this project. Bidders are hereby notified that the Department of Transportation shall enforce compliance with the applicable requirements of the DBE program with respect to this project.

Bidders shall read the following included in the solicitation:

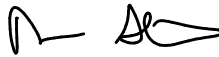
1. “CIVIL RIGHTS COMPLIANCE AND DISADVANTAGED BUSINESS ENTERPRISE SPECIAL PROVISIONS”

Driving While Impaired (DWI) Education. The Hawaii Department of Transportation (HDOT) encourages all organizations contracted with HDOT to have an employee

education program preventing DWI. DWI is defined as operating a motor vehicle while impaired by alcohol or other legal or illegal substances. HDOT promotes this type of program to accomplish our mission to provide a safe environment for motorists, bicyclists, and pedestrians utilizing our State highways, and expects its contractors to do so as well.

For additional information, contact Robert Sun, Project Manager, by phone at (808) 692-7578, or by email at robert.sun@hawaii.gov.

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



ROBIN K. SHISHIDO
Deputy Director of Transportation for Highways

HIePRO RELEASE DATE: October 12, 2026

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INSTRUCTIONS FOR CONTRACTOR'S LICENSING

"A" general engineering contractors and "B" general building contractors are reminded that due to the Hawaii Supreme Court's January 28, 2002 decision in Okada Trucking Co., Ltd. v. Board of Water Supply, et al., 97 Haw. 450 (2002), they are prohibited from undertaking any work, solely or as part of a larger project, which would require the general contractor to act as a specialty contractor in any area where the general contractor has no 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 (*An "A" or "B" contractor obtains "C" specialty contractor's licenses either on its own, or automatically under HAR § 16-77-32.*). The remaining work must be performed by appropriately licensed entities. It is the sole responsibility of the contractor to review the requirements of this project and determine the appropriate licenses that are required to complete the project.

CIVIL RIGHTS COMPLIANCE AND DISADVANTAGED BUSINESS ENTERPRISE SPECIAL PROVISIONS

I. GENERAL

This project is subject to Title 49 Code of Federal Regulations (CFR), Part 26, entitled "Participation by Disadvantaged Business Enterprise in Department of Transportation Financial Assistance Programs," hereinafter referred to as the "DBE Regulations" and is incorporated and made a part of this contract herein by this reference, as revised by the United States Department of Transportation's (USDOT) DBE Interim Final Rule (IFR) issued October 3, 2025 (hereinafter referred to as IFR). The following shall be incorporated as part of the contract documents for compliance. If any requirements herein conflict with the general provisions or special provisions applicable to this project, the requirements herein shall prevail unless specifically superseded or amended in the special provisions or by addendum.

II. POLICY

The Hawai'i Department of Transportation's (HDOT) and its political subdivision's Disadvantaged Business Enterprise (DBE) program will operate in a nondiscriminatory manner and without regard to race or sex, while maximizing efficiency of service.

Bidders/offerors, subcontractors, consultants, vendors, suppliers, distributors, manufacturers, trucking companies, service providers, etc. shall fully inform themselves with respect to the requirements of the DBE Regulations.

HDOT's DBE program remains in effect pursuant to 49 CFR Parts 23 and 26. However, consistent with the USDOT's IFR effective October 3, 2025, HDOT has suspended race-conscious measures including DBE contract goals, counting of DBE participation, and associated special provisions, pending the completion of HDOT's DBE certification reevaluation. Where indicated, HDOT reserves the right to reinstate or amend DBE special provisions at a later date, subject to approval by the appropriate USDOT operating administration.

HDOT reserves the right to reimplement, revise, or otherwise modify any reserved provisions, in whole or in part, following its reevaluation period or upon receipt of additional federal guidance. Upon such reimplementation, contractors will be notified in writing and shall comply with the updated requirements as directed by HDOT.

III. NON-DISCRIMINATION POLICY

Each contract signed with a prime contractor (and each subcontract the prime contractor signs with a subcontractor) shall include the following assurance:

"The contractor, sub-recipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26, as revised by the

DBE IFR, in the award and administration of USDOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate which may include, but is not limited to: 1) withholding monthly progress payments; 2) assessing sanctions; 3) liquidated damages; and/or 4) disqualifying the contractor from future bidding as non-responsible.”

The prime contractor agrees to include the above statements in any subsequent contracts that it enters into with other contractors and shall require those contractors to include similar statements in further agreements.

- IV. **BIDDER/OFFEROR RESPONSIBILITIES (RESERVED)**
- V. **PROPOSAL REQUIREMENTS (RESERVED)**
- VI. **COUNTING DBE PARTICIPATION TOWARDS CONTRACT GOAL (RESERVED)**
- VII. **USE OF JOINT CHECKS UNDER THE DBE PROGRAM (RESERVED)**
- VIII. **DEMONSTRATION OF GOOD FAITH EFFORTS FOR CONTRACT AWARD (RESERVED)**
- IX. **ADMINISTRATIVE RECONSIDERATION (RESERVED)**
- X. **AWARD OF CONTRACT (RESERVED)**
- XI. **REPLACEMENT OF A DBE ON A PROJECT WITH A CONTRACT GOAL (RESERVED)**
- XII. **CONTRACT COMPLIANCE**

This contract is subject to contract compliance tracking, and the prime contractor and all subcontractors are required to report payments electronically in the HDOT online Vendor Management System (hereafter referred to as “online tracking system”.) The prime contractor shall report the date payment was made by HDOT and shall report payment to all subcontractors for the audit period. The prime contractor and all subcontractors are responsible for responding by any noted response date or due date to any instructions or request for information, and to check the online tracking system on a regular basis to manage contact information and contract records.

The prime contractor is responsible for ensuring all subcontractors have completed all requested items and that their contact information is accurate and up-to-date. HDOT may require additional information related to the contract to be provided electronically through the online tracking system at any time before, during, or after contract award. Information related to contractor access of the online tracking system will be provided to designated point of contact with each contractor upon award of the contract. The online

tracking system is web-based and can be accessed at the following internet address:
<https://hdot.dbesystem.com/>.

XIII. PAYMENT

- A. HDOT will make an estimate in writing each month based on the items of work performed and materials incorporated in the work and the value therefore at the unit prices or lump sum prices set forth in the contract. All progress estimates and payments will be approximate only and shall be subject to correction at any time prior to or in the final estimate and payment. HDOT will not withhold any amount from any payment to the contractor, including retainage.
- B. The contractor shall pay all subcontractors within 10 calendar days after receipt of any progress payments from HDOT. This clause applies to all subcontractors, and all tiers of subcontracts. As per HRS § 103-10.5 Prompt payment, the contractor will verify that payment or retainage has been released to the subcontractors or its suppliers within the specified time through entries in HDOT's online tracking system during the corresponding monthly audits. Prompt payment will be monitored and enforced through the contractor's reporting of payments to its subcontractors and suppliers in the online tracking system.

Subcontractors, including lower tier subcontractors and/or suppliers will confirm the timeliness and the payment amounts received utilizing the online tracking system. Discrepancies will be investigated by the DBE Program Office and the project engineer. Payments to the subcontractors, including lower tier subcontractors, and including retainage released after the subcontractor or lower tier subcontractor's work has been completed to HDOT's satisfaction, will be reported by the Contractor or the subcontractor.

- C. When any subcontractor has satisfactorily completed its work as specified in the subcontract, and there are no bona fide disputes, the contractor shall make prompt and full payment to the subcontractor of all monies due, including retainage, within 10 calendar days after the subcontractor's work is satisfactorily completed. A subcontractor's work is satisfactorily completed when all the tasks called for in the subcontract have been accomplished and documented, as required by HDOT. The contractor must obtain the prior written approval from HDOT before it can continue to withhold retainage from any subcontractor who has completed its portion of the work. This clause applies all subcontractors, and all tiers of subcontracts.

XIV. RECORDS

The contractor shall maintain and keep all records necessary for HDOT to determine compliance with the contractor's compliance obligations. The records shall be available at reasonable times and places for inspection by HDOT and appropriate Federal agencies.

The records to be kept by the contractor shall include:

1. The names, address, phone number, and contact person of consultants, subcontractors, manufacturers, suppliers, distributors, truckers and vendors;
2. The nature of work of each consultant, subcontractor, manufacturer, supplier, distributor, trucker and vendor;
3. The dollar amount contracted with each consultant, subcontractor, manufacturer, supplier, distributor, trucker and vendor; and
4. Cumulative dollar amount of all change orders to the subcontract.

XV. FAILURE TO COMPLY WITH STATED REQUIREMENTS

The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT assisted contracts. All contractors, subcontractors, manufacturers, suppliers, and distributors are hereby advised that failure to carry out all requirements specified herein shall constitute a material breach of contract that may result in termination of the contract or such other remedy as deemed appropriate by HDOT including but not limited to: 1) withholding monthly progress payments; 2) assessing sanctions; 3) liquidated damages; and/or 4) disqualifying the contractor from future bidding as non-responsible.

CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Davis-Bacon and Related Act Provisions
- IV. Contract Work Hours and Safety Standards Act Provisions
- V. Subletting or Assigning the Contract
- VI. Safety: Accident Prevention
- VII. False Statements Concerning Highway Projects
- VIII. Implementation of Clean Air Act and Federal Water Pollution Control Act
- IX. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- X. Certification Regarding Use of Contract Funds for Lobbying
- XI. Use of United States-Flag Vessels

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A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only).

I. GENERAL

1. Historically, contracting agencies using Federal-aid highway funds were required to ensure Form FHWA-1273 was physically incorporated into all contracts and subcontracts. Effective June 10, 2026, this requirement was eliminated [91 FR 25492]. Future use of Form FHWA-1273 is now optional on the part of the contracting agency using Federal-aid highway funds. FHWA continues to make Form FHWA-1273 available as a convenience to contracting agencies. Contracting agencies must continue to ensure compliance with the provisions cited in Form FHWA-1273 in accordance with the provisions regardless of the use of Form FHWA-1273. Accordingly, the contracting agency retains the authority to determine whether the contractor must use Form FHWA-1273 to physically incorporate required contract provisions in each subcontract and in lower tier contracts. Where permitted by the contracting agency, the contractor may choose other ways to include required contract provisions in each subcontract, besides incorporating Form FHWA-1273. Contract provisions in Form FHWA-1273 are not required to be physically included in subcontracts for design services on Federal-aid design-build contracts, or in purchase orders, rental agreements and other agreements for supplies or services.

The applicable provisions of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor or design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents.

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's

immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION

The contractor and all subcontractors must comply with the following policies: 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract.

1. Assurances Required:

a. The requirements of 49 CFR Part 26, including any amendments thereto, and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26, including any amendments thereto, in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E, including any amendments thereto, are incorporated by reference. 49 CFR Part 21.

III. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in

paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the

classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. Fringe benefits not expressed as an hourly rate. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. Unfunded plans. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. Interest. In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. Withholding requirements. The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered

necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. Priority to withheld funds. The Department has priority to funds withheld or to be withheld in accordance with paragraph 2.a. of this section or Section IV, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its repurchase costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. Basic record requirements (1) Length of record retention. All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number

of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with [29 CFR part 30](#), including any amendments thereto.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section III. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs (1) through (11) of this section, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the

contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

IV. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the

Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* \$33 as of January 15, 2025 (See 90 FR 1859) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section III paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its procurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

V. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of

the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1. of this section refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph 1. of this section is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on longstanding interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however,

contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VI. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the

character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

VIII. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

IX. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the

eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers to any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered

transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

X. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XI. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the

extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS** (40 U.S.C. sections 14501(d) and 14701
and the Appalachian Regional Commission Code as
authorized under 40 U.S.C. section 14302)

This provision is applicable to all Federal-aid projects funded
under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor
undertaking to do work which is, or reasonably may be, done
as on-site work, shall give preference to qualified persons who
regularly reside in the labor area as designated by the DOL
wherein the contract work is situated, or the subregion, or the
Appalachian counties of the State wherein the contract work is
situated, except:

a. To the extent that qualified persons regularly residing in
the area are not available.

b. For the reasonable needs of the contractor to employ
supervisory or specially experienced personnel necessary to
assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to
present or former employees as the result of a lawful collective
bargaining contract, provided that the number of nonresident
persons employed under this subparagraph (1c) shall not
exceed 20 percent of the total number of employees employed
by the contractor on the contract work, except as provided in
subparagraph (4) below.

2. The contractor shall place a job order with the State
Employment Service indicating (a) the classifications of the
laborers, mechanics and other employees required to perform
the contract work, (b) the number of employees required in
each classification, (c) the date on which the participant
estimates such employees will be required, and (d) any other
pertinent information required by the State Employment
Service to complete the job order form. The job order may be
placed with the State Employment Service in writing or by
telephone. If during the course of the contract work, the
information submitted by the contractor in the original job order
is substantially modified, the participant shall promptly notify
the State Employment Service.

3. The contractor shall give full consideration to all qualified
job applicants referred to him by the State Employment
Service. The contractor is not required to grant employment to
any job applicants who, in his opinion, are not qualified to
perform the classification of work required.

4. If, within one week following the placing of a job order by
the contractor with the State Employment Service, the State
Employment Service is unable to refer any qualified job
applicants to the contractor, or less than the number
requested, the State Employment Service will forward a
certificate to the contractor indicating the unavailability of
applicants. Such certificate shall be made a part of the
contractor's permanent project records. Upon receipt of this
certificate, the contractor may employ persons who do not
normally reside in the labor area to fill positions covered by the
certificate, notwithstanding the provisions of subparagraph (1c)
above.

5. The provisions of 40 U.S.C. 14501 allow the contracting
agency to provide a contractual preference for the use of
mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1
through 4 of this Attachment A in every subcontract for work
which is, or reasonably may be, done as on-site work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII

SPECIAL PROVISIONS

These Special Provisions shall supplement and/or amend the applicable provisions of the Hawaii Standard Specifications for Road and Bridge Construction, 2005, hereinafter referred to as the "Standard Specifications".

Amend **Section 101 - TERMS, ABBREVIATIONS, AND DEFINITIONS** to read as follows:

“DIVISION 100 - GENERAL PROVISIONS

SECTION 101 - TERMS, ABBREVIATIONS, AND DEFINITIONS

101.01 Meaning of Terms. The specifications are generally written in the imperative mood. In sentences using the imperative mood, the subject, “the Contractor shall”, is implied. In the material specifications, the subject may also be the supplier, fabricator, or manufacturer supplying material, products, or equipment for use on the project. The word “will” generally pertains to decisions or actions of the State.

When a publication is specified, it refers to the most recent date of issue, including interim publications, before the bid opening date for the project, unless a specific date or year of issue is provided.

101.02 Abbreviations. Meanings of abbreviations used in the specifications, on the plans, or in other contract documents are as follows:

AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines
AGC	Associated General Contractors of America
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APA	American Plywood Association

46	ARA	American Railway Association
47		
48	AREA	American Railway Engineering Association
49		
50	ASA	American Standards Association
51		
52	ASCE	American Society of Civil Engineers
53		
54	ASLA	American Society of Landscape Architects
55		
56	ASTM	American Society for Testing and Materials
57		
58	AWG	American Wire Gauge
59		
60	AWPA	American Wood Preserver's Association
61		
62	AWS	American Welding Society
63		
64	AWWA	American Water Works Association
65		
66	BMP	Best Management Practice
67		
68	CCO	Contract Change Order
69		
70	CFR	Code of Federal Regulations
71		
72	CRSI	Concrete Reinforcing Steel Institute
73		
74	DCAB	Disability and Communication Access Board, Department of
75		Health, State of Hawaii
76		
77	DOTAX	Department of Taxation, State of Hawaii
78		
79	EPA	U.S. Environmental Protection Agency
80		
81	FHWA	Federal Highway Administration,
82		U.S. Department of Transportation
83		
84	FSS	Federal Specifications and Standards,
85		General Services Administration, U.S. Department of Defense
86		
87	HAR	Hawaii Administrative Rules
88		
89	HDOT	Department of Transportation, State of Hawaii
90		

91	HIOSH	Occupational Safety and Health, Department of Labor and
92		Industrial Relations, State of Hawaii
93		
94	HMA	Hot Mix Asphalt
95		
96	HRS	Hawaii Revised Statutes
97		
98	ICEA	Insulated Cable Engineers Association (formerly IPCEA)
99		
100	IMSA	International Municipal Signal Association
101		
102	IRS	Internal Revenue Service
103		
104	ITE	Institute of Transportation Engineers
105		
106	MUTCD	Manual on Uniform Traffic Control Devices for Streets and
107		Highways, FHWA, U.S. Department of Transportation
108		
109	NCHRP	National Cooperative Highway Research Program
110		
111	NEC	National Electric Code
112		
113	NEMA	National Electrical Manufacturers Association
114		
115	NFPA	National Forest Products Association
116		
117	NPDES	National Pollutant Discharge Elimination System
118		
119	OSHA	Occupational Safety and Health Administration/Act,
120		U.S. Department of Labor
121		
122	SAE	Society of Automotive Engineers
123		
124	SI	International Systems of Units
125		
126	UFAS	Uniform Federal Accessibility Standards
127		
128	UL	Underwriter's Laboratory
129		
130	USGS	U.S. Geological Survey
131		
132	VECP	Value Engineering Cost Proposal
133	101.02	
134		

101.03 Definitions. Whenever the following words, terms, or pronouns are used in the contract documents, unless otherwise prescribed therein and without regards to the use or omission of uppercase letters, the intent and meaning shall be interpreted as follows:

Addendum (plural - Addenda) - A written or graphic document, including drawings and specifications, issued by the Director during the bidding period. This document modifies or interprets the bidding documents by additions, deletions, clarifications or corrections.

Addition (to the contract sum) - Amount added to the contract sum by change order.

Advertisement - A public announcement inviting bids for work to be performed or materials to be furnished.

Amendment - A written document issued to amend the existing contract between the State and Contractor and properly executed by the Contractor and Director.

Award - Written notification to the bidder that the bidder has been awarded a contract.

Bad Weather Day (or Unworkable Day) - A day when weather or other conditions prevent a minimum of four hours of work with the Contractor's normal work force on critical path activities at the site.

Bag - 94 pounds of cement.

Barrel - 376 pounds of cement.

Base Course - The layer or layers of specified material or selected material of a designed thickness placed on a subbase or subgrade to support a surface course.

Basement Material - The material in excavation or embankments underlying the lowest layer of subbase, base, pavement, surfacing or other specified layer.

Bid - See Proposal.

Bidder - An individual, partnership, corporation, joint venture or other legal entity submitting, directly or through a duly authorized representative or agent, a proposal for the work or construction contemplated.

Bidding Documents (or Solicitation Documents) - The published solicitation notice, bid requirements, bid forms and the proposed contract documents including all addenda and clarifications issued prior to receipt of the bid.

Bid Security - The security furnished by the bidder from which the State may recover its damages in the event the bidder breaches its promise to enter into a contract with the State, or fails to execute the required bonds covering the work contemplated, if its proposal is accepted.

Blue Book - EquipmentWatch Cost Recovery (formerly known as EquipmentWatch Rental Rate Blue Book), available from EquipmentWatch, a division of Penton, Inc.

Calendar Day - See Day.

Change Order (or Contract Change Order) - A written order signed by the Engineer issued with or without the consent of the Contractor directing changes in the work, contract time or contract price. The purposes of a change order include, but are not limited to (1) establishing a price or time adjustment for changes in the work; (2) establishing full payment for direct, indirect, and consequential costs, including costs of delay; (3) establishing price adjustment or time adjustment for work covered and affected by one or more field orders; or (4) settling Contractor's claims for direct, indirect, and consequential costs, or for additional contract time, in whole or in part.

Completion - See Substantial Completion and Final Completion.

Completion Date - The date specified by the contract for the completion of all work on the project or of a designated portion of the project.

Comptroller - the Comptroller of the State of Hawaii, Department of Accounting and General Services.

Contract - The written agreement between the Contractor and the State, by which the Contractor shall provide all labor, equipment, and materials and perform the specified work within the contract time stipulated, and by which the State of Hawaii is obligated to compensate the Contractor at the prices set forth in the contract documents.

Contract Certification Date - The Date on which the Deputy Comptroller for the State of Hawaii (or authorized representative) signs the Contract Certification.

Contract Completion Date - The calendar day on which all work on the project, required by the contract, must be completed. See CONTRACT TIME.

Contract Documents - The contract, solicitation, addenda, notice to bidders, Contractor's bid proposal (including wage schedule, list of subcontractors and other documentations accompanying the bid), notice to proceed, bonds, general provisions, special provisions, specifications, drawings, all modifications, all written amendments, change orders, field orders, orders for minor changes in the work, the Engineer's written interpretations and clarifications issued on or after the effective date of the contract.

Contract Item (Pay Item) - A specific unit of work for which there is a price in the contract.

Contract Modification (Modification) - A change order that is mutually agreed to and signed by the parties to the contract.

Contract Price - The amount designated on the face of the contract for the performance of work.

Contract Time (or Contract Duration) - The number of calendar or working days provided for completion of the contract, inclusive of authorized time extensions. Contract time shall commence on the Start Work Date and end on the Substantial Completion Date. If in lieu of providing a number of calendar or working days, the contract requires completion by a certain date, the work shall be completed by that date.

Contracting Officer - See Engineer.

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.

Critical Path - Longest logical sequence of activities that must be completed on schedule for the entire project to be completed on schedule.

Day - Any day shown on the calendar, beginning at midnight and proceeding up to, but not including, midnight the following day. If no designation of calendar or working day is made, "day" shall mean calendar day.

Department - The Department of Transportation of the State of Hawaii (abbreviated HDOT).

Director - The Director of the HDOT acting directly or through duly authorized representatives.

Plans (or Drawings) - The contract drawings in graphic or pictorial form including the notes, tables and other notations thereon indicating the design, location, character, dimensions, and details of the work.

Engineer - The Highway Administrator, Highways Division, HDOT, or the authorized person delegated to act on the Administrator's behalf.

Equipment - All machinery, tools, and apparatus needed to complete the contract.

Field Order - A written order issued by the Engineer or the Engineer's authorized representative to the Contractor requiring a change or changes to the contract work. A field order may (1) establish a price adjustment or time adjustment; or (2) may declare that no adjustment will be made to contract price or contract time; or (3) may request the Contractor to submit a proposal for an adjustment to the contract price or contract time.

Final Acceptance - The Status of the project when the Engineer finds that the Contractor has satisfactorily completed all contract work in compliance with the contract including all plant establishment requirements, and all the materials have been accepted by the State.

Final Completion - The date set by the Director that all work required by the contract has been completed in full compliance with the contract documents.

Final Inspection - Inspection where all contract items (with the exception of Planting Period and Plant Establishment Period) are accepted by the Engineer. Substantial Completion will be issued by the Engineer based on the satisfactory results of the Final Inspection.

Float - The amount of time between when an activity can start and when an activity must start, i.e., the time available to complete non-critical activities required for the performance of the work without affecting the critical path.

Guarantee - Legally enforceable assurance of the duration of satisfactory performance of quality of a product or work.

Hawaii Administrative Rules - Rules adopted by the State in accordance with Chapter 91 of the Hawaii Revised Statutes, as amended.

Hawaii eProcurement System (HlePRO) - The State of Hawaii eProcurement System for issuing solicitations, receiving proposals and responses, and issuing notices of award.

Highway (Street, Road, or Roadway) - A public way within a right-of-way designed, intended, and set aside for use by vehicles, bicyclists, or pedestrians.

Highways Division - The Highways Division of the Hawaii Department of Transportation constituted under the laws of Hawaii for the administration of highway work.

Holidays - The days of each year which are set apart and established as State holidays pursuant to Chapter 8 of the Hawaii Revised Statutes, as amended.

Inspector - The Engineer's authorized representative assigned to make detailed inspections of contract performance, prescribed work, and materials supplied.

Laboratory - The testing laboratory of the Highways Division or other testing laboratories that may be designated by the Engineer.

Laws - All Federal, State, and local laws, executive orders and regulations having the force of law.

Leveling Course - An aggregate mixture course of variable thickness used to restore horizontal and vertical uniformity to existing pavements or shoulders.

Liquidated Damages - The amount prescribed in Subsection 108.08 - Liquidated Damages for Failure to Complete the Work or Portions of the Work on Time, to be paid to the State or to be deducted from any payments payable to or, which may become payable to the Contractor.

Lump Sum (LS) - When used as a payment method means complete payment for the item of work described in the contract documents.

Material - Any natural or manmade substance or item specified in the contract to be incorporated in the work.

Notice to Bidders - 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 for the opening of proposals.

Notice to Proceed - Written notice from the Engineer to the Contractor identifying the date on which the Contractor is to begin procuring materials and required permits and adjusting work forces, equipment, schedules, etc. prior to beginning physical work.

Pavement - The uppermost layer of material placed on the traveled way or shoulders or both. Pavement and surfacing may be interchangeable.

Pavement Structure - The combination of subbase, base, pavement, surfacing or other specified layer of a roadway constructed on a subgrade to support the traffic load.

Payment Bond - The security executed by the Contractor and surety or sureties furnished to the Department to guarantee payment by the Contractor to laborers, material suppliers and subcontractors in accordance with the terms of the contract.

Physical Work - Physical construction activities on the project site or at appurtenant facilities including staging areas. It includes; (i) building or installing any structures or facilities including, but not limited to sign erection; BMP installation; field office site grading and building; (ii) removal, adjustment, or demolition of physical obstructions on site; (iii) any ground breaking activities; and (iv) any utility work. It does not include pre-construction environmental testing (such as water quality baseline measurements) that may be required as part of contract.

Pre-Final Inspection - Inspection scheduled when Contractor notifies Engineer that all physical work on the project, with the exception of planting period and plant establishment period, has been completed. Notice from Contractor of substantial completion will suspend contract time until Contractor receives punchlist from Engineer.

Profile Grade - The elevation or gradient of a vertical plane intersecting the top surface of the proposed pavement.

Project Acceptance Date - The calendar day on which the Engineer accepts the project as completed. See Final Completion.

Proposal (Bid) - The offer of a Bidder, on the prescribed HDOT form, to perform the work and to furnish the labor and materials at the prices quoted.

Public Traffic - Vehicular or pedestrian movement on a public way.

Punchlist - A list compiled by the Engineer specifying work yet to be completed or corrected by the Contractor in order to substantially complete the contract.

Questionnaire - The specified forms on which the bidder shall furnish required information as to its ability to perform and finance the work.

Request for Change Proposal - A written notice from the Engineer to the Contractor requesting that the Contractor provide a price and/or time proposal for contemplated changes preparatory to the issuance of a field order or change order.

Right-of-Way - Land, property, or property interests acquired by a government agency for, or devoted to transportation purposes.

Roadbed - The graded portion of a highway within top and side slopes, prepared as a foundation for the pavement structure and shoulders.

Roadside - The area between the outside edges of the shoulders and the right-of-way boundaries. Unpaved median areas between inside shoulders of divided highways and infield areas of interchanges are included.

Section and Subsection - Section or subsection shall be understood to refer to these specifications unless otherwise specified.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the work.

Shoulder - The portion of the roadway next to the traveled way for: accommodation of stopped vehicles, placement of underground facilities, emergency use, and lateral support of base and surface courses.

Sidewalk - That portion of the roadway primarily constructed for use by pedestrians.

Solicitation - An invitation to bid or request for proposals or any other document issued by the Department to solicit bids or offers to perform a contract. The solicitation may indicate the time and place to receive the bids or offers and the location, nature and character of the work, construction or materials to be provided.

Specifications - Compilation of provisions and requirements to perform prescribed work.

(A) **Standard Specifications.** Specifications by the State intended for general application and repetitive use.

(B) **Special Provisions.** Revisions and additions to the standard specifications applicable to an individual project.

Standard Plans - Drawings provided by the State for specific items of work approved for repetitive use.

State - The State of Hawaii, its Departments and agencies, acting through its authorized representative(s).

State Waters – All waters, fresh, brackish, or salt, around and within the State, including, but not limited to, coastal waters, streams, rivers, drainage ditches, ponds, reservoirs, canals, ground waters, and lakes; provided that drainage ditches, ponds, and reservoirs required as a part of a water pollution control system are excluded.

Start Work Date - Date on which Contractor begins physical work on the contract. This date shall also be the beginning of Contract Time.

Structures - Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation drains, and other such features that may be encountered in the work.

Subbase - A layer of specified material of specified thickness between the subgrade and a base.

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.

Subcontractor - An individual, partnership, firm, corporation, joint venture or other legal entity, as licensed or required to be licensed under Chapter 444, Hawaii Revised Statutes, as amended, which enters into an agreement with the Contractor to perform a portion of the work.

Subgrade - The top surface of completed earthwork on which subbase, base, surfacing, pavement, or a course of other material is to be placed.

Substantial Completion - The Status of the project when the Contractor has completed the work, except for the planting period and plant establishment period, and each of the following requirements are met:

- (1) All traffic lanes (including shoulders, ramps, sidewalks and bike paths) are in their final configuration as designed and the final wearing surface has been installed;
- (2) All operational and safety devices have been installed in accordance with the contract documents including guardrails, end treatments, traffic barriers, required signs and pavement markings, drainage, parapet, and bridge and pavement structures;
- (3) All required illumination and lighting for normal and safe use and operation is installed and functional in accordance with the contract documents;
- (4) All utilities and services are connected and working;
- (5) The need for temporary traffic controls or lane closures at any time has ceased, except for lane closures required for routine maintenance;
- (6) The building, structure, improvement or facility can be used for its intended purpose.

Substantial Completion Date - The date the Substantial Completion is granted by the Engineer in Writing and Contract Time stops.

Superintendent - The employee of the Contractor who is responsible for all the work and is a Contractor's agent for communications to and from the State.

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.

Surfacing - The uppermost layer of material placed on the traveled way or shoulders. This term is used interchangeably with pavement.

Traveled Way - The portion of the roadway for the movement of vehicles, exclusive of shoulders.

Unsuitable Material - Materials that contain organic matter, muck, humus, peat, sticks, debris, chemicals, toxic matter, or other deleterious materials not suitable for use in earthwork.

Utility - A line, facility, or system for producing, transmitting, or distributing communications, power, electricity, heat, gas, oil, water, steam, waste, or storm water.

Utility Owner - The entity, whether private or owned by a State, Federal, or County governmental body, that has the power and responsibility to grant approval for, or undertake construction work involving a particular utility.

Water Pollutant - Dredged spoil, solid refuse, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, soil, sediment, cellar dirt and industrial, municipal, and agricultural waste.

Water Pollution - (1) Such contamination or other alteration of the physical, chemical, or biological properties of any state waters, including change in temperature, taste, color, turbidity, or odor of the waters, or (2) Such discharge of any liquid, gaseous, solid, radioactive, or other substances into any state waters, as will or is likely to create a nuisance or render such waters unreasonably harmful, detrimental, or injurious to public health, safety, or welfare, including harm, detriment, or injury to public water supplies, fish and aquatic life and wildlife, recreational purposes and agricultural and industrial research and scientific uses of such waters or as will or is likely to violate any water quality standards, effluent standards, treatment and pretreatment standards, or standards of performance for new sources adopted by the Department of Health.

Work - The furnishing of all labor, material, equipment, and other incidentals necessary or convenient for the successful execution of all the duties and obligations imposed by the contract.

Working Day - A calendar day in which a Contractor is capable of working four or more hours with its normal work force, exclusive of:

547 (1) Saturdays, Sundays, and recognized legal State holidays and such
548 other days specified by the contract documents as non-working days,
549

550 (2) Day in which the Engineer suspends work for four or more hours
551 through no fault of the Contractor.”
552

553

554

555

556

END OF SECTION 101

1 Make this section a part of the Standard Specifications:

2
3 **"SECTION 102 - BIDDING REQUIREMENTS AND CONDITIONS**
4
5

6 **102.01 Prequalification of Bidders.** Prospective bidders shall be capable of
7 performing the work for which they are bidding.
8

9 In accordance with HRS Chapter 103D-310, the Department may require
10 any prospective bidder to submit answers to questions contained in the 'Standard
11 Qualification Questionnaire For Prospective Bidders On Public Works Contracts'
12 furnished by the Department, properly executed and notarized, setting forth a
13 complete statement of the experience of such prospective bidder and its
14 organization in performing similar work and a statement of the equipment proposed
15 to be used, together with adequate proof of the availability of such equipment.
16 Whenever it appears to the Department, from answers to the questionnaire or
17 otherwise, that the prospective bidder is not fully qualified and able to perform the
18 intended work, the Department will, after affording the prospective bidder an
19 opportunity to be heard and if still of the opinion that the bidder is not fully qualified
20 to perform the work, refuse to receive or consider any bid offered by the
21 prospective bidder. All information contained in the answers to the questionnaire
22 shall be kept confidential. Questionnaire so submitted shall be returned to the
23 bidders after serving their purpose.
24

25 No person, firm or corporation may bid where (1) the person, firm, or
26 corporation, or (2) a corporation owned substantially by the person, firm, or
27 corporation, or (3) a substantial stockholder or an officer of the corporation, or (4)
28 a partner or substantial investor in the firm is in arrears in payments owed to the
29 State or its political subdivisions or is in default as a surety or failure to do faithfully
30 and diligently previous contracts with the State.
31

32 **102.02 Contents of Proposal Forms.** The Department will furnish prospective
33 bidders with proposal forms posted in HlePRO stating:
34

- 35 (1) The location,
36
37 (2) Description of the proposed work,
38
39 (3) The approximate quantities,
40
41 (4) Items of work to be done or materials to be furnished,
42
43 (5) A schedule of items, and
44
45 (6) The time in which the work shall be completed.
46

Papers bound with or attached to the proposal form are part of the proposal. The bidder shall not detach or alter the papers bound with or attached to the proposal when the bidder submits its proposal through HlePRO.

Also, the bidder shall consider other documents including the plans and specifications a part of the proposal form whether attached or not.

102.03 (Unassigned).

102.04 Estimated Quantities. The quantities shown in the contract are approximate and are for the comparison of bids only. The actual quantity of work may not correspond with the quantities shown in the contract. The Department will make payment to the Contractor for unit price items in accordance with the contract for only the following:

(1) Actual quantities of work done and accepted, not the estimated quantities; or

(2) Actual quantities of materials furnished, not the estimated quantities.

The Department may increase, decrease, or omit each scheduled quantities of work to be done and materials to be furnished. When the Department increases or decreases the estimated quantity of a contract item by more than 15% the Department will make payment for such items in accordance with Subsection 104.06 - Methods of Price Adjustment.

102.05 Examination of Contract and Site of Work. The bidder shall examine carefully the site of the proposed work and contract before submitting a proposal.

By the act of submitting a bid for the proposed contract, the bidder warrants that:

(1) The bidder and its Subcontractors have reviewed the contract documents and found them free from ambiguities and sufficient for the purpose intended;

(2) The bidder and its workers, employees and subcontractors have the skills and experience in the type of work required by the contract documents bid upon;

(3) Neither the bidder nor its employees, agents, suppliers or subcontractors have relied upon verbal representations from the Department, its employees or agents, including architects, engineers or consultants, in assembling the bid figure; and

(4) The basis for the bid figure are solely on the construction contract documents.

93
94 Also, the bidder warrants that the bidder has examined the site of the work.
95 From its investigations, the bidder acknowledges satisfaction on:
96

- 97 (1) The nature and location of the work;
98
99 (2) The character, quality, and quantity of materials;
100
101 (3) The difficulties to be encountered; and
102
103 (4) The kind and amount of equipment and other facilities needed;
104

105 Subsurface information or hydrographic survey data furnished are for the
106 bidders' convenience only. The data and information furnished are the product of
107 the Department's interpretation gathered in investigations made at the specific
108 locations. These conditions may not be typical of conditions at other locations
109 within the project area or that such conditions remain unchanged. Also, conditions
110 found at the time of the subsurface explorations may not be the same conditions
111 when work starts. The bidder shall be solely responsible for assumptions,
112 deductions, or conclusions the bidder may derive from the subsurface information
113 or data furnished.
114

115 If the Engineer determines that the natural conditions differ from that
116 originally anticipated or contemplated by the Contractor in the items of excavation,
117 the State may treat the difference in natural conditions, as falling within the
118 meaning of Subsection 104.02 – Changes.
119

120 **102.06 Preparation of Proposal.** The submittal of its proposal shall be on
121 forms furnished by the Department. The bidder shall specify in words or figures:
122

- 123 (1) A unit price for each pay item with a quantity given;
124
125 (2) The products of the respective unit prices and quantities
126
127 (3) The lump sum amount; and
128
129 (4) The total amount of the proposal obtained by adding the amounts of
130 the several items.
131

132 The words and figures shall be in ink or typed. If a discrepancy occurs
133 between the prices written in words and those written in figures, the prices written
134 in words shall govern.
135

136 When an item in the proposal contains an option to be made, the bidder
137 shall choose in accordance with the contract for that particular item. Determination
138 of an option will not permit the Contractor to choose again.

The bidder shall sign the proposal properly in ink. A duly authorized representatives of the bidder or by an agent of the bidder legally qualified and acceptable to the Department shall sign, including one or more partners of the bidder and one or more representatives of each entity comprising a joint venture.

When an agent, other than the officer(s) of a corporation authorized to sign contracts for the corporation or a partner of a partnership, signs the proposals, a 'Power of Attorney' shall be on file with the Department or submitted with the proposal. Otherwise, the Department will reject the proposal as irregular and unauthorized.

The bidder shall submit acceptable evidence of the authority of the partner, member(s) or officer(s) to sign for the partnership, joint venture, or corporation respectively with the proposal. Otherwise, the Department will reject the proposal as irregular and unauthorized.

102.07 Irregular Proposals. The Department may consider proposals irregular and may reject the proposals for the following reasons:

- (1) The proposal is a form not furnished by the Department, altered, or detached;
- (2) The proposal contains unauthorized additions, conditions, or alternates. Also, the proposal contains irregularities that may tend to make the proposal incomplete, indefinite, or ambiguous to its meaning;
- (3) The bidder adds provisions reserving the right to accept or reject an award. Also, the bidder adds provisions into a contract before an award;
- (4) The proposal does not contain a unit price for each pay item listed except authorized optional pay items; and
- (5) Prices for some items are out of proportion to the prices for other items.
- (6) If in the opinion of the Director, the bidder and its listed subcontractors do not have the Contactor's licenses or combination of Contractor's licenses necessary to complete the work.

Where the prospective bidder is bidding on multiple projects simultaneously and the proposal limits the maximum gross amount of awards that the bidder can accept at one bid letting, the proposal is not irregular if the limit on the gross amount of awards is clear, and the Department selects the awards that can be given.

102.08 Proposal Guaranty. The Department will not consider a proposal of \$25,000 or more unless accompanied by:

- (1) A deposit of legal tender; or
- (2) A valid surety bid bond, underwritten by a company licensed to issue bonds in the State of Hawaii, in the form and composed, substantially, with the same language as provided herewith and signed by both parties; or
- (3) A certificate of deposit, share certificate, cashier's check, treasurer's check, teller's check, or official check drawn by, or a certified check accepted by and payable on demand to the State by a bank, savings institution, or credit union insured by the Federal Deposit Insurance Corporation (FDIC) or the National Credit Union Administration (NCUA).
 - (a) The bidder may use these instruments only to a maximum of \$100,000.
 - (b) If the required security or bond amount totals over \$100,000 more than one instrument not exceeding \$100,000 each and issued by different financial institutions shall be acceptable.
 - (c) The instrument shall be made payable at sight to the Department.
 - (d) If bidder elects options (1) or (3) above for its bid security, said bid security shall be in its original form and shall be submitted before the bid deadline to the Contract Office, Department of Transportation, Aliiimoku Hale, 869 Punchbowl Street, Room 103, Honolulu, Hawaii 96813. Original surety bid bonds do not need to be submitted to the Contracts Office. Bidders are reminded that a copy of its surety bid bond shall be included with its bid submitted and uploaded to HlePRO.

In accordance with HRS Chapter 103D-323, the above shall be in a sum not less than 5% of the amount bid.

102.09 Delivery of Proposal. Bidders shall submit and upload the complete proposal to HlePRO prior to the bid opening date and time. Proposals received after said due date and time shall not be considered. Any additional support

documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HlePRO. Bidders shall not include confidential and/or proprietary documents with the proposal. The record of each bidder and respective bid shall be open to public inspection. Original (wet ink, hard copy) proposal documents are not required to be submitted. Contract award shall be based on evaluation of proposals submitted and uploaded to HlePRO.

FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HlePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.

If there is a conflict between the specification document and the HlePRO solicitation, the specifications shall govern and control, unless otherwise specified.

102.10 Withdrawal or Revision of Proposals. Bids may be modified or withdrawn prior to the bid opening data and time. Withdrawal or revision of proposal shall be completed, and submitted and uploaded to HlePRO prior to the bid opening data and time.

102.11 Public Opening of Proposals. Not applicable.

102.12 Disqualification of Bidders. The Department may disqualify a bidder and reject its proposal for the following reasons:

- (1) Submittal of more than one proposal whether under the same or different name.
- (2) Evidence of collusion among bidders. The Department will not recognize participants in collusion as bidders for any future work of the Department until such participants are reinstated as qualified bidders.
- (3) Lack of proposal guaranty.
- (4) Submittal of an unsigned or improperly signed proposal.
- (5) Submittal of a proposal without a listing of subcontractors or containing only a partial or incomplete listing of subcontractors.
- (6) Submittal of an irregular proposal in accordance with Subsection 102.07 - Irregular Proposals.
- (7) Evidence of assistance from a person who has been an employee of the agency within the preceding two years and who participated while in State office or employment in the matter with which the contract is directly concerned, pursuant to HRS Chapter 84-15.
- (8) Suspended or debarred in accordance with HRS Chapter 104-25.

(9) Failure to complete the prequalification questionnaire, if applicable.

(10) Failure to attend the mandatory pre-bid meeting, if applicable.

102.13 Material Guaranty. The successful bidder may be required to furnish a statement of the composition, origin, manufacture of materials, and samples.

102.14 Substitution of Materials and Equipment Before Bid Opening. See Subsection 106.13 for Substitution Of Materials and Equipment After Bid Opening.

(A) General. When brand names of materials or equipment are specified in the contract documents, they are 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. As specified in the Notice to Bidders, all requests shall be posted as a question in HlePRO under the "Question and Answer" tab. Supporting documents for specific request shall be emailed to the Project Manager specified in the Notice to Bidders. Request must be posted in HlePRO and supporting documents received by the Project Manager via email no later than the RFI deadline in the Notice to Bidders.

An addendum will be issued to inform all prospective bidders of any accepted substitution in accordance with Subsection 102.17 – Addenda.

(B) Statement of Variances. The statement of variances must list all features of the proposed substitution that differ from the contract documents 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, and any other features requested by the Engineer 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, the Contractor shall immediately replace the product with a specified product at no increase in contract price and contract time.

(C) Substitution Denial. Any substitution request not complying with the above requirements will be denied.

102.15 Preferences. Preferences shall not apply to this project.

102.16 Certification for Safety and Health Program for Bids in excess of \$100,000. In accordance with HRS Chapter 396-18, the bidder or offeror, by signing and submitting this proposal, certifies that a written safety and health plan for this project will be available and implemented by the notice to proceed date for this project. Details of the requirements of this plan may be obtained from the

317 State Department of Labor and Industrial Relations, Occupational Safety and
318 Health Division (HIOSH).

319
320 **102.17 Addenda.** Addenda issued shall become part of the contract
321 documents. Addenda to the bid documents will be provided to all prospective
322 bidders via HlePRO. Each addendum shall be an addition to the contract
323 documents. The terms and requirements of the bid documents (i.e., drawings,
324 specifications and other bid and contract documents) cannot be changed prior to
325 the bid opening except by a duly issued addendum.”

326
327
328 **END OF SECTION 102**

1 Make this section a part of the Standard Specifications:

2
3 **“SECTION 103 - AWARD AND EXECUTION OF CONTRACT**
4

5
6 **103.01 Consideration of Proposals.** The Department will compare the
7 proposals in terms of the summation of the products of the approximate quantities
8 and the unit bid prices after the submittal date and time established in HlePRO. If
9 a discrepancy occurs between the unit bid price and the bid price, the unit bid price
10 shall govern.
11

12 The “Buy America” provisions in the Surface Transportation Assistance Act
13 of 1982 is applicable to Federal-aid projects. Bidders may submit a bid based
14 upon the furnishing and use of domestic steel or foreign steel. Manufacturing
15 processes for domestic steel shall occur in the United States.
16

17 The Department reserves the right to reject proposals, waive technicalities
18 or advertise for new proposals, if the rejection, waiver, or new advertisement favors
19 the Department.
20

21 **103.02 Award of Contract.** The award of contract, if it be awarded, will be
22 made within 60 calendar days after the opening of bids, to the lowest responsible
23 and responsive bidder whose proposal complies with all the prescribed
24 requirements. The Department may request the bidders to allow the Department
25 to consider the bids for the issuance of an award beyond the 60-calendar day
26 period. Agreement to such an extension must be made by a bidder in writing. Only
27 bidders who have agreed to such an extension will be eligible for the award. No
28 response to request shall mean the bidder shall no longer be eligible for award.
29

30 **(1) Requirement for Award.** The Bidder, as proof of compliance
31 with the requirements of section 103D-310(c), HRS, upon award of
32 a contract made pursuant to section 103D-302, HRS, shall provide
33 the documents listed below. The documents shall be submitted
34 promptly to the Department. If a valid certificate/clearance is not
35 submitted on a timely basis upon award, the Bidder may be deemed
36 non-responsible. See also Subsection 108.03 – Preconstruction
37 Data Submittal.

38 **(A) Tax Clearance.** Pursuant to §103D-310(c), 103-53 and 103D-328,
39 HRS, the bidder shall submit a tax clearance certificate from the State of
40 Hawaii Department of Taxation (DOTAX) and the Internal Revenue Service
41 (IRS), subject to section 103D-328, HRS, current within six months of
42 issuance date.

43
44 FORM A6, TAX CLEARANCE CERTIFICATE, is available at the
45 following website:

46
47 <https://tax.hawaii.gov/>
48

49 To receive DOTAX Forms by fax or mail, phone
50 (808) 587-4242 or 1-800-222-3229.
51

52 The application for the Tax Clearance Certificate is the responsibility
53 of the bidder. Bidder shall submit directly to the DOTAX or IRS. The
54 approved certificate may then be submitted to the Department.
55

56 **(B) DLIR Certificate of Compliance.** Pursuant to §103D-310(c), HRS,
57 the bidder shall submit a certificate of compliance for Hawaii Employment
58 Security Law (Chapter 383, HRS), Workers' Compensation Law (Chapter
59 386, HRS), Temporary Disability Insurance (Chapter 392, HRS), and
60 Prepaid Health Care Act (Chapter 393, HRS), from the State of Hawaii
61 Department of Labor and Industrial Relations (DLIR), current within six
62 months of issuance date.

63
64 FORM LIR#27, APPLICATION FOR CERTIFICATE OF
65 COMPLIANCE WITH SECTION 3-122-112, HAR, is available at the
66 following website:

67
68 <http://labor.hawaii.gov/>
69

70 Contact the DLIR Unemployment Insurance Division at (808) 586-8926 for
71 additional information.
72

73 Inquiries regarding the status of a LIR#27 Form may be made by
74 calling the DLIR Disability Compensation Division at (808) 586-9200.
75

76 The application for the Certificate of Compliance is the responsibility
77 of the bidder. Bidder shall submit directly to the DLIR. The approved
78 certificate may then be submitted to the Department.
79

80 **(C) DCCA Certificate of Good Standing.** Pursuant to §103D-310(c),
81 the bidder shall submit a certificate of good standing from the business
82 registration division (BREG) of the State of Hawaii Department of

Commerce and Consumer Affairs (DCCA), current within six months of issuance date, to demonstrate it is either:

(1) Incorporated or organized under the laws of the State; or

(2) Registered to do business in the State as a separate branch or division that is capable of fully performing under the contract.

A Hawaii business that is a sole proprietorship, is not required to register with the BREG, and therefore not required to submit a certificate of good standing. Bidders are advised of costs associated with registering and obtaining a Certificate of Good Standing from the DCCA.

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

<http://cca.hawaii.gov/>

The application for the Certificate of Good Standing is the responsibility of the bidder. Bidder shall submit directly to the DCCA. The approved certificate may then be submitted to the Department.

(D) Hawaii Compliance Express (HCE). In lieu of the certificates referenced in subsection A, B, and C, the bidder may make available proof of compliance through a state procurement office designated certification process.

103.03 Cancellation of Award. The Department reserves the right to cancel the award of contracts before the execution of said contract by the parties. There will be no liability to the awardee and to other bidders.

103.04 Return of Proposal Guaranty. The Department will return the proposal guaranties, except those of the three lowest bidders, after the Department checks the proposals. The Department will return the proposal guaranties of the remaining two lowest bidders, not awarded the contract, within five working days following the execution of the contract. The Department will return the successful bidder's proposal guaranty after the successful bidder furnishes a bond and executes the contract.

103.05 Requirement of Contract Bond. At the time of execution of the contract, the successful bidder shall file a good and sufficient performance bond and a payment bond on the forms furnished by the Department conditioned for the full and faithful performance of the contract in accordance with the terms and intent thereof and for the prompt payment to all others for all labor and material furnished by them to the bidder and used in the prosecution of the work provided for in the contract. The bonds shall be of an amount equal to 100 percent of the amount of the contract price and include 5 percent of the contract amount estimated to be

required for extra work. The bidder shall limit the acceptable performance and payment bonds to the following:

(a) Legal tender;

(b) Surety bond underwritten by a company licensed to issue bonds in the State of Hawaii; or

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

1. The bidder may use these instruments only to a maximum of \$100,000.

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

Such bonds shall also by the terms insure to the benefit of any and all persons entitled to file claims for labor done or material furnished in the work so as to give them a right of action as contemplated by HRS Section 103D-324.

103.06 Execution of the Contract. The contract bond and HRS Chapter 104 - Compliance Certificate, similar to a copy of the same annexed hereto, shall be executed by the successful bidder and returned within ten days after the award of the contract or within such further time as the Director may allow after the bidder has received the contract for execution.

The contract shall not bind the Department unless said parties execute the contract and the Director of Finance endorses the bidder's certificate in accordance with HRS Section 103-39.

103.07 Failure to Execute Contract. Failure to execute the contract and file acceptable bonds shall be cause for the cancellation of the award in accordance with Subsection 103.06 - Execution of the Contract. Also, the Contractor forfeits the proposal guaranty which becomes the property of the Department. This is not a penalty, but liquidated damages sustained by the State. The Department may then make award to the next lowest responsible and responsive bidder or the Department may readvertise and construct the work under contract."

END OF SECTION 103

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(I) Amend Section 104.11(B) Contractor's Duty to Locate and Protect Utility by adding the following after line 291:

(II) Amend **Section 104.06 Methods of Price Adjustment** as follows:

(1) By written agreement on a fixed price adjustment before commencement of the pertinent performance.

(3) The Engineer may base the adjustment for a lump sum item on a calculated proportionate unit price. The Engineer will calculate the proportionate unit price by dividing the original contract lump sum price by the actual or original estimated quantity established by the contract documents.

(5) At the sole option of the Engineer, work may be paid for on a force account basis in accordance with Subsection 109.06 - Force Account Provisions and Compensation.

(7) In the absence of agreement by the parties:

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104-1a

48 submission by the contractor of proper documentation of completed
49 force account work, whether periodic (conforming to the applicable
50 billing cycle) or final. The Engineer shall return any
51 documentation that is defective, to the contractor within fifteen days
52 after receipt, with a statement identifying the defect; or
53

54 **(B)** For change orders with value exceeding \$50,000 by a
55 unilateral determination by the Engineer of the costs attributable to
56 the events or situations with adjustment of profit and fee, all as
57 computed by the Engineer in accordance with applicable sections
58 of HAR Chapters 3-123 and 3-126, and Section 109.05 -
59 Allowances for Overhead and Profit. When a unilateral
60 determination has been made, a unilateral change order shall be
61 issued within ten days. Upon receipt of the unilateral change
62 order, if the contractor does not agree with any of the terms or
63 conditions, or the adjustment or nonadjustment of the contract time
64 or contract price, the contractor shall file a notice of intent to claim
65 within thirty days after the receipt of the written unilateral change
66 order. Failure to file a protest within the time specified shall
67 constitute agreement on the part of the contractor with the terms,
68 conditions, amounts, and adjustment or nonadjustment of the
69 contract time or the contract price set forth in the unilateral change
70 order.
71

72 A contractor shall be required to submit cost or pricing data if any
73 adjustment in contract price is subject to the provisions of HAR Chapter 3-122,
74 Subchapter 15. A fully executed change order or other document permitting
75 billing for the adjustment in price under any method listed in Subsections
76 104.06(1) through 104.06(7) shall be issued within ten days after agreement on
77 the method of adjustment."
78
79
80
81
82
83

84 **END OF SECTION 104**

1 **SECTION 105 – CONTROL OF WORK**
2

3 Make the following amendments to said Section:
4
5

6 **(I)** Amend **105.01 – Authority** to read as follows:
7

8 **“105.01 Authority.**
9

10 **(A) Authority of the Engineer.** The Engineer is the representative of
11 the Director and has all the authority of the Director with respect to the
12 contract. The Engineer will make decisions on all questions that may arise
13 regarding the contract, such as, but not limited to:
14

15 **(1)** Interpretation of the contract documents.
16

17 **(2)** Acceptability of the materials furnished and work performed.
18

19 **(3)** Manner of performance and rate of progress of the work.
20

21 **(4)** Acceptable fulfillment of the contract on the part of the
22 Contractor.
23

24 **(5)** Compensation under the contract.
25

26 The Engineer’s decisions on questions, claims, and disputes will be
27 final and conclusive subject to Subsection 107.15 – Disputes and Claims.
28

29 The Engineer may delegate specific authority to act for the Engineer
30 to a specific person or persons. Such delegation of authority shall be
31 established in writing and shall become effective upon delivery to the
32 Contractor.
33

34 **(B) Authority of the Inspectors.** Inspectors, as a representative of the
35 Engineer or other agencies, will inspect the work done and materials
36 furnished. Such inspection may extend to the preparation, fabrication or
37 manufacture of the materials to be used. The Inspector does not have
38 authority vested in the Engineer unless specifically delegated in writing.
39 The Inspector may not alter or waive the provisions of the contract, issue
40 instructions contrary to the contract, or act as agent or representative of the
41 Contractor.
42

43 Failure of an Inspector at any time to reject non-conforming work
44 shall not be considered a waiver of the State’s right to require work in strict
45 conformity with the contract documents as a condition of final acceptance.
46

47 **(C) Authority of the Consultant and Construction Management.** The
48 State may engage consultants and construction managements to perform
49 duties in connection with the work. Unless otherwise specified in writing to
50 the Contractor, such retained consultants and construction managements
51 shall have no greater authority than an Inspector.”
52

53 **(II) Amend Subsection 105.02 - Submittals** by revising the first paragraph
54 from lines 52 to 61 to read as follows:
55

56 **“105.02 Submittals.** The contract contains the description of various items that
57 the Contractor must submit to the Engineer for review and acceptance. The
58 Contractor shall review all submittals for correctness, conformance with the
59 requirements of the contract documents and completeness before submitting them
60 to the Engineer. The submittal shall indicate the contract items and specifications
61 subsections for which the submittal is provided. The submittal shall be legible and
62 clearly indicate what portion of the submittal is being submitted for review. The
63 Contractor shall provide six copies of the required submissions at the earliest
64 possible date.”
65

66 **(III) Amend Subsection 105.08 (A) - Furnishing Drawings and Special**
67 **Provisions** to read as follows:
68

69 **“(A) Furnishing Drawings and Special Provisions.** The State will
70 furnish the Contractor an electronic set of the special provisions and plans.”
71 The Contractor shall have and maintain at least one set of plans and
72 specifications on the work site, at all times.”
73

74 **(IV) Amend Subsection 105.14(D) – No Designated Storage Area** from lines
75 421 to 432 to read as follows:
76

77 **“(D) No Designated Storage Area.** If no storage area is designated
78 within the contract documents, materials and equipment may be stored
79 anywhere within the State highway right-of-way, provided such storage and
80 access to and from such site, within the sole discretion of the Engineer,
81 does not create a public or traffic hazard or an impediment to the movement
82 of traffic.”
83

84 **(V) Amend 105.16(A) – Subcontract Requirements** by adding the following
85 paragraph after line 483:
86

87 The 'Specialty Items' of work for this project are as follows:
88

89	Section	Description
90	No.	
91		
92	401	Contract Item No. 401.0100 under Section 401 – Hot Mix
93		Asphalt Pavement
94		
95	606	All Contract Items under Section 606 - Guardrail
96		
97	622	All Contract Items under Section 622 – Roadway and Sign
98		Lighting System
99		
100	629	All Contract Items under Section 629 - Pavement Markings
101		
102	630	All Contract Items under Section 630 - Traffic Control Guide
103		Signs
104		
105	631	All Contract Items under Section 631 - Traffic Control
106		Regulatory, Warning, and Miscellaneous Signs”
107		
108		

(VI) Amend **Subsection 105.16(B) – Substituting Subcontractors** from line 487 to line 494 to read:

“(B) Substituting Subcontractors. Under HRS Chapter 103D-302, the Contractor is required to list the names of persons or firms to be engaged by the Contractor as a subcontractor or joint contractor in the performance of the contract. No subcontractor may be added or deleted, unless authorized by the Engineer. Substitutions will be allowed only if the subcontractor:

END OF SECTION 105

1 -Make the following amendment to said Section:

2
3 **SECTION 106 – MATERIAL RESTRICTIONS AND REQUIREMENTS**
4
5

6 (I) Replace **106.04 – Material Sample** lines 87 and 88 with the following:

7
8 “For Sampling and Testing Guide for Acceptance and Verification (dated
9 July 2023), click the link going to:

10
11 [HDOT Sampling-Guide 2023.pdf](#)
12

13 (II) Amend **106.05(B) – Deviations** by revising the third sentence from line 106
14 to 108 to read as follows:

15
16 “Any deviations will be subject to Subsection 102.14 – Substitution of
17 Materials and Equipment Before Bid Opening.
18

19 (III) Replace **106.11 – Steel and Iron Construction Material** lines 238 through
20 277 with the following:

21
22 **106.11 Domestic Materials Procurement Preference.** Federal-aid contracts
23 are subject to the Domestic Materials Procurement Preference, as established by
24 the Buy America Act (1978 Surface Transportation Assistance Act) and the Build
25 America, Buy America (BABA) Act (2021 Infrastructure Investment and Jobs Act).
26 This requirement applies to the following categories of products and materials that
27 are permanently incorporated into the project.
28

29 (1) Iron or Steel Products, 23 CFR § 635.410 (Buy America).
30

31 (2) Construction Materials, 2 CFR Part 184 (BABA).
32

33 (3) Manufactured Products, 23 CFR § 635.410 (Buy America).
34

35 (4) Other materials, including BABA Section 70917(c) materials.
36

37 An article, material, or supply should not be considered to fall into multiple
38 categories, except for precast concrete products and ITS and electronic hardware
39 system cabinets and enclosures which are designated as falling into 2 categories:
40 Manufactured Products and Steel or Iron in accordance with 23CFR
41 635.410(c)(2)(i) and (ii) and 106.11(C). The classification of an article, material, or
42 supply into the categories must be based on its status at the time it is brought to
43 the work site for incorporation into an infrastructure project. In general, the work
44 site is the location of the infrastructure project at which the iron, steel,
45 manufactured products, and construction materials will be incorporated.
46

(A) Iron and Steel Products. For Federal-aid projects, steel and iron products permanently incorporated into the project shall be melted and manufactured in the United States in accordance with 23 CFR § 635.410 Buy America Requirements.

Steel or iron products means articles, materials, or supplies that consist wholly or predominantly of iron or steel or a combination of both and the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product, and a good faith estimate of the cost of iron or steel components.

Manufacturing includes any process that modifies the chemical content, physical shape or size, or final finish of a product. The manufacturing process begins with initial melting and mixing and continues through fabrication (cutting, drilling, welding, bending, etc.) and coating. Coating includes epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or enhances the value of steel or iron.

(B) Construction Materials. Construction materials mean articles, materials, or supplies that consist of only one of the items listed below, except as provided in Subsection 106.11(C) – Manufactured Products subparagraphs (1) and (2). All manufacturing processes, as defined in 2 CFR § 184.6 for these construction materials, must occur in the United States.

- (1) Non-ferrous metals.
- (2) Plastic and polymer-based products such as:
 - (a) Polyvinylchloride.
 - (b) Composite building materials.
 - (c) Polymers used in fiber optic cables.
- (3) Glass (including optic glass).
- (4) Fiber optic cable (including drop cable).
- (5) Optical fiber.
- (6) Lumber.
- (7) Engineered wood.

93
94 (8) Drywall.
95

96 BABA Section 70917(c) materials, as defined in 2 CFR § 184.3, do
97 not require domestic sourcing or domestic material certification. BABA
98 Section 70917(c) materials means:
99

100 (1) Cement and cementitious materials.
101

102 (2) Aggregates such as stone, sand, or gravel.
103

104 (3) Aggregate binding agents or additives.
105

106 **(C) Manufactured Products.** Buy America requirements apply to
107 manufactured products. Manufactured products are defined as articles,
108 materials, or supplies that have been processed into a specific form and
109 shape or combined with other articles, materials, or supplies to create a
110 product with different properties than the individual articles, materials, or
111 supplies. For Federal-aid projects, all manufactured products must be
112 produced in the United States.
113

114 For projects let on or after October 1, 2025, manufactured products
115 shall be manufactured, including final assembly, in the United States.
116

117 For projects let on or after October 1, 2026, manufactured products
118 shall be manufactured, including final assembly, in the United States. The
119 cost of the components of the manufactured product that are mined,
120 produced, or manufactured in the United States shall be greater than 55
121 percent of the total cost of all components of the manufactured product.
122

123 (1) Precast Concrete – Precast Concrete products that are
124 classified as manufactured products, components of precast
125 concrete products that consist wholly or predominantly of iron or steel
126 or a combination of both, shall also meet the requirements of
127 Subsection 106.11(A) – Iron and Steel Products.
128

129 (2) Intelligent Transportation and Electronic Hardware Systems –
130 Intelligent transportation systems and other electronic hardware
131 systems that are installed in the highway right of way or other real
132 property and classified as manufactured products. The cabinets or
133 other enclosures of such systems that consist wholly or
134 predominantly of iron or steel or a combination of both shall also
135 meet the requirements of Subsection 106.11(A) – Iron and Steel
136 Products.
137

138 **(D) Contractor Domestic Materials Preference (DMP) Form.** The
139 Prime Contractor shall provide a Contractor Domestic Materials Preference
140 Form using the E-Construction platform. A DMP form must be submitted for
141 iron, steel, construction materials, and manufactured products delivered to
142 the project and permanently incorporated into the work. The Prime
143 Contractor shall provide supporting documentation to assure the article,
144 material, or supply meets the Domestic Materials Procurement Preference
145 requirements as established in the Buy America Act (1978 Surface
146 Transportation Assistance Act) and the Build America, Buy America (BABA)
147 Act (2021 Infrastructure Investment and Jobs Act).
148
149
150
151

END OF SECTION 106



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS

Contractor Domestic Materials Preference (DMP) Form

(Required by Subsection 106.11)

Project Name:	
Project Number:	
Prime Contractor:	

Type of Material: ☐ Iron or Steel Product ☐ Construction Material ☐ Manufactured Product
Specify Main Type of Construction Material: ☐ Non-ferrous Metal ☐ Plastic & polymer-based products
☐ Glass ☐ Fiber optic cable ☐ Optical fiber ☐ Lumber ☐ Engineered wood ☐ Drywall

Description of Material or Product:

Pay Item No.:
Pay Item Name:
Description:

The following certification establishes the acceptance of materials or products according to the Contract Provisions, 2 CFR Part 184 and 23 CFR § 635.410.

- ☐ **Iron or Steel Product:** The materials furnished under this certification were produced in the United States, including all manufacturing processes, from the initial melting stage through the application of coatings.
- ☐ **Construction Material:** All manufacturing processes for the materials furnished under this certification occurred in the United States.
- ☐ **Manufactured Product:** The products furnished under this certification were produced in the United States.

The Prime Contractor shall provide supporting documentation to assure the article, material, or supply meets requirements. I understand that submitting false statements and/or information may result in civil and criminal penalties.

Prime Contractor's Authorized Representative Signature	Date
Printed Name	Title

*****NOTE***** Contractor DMP Form must be filled out in ACC and submitted in ACC Forms module. Reference the form in the materials submittal.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS

Domestic Materials Reference Guide

Iron and Steel Products

- "Produced in the United States" means all manufacturing processes — from initial melting through application of coatings — must occur within the United States.

Construction Materials

For the materials listed below, all manufacturing processes must take place in the United States:

1. Non-Ferrous Metals (e.g., aluminum, copper): Smelting, melting thru shaping, coating, and assembly must all occur in the U.S.
2. Plastic and Polymer-Based Products: Every step — from mixing the raw plastic materials all the way to creating the final product — must occur in the U.S.
3. Glass: From raw material melting through annealing, cooling, and cutting, all processes must occur the U.S.
4. Fiber Optic Cable (including drop cable): All steps — starting with ribboning (if needed), then buffering, stranding the fibers together, and adding the outer jacket must occur in the US. Plus, the fiber optic cable must also meet the same U.S. manufacturing standards for making glass and optical fiber, but it doesn't have to follow the standards for non-ferrous metals, plastics and polymer- based products, or any others.
5. Optical Fiber: From the first step of making the preform (the solid glass rod) all the way through pulling it into thin fiber (the "draw" process), all must occur in the U.S.
6. Lumber: From debarking through treatment and planing, all processes must occur in the U.S.
7. Drywall: Blending gypsum and additives through panel cutting and drying must occur in the U.S.
8. Engineered Wood Products: Combining materials and creating the final form must occur in the U.S.

Manufactured Products

To qualify as "produced in the United States," two conditions must be met:

1. The product must be manufactured (including final assembly) in the U.S.
2. The cost of U.S.-mined, produced, or manufactured components must be greater than 55% of the total cost of all components.

Component cost determination:

- Purchased components: Includes purchase price, transport to manufacturing site, and duties.
- Manufacturer-made components: Include all production and transport costs (excluding profit).

Important Dates:

- For projects let on or after October 1, 2025: Products must be manufactured (including final assembly) in the U.S.
- For projects let on or after October 1, 2026: Products must meet both the U.S. manufacturing requirement and the greater than 55% U.S. components cost requirement. This means the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States shall be greater than 55 percent of the total cost of all components of the manufactured product.

-

*****NOTE***** Contractor DMP Form must be filled out in ACC and submitted in ACC Forms module. Reference the form in the materials submittal.

1 **SECTION 107 - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC**

2
3 Make the following amendments to said Section:

4
5 **(I)** Amend **Section 107.01 Insurance Requirements** from lines 5 to 81 to
6 read as follows:

7
8 **“(A) Obligation of Contractor.** Contractor shall not commence any
9 work until it obtains, at its own expense, all required insurance described
10 herein. Such insurance shall be provided by an insurance company
11 authorized by the laws of the State to issue such insurance in the State of
12 Hawaii. Coverage by a “Non-Admitted” carrier is permissible provided the
13 carrier has a Best’s Rating of “A-VII” or better. The Contractor shall
14 maintain and ensure all insurance policies are current for the full period of
15 the contract until final acceptance of the work by the State.
16

17 The Certificate of Insurance shall contain: a clause that it is agreed
18 that any insurance maintained by the State of Hawaii will apply in excess
19 of, and not contribute with, insurance provided by this policy; and shall be
20 accompanied by endorsement form CG2010 or equivalent naming the
21 State as an additional insured to the policy which status shall be
22 maintained for the full period of the contract until final acceptance of the
23 work by State.
24

25 The Contractor shall obtain all required insurance as part of the
26 contract price. Where there is a requirement for the State of Hawaii and
27 its officers and employees to be named as additional insureds under any
28 Contractor’s insurance policy, before the State of Hawaii issues the Notice
29 to Proceed, the Contractor shall obtain and submit to the Engineer a
30 Certificate of Insurance and a written policy endorsement that confirms the
31 State of Hawaii and its officers and employees are additional insureds for
32 the specific State project number and project title under such insurance
33 policies. The written policy endorsement must be issued by the insurance
34 company insuring the Contractor for the specified policy type or by an
35 agent of such insurance company who is vested with the authority to issue
36 a written policy endorsement. The insurer’s agent shall also submit
37 written confirmation of such authority to bind the insurer. Any delays in
38 the issuance of the Notice to Proceed attributed to the failure to obtain the
39 proof of the State of Hawaii and its officers and employees’ additional
40 insured status shall be charged to the Contractor.
41

42 A mere Certificate of Insurance issued by a broker who represents
43 the Contractor (but not the Contractor’s insurer), or by any other party who
44 is not authorized to contractually name the State as an additional insured
45 under the Contractor’s insurance policy, is not sufficient to meet the
46 Contractor’s insurance obligations.

47
48 Certificates shall contain a provision that coverages being certified
49 will not be cancelled or materially changed without giving the Engineer at
50 least thirty (30) days prior written notice. Contractor will immediately
51 provide written notice to the Director should any of the insurance policies
52 evidenced on its Certificate of Insurance form be cancelled, reduced in
53 scope or coverage, or not renewed upon expiration. Should any policy be
54 canceled before final acceptance of the work by the State, and the
55 Contractor fails to immediately procure replacement insurance as
56 specified, the State, in addition to all other remedies it may have for such
57 breach, reserves the right to procure such insurance and deduct the cost
58 thereof from any money due or to become due to the Contractor.
59

60 Nothing contained in these insurance requirements is to be
61 construed as limiting the extent of Contractor's responsibility for payment
62 of damages resulting from its operations under this contract, including the
63 Contractor's obligation to pay liquidated damages, nor shall it affect the
64 Contractor's separate and independent duty to defend, indemnify and hold
65 the State harmless pursuant to other provisions of this contract. In no
66 instance will the State's exercise of an option to occupy and use
67 completed portions of the work relieve the Contractor of its obligation to
68 maintain the required insurance until the date of final acceptance of the
69 work.
70

71 All insurance described herein shall be primary and cover the
72 insured for all work to be performed under the contract, all work performed
73 incidental thereto or directly or indirectly connected therewith, including
74 but not limited to traffic detour work, barricades, warnings, diversions, lane
75 closures, and other work performed outside the work area and all change
76 order work.
77

78 The Contractor shall, from time to time, furnish the Engineer, when
79 requested, satisfactory proof of coverage of each type of insurance
80 required covering the work. Failure to comply with the Engineer's request
81 may result in suspension of the work, and shall be sufficient grounds to
82 withhold future payments due the Contractor and to terminate the contract
83 for Contractor's default.
84

85 **(B) Types of Insurance.** Contractor shall purchase and maintain
86 insurance described below which shall provide coverage against claims
87 arising out of the Contractor's operations under the contract, whether such
88 operations be by the Contractor itself or by any subcontractor or by
89 anyone directly or indirectly employed by any of them or by anyone for
90 whose acts any of them may be liable.
91

92 **(1) Workers' Compensation.** The Contractor shall obtain
93 worker's compensation insurance for all persons whom they
94 employ in carrying out the work under this contract. This insurance
95 shall be in strict conformity with the requirements of the most
96 current and applicable State of Hawaii Worker's Compensation
97 Insurance laws in effect on the date of the execution of this contract
98 and as modified during the duration of the contract.
99

100 **(2) Auto Liability.** The Contractor shall obtain Auto Liability
101 Insurance covering all owned, non-owned and hired autos with a
102 Combined single Limit of not less than \$1,000,000 per occurrence
103 for bodily injury and property damage with the State of Hawaii
104 named as additional insured. Refer to SPECIAL CONDITIONS for
105 any additional requirements.
106

107 **(3) General Liability.** The Contractor shall obtain General
108 Liability insurance with a limit of not less than \$2,000,000 per
109 occurrence and in the Aggregates for each of the following:
110

- 111 **(a)** Products - Completed/Operations Aggregate,
- 112
- 113 **(b)** Personal & Advertising Injury, and
- 114
- 115 **(c)** Bodily Injury & Property Damage
116

117 The General Liability insurance shall include the State as an
118 Additional Insured. The required limit of insurance may be provided
119 by a single policy or with a combination of primary and excess
120 policies. Refer to SPECIAL CONDITIONS for any additional
121 requirements.
122

123 **(4) Builders Risk For All Work.** The Contractor shall take out
124 a policy of builder's risk insurance for the full replacement value of
125 the project work; from a company licensed or otherwise authorized
126 to do business in the State of Hawaii; naming the State as an
127 additional insured under each policy; and covering all work, labor,
128 and materials furnished by such Contractor and all its
129 subcontractors against loss by fire, windstorm, tsunamis,
130 earthquakes, lightning, explosion, other perils covered by the
131 standard Extended Coverage Endorsement, vandalism, and
132 malicious mischief. Refer to SPECIAL CONDITIONS for any
133 additional requirements."
134
135
136
137

END OF SECTION 107

1 Amend **Section 108 – PROSECUTION AND PROGRESS** to read as follows:

2
3 **“SECTION 108 – PROSECUTION AND PROGRESS**

4
5
6 **108.01 Notice to Proceed (NTP).** A Notice To Proceed will be issued to the
7 Contractor not more 30 calendar days after the contract certification date. The
8 Engineer may suspend the contract before issuing the Notice To Proceed, in
9 which case the Contractor’s remedies are exclusively those set forth in Subsection
10 108.10 – Suspension of Work.

11
12 The Contractor shall be allowed up to 14 calendar days after the Notice to
13 Proceed to begin physical work. The Start Work Date will be established when
14 this period ends or on the actual day that physical work begins, whichever is first.
15 Charging of Contract Time will begin on the Start Work Date. The Contractor shall
16 notify the Engineer, in writing, at least five working days before beginning physical
17 work.

18
19 In the event that the Contractor fails to start physical work within the time
20 specified, the Engineer may terminate the contract in accordance with Subsection
21 108.11 – Termination of Contract for Cause.

22
23 During the period between the Notice to Proceed and the Start Work Date
24 the Contractor should adjust work forces, equipment, schedules, and procure
25 materials and required permits, prior to beginning physical work.

26
27 Any physical work done prior to the Start Work Date will be considered
28 unauthorized work. If the Engineer does not direct that the unauthorized work be
29 removed, it shall be paid for after the Start Work Date and only if it is acceptable.

30
31 In the event that the Engineer establishes, in writing, a Start Work Date that
32 is beyond 60 calendar days from the Notice to Proceed date, the Contractor may
33 submit a claim in accordance with, Subsection 107.15 – Disputes and Claims for
34 increased labor and material costs which are directly attributable to the delay
35 beyond the first 60 calendar days after the Notice to Proceed date.

36
37 The Contractor shall notify the Engineer at least 24 hours before restarting
38 physical work after a suspension of work pursuant to Subsection 108.10 –
39 Suspension of Work.

40
41 Once physical work has begun, the Contractor shall work expeditiously and
42 pursue the work diligently to completion with the contract time. If a portion of the
43 work is to be done in stages, the Contractor shall leave the area safe and usable
44 for the user agency and the public at the end of each stage.

46 **108.02 Prosecution of Work.** Unless otherwise permitted by the Engineer, in
47 writing, the Contractor shall not commence with physical construction unless
48 sufficient materials and equipment are available for either continuous construction
49 or completion of a specified portion of the work.
50

51 **108.03 Preconstruction Submittals.** The awardee shall submit to the
52 Engineer for information and review the pre-construction submittals within 21
53 calendar days from award. Until the items listed below are received and found
54 acceptable by the Engineer, the Contractor shall not start physical work unless
55 otherwise authorized to do so in writing and subject to such conditions set by the
56 Engineer. Charging of Contract Time will not be delayed, and additional contract
57 time will not be granted due to Contractor delay in submitting acceptable
58 preconstruction submittals. No progress payment will be made to the Contractor
59 until the Engineer acknowledges, in writing, receipt of the following
60 preconstruction submittals acceptable to the Engineer:
61

- 62 (1) List of the Superintendent and other Supervisory Personnel, and
63 their contact information.
- 64
- 65 (2) Name of person(s) authorized to sign for the Contractor.
66
- 67 (3) Work Schedule including hours of operation.
68
- 69 (4) Initial Progress Schedule (See Subsection 108.06 – Progress
70 Schedule).
71
- 72 (5) Water Pollution and Siltation Control Submittals, including Site-
73 Specific Best Management Practice Plan.
74
- 75 (6) Solid Waste Disposal form.
76
- 77 (7) Tax Rates.
78
- 79 (8) Insurance Rates.
80
- 81 (9) Certificate of Insurance, satisfactory to the Engineer, indicating that
82 the Contractor has in place all insurance coverage required by the contract
83 documents.
84
- 85 (10) Schedule of agreed prices.
86
- 87 (11) List of suppliers.
88
- 89 (12) Traffic Control Plan, if applicable.

108.04 Character and Proficiency of Workers. 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. The superintendent and all other representatives of the Contractor shall act in a civil and honest manner in all dealings with the Engineer, all other State officials and representatives, and the public, in connection with the work.

All workers shall possess the proper license, certification, job classification, skill, training, and experience necessary to properly perform the work assigned to them.

The Engineer may direct the removal of any worker(s) who does not carry out the assigned work in a proper and skillful manner or who is disrespectful, intemperate, violent, or disorderly. The worker shall be removed forthwith by the Contractor and will not work again without the written permission of the Engineer.

108.05 Contract Time.

(A) 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 will be the number of working days shown in the contract plus any additional working days authorized in writing as provided hereinafter. The count of elapsed working days to be charged against contract time, will begin from the Start Work Date and will continue consecutively to the date of Substantial Completion. When multiple shifts are used to perform the work, the State will not consider the hours worked over the normal eight working hours per day or night as an additional working day.

When the contract is on a calendar day basis, the total contract time allowed for the performance of the work will be the number of days shown in the contract plus any additional days authorized in writing as provided hereinafter. The count of elapsed days to be charged against contract time will begin from the Start Work Date and will continue consecutively to the date of Substantial Completion. The Engineer will exclude days elapsing between the orders of the Engineer to suspend work and resume work for suspensions not the fault of the Contractor.

(B) Modifications of Contract Time. Whenever the Contractor believes that an extension of contract time is justified, the Contractor shall serve written notice on the Engineer not more than five working days after the occurrence of the event that causes a delay or justifies a contract time extension. Contract time may be adjusted for the following reasons or events, but only if and to the extent the critical path has been affected:

135 **(1) Changes in the Work, Additional Work, and Delays**
136 **Caused by the State.** If the Contractor believes that an extension of
137 time is justified on account of any act or omission by the State, and is
138 not adequately provided for in a field order or change order, it must
139 request the additional time as provided above. At the request of the
140 Engineer, the Contractor must show how the critical path will be
141 affected and must also support the time extension request with
142 schedules, as well as statements from its subcontractors, suppliers,
143 or manufacturers, as necessary. Claims for compensation for any
144 altered or additional work will be determined pursuant to Subsection
145 104.02 – Changes.

146
147 Additional time to perform the extra work will be added to the
148 time allowed in the contract without regard to the date the change
149 directive was issued, even if the contract completion date has
150 passed. A change requiring time issued after contract time has
151 expired will not constitute an excusal or waiver of pre-existing
152 Contractor delay.

153
154 **(2) Delay for Permits.** For delays in the routine application and
155 processing time required to obtain necessary permits, including
156 permits to be obtained from State agencies, the Engineer may grant
157 an extension provided that the permit takes longer than 30 days to
158 acquire and the delay is not caused by the Contractor, and provided
159 that as soon as the delay occurs, the Contractor notifies the
160 Engineer in writing that the permits are not available. Permits
161 required by the contract that take less than 30 days to acquire from
162 the time which the appropriate documents are granted shall be
163 acquired between Notice to Proceed and Start Work Date or
164 accounted for in the contractor's progress schedule. Time
165 extensions will be the exclusive relief granted on account of such
166 delays.

167
168 **(3) Delays Beyond Contractor's Control.** For delays caused by
169 acts of God, a public enemy, fire, inclement weather days or
170 adverse conditions resulting therefrom, earthquakes, floods,
171 epidemics, quarantine restrictions, labor disputes impacting the
172 Contractor or the State, freight embargoes and other reasons
173 beyond the Contractor's control, the Contractor may be granted an
174 extension of time provided that:

175
176 **(a)** In the written notice of delay to the Engineer, the
177 Contractor describes possible effects on the completion date
178 of the contract. The description of delays shall:
179

180 1. State specifically the reason or reasons for the
181 delay and fully explain in a detailed chronology how the
182 delay affects the critical path.

183
184 2. Include copies of pertinent documentation to
185 support the time extension request.

186
187 3. Cite the anticipated period of delay and the time
188 extension requested.

189
190 4. State either that the above circumstances have
191 been cleared and normal working conditions restored
192 as of a certain day or that the above circumstances will
193 continue to prevent completion of the project.

194
195 (b) The Contractor shall notify the Engineer in writing when
196 the delay ends. Time extensions will be the exclusive relief
197 granted and no additional compensation will be paid the
198 Contractor for such delays.

199
200 **(4) Delays in Delivery of Materials or Equipment.** For delays
201 in delivery of materials or equipment, which occur as a result of
202 unforeseeable causes beyond the control and without fault of the
203 Contractor, its subcontractor(s) or supplier(s), time extensions shall
204 be the exclusive relief granted and no additional compensation will
205 be paid the Contractor on account of such delay. The delay shall not
206 exceed the difference between the originally scheduled delivery date
207 and the actual delivery date. The Contractor may be granted an
208 extension of time provided that it complies with the following
209 procedures:

210
211 (a) The Contractor's written notice to the Engineer must
212 describe the delays and state the effect such delays may have
213 on the critical path.

214
215 (b) The Contractor, if requested, must submit to the
216 Engineer within five days after a firm delivery date for the
217 material and equipment is established, a written statement
218 regarding the delay. The Contractor must justify the delay as
219 follows:

220
221 1. State specifically all reasons for the delay.
222 Explain in a detailed chronology the effect of the delay
223 on the critical path.

2. Submit copies of purchase order(s), factory invoice(s), bill(s) of lading, shipping manifest(s), delivery tag(s), and any other documents to support the time extension request.

3. Cite the start and end date of the delay and the time extension requested.

(5) Delays for Suspension of Work. When the performance of the work is totally suspended for one or more days (calendar or working days, as appropriate) by order of the Engineer in accordance with Subsections 108.10(A)(1), 108.10(A)(2), or 108.10(A)(5) the number of days from the effective date of the Engineer's order to suspend operations to the effective date of the Engineer's order to resume operations shall not be counted as contract time and the contract completion date will be adjusted. 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 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.

(6) Contractor Caused Delays. No time extension will be granted under the following circumstances:

(a) Delays within the Contractor's control in performing the work caused by the Contractor, subcontractor, supplier, or any combination thereof.

(b) Delays within the Contractor's control in arrival of materials and equipment caused by the Contractor, subcontractor, supplier, or any combination thereof, in ordering, fabricating, and delivery.

(c) Delays requested for changes which do not affect the critical path.

(d) Delays caused by the failure of the Contractor to make submittals in a timely manner for review and acceptance by the Engineer, such as but not limited to shop drawings, descriptive sheets, material samples, and color samples except as covered in Subsection 108.05(B)(3) – Delays Beyond Contractor’s Control and 108.05(B)(4) – Delays in Delivery of Materials or Equipment.

(e) Delays caused by the failure to submit sufficient information and data in a timely manner in the proper form in order to obtain necessary permits related to the work.

(f) Failure to follow the procedure within the time allowed by contract to request a time extension.

(g) Failure of the Contractor to provide evidence sufficient to support the time extension request.

(7) **Reduction in Time.** If the State deletes or modifies any portion of the work, an appropriate reduction of contract time may be made in accordance with Subsection 104.02 - Changes.

108.06 Progress Schedules.

(A) **Forms of Schedule.** All schedules shall be submitted using the specific computer program designated in the bid documents. If no such scheduling software program is designated, then all schedules shall be submitted using the latest version of Microsoft Project by Microsoft or approved equivalent software program.

Schedule submittals shall be as follows:

(1) **For Contracts \$2,000,000 or less or For Contract Time 100 Working Days or 140 Calendar Days or Less.** For contracts of \$2,000,000 or less or for contract time of 100 working days or 140 calendar days or less, the progress schedule will be a Time Scaled Logic Diagram (TSLD). The Contractor shall submit a TSLD submittal package meeting the following requirements and having these essential and distinctive elements:

(a) The major features of work, such as but not limited to BMP installation, grubbing, roadway excavation, structure excavation, structure construction, shown in the chronological order in which the Contractor proposes to work that feature or work and its location on the project. 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 other pertinent factors that relate to progress;

(b) All features listed or not listed in the contract documents that the Contractor considers a controlling factor for the timely completion of the contract work.

(c) The time span and sequence of the activities or events for each feature, and its interrelationship and interdependencies in time and logic to other features in order to complete the project.

(d) The total anticipated time necessary to complete work required by the contract.

(e) A chronological listing of critical intermediate dates or time periods for features or milestones or phases that can affect timely completion of the project.

(f) Major activities related to the location on the project.

(g) Non-construction activities, such as submittal and acceptance periods for shop drawings and material, procurement, testing, fabrication, mobilization, and demobilization or order dates of long lead material.

(h) Set schedule logic for out of sequence activities to retain logic. In addition, open ends shall be non-critical.

(i) Show target bars for all activities.

(j) Vertical and horizontal sight lines both major and minor shall be used as well as a separator line between groups. The Engineer will determine frequency and style.

(k) The file name, print date, revision number, data and project title and number shall be included in the title block.

(l) Have columns with the appropriate data in them for activity ID, description, original duration, remaining duration, early start, early finish, total float, percent complete, resources. The resource column shall list who is responsible for the work to be done in the activity. These columns shall be to the left of the bar chart.

(2) For Contracts Which Have A Contract Amount More Than \$2,000,000 Or Having A Contract Time Of More Than 100 Working Days Or 140 Calendar Days. For contracts which have a contract amount more than \$2,000,000 or contract time of more than 100 working days or 140 calendar days, the Contractor shall submit a Timed-Scaled Logic Diagram (TSLD) meeting the following requirements and having these essential and distinctive elements:

(a) The information and requirements listed in Subsection 108.06(A)(1) – For Contracts \$2,000,000 or Less or For Contract Time 100 Working Days or 140 Calendar Days or Less.

(b) Additional reports and graphics available from the software as requested by the Engineer.

(c) Sufficient detail to allow at least weekly monitoring of the Contractor and subcontractor's operations.

(d) The time scaled schematic shall be on a calendar or working days basis. What will be used shall be determined by how the contract keeps track of time. It will be the same. Plot the critical calendar dates anticipated.

(e) Breakdown of activity, such as forming, placing reinforcing steel, concrete pouring and curing, and stripping in concrete construction. Indicate location of work to be done in such detail that it would be easily determined where work would be occurring within approximately 200 feet.

(f) Latest start and finish dates for critical path activities.

(g) Identify responsible subcontractor, supplier, and others for their respective activity.

(h) No individual activity shall have duration of more than 20 calendar days unless requested and approved by the Engineer.

(i) All activities shall have work breakdown structure codes and activity codes. The activity codes shall have coding that incorporates information for phase, location, who is responsible for doing work and type of operation and activity description.

(j) Incorporate all physical access and availability restraints.

(B) Inspection and Testing. All schedules shall provide reasonable time and opportunity for the Engineer to inspect and test each work activity.

(C) Engineer's Acceptance of Progress Schedule. The submittal of, and the Engineer's receipt of any progress schedule, shall not be deemed an agreement to modify any terms or conditions of the contract. Any modifications to the contract terms and conditions that appear in or may be inferred from an acceptable schedule will not be valid or enforceable unless and until the Engineer exercises discretion to issue an appropriate change order. Nor shall any submittal or receipt imply the Engineer's approval of the schedule's breakdown, its individual elements, any critical path that may be shown, nor shall it obligate the State to make its personnel available outside normal working hours or the working hours established by the Contract in order to accommodate such schedule. The Contractor has the risk of all elements (whether or not shown) of the schedule and its execution. No claim for additional compensation, time, or both, shall be made by the Contractor or recognized by the Engineer for delays during any period for which an acceptable progress schedule or an updated progress schedule as required by Subsection 108.06(E) – Contractor's Continuing Schedule Submittal Requirements had not been submitted. Any acceptance or approval of the schedule shall be for general format only and shall not be deemed an agreement by the State that the construction means, methods, and resources shown on the schedule will result in work that conforms to the contract requirements or that the sequences or durations indicated are feasible.

(D) Initial Progress Schedule. The Contractor shall submit an initial progress schedule. The initial progress schedule shall consist of the following:

- (1) Four sets of the TSLD schedule.
- (2) All the software files and data to re-create the TSLD in a computerized software format as specified by the Engineer.
- (3) A listing of equipment that is anticipated to be used on the project. Including the type, size, make, year of manufacture, and all information necessary to identify the equipment in the Rental Rate Blue Book for Construction Equipment.
- (4) An anticipated manpower requirement graph plotting contract time and total manpower requirement. This may be superimposed over the payment graph.

(5) A Method Statement that is a detailed narrative describing the work to be done and the method by which the work shall be accomplished for each major activity. A major activity is an activity that:

- (a) Has a duration longer than five days.
- (b) Is a milestone activity.
- (c) Is a contract item that exceeds \$10,000 on the contract cost proposal.
- (d) Is a critical path activity.
- (e) Is an activity designated as such by the Engineer.

Each Method Statement shall include the following items needed to fulfill the schedule:

- (a) Quantity, type, make, and model of equipment.
- (b) The manpower to do the work, specifying worker classification.
- (c) The production rate per eight hour day, or the working hours established by the contract documents needed to meet the time indicated on the schedule. If the production rate is not for eight hours, the number of working hours shall be indicated.

(6) Two sets of color time-scaled project evaluation and review technique charts ("PERT") using the activity box template of Logic – Early Start or such other template designated by the Engineer.

If the contract documents establish a sequence or order for the work, the initial progress schedule shall conform to such sequence or order.

(E) Contractor's Continuing Schedule Submittal Requirements.

After the acceptance of the initial TSLD and when construction starts, the Contractor shall submit four plotted progress schedules, two PERT charts, and reports on all construction activities every two weeks (bi-weekly). This scheduled bi-weekly submittal shall also include an updated version of the project schedule in a computerized software format as specified by the Engineer. The submittal shall have all the information needed to re-create that time period's TSLD plot and reports. The bi-weekly submittal shall include, but not limited to, an update of activities based on actual durations,

all new activities and any changes in duration or start or finish dates of any activity.

The Contractor shall submit with every update, in report form acceptable to the Engineer, a list of changes to the progress schedule since the previous schedule submittal. The Engineer may change the frequency of the submittal requirements but may not require a submittal of the schedule to be more than once a week. The Engineer may decrease the frequency of the submittal of the bi-weekly schedule.

The Contractor shall submit updates of the anticipated work completion graph, equipment listing, manpower requirement graph or method statement when requested by the Engineer. The Contractor shall submit such updates within 4 calendar days from the date of the request by the Engineer.

The Engineer may withhold progress payment until the Contractor is in compliance with all schedule update requirements

(F) Float. All float appearing on a schedule is a shared commodity. Float does not belong to or exist for the exclusive use or benefit of either the State or the Contractor. The State or the Contractor has the opportunity to use available float until it is depleted. Float has no monetary value.

(G) Scheduled Meetings. The Contractor shall meet on a bi-weekly basis with the Engineer to review the progress schedule. The Contractor shall have someone attending the meeting that can answer all questions on the TSLD and other schedule related submittals.

(H) Accelerated Schedule; Early Completion. If the Contractor submits an accelerated schedule (shorter than the contract time), the Engineer's review and acceptance of an accelerated schedule does not constitute an agreement or obligation by the State to modify the contract time or completion date. The Contractor is solely responsible for and shall accept all risks and any delays, other than those that can be directly and solely attributable to the State, that may occur during the work, until the contract completion date. The contract time or completion date is established for the benefit of the State and cannot be changed without an appropriate change order or Substantial Completion granted by the State. The State may accept the work before the completion date is established, but is not obligated to do so.

If the TSLD indicates an early completion of the project, the Contractor shall, upon submittal of the schedule, cooperate with the Engineer in explaining how it will be achieved. In addition, the Contractor shall submit the above explanation in writing which shall include the State's part, if any, in achieving the early completion date. Early completion of the project shall not rely on changes to the Contract Documents unless approved by the Engineer.

(l) Contractor Responsibilities. The Contractor shall promptly respond to any inquiries from the Engineer regarding any schedule submission. The Contractor shall adjust the schedule to address directives from the Engineer and shall resubmit the TSLD package to the Engineer until the Engineer finds it acceptable.

The Contractor shall perform the work in accordance with the submitted TSLD. The Engineer may require the Contractor to provide additional work forces and equipment to bring the progress of the work into conformance with the TSLD at no increase in contract price or contract time whenever the Engineer determines that the progress of the work does not insure completion within the specified contract time.

108.07 Weekly Meeting. In addition to the bi-weekly schedule meetings, the Contractor shall be available to meet once a week with the Engineer at the time and place as determined by the Engineer to discuss the work and its progress including but not limited to, the progress of the project, potential problems, coordination of work, submittals, erosion control reports, etc. The Contractor's personnel attending shall have the authority to make decisions and answer questions.

The Contractor shall bring to weekly meetings a detailed work schedule showing the next three weeks' work. Number of copies of the detailed work schedule to be submitted will be determined by the Engineer. The three-week schedule is in addition to the TSLD and shall in no way be considered as a substitute for the TSLD or vice versa. The three-week schedule shall show:

(a) All construction events, traffic control and BMP related activities in such detail that the Engineer will be able to determine at what location and type of work will be done for any day for the next three weeks. This is for the State to use to plan its manpower requirements for that time period.

(b) The duration of all events and delays.

(c) The critical path clearly marked in red or marked in a manner that makes it clearly distinguishable from other paths and is acceptable to the Engineer.

(d) Critical submittals and requests for information (RFI's).

(e) The project title, project number, date created, period the schedule covers, Contractor's name and creator of the schedule on each page.

Two days prior to each weekly meeting, the Contractor shall submit a list of outstanding submittals, RFIs and issues that require discussion.

108.08 Liquidated Damages for Failure to Complete the Work or Portions of the Work on Time. The actual amount of damages resulting from the Contractor's failure to complete the contract in a timely manner is difficult to accurately determine. Therefore, the amount of such damages shall be liquidated damages as set forth herein and in the special provisions. The State may, at its discretion, deduct the amount from monies due or that may become due under the contract.

When the Contractor fails to reach substantial completion of the work for which liquidated damages are specified, within the time or times fixed in the contract or any extension thereof, in addition to all other remedies for breach that may be available to the State, the Contractor shall pay liquidated damages to the State, in the amount of \$5,000 per working day.

(A) Liquidated Damages Upon Termination. If the State terminates on account of Contractor's default, liquidated damages may be charged against the defaulting Contractor and its surety until final completion of work.

(B) Liquidated Damages for Failure to Complete the Punchlist. The Contractor shall complete the work on any punchlist created after the pre-final inspection, within the contract time or any extension thereof.

When the Contractor fails to complete the work on such punchlist within the contract time or any extension thereof, the Contractor shall pay liquidated damages to the State of 20 percent of the amount of liquidated damages established for failure to substantially complete the work within contract time. Liquidated damages shall not be assessed for the period between:

(1) Notice from the Contractor that the project is substantially complete and the time the punchlist is delivered to the Contractor.

(2) The date of the completion of punchlist as determined by the Engineer and the date of the successful final inspection, and

(3) The date of the Final Inspection that results in Substantial Completion and the receipt by the Contractor of the written notice of Substantial Completion.

(C) Actual Damages Recoverable If Liquidated Damages Deemed Unenforceable. In the event a court of competent jurisdiction holds that any liquidated damages assessed pursuant to this contract are unenforceable, the State will be entitled to recover its actual damages for Contractor's failure to complete the work, or any designated portion of the work within the time set by the contract.

108.09 Rental Fees for Unauthorized Lane Closure or Occupancy. In addition to all other remedies available to the State for Contractor's breach of the terms of the contract, the Engineer will assess the rental fees in the amount of \$500 for every one-to fifteen-minute increment for each roadway lane closed to public use or occupied beyond the time periods authorized in the contract or by the Engineer. The maximum amount assessed per day shall be \$5,000. The State 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 Engineer determines that the unauthorized period of lane closure or occupancy was due to factors beyond the control of the Contractor. Equipment breakdown is not a cause to waive liquidated damages.

108.10 Suspension of Work.

(A) Suspension of Work. The Engineer may, by written order, suspend the performance of the work, either in whole or in part, for such periods as the Engineer may deem necessary, for any cause, including but not limited to:

(1) Weather or soil conditions considered unsuitable for prosecution of the work.

(2) Whenever a redesign that may affect the work is deemed necessary by the Engineer.

(3) Unacceptable noise or dust arising from the construction even if it does not violate any law or regulation.

(4) Failure on the part of the Contractor to:

(a) Correct conditions unsafe for the general public or for the workers.

(b) Carry out orders given by the Engineer.

673 (c) Perform the work in strict compliance with the
674 provisions of the contract.

675
676 (d) Provide adequate supervision on the jobsite.

677 (5) The convenience of the State.

678
679 **(B) Partial and Total Suspension.** Suspension of work on some but
680 not all items of work shall be considered a "partial suspension".
681 Suspension of work on all items shall be considered "total suspension".
682 The period of suspension shall be computed from the date set out in the
683 written order for work to cease until the date of the order for work to
684 resume.

685
686 **(C) Reimbursement to Contractor.** In the event that the Contractor is
687 ordered by the Engineer in writing as provided herein to suspend all work
688 under the contract for the reasons specified in Subsections 108.10(A)(2),
689 108.10(A)(3), or 108.10(A)(5) of the "Suspension of Work" paragraph, the
690 Contractor may be reimbursed for actual direct costs incurred on work at
691 the jobsite, as authorized in writing by the Engineer, including costs
692 expended for the protection of the work. An allowance of 5 percent for
693 indirect categories of delay costs will be paid on any reimbursed direct
694 costs, including extended branch and home-office overhead and delay
695 impact costs. No allowance will be made for anticipated profits. Payment
696 for equipment which is ordered to standby during such suspension of work
697 shall be made as described in Subsection 109.06(H) - Idle and Standby
698 Equipment.

699
700 **(D) Cost Adjustment.** If the performance of all or part of the work is
701 suspended for reasons beyond the control of the Contractor except an
702 adjustment shall be made for any increase in cost of performance of this
703 contract (excluding profit) necessarily caused by such suspension, and the
704 contract modified in writing accordingly.

705
706 However, no adjustment to the contract price shall be made for any
707 suspension, delay, or interruption:

708
709 (1) For weather related conditions.

710
711 (2) To the extent that performance would have been so
712 suspended, delayed, or interrupted by any other cause, including the
713 fault or negligence of the Contractor.

714
715 (3) Or, for which an adjustment is provided for or excluded under
716 any other provision of this Contract.

718 **(E) Claims for Adjustment.** Any adjustment in contract price made
719 shall be determined in accordance with Subsections 104.02 – Changes and
720 104.06 – Methods of Price Adjustment.
721

722 Any claims for such compensation shall be filed in writing with the
723 Engineer within 30 days after the date of the order to resume work or the
724 claim will not be considered. The claim shall conform to the requirements
725 of Subsection 107.15(D) – Making of a Claim. The Engineer will take the
726 claim under consideration, may make such investigations as are deemed
727 necessary and will be the sole judge as to the equitability of the claim. The
728 Engineer's decision will be final.
729

730 **(F) No Adjustment.** No provision of this clause shall entitle the
731 Contractor to any adjustments for delays due to failure of its surety, the
732 cancellation or expiration of any insurance coverage required by the
733 contract documents, for suspensions made at the request of the Contractor,
734 for any delay required under the contract, for suspensions, either partial or
735 whole, made by the Engineer under Subsection 108.10(A)(4) of the
736 "Suspension of work" paragraph.
737

738 **108.11 Termination of Contract for Cause.**

739

740 **(A) Default.** If the Contractor refuses or fails to perform the work, or any
741 separable part thereof, with such diligence as will assure its completion
742 within the time specified in this contract, or any extension thereof, or
743 commits any other material breach of this contract, and further fails within
744 seven days after receipt of written notice from the Engineer to commence
745 and continue correction of the refusal or failure with diligence and
746 promptness, the Engineer may, by written notice to the Contractor, declare
747 the Contractor in breach and terminate the Contractor's right to proceed
748 with the work or the part of the work as to which there has been delay or
749 other breach of contract. In such event, the State may take over the work,
750 perform the same to completion, by contract or otherwise, and may take
751 possession of, and utilize in completing the work, the materials, appliances,
752 and plants as may be on the site of the work and necessary therefore.
753 Whether or not the Contractor's right to proceed with the work is terminated,
754 the Contractor and the Contractor's sureties shall be liable for any damage
755 to the State resulting from the Contractor's refusal or failure to complete the
756 work within the specified time.
757

758 **(B) Additional Rights and Remedies.** The rights and remedies of the
759 State provided in this contract are in addition to any other rights and
760 remedies provided by law.
761

762 **(C) Costs and Charges.** All costs and charges incurred by the State,
763 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 State the amount of the excess.

In case of termination, the Engineer will 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 all required documents, including the tax clearance required by Subsection 109.11 – Final Payment are submitted by the Contractor. Termination shall not relieve the Contractor or Surety from liability for liquidated damages.

(D) Erroneous Termination for Cause. If, after notice of termination of the Contractor's right to proceed under this section, it is determined for any reason that good cause did not exist to allow the State 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 Subsection 108.12 – Termination for Convenience.

108.12 Termination For Convenience.

(A) Terminations. The Director may, when the interests of the State so require, terminate this contract in whole or in part, for the convenience of the State. The Director will 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 work and on the date set in the notice of termination the Contractor shall 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 State's approval. The Engineer may direct the Contractor to assign the Contractor's right, title, and interest under terminated orders or subcontracts to the State. The Contractor must still complete the work not terminated by the notice of termination and may incur obligations as necessary to do so.

(C) Right to Construction and Goods. The Engineer may require the Contractor to transfer title and to deliver to the State in the manner and to the extent directed by the Engineer, the following:

(1) Any completed work.

(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.

(3) The Contractor shall protect and preserve all property in the possession of the Contractor in which the State has an interest. If the Engineer does not elect to retain any such property, the Contractor shall use its best efforts to sell such property and construction materials for the State's account in accordance with the standards of HRS Chapter 490:2-706.

(D) Compensation.

(1) The 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 HAR Subchapter 15, Chapter 3-122. If the Contractor fails to file a termination claim within one year from the effective date of termination, the Engineer may pay the Contractor, if at all, an amount set in accordance with Subsection 108.12(D)(3).

(2) The Engineer 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 construction, supplies, and construction materials under Subsection 108.12(C)(3), and the proportionate contract price of the work not terminated.

(3) Absent complete agreement, the Engineer will 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 5 percent markup on the actual direct costs, including amounts paid to subcontractor, less amounts 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

854 be reduced to reflect the anticipated rate of loss. No
855 anticipated profit or consequential damage will be due or paid.

856
857 **(b)** Subcontractors shall be paid a markup of 10 percent on
858 their direct job costs incurred to the date of termination. No
859 anticipated profit or consequential damage will be due or paid
860 to any subcontractor. These costs must not include payments
861 made to the Contractor for subcontract work during the
862 contract period.

863
864 **(c)** The total sum to be paid the Contractor shall not
865 exceed the total contract price reduced by the amount of any
866 sales of construction supplies, and construction materials.

867
868 **(4)** Cost claimed, agreed to, or established by the State shall be
869 in accordance with HAR Chapter 3-123.

870
871 **108.13 Pre-Final and Final Inspections.**

872
873 **(A) Inspection Requirements.** Before the Engineer undertakes a final
874 inspection of any work, a pre-final inspection must first be conducted. The
875 Contractor shall notify the Engineer that the work has reached substantial
876 completion and is ready for pre-final inspection.

877
878 **(B) Pre-Final Inspection.** Before notifying the Engineer that the work
879 has reached substantial completion, the Contractor shall inspect the project
880 and test all installed items with all of its subcontractors as appropriate. The
881 Contractor shall also submit the following documents as applicable to the
882 work:

- 883
884 **(1)** All written guarantees required by the contract.
- 885
886 **(2)** Two accepted final field-posted drawings as specified in
887 Section 648 – Field-Posted Drawings;
- 888
889 **(3)** Complete weekly certified payroll records for the Contractor
890 and Subcontractors.
- 891
892 **(4)** Certificate of Plumbing and Electrical Inspection.
- 893
894 **(5)** Certificate of building occupancy as required.
- 895
896 **(6)** Certificate of Soil and Wood Treatments.
- 897
898 **(7)** Certificate of Water System Chlorination.
- 899

900 (8) Certificate of Elevator Inspection, Boiler and Pressure Pipe
901 Inspection.

902
903 (9) Maintenance Service Contract and two copies of a list of all
904 equipment installed.

905
906 (10) Current Tax clearance. The contractor will be required to
907 submit an additional tax clearance certificate when the final payment
908 is made.

909
910 (11) And any other final items and submittals required by the
911 contract documents.

912
913 **(C) Procedure.** When in compliance with the above requirements, the
914 Contractor shall notify the Engineer in writing that the project has reached
915 substantial completion and is ready for pre-final inspection.

916
917 The Engineer will then make a preliminary determination as to
918 whether or not the project is substantially complete and ready for pre-final
919 inspection. The Engineer may, in writing, postpone until after the pre-final
920 inspection the Contractor's submittal of any of the items listed in Subsection
921 108.13(B) – Pre-Final Inspection, herein, if in the Engineer's discretion it is
922 in the interest of the State to do so.

923
924 If, in the opinion of the Engineer, the project is not substantially
925 complete, the Engineer will provide the Contractor a punchlist of specific
926 deficiencies in writing which must be corrected or finished before the work
927 will be ready for a pre-final inspection. The Engineer may add to or
928 otherwise modify this punchlist from time to time. The Contractor shall take
929 immediate action to correct the deficiencies and must repeat all steps
930 described above including written notification that the work is ready for pre-
931 final inspection.

932
933 After the Engineer is satisfied that the project appears substantially
934 complete a final inspection shall be scheduled within ten working days after
935 receipt of the Contractor's latest letter of notification that the project is ready
936 for final inspection.

937
938 If, as a result of the pre-final inspection, the Engineer determines the
939 work is not substantially complete, the Engineer will inform the Contractor in
940 writing as to specific deficiencies which must be corrected before the work
941 will be ready for another pre-final inspection. If the Engineer finds the work
942 is substantially complete but finds deficiencies that must be corrected
943 before the work is ready for final inspection, the Engineer will prepare in
944 writing and deliver to the Contractor a punchlist describing such
945 deficiencies.

At any time before final acceptance, the Engineer may revoke the determination of substantial completion if the Engineer finds that it was not warranted and will notify the Contractor in writing the reasons therefore together with a description of the deficiencies negating the declaration.

When the date of substantial completion has been determined by the State, liquidated damages for the failure to complete the punchlist, if due to the State will be assessed in pursuant to Subsection 108.08(B) - Liquidated Damages for Failure to Complete the Punchlist.

(D) Punchlist; Clean Up and Final Inspection. Upon receiving a punchlist after pre-final inspection, the Contractor shall promptly devote all required time, labor, equipment, materials and incidentals to correct and remedy all punchlist deficiencies. The Engineer may add to or otherwise modify this punchlist until substantial completion of the project.

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, shall remove all graffiti and defacement of the work and all parts of the work and the worksite must be left in a neat and presentable condition to the satisfaction of the Engineer.

Final inspection will occur within ten working days after the Contractor notifies the Engineer in writing that all punchlist deficiencies remaining after the pre-final inspection have been completed and the Engineer concurs. If the Engineer determines that deficiencies still remain at the final inspection, the work will not be accepted and the Engineer will notify the Contractor, in writing, of the deficiencies which shall be corrected and the steps above repeated.

If the Contractor fails to correct the deficiencies and complete the work by the established or agreed date, the State may correct the deficiencies by whatever method it deems appropriate and deduct the cost from any payments due the Contractor.

108.14 Substantial Completion and Final Acceptance.

(A) Substantial Completion. When the Engineer finds that the Contractor has satisfactorily completed all work for the project in compliance with the contract, with the exception of the planting period and the plant establishment period, the Engineer will notify the Contractor, in writing, of the project's substantial completion, effective as of the date of the final inspection. The substantial completion date shall determine end of contract time and relieve contractor of any additional accumulation of liquidated damages for failure to complete the punchlist.

992
993 **(B) Final Acceptance.** When the Engineer finds that the Contractor has
994 satisfactorily completed all contract work in compliance with the contract
995 including all plant establishment requirements, and all the materials have
996 been accepted by the State, the Engineer will issue a Final Acceptance
997 Letter. The Final Acceptance date shall determine the commencement of
998 all guaranty periods subject to Subsection 108.16 – Contractor's
999 Responsibility for Work; Risk of Loss or Damage.

1000
1001 **108.15 Use of Structure or Improvement.** The State has the right to use the
1002 structure, equipment, improvement, or any part thereof, at any time after it is
1003 considered by the Engineer as available. In the event that the structure,
1004 equipment or any part thereof is used by the State before final acceptance, the
1005 Contractor is not relieved of its responsibility to protect and preserve all the work
1006 until final acceptance.

1007
1008 **108.16 Contractor's Responsibility for Work; Risk of Loss or Damage.**
1009 Until the written notice of final acceptance has been received, the Contractor shall
1010 take every precaution against loss or damage to any part of the work by the action
1011 of the elements or from any other cause whatsoever, whether arising from the
1012 performance or from the non-performance of the work. The Contractor shall
1013 rebuild, repair, restore and make good all loss or damage to any portion of the
1014 work resulting from any cause before its receipt of the written notice of final
1015 acceptance and shall bear the risk and expense thereof.

1016
1017 The risk of loss or damage to the work from any hazard or occurrence that
1018 may or may not be covered by a builder's risk policy is that of the Contractor and
1019 Surety, unless such risk of loss is placed elsewhere by express language in the
1020 contract documents.

1021
1022 **108.17 Guarantee of Work.**

1023
1024 **(1)** Regardless of, and in addition to, any manufacturers' warranties, all
1025 work and equipment shall be guaranteed by the Contractor against defects
1026 in materials, equipment or workmanship for one year from the date of final
1027 acceptance or as otherwise specified in the contract documents.

1028
1029 **(2)** When the Engineer determines that repairs or replacements of any
1030 guaranteed work and equipment is necessary due to materials, equipment,
1031 or workmanship which are inferior, defective, or not in accordance with the
1032 terms of the contract, the Contractor shall, at no increase in contract price
1033 or contract time, and within five working days of receipt of written notice
1034 from the State, commence to all of the following:

1035
1036 **(a)** Correct all noted defects and make replacements, as directed
1037 by the Engineer, in the equipment and work.

(b) Repair or replace to new or pre-existing condition any damages resulting from such defective materials, equipment or installation thereof.

(3) The State will be entitled to the benefit of all manufacturers and installers warranties that extend beyond the terms of the Contractor's guaranty regardless of whether or not such extended warranty is required by the contract documents. The Contractor shall prepare and submit all documents required by the providers of such warranties to make them effective, and submit copies of such documents to the Engineer. If an available extended warranty cannot be transferred or assigned to the State as the ultimate user, the Contractor shall notify the Engineer who may direct that the warranted items be acquired in the name of the State as purchaser.

(4) If a defect is discovered during a guarantee period, all repairs and corrections to the defective items when corrected shall be guaranteed for a new duration equal to the original full guarantee period. The running of the guarantee period shall be suspended for all other work affected by any defect. The guarantee period for all other work affected by any such defect shall restart for its remaining duration upon confirmation by the Engineer that the deficiencies have been repaired or remedied.

(5) Nothing in this section is intended to limit or affect the State's rights and remedies arising from the discovery of latent defects in the work after the expiration of any guarantee period.

108.18 No Waiver of Legal Rights. The following will not operate or be considered as a waiver of any portion of the contract, or any power herein reserved, or any right to damages provided herein or by law:

(1) Any payment for, or acceptance of, the whole or any part of the work.

(2) Any extension of time.

(3) Any possession taken by the Engineer.

A waiver of any notice requirement or of any noncompliance with the contract will not be held to be a waiver of any other notice requirement or any other noncompliance with the contract.

108.19 Final Settlement of Contract.

(A) **Closing Requirements.** The contract will be considered settled after the project acceptance date and when the following items have been satisfactorily submitted, where applicable:

- 1084 (1) All written guarantees required by the contract.
1085
1086 (2) Complete and certified weekly payrolls for the Contractor and
1087 its subcontractor's.
1088
1089 (3) Certificate of plumbing and electrical inspection.
1090
1091 (4) Certificate of building occupancy.
1092
1093 (5) Certificate for soil treatment and wood treatment.
1094
1095 (6) Certificate of water system chlorination.
1096
1097 (7) Certificate of elevator inspection, boiler and pressure pipe
1098 installation.
1099
1100 (8) Tax clearance.
1101
1102 (9) All other documents required by the Contract or by law.
1103

1104 **(B) Failure to Meet Closing Requirements.** The Contractor shall meet
1105 the applicable closing requirements within 60 days from the date of Project
1106 Acceptance or the agreed to Punchlist complete date. Should the
1107 Contractor fail to comply with these requirements, the Engineer may
1108 terminate the contract for cause."
1109
1110
1111
1112
1113

END OF SECTION 108

1 **SECTION 109 – MEASUREMENT AND PAYMENT**

2
3 Make the following amendment to said Section:

4
5 **(I) Amend Subsection 109.05 Allowances for Overhead and Profit** by
6 revising lines 101 to 110 to read as follows:

7
8 **“(1) 20 percent of the direct cost for any work performed by the**
9 **Contractor’s own labor force.**

10
11 **(2) 20 percent of the direct cost for any work performed by each**
12 **subcontractor’s own labor force.**

13
14 **(3) For the Contractor or any subcontractor for work performed**
15 **by their respective subcontractor or tier subcontractor, 10 percent**
16 **of the amount due to the performing subcontractor or tier**
17 **subcontractor.”**

18
19 **(II) Amend Subsection 109.08(B) Payment for Material On Hand** by
20 revising lines 421 to 423 to read as follows:

21
22 **“(2) The materials shall be stored and handled in accordance**
23 **with Subsection 105.14 – Storage and Handling of Materials and**
24 **Equipment.”**

25
26
27 **(III) Amend Subsection 109.11 Final Payment** by revising lines 568 to 576
28 to read as follows:

29
30 **“(3) A current “Certificate of Vendor Compliance” issued by the**
31 **Hawaii Compliance Express (HCE). The Certificate of Vendor**
32 **Compliance is used to certify the Contractor’s compliance with**

33
34 **(a) Section 103D-328, HRS (for all contracts \$25,000 or**
35 **more) which requires a current tax clearance certificate**
36 **issued by the Hawaii State Department of Taxation and the**
37 **Internal Revenue Service;**

38
39 **(b) Chapters 383, 386, 392, and 393, HRS; and**

40
41 **(c) Subsection 103D-310(c), HRS. The State reserves**
42 **the right to verify that compliance is current prior to the**
43 **issuance of final payment. Contractors are advised that non-**
44 **compliance status will result in final payment being withheld**
45 **until compliance is attained.**
46
47

48 Sums necessary to meet the claims of any governmental agencies
49 may be withheld from the sums due the Contractor until said
50 claims have been fully and completely discharged or otherwise
51 satisfied.”
52
53
54
55
56

END OF SECTION 109

1 **SECTION 201 – CLEARING AND GRUBBING**

2
3 Make the following amendments to said Section:

4
5 **(I)** Amend **201.04 – Measurement** by revising lines 167 to 168 to read as
6 follows:

7
8 **“201.04 Measurement.** The Engineer will measure clearing and grubbing
9 per square feet in accordance with the contract documents. The Engineer will
10 measure the removal of existing trees per each in accordance with the contract
11 documents”

12
13 **(II)** Amend **201.05 – Payment** by revising lines 170 to 179 to read as follows:

14
15 **“201.05 Payment.** The Engineer will pay for the accepted clearing and
16 grubbing per acre or square yard. The Engineer will pay for accepted removal of
17 existing trees per each. Payment will be full compensation for the work
18 prescribed in this section and the contract documents.

19
20 The Engineer will pay for the following pay item when included in the
21 proposal schedule:

22

Pay Item	Pay Unit
Clearing and Grubbing	Square Feet
Removal of Existing Trees	Each”

23
24
25
26
27
28
29
30
31
32

END OF SECTION 201

1 **SECTION 202 – REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

2
3 Make the following amendments to said Section:

4
5 **(I)** Amend **202.04 – Measurement** by revising lines 119 to 120 to read as
6 follows:

7
8 **“202.04 Measurement.** “If the proposal provides a contract item for the removal
9 of structure and obstructions, the Engineer will measure the removal of structures
10 and obstructions by the square feet, each, or linear foot.

11
12 The Engineer will not measure the removal of structures and obstructions
13 when contracted on a lump sum basis.”

14
15 **(II)** Amend **202.05 – Payment** by revising lines 122 to 131 to read as follows:

16
17 **“202.05 Payment.** If the proposal does not show a contract item for the removal
18 of structures and obstructions, the Engineer will not pay for the removal of
19 structures and obstructions separately. The Contractor shall consider them
20 incidental to the various contract items.

21
22 The Engineer will pay for specific items stipulated for demolition, removal
23 and disposal at the contract price bid per unit specified in the proposal. The price
24 shall be full compensation for removal and disposal of that items, excavation,
25 backfill, salvage of materials removed. Salvaging of materials removed includes
26 their custody, preservation, storage on the right-of-way. Also, the price shall be
27 full compensation for equipment, tools, labor materials and incidentals necessary
28 to complete the work.

29
30 The Engineer will pay for the following pay item when included in the
31 proposal schedule.

32

Pay Item	Pay Unit
Removal of Existing Fence	Linear Foot
Removal of Existing Concrete Walkway	Square Feet
Removal of Existing Concrete Curb	Linear Foot
Removal of Existing Wall	Linear Foot

33
34
35
36
37
38
39
40
41
42
43

44	Removal of Existing Traffic Sign	Each
45		
46	Removal of Existing Drainage Structures	Each
47		
48	Removal of Existing Drain Pipe	Linear Foot"
49		
50		
51		
52	END OF SECTION 202	

1 **SECTION 203 – EXCAVATION AND EMBANKMENT**

2
3 Make the following amendments to said Section:

4
5 **(I)** Amend **203.03(C)(2)(a) – Maximum Dry Unit Weight** from line 245 to line
6 255 to read as follows:

7
8 **“(a) Maximum Dry Unit Weight.** Test for maximum dry
9 unit weight according to AASHTO T 180, and apply the
10 correction for fraction larger than 3/4 inch. Use Hawaii
11 Test Method HDOT TM 5 for sample preparation of sensitive
12 soils when so designated by the Engineer.”

13
14 **(II)** Amend **203.04 – Measurement** by revising lines 345 to 366 to read as
15 follows:

16
17 **“203.04 Measurement.**

18
19 **(A)** Roadway excavation will be paid on a cubic yard basis.
20 Measurement for payment will not apply.

21
22 **(B)** The Engineer will measure roadway excavation per cubic yard.
23 The Engineer will compute quantities of roadway excavation by average
24 end area method and centerline distances. Curvature correction will not
25 be applied to quantities within roadway prism, as indicated in the contract
26 documents. In computing excavation quantities from outside the roadway
27 prism, where roadway centerline is used as a base, curvature correction
28 will be applied when centerline radius is 1,000 feet or less.

29
30 When roadway excavation quantities by average end area method
31 cannot be computed due to the nature of a particular operation or changed
32 conditions, the Engineer will determine and use computation method that
33 will produce an accurate quantity estimate.”

34
35
36 **(III)** Amend **203.05 – Payment** by revising lines 368 to 457 to read as follows:

37
38 **“203.05 Payment.** The Engineer will pay for the accepted pay items listed
39 below at the contract price per pay unit, as shown in the proposal schedule.
40 Payment will be full compensation for the work prescribed in this section and the
41 contract documents.

42
43 The Engineer will pay for each of the following pay items when included in
44 the proposal schedule:

47	Pay Item	Pay Unit
48		
49	(A) Roadway Excavation	Cubic Yard
50		
51	The Engineer will pay for:	
52		
53	(1) 15 percent of the contract bid price upon completion of	
54	obliterating old roadways and hauling.	
55		
56	(2) 30 percent of the contract bid price upon completion of	
57	preparing subgrade.	
58		
59	(3) 40 percent of the contract bid price upon completion of placing	
60	selected material in final position, rounding of slopes, and using water	
61	for compaction.	
62		
63	(4) 15 percent of the contract bid price upon completion of	
64	disposing of surplus excavation material.	
65		
66		
67	The Engineer will pay for accepted quantities of subexcavation, as	
68	roadway excavation at the contract unit price per cubic yard, when ordered by	
69	the Engineer, for work prescribed in Subsection 203.03(A)(4) – Subexcavation.	
70	Payment will be full compensation for the work prescribed therein and in the	
71	contract documents.	
72		
73	The Engineer will pay for accepted quantities of unlined gutter excavation	
74	as roadway excavation at the contract unit price per cubic yard, when gutter is	
75	located as follows: within median area of a divided highway; and between	
76	roadbed shoulder and adjacent cut slope. Payment will be full compensation for	
77	removing and disposing of excavated material; backfilling and compacting; and	
78	for the work prescribed in the contract documents.	
79		
80	The Engineer will not pay for stockpiling selected material, placing	
81	selected material in final position, or placing selected material in windrows along	
82	tops of roadway slopes for erosion control work, separately and will consider the	
83	cost as included in the unit prices for the various excavation contract pay items.	
84	The cost is for work prescribed in this section and the contract documents.	
85		
86	The Engineer will not pay for overhaul separately and will consider the	
87	cost as included in the unit prices for the various excavation contract pay items.	
88	The cost is for work prescribed in this section and the contract documents.	
89		
90		

91 The Engineer will not pay for embankment separately and will consider the
92 cost as included in the unit price for roadway excavation. The cost is for work
93 prescribed in this section and the contract documents.”
94
95
96
97

END OF SECTION 203

Make the following amendments to said Section:

“204.04 Measurement.

- (II) Amend **204.05 – Payment** by revising lines 196 to 200 to read as follows:

	Pay Item	Pay Unit
(A)	Excavation for Seawall Repair	Cubic Yard
(B)	Steel Plate for Seawall Repair	Square Foot"

NH-019-2(076)
204-1a

7/1/18

1 Amend **Section 209 - TEMPORARY WATER POLLUTION, DUST, AND EROSION**
2 **CONTROL** to read as follows:

3
4
5 **“SECTION 209 - TEMPORARY WATER POLLUTION, DUST, AND EROSION**
6 **CONTROL**

7
8
9 **209.01 Description.** This section describes the following:

10
11 **(A)** Including detailed plans, diagrams, and written Site-Specific Best
12 Management Practices (BMP); constructing, maintaining, and repairing
13 temporary water pollution, dust, and erosion control measures at the project
14 site, including local material sources, work areas and haul roads; removing
15 and disposing hazardous wastes; control of fugitive dust (defined as
16 uncontrolled emission of solid airborne particulate matter from any source
17 other than combustion); and complying with applicable State and Federal
18 permit conditions.

19
20 **(B)** Work associated with construction stormwater, dewatering, and
21 hydrotesting activities and complying with conditions of the National Pollutant
22 Discharge Elimination System (NPDES) permit(s) authorizing discharges
23 associated with construction stormwater, dewatering, and hydrotesting
24 activities.

25
26 **(C)** Potential pollutant identification and mitigation measures are listed in
27 Appendix A for use in the development of the Contractor’s Site-Specific BMP.

28
29 Requirements of this section also apply to construction support
30 activities including concrete or asphalt batch plants, rock crushing plants,
31 equipment staging yards/areas, material storage areas, excavated material
32 disposal areas, and borrow areas located outside the State Right-of-Way.
33 For areas serving multiple construction projects, or operating beyond the
34 completion of the construction project in which it supports, the Contractor
35 shall be responsible for securing the necessary permits, clearances, and
36 documents, and following the conditions of the permits and clearances, at no
37 cost to the State.

38
39 **209.02 Materials.** Comply with applicable materials described in Chapters 2 and
40 3 of the current HDOT “Construction Best Management Practices Field Manual”. In
41 addition, the materials shall comply with the following:

42
43 **(A) Grass.** Grass shall be a quick growing species such as rye grass,
44 Italian rye grass, or cereal grasses. Grass shall be suitable to the area and
45 provide a temporary cover that will not compete later with permanent cover.
46 Alternative grasses are allowable if acceptable to the Engineer.

47 **(B) Fertilizer and Soil Conditioners.** Fertilizer and soil conditioners shall
48 be a standard commercial grade acceptable to the Engineer. Fertilizer shall
49 conform to Subsection 619.02(H)(1) - Commercial Fertilizer.
50

51 **(C) Hydro-mulching.** Hydro-mulching used as a temporary vegetative
52 stabilization measure shall consist of materials in Subsections 209.02(A) -
53 Grass, and 209.02(B) – Fertilizer and Soil Conditioners. Mulches shall be
54 recycled materials including bagasse, hay, straw, wood cellulose bark, wood
55 chips, or other material acceptable to the Engineer. Mulches shall be clean
56 and free of noxious weeds and deleterious materials. Potable water shall
57 meet the requirements of Subsection 712.01 - Water. Submit alternate
58 sources of irrigation water for the Engineer's acceptance if deviating from
59 712.01 - Water. Installation and other requirements shall be in accordance
60 with portions of Section 641- Hydro-Mulch Seeding including 641.02(D) - Soil
61 and Mulch Tackifier, 641.03(A) – Seeding, and 641.03(B) - Planting Period.
62 Install non-vegetative controls including mulch or rolled erosion control
63 products while the vegetation is being established. Water and fertilize grass.
64 Apply fertilizer as recommended by the manufacturer. Replace grass the
65 Engineer considers unsuitable or sick. Remove and dispose of trash and
66 debris. Remove invasive species. Mow as needed to prevent site or signage
67 obstructions, fire hazard, or nuisance to the public. Do not remove down
68 stream sediment control measures until the vegetation is uniformly
69 established, including no large bare areas, and provides 70 percent of the
70 density of pre-disturbance vegetation. Temporary vegetative stabilization
71 shall not be used longer than one year.
72

73 **(D) Silt Fences.** Comply with ASTM D6462, Standard Practice for Silt
74 Fence Installation.
75

76 Alternative materials or methods to control, prevent, remove and dispose
77 pollution are allowable if acceptable to the Engineer.
78

79 **209.03 Construction.**

80 **(A) Preconstruction Requirements.**

81 **(1) Water Pollution, Dust, and Erosion Control Meeting.**
82 Schedule a water pollution, dust, and erosion control meeting with the
83 Engineer after Site-Specific BMP is accepted in writing by the
84 Engineer. Meeting shall be scheduled a minimum of 7 calendar days
85 prior to the Start Work Date. Discuss sequence of work, plans and
86 proposals for water pollution, dust, and erosion control.
87
88
89

90 **(2) Water Pollution, Dust, and Erosion Control Submittals.**

91 Submit a Site-Specific BMP Plan within 21 calendar days of date of
92 award. Submission of complete and acceptable Site-Specific BMP
93 Plan is the sole responsibility of the Contractor and additional contract
94 time will not be issued for delays due to incompleteness. Include the
95 following:

96
97 **(a)** Written description of activities to minimize water
98 pollution and soil erosion into State waters, drainage or sewer
99 systems. BMP shall include the following:

- 100
101 1. An identification of potential pollutants and their
102 sources.
- 103
104 2. A list of all materials and heavy equipment to be
105 used during construction.
- 106
107 3. Descriptions of the methods and devices used to
108 minimize the discharge of pollutants into State waters,
109 drainage or sewer systems.
- 110
111 4. Details of the procedures used for the
112 maintenance and subsequent removal of any erosion or
113 siltation control devices.
- 114
115 5. Methods of removing and disposing hazardous
116 wastes encountered or generated during construction.
- 117
118 6. Methods of removing and disposing concrete and
119 asphalt pavement cutting slurry, concrete curing water,
120 and hydrodemolition water.
- 121
122 7. Spill Control and Prevention and Emergency Spill
123 Response Plan.
- 124
125 8. Fugitive dust control, including dust from grinding,
126 sweeping, or brooming off operations or combination
127 thereof.
- 128
129 9. Methods of storing and handling of oils, paints
130 and other products used for the project.
- 131
132 10. Material storage and handling areas, and other
133 staging areas.
- 134
135 11. Concrete truck washouts.

- 136 **12.** Concrete waste control.
- 137
- 138 **13.** Fueling and maintenance of vehicles and other
- 139 equipment.
- 140
- 141 **14.** Tracking of sediment offsite from project entries
- 142 and exits.
- 143
- 144 **15.** Litter management.
- 145
- 146 **16.** Toilet facilities.
- 147
- 148 **17.** Other factors that may cause water pollution, dust
- 149 and erosion control.
- 150

151 **(b)** Provide plans indicating location of water pollution, dust

152 and erosion control devices; provide plans and details of BMPs

153 to be installed or utilized; show areas of soil disturbance in cut

154 and fill, indicate areas used for construction staging and

155 storage including items (1) through (17) above, storage of

156 aggregate (indicate type of aggregate), asphalt cold mix, soil or

157 solid waste, equipment and vehicle parking, and show areas

158 where vegetative practices are to be implemented. Indicate

159 intended drainage pattern on plans. Include flow arrows.

160 Include separate drawing for each phase of construction that

161 alters drainage patterns. Indicate approximate date when

162 device will be installed and removed.

163

164 **(c)** Construction schedule.

165

166 **(d)** Name(s) of specific individual(s) designated responsible

167 for water pollution, dust, and erosion controls on the project

168 site. Include home, cellular, and business telephone numbers,

169 fax numbers, and e-mail addresses.

170

171 **(e)** Description of fill material to be used.

172

173 **(f)** For projects with an NPDES Permit for Construction

174 Activities, submit information to address all sections in the

175 Storm Water Pollution Prevention Plan (SWPPP).

176

177 **(g)** For projects with an NPDES Permit, information required

178 for compliance with the conditions of the Notice of General

179 Permit Coverage (NGPC)/NPDES Permit.

180

181 (h) Site-Specific BMP Review Checklist. The checklist may
182 be downloaded from HDOT's Stormwater Management
183 website at <http://stormwaterhawaii.com>.
184

185 Date and sign Site-Specific BMP Plan. Keep accepted
186 copy on site or at an accessible location so that it can be made
187 available at the time of an on-site inspection or upon request by
188 the Engineer, HDOT Third-Party Inspector, and/or DOH/EPA
189 Representative. Amendments to the Site-Specific BMP Plan
190 shall be included with original Site-Specific BMP Plan. Modify
191 SWPPP if necessary to conform to revisions. Include date of
192 installation and removal of Site-Specific BMP measures.
193 Obtain written acceptance by the Engineer before
194 implementing revised Site-Specific BMPs in the field.
195

196 Follow the guidelines in the current HDOT "Construction
197 Best Management Practices Field Manual", in developing,
198 installing, and maintaining Site-Specific BMPs for all projects.
199 For any conflicting requirements between the Manual and
200 applicable bid documents, the applicable bid documents will
201 govern. Should a requirement not be clearly described within
202 the applicable bid documents, notify the Engineer immediately
203 for interpretation. For the purposes of clarification "applicable
204 bid documents" include the construction plans, standard
205 specifications, special provisions, Permits, and the SWPPP
206 when applicable.
207

208 Follow Honolulu's City and County "Rules for Soil
209 Erosion Standards and Guidelines" for all projects on Oahu.
210 Use respective Soil Erosion Guidelines for Maui, Kauai and
211 Hawaii projects.
212

213 **(B) Construction Requirements.** Do not begin work until submittals
214 detailed in Subsection 209.03(A)(2) - Water Pollution, Dust, and Erosion
215 Control Submittals are completed and accepted in writing by the Engineer.
216

217 Install, maintain, monitor, repair and replace site-specific BMP
218 measures, such as for water pollution, dust and erosion control; installation,
219 monitoring, and operation of hydrotesting activities; removal and disposal of
220 hazardous waste indicated on plans, concrete cutting slurry, concrete curing
221 water; or hydrodemolition water. Site-Specific BMP measures shall be in
222 place, functional and accepted by HDOT personnel prior to initiating any
223 ground disturbing activities.
224

If necessary, furnish and install rain gage in a secure location prior to field work including installation of site-specific BMP. Provide rain gage with a tolerance of at least 0.05 inches of rainfall. Install rain gage on project site in an area that will not deter rainfall from entering the gate opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Maintain rain gage and replace rain gage that is stolen, does not function properly or accurately, is worn out, or needs to be relocated. Do not begin field work until rain gage is installed and Site-Specific BMPs are in place. Rain gage data logs shall be readily available. Submit rain gage data logs weekly to the Engineer.

Address all comments received from the Engineer.

Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.

Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.

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 in writing by the Engineer. Protect temporarily or permanently disturbed soil surface from rainfall impact, runoff and wind before end of the work day.

Immediately initiate stabilizing exposed soil areas 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 within any area of the construction site that will not include permanent structures has been completed. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the site that will not include 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 projects with an NPDES Permit for Construction activities:

(1) 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.

(2) 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.

For projects without an NPDES Permit for Construction activities, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.

Any of the following types of activities constitutes initiation of stabilization:

(1) Prepping the soil for vegetative or non-vegetative stabilization;

(2) Applying mulch or other non-vegetative product to the exposed area;

(3) Seeding or planting the exposed area;

(4) 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

(5) 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:

(1) For vegetative stabilization, all activities necessary to initially seed or plant the area to be stabilized; and/or

(2) For non-vegetative stabilization, the installation or application of all such non-vegetative measures.

If the Contractor is unable to meet the deadlines above due to circumstances beyond the Contractor's control, and the Contractor is using vegetative cover for temporary or permanent stabilization, the Contractor may comply with the following stabilization deadlines instead as agreed to by the Engineer:

314 (1) Immediately initiate, and complete within the timeframe shown
315 above, the installation of temporary non-vegetative stabilization
316 measures to prevent erosion;
317

318 (2) Complete all soil conditioning, seeding, watering or irrigation
319 installation, mulching, and other required activities related to the
320 planting and initial establishment of vegetation as soon as conditions
321 or circumstances allow it on the site; and
322

323 (3) Notify and provide documentation to the Engineer the
324 circumstances that prevent the Contractor from meeting the deadlines
325 above for stabilization and the schedule the Contractor will follow for
326 initiating and completing initial stabilization and as agreed to by the
327 Engineer.
328

329 Follow the applicable requirements of the specifications and special
330 provisions including Section 619 Planting and Section 641 Hydro-Mulch
331 Seeding.
332

333 Immediately after seeding or planting the area to be vegetatively
334 stabilized, to the extent necessary to prevent erosion on the seeded or
335 planted area, select, design, and install non-vegetative erosion controls that
336 provide cover (e.g., mulch, rolled erosion control products) to the area while
337 vegetation is becoming established.
338

339 Protect exposed or disturbed surface area with mulches, grass seeds
340 or hydromulch. Spray mulches at a rate of 2,000 pounds per acre. Add
341 tackifier to mix at a rate of 85 pounds per acre. Apply grass seeds at a rate
342 of 125 pounds per acre. For hydromulch, use the ingredients and rates
343 required for mulches and grass seeds. Submit recommendations from a
344 licensed Landscape Architect when deviating from the application rates
345 above.
346

347 Apply fertilizer to mulches, grass seed or hydromulch per
348 manufacturer's recommendations. Submit recommendations from a licensed
349 Landscape Architect when deviating from the manufacturer's
350 recommendations.
351

352 Install velocity dissipation measures when exposing erodible surfaces
353 greater than 15 feet in height.
354

355 BMP measures shall be in place and operational at the end of work
356 day or as required by Section 209.03(B) Construction Requirements.
357

Install and maintain either or both stabilized construction entrances and wheel washes to minimize tracking of dirt and mud onto roadways. 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 mud from being tracked onto road. Stabilize entire access roads if necessary.

Chemicals may be used as soil stabilizers for either or both erosion and dust control if acceptable to the Engineer.

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.

Protect ditches, channels, and other drainageways leading away from cuts and fills at all times by either:

- (1) Hydro-mulching the lower region of embankments in the immediate area.
- (2) Installing check dams and siltation control devices.
- (3) Other methods acceptable to the Engineer.

Provide for controlled discharge of waters impounded, directed, or controlled by project activities or erosion control measures.

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.

Cleanup and remove any pollutant that can be attributed to the Contractor.

Install or modify Site-Specific BMP measures due to change in the Contractor's means and methods, or for omitted condition that should have been allowed for in the accepted Site-Specific BMP or a Site-Specific BMP that replaces an accepted Site-Specific BMP that is not satisfactorily performing. Modifications to Site-Specific BMP measures shall be accepted in writing by the Engineer prior to implementation.

Properly maintain all Site-Specific BMP measures.

For projects with an NPDES Permit for Construction Activities:

(1) For construction areas discharging into nutrient or sediment impaired waters, inspect, prepare a written report, and make repairs to BMP measures at the following intervals:

(a) Weekly.

(b) Within 24 hours of any rainfall of 0.25 inch or greater which occurs in a 24-hour period.

(c) When existing erosion control measures are damaged or not operating properly as required by Site-Specific BMP.

(2) For construction areas discharging to waters not impaired for nutrients or sediments, inspect, prepare a written report, and make repairs to BMP measures at the following intervals:

(a) Weekly.

(b) When existing erosion control measures are damaged or not operating properly as required by Site-Specific BMP.

For projects without an NPDES Permit for Construction activities, inspect, prepare a written report, and make repairs to BMP measures at the following intervals:

(a) Weekly.

(b) When existing erosion control measures are damaged or not operating properly as required by Site-Specific BMP.

Temporarily remove, replace or relocate any Site-Specific BMP that must be removed, replaced or relocated due to potential or actual flooding, or potential danger or damage to project or public.

Maintain records of inspections of Site-Specific BMP work. Keep continuous records for duration of the project. Submit copy of Inspection Report to the Engineer within 24 hours after each inspection.

The Contractor's designated representative specified in Subsection 209.03(A)(2)(d) shall address any Site-Specific BMP deficiencies brought up by the Engineer immediately, including weekends and holidays, and complete work to fix the deficiencies by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. Address any Site-Specific BMP deficiencies brought up by the State's Third-Party Inspector in the timeframe above or as specified in the Consent Decree or MS4 NPDES

Permit, whichever is more stringent. The Consent Decree timeframe requirement applies statewide. The MS4 NPDES Permit only applies to Oahu. In this section, "immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work day. When installation of a new pollution prevention control or a significant repair is needed, complete installation or repair no later than 7 calendar days from the time of notification/Contractor discovery. Notify the Engineer and document why it is infeasible to complete the installation or repair within 7 calendar days and complete the work as soon as practicable and as agreed to by the Engineer. Address Site-Specific BMP deficiencies discovered by the Contractor within the timeframe above. The Contractor's failure to satisfactorily address these Site-Specific BMP deficiencies, the Engineer reserves the right to employ outside assistance or use the Engineer's own labor forces to provide necessary corrective measures. The Engineer will charge the Contractor such incurred costs plus any associated project engineering costs. The Engineer will make appropriate deductions from the Contractor's monthly progress estimate. Failure to apply Site-Specific BMP measures may result in one or more of the following: assessment of liquidated damages, suspension, or cancellation of Contract with the Contractor being fully responsible for all additional costs incurred by the State.

(C) Discharges of Storm Water Associated with Construction Activities. If work includes disturbance of one acre or more, an NPDES Permit authorizing Discharges of Storm Water Associated with Construction Activity (CWB-NOI Form C) or Individual Permit authorizing storm water discharges associated with construction activity is required from the Department of Health Clean Water Branch (DOH-CWB).

Do not begin construction activities until all required conditions of the permit are met and submittals detailed in Subsection 209.03(A)(2) – Water Pollution, Dust, and Erosion Control Submittals are completed and accepted in writing by the Engineer.

(D) Discharges Associated with Hydrotesting Activities. If hydrotesting activities require effluent discharge into State waters or drainage systems, an NPDES Hydrotesting Waters Permit (CWB-NOI Form F) or Individual Permit authorizing discharges associated with hydrotesting from DOH-CWB is required from the DOH-CWB.

Do not begin hydrotesting activities until the DOH-CWB has issued an Individual NPDES Permit or Notice of General Permit Coverage (NGPC). Conduct Hydrotesting operations in accordance with the conditions of the permit or NGPC.

(E) Discharges Associated with Dewatering Activities. If dewatering activities require effluent discharge into State waters or drainage systems, an NPDES Dewatering Permit (CWB-NOI Form G) or Individual Permit authorizing discharges associated with dewatering from DOH-CWB is required from the DOH-CWB.

Do not begin dewatering activities until the DOH-CWB has issued an Individual NPDES Permit or Notice of General Permit Coverage (NGPC). Conduct dewatering operations in accordance with the conditions of the permit or NGPC.

(F) Solid Waste. Submit the Solid Waste Disclosure Form for Construction Sites to the Engineer within 21 calendar days of date of award. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer monthly. This should also include documentation from any intermediary facility where solid waste is handled or processed, or as directed by the Engineer.

(G) Construction BMP Training. The Contractor's representative responsible for development of the Site-Specific BMP Plan and implementation of Site-Specific BMPs in the field shall attend the State's Construction Best Management Practices Training. The Contractor shall keep training logs updated and readily available.

209.04 Measurement.

(A) Installation, maintenance, monitoring, and removal of BMP will be paid on a lump sum basis. Measurement for payment will not apply.

(B) The Engineer will only measure additional water pollution, dust and erosion control required and requested by the Engineer on a force account basis in accordance with Subsection 109.06 – Force Account Provisions and Compensation.

209.05 Payment. The Engineer will pay for accepted pay items listed below at contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for each of the following pay items when included in proposal schedule:

Pay Item	Pay Unit
Installation, Maintenance, Monitoring, and Removal of BMP	Lump Sum
Additional Water Pollution, Dust, and Erosion Control	Force Account

543 An estimated amount for force account is allocated in proposal schedule
544 under 'Additional Water Pollution, Dust, and Erosion Control', but actual amount to
545 be paid will be the sum shown on accepted force account records, whether this sum
546 be more or less than estimated amount allocated in proposal schedule. The
547 Engineer will pay for BMP measures requested by the Engineer that are beyond
548 scope of accepted Site-Specific BMP on a force account basis.

549
550 No progress payment will be authorized until the Engineer accepts in writing
551 Site-Specific BMP or when the Contractor fails to maintain project site in accordance
552 with accepted BMP.

553
554 For all citations or fines received by the Department for non-compliance,
555 including compliance with NPDES Permit conditions, the Contractor shall reimburse
556 State within 30 calendar days for full amount of outstanding cost State has incurred,
557 or the Engineer will deduct cost from progress payment.

558
559 The Engineer will assess liquidated damages up to \$27,500 per day for non-
560 compliance of each BMP requirement and all other requirements in this section.
561

Appendix A

The following list identifies potential pollutant sources and corresponding BMPs used to mitigate the pollutants. Each BMP is referenced to the corresponding section of the current HDOT Construction Best Management Practices Field Manual or appropriate Supplemental Sheets. The Manual may be obtained from the HDOT Statewide Stormwater Management Program Website at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/> under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp/> under Concrete Curing and Irrigation Water.

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Construction debris, green waste, general litter</i>	• <i>Separate contaminated clean up materials from construction and demolition (C&D) wastes.</i> • <i>Provide waste containers (e.g., dumpster or trash receptacle) of sufficient size and number to contain construction and domestic wastes.</i> • <i>Inspect construction waste and recycling areas regularly.</i> • <i>Schedule solid waste collection regularly.</i> • <i>Schedule recycling activities based on construction/demolition phases.</i> • <i>Empty waste containers weekly or when they are two-thirds full, whichever is sooner.</i> • <i>Do not allow containers to overflow. Clean up immediately if they do.</i> • <i>On work days, clean up and dispose of waste in designated waste containers.</i> • <i>See Solid Waste Management Section SM-6 for additional requirements.</i> • <i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.</i> • <i>Collect and dispose of all waste materials in trash dumpsters. Place dumpsters, with secure watertight lids, away from storm water conveyances and drains, in a covered materials storage area.</i> • <i>Dispose of construction and non- construction solid waste in accordance with State DOH regs.</i> • <i>Load removed non- recyclable vegetation directly onto trucks; cover and transport to a licensed facility</i>	<i>See Solid Waste Management Section SM-6. Storm Drain Inlet Protection SC-1, and Perimeter Sediment Controls where applicable.</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Materials associated with the operation and maintenance of equipment, such as oil, fuel, and hydraulic fluid leakage</i>	• <i>Use off-site wash racks, repair and maintenance facilities, and fueling sites when practical.</i> • <i>Designate bermed wash area if cleaning on site is necessary.</i> • <i>Place drip pans or drop cloths under vehicles and equipment to absorb spills or leaks.</i> • <i>Provide an ample supply of readily available spill cleanup materials.</i> • <i>Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly.</i> • <i>Do not clean surfaces or spills by hosing the area down.</i> • <i>Eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.</i> • <i>Inspect on-site vehicles and equipment regularly and immediately repair leaks.</i> • <i>Regularly inspect fueling areas and storage tanks.</i> • <i>Train employees on proper maintenance and spill practices and procedures and fueling and cleanup procedures.</i> • <i>Store diesel fuel, oil, hydraulic fluid, or other petroleum products or other chemicals in water-tight containers and provide cover or secondary containment.</i> • <i>Do not remove original product labels and comply with manufacturer's labels for proper disposal.</i> • <i>Dispose of containers only after all the product has been used.</i> • <i>Dispose of or recycle oil or oily wastes according to Federal, State, and Local requirements.</i> • <i>Store soaps, detergents, or solvents under cover or other means to prevent contact with rainwater.</i> • <i>See Vehicle and Equipment Cleaning, Maintenance, and Refueling, Sections SM-11, SM-12, and SM-13 and Material Storage and Handling Section SM-2 for additional requirements.</i>	<i>See Vehicle and Equipment Cleaning, Maintenance, and Refueling, Sections SM-11, SM-12, and SM-13, and Material Storage and Handling, Section SM-2, and Spill Prevention and Control SM-10.</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
Soil erosion from the disturbed areas	• Provide Soil Stabilization, Slope Protection, Storm Drain Inlet Protection SC-1, Perimeter Controls and Sediment Barriers, Sediment Basins and Detention Ponds, Check Dams SC-3 ,Level Spreader EC-6, Paving Operations SM-20, Construction Roads and Parking Area Stabilization SC-10, Controlling Storm Water Flowing Onto and Through the Project, Post-Construction BMPs, and Non-Structural BMPs (Construction BMP Training SM-1, Scheduling SM-14, Location of Potential Sources of Sediment SM-15, Preservation of Existing Vegetation SM-17). • Delineate, and clearly mark off, with flags, tape, or other similar marking device all natural buffer areas defined in the SWPPP. • Preserve native topsoil where practicable. • In areas where vegetative stabilization will occur, restrict vehicle/equipment use in areas to avoid soil compaction or condition soil to promote vegetative growth. • For Storm Drain Inlet Protection, clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised. • Where there is evidence of sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same day in which it is found or by the end of the following work day if removal by the same day is not feasible. • Sediment basins shall be designed and maintained in accordance with HAR Chapter 11-55. • Minimize disturbance on steep slopes (Greater than 15% in grade). • If disturbance of steep slopes are unavoidable, phase disturbances and use stabilization techniques designed for steep grades. • For temporary drains and swales use velocity dissipation devices within and at the outlet to minimize erosive flow velocities.	Soil Stabilization 1. SM-22 Topsoil Management 2. EC-12 Seeding and Planting 3. EC-14 Mulching 4. EC-11 Geotextiles and Mats Slope Protection 1. EC-12 Seeding and Planting 2. EC-14 Mulching 3. EC-11 Geotextiles and Mats 4. EC-4 Slope Roughening, Terracing, and Rounding 5. EC-7 Slope Drains and Subsurface Drains 6. EC-9 Slope Interceptor or Diversion Ditches/Berms SC-1 Storm Drain Inlet Protection

<i>Pollutant Source</i>	<i>Appropriate Site-Specific BMP to be Implemented</i>	<i>BMP Requirements</i>
		<i>Perimeter Controls and Sediment Barriers</i> 1. SC-7 Silt Fence or Filter Fabric Fence 2. SC-2 Vegetated Filter Strips and Buffers 3. SC-6 Compost Filter Berm/Sock 4. SC-8 Sandbag Barrier 5. SC-9 Brush or Rock Filter <i>Sediment Basins and Detention Ponds</i> 1. SC-4 Sediment Trap 2. SC-5 Sediment Basin <i>SC-3 Check Dams</i> <i>EC-6 Level Spreader</i> <i>SM-20 Paving Operations</i> <i>SC-10 Construction Roads and Parking Area Stabilization</i>

<i>Pollutant Source</i>	<i>Appropriate Site-Specific BMP to be Implemented</i>	<i>BMP Requirements</i>
		<i>Controlling Storm Water Flowing onto and Through the Project</i> <i>EC-3 Run-On Diversion</i> <i>EC-5 Earth Dike, Swales and Ditches</i> <i>Post Construction BMPs</i> <i>EC-2 Flared Culvert End Sections</i> <i>EC-10 Rip-Rap and Gabion Inflow Protection</i> <i>EC-8 Outlet Protection and Velocity Dissipation Devices</i> <i>SM-22 Topsoil Management</i> <i>Non-Structural BMPs</i> <i>SM-1 Construction BMP Training</i> <i>SM-14 Scheduling</i> <i>SM-15 Location of Potential Sources of Sediment</i> <i>SM-17 Preservation of Existing Vegetation</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Sediment from soil stockpiles</i>	• <i>Locate stockpiles a minimum of 50 feet or as far as practicable from concentrated runoff or outside of any natural buffers identified on the SWPPP.</i> • <i>Place bagged materials on pallets and under cover.</i> • <i>Provide physical diversion to protect stockpiles from concentrated runoff.</i> • <i>Cover stockpiles with plastic or comparable material when practicable.</i> • <i>Place silt fence, fiber filtration tubes, or straw wattles around stockpiles.</i> • <i>Do not hose down or sweep soil or sediment accumulated on pavement or other impervious surfaces into any storm water conveyance (unless connected to a sediment basin, sediment trap, or similarly effective control), storm drain inlet, or state water.</i> • <i>Unless infeasible, contain and securely protect stockpiles from the wind.</i> • <i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable. See Stockpile Management Section SM-3 for additional requirements.</i>	<i>See Stockpile Management Section SM-3. Storm Drain Inlet Protection SC-1, and Perimeter Sediment Controls where applicable.</i>
<i>Emulsified asphalt or prime/tack coat</i>	• <i>Provide training for employees and contractors on proper material delivery and storage practices and procedures.</i> • <i>Restrict paving operations during wet weather to prevent paving materials from being discharged.</i> • <i>Use asphalt emulsions such as prime coat when possible.</i> • <i>Protect drain inlet structures and manholes during application of tack coat, seal coat, slurry seal, and fog seal.</i> • <i>Keep ample supplies of drip pans and absorbent materials on site.</i> • <i>Inspect inlet protection devices.</i> • <i>See Material Storage and Handling Section SM-2 and Paving Operations Section SM-20 for additional requirements.</i> • <i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.</i>	<i>See Material Storage and Handling Section SM-2, and Stockpile Management Section SM-3, Paving Operations Section SM-20, Storm Drain Inlet Protection SC-1, and Perimeter Sediment Controls where applicable.</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Materials associated with painting, such as paint and paint wash solvent</i>	<i>Hazardous chemicals shall be well-labeled and stored in original containers.</i> <i>Keep ample supply of cleanup materials on site.</i> <i>Dispose container only after all of the product has been used.</i> <i>Remove as much paint from brushes on painted surface.</i> <i>Rinse from water-based paints shall be discharged into the sanitary sewer system where possible. If not, direct all washwater into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation.</i> <i>Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies.</i> <i>Do not dump liquid wastes into the storm drainage system.</i> <i>Filter and re-use solvents and thinners.</i> <i>Dispose of oil-based paints and residue as a hazardous waste.</i> <i>Ensure collection, removal, and disposal of hazardous waste complies with regulations.</i> <i>Immediately clean up spills and leaks.</i> <i>Properly store paints, solvents, and epoxy compounds.</i> <i>Properly store and dispose waste materials generated from painting and structure repair and construction activities.</i> <i>Mix paints in a covered and contained area, when possible, to minimize adverse impacts from spills.</i> <i>Do not apply traffic paint or thermoplastic if rain is forecasted.</i> <i>See Material Storage and Handling Use SM-2, Hazardous Materials and Waste Management Section SM-9, Spill Prevention and Control Section SM-10, and Structure Construction and Painting Section SM-21 for additional requirements.</i> <i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.</i>	<i>See Material Storage and Handling Use Section SM-2, Stockpile Management Section SM-3, Hazardous Materials and Waste Management Section SM-9, Waste Management, Spill Prevention and Control Section SM-10, and Structure Construction and Painting Section SM-21, Storm Drain Inlet Protection SC-1, and Perimeter Sediment Controls where applicable.</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Industrial chemicals, fertilizers, and/or pesticides</i>	• <i>Hazardous chemicals shall be well-labeled and stored in original containers.</i> • <i>Keep ample supply of cleanup materials on site.</i> • <i>Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly.</i> • <i>Do not clean surfaces or spills by hosing the area down.</i> • <i>Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.</i> • <i>Dispose container only after all of the product has been used.</i> • <i>Retain a complete set of safety data sheets (formerly MSDS) on site.</i> • <i>Store industrial chemicals in water-tight containers and provide either cover or secondary containment.</i> • <i>Provide cover when storing fertilizers or pesticides to prevent these chemicals from coming into contact with rainwater.</i> • <i>Restrict amount of pesticide prepared to quantity necessary for the current application.</i> • <i>Do not apply fertilizers or pesticides during or just before a rain event.</i> • <i>Do not apply to stormwater conveyance channels with flowing water.</i> • <i>Comply with fertilizer and pesticide manufacturer's recommended usage and disposal instructions. Document departures from manufacturer's specifications in Attachment J.</i> • <i>Apply fertilizers at the appropriate time of year for the location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth.</i> • <i>Follow federal, state, and local laws regarding fertilizer application.</i> • <i>Do not dispose of toxic liquid wastes (solvents, used oils, and paints) or chemicals (additives, acids, and curing compounds) in dumpsters allocated for construction debris.</i>	<i>See Material Storage and Handling Use Section SM-2, Stockpile Management Section SM-3, and Hazardous Materials and Waste Management Section SM-9, and Spill Prevention and Control SM-10</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
	• Ensure collection, removal, and disposal of hazardous waste complies with regulations. Hazardous waste that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler. See Material Storage and Handling Use SM-2, and Hazardous Materials and Waste Management Section SM-9 for additional requirements.	
Hazardous waste (Batteries, Solvents, Treated Lumber, etc.)	• Do not dispose of toxic materials in dumpsters allocated for construction debris. • Ensure collection, removal, and disposal of hazardous waste complies with regulations. • Hazardous waste that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler. • Segregate and recycle wastes from vehicle/equipment maintenance activities such as used oil or oil filters, greases, cleaning solutions, antifreeze, automotive batteries, and hydraulic and transmission fluids. • Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal, state, and local requirements. • All containers stored outside shall be kept away from surface waters and within appropriately sized secondary containment (e.g., spill berms, decks, spill containment pallets). Provide cover if possible. • Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly. • Do not clean surfaces or spills by hosing the area down. • Eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.	See Hazardous Materials and Waste Management Section SM-9 and Vehicle and Equipment Maintenance SM-12

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
	• Ensure collection, removal, and disposal of hazardous waste complies with manufacturer's recommendations and is in compliance with federal, state, and local requirements. • See Hazardous Materials and Waste Management Section SM-9 and Vehicle and Equipment Management, Vehicle and Equipment Maintenance SM-12 for additional requirements.	
<i>Metals and Building Materials</i>	• Inspect construction waste and recycling areas regularly. • Schedule solid waste collection regularly. • If building materials or metals are stored on site (such as rebar or galvanized poles) store under cover under tarps or in containers. • Minimize the amount of material stored on site. • Do not stockpile uncovered metals or other building materials in close proximity to discharge points. • See Solid Waste Management Section SM-6 for additional requirements.	See Solid Waste Management Section SM-6
<i>Contaminated Soil</i>	• See Waste Management, Contaminated Soil Management Section SM-8 and/or Hazardous Materials and Waste Management Section SM-9 for additional requirements. • At minimum contain contaminated material soil by surrounding with impermeable lined berms or cover exposed contaminated material with plastic sheets.	See Waste Management, Contaminated Soil Management Section SM-8 and/or Hazardous Materials and Waste Management Section SM-9

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Fugitive Dust Control and Dust Control Water</i>	• Do not over spray water for dust control purposes which will result in runoff from the area. • Apply water as conditions require. • Washing down of debris or dirt into drainage, sewage systems, or State waters is not allowed. • Minimize exposed areas through the schedule of construction activities. • Utilize vegetation, mulching, sprinkling, and stone/gravel layering to quickly stabilize exposed soil. • Direct construction vehicle traffic to stabilized roadways. • Cover dump trucks hauling material from the site with a tarpaulin. See Dust Control Section SM-19 for additional requirements.	See Dust Control Section SM-19
<i>Concrete Truck Wash Water</i>	• Disposal of concrete truck wash water via percolation is prohibited. • Wash concrete-coated vehicles or equipment off-site or in the designated wash area. • Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies. • Runoff from the on-site concrete wash area shall be contained in a temporary pit or level bermed area where the concrete can set. • Design the area so that no overflow can occur due to inadequate wash area sizing or precipitation. • The temporary pit shall be lined with plastic to prevent seepage of wash water into the ground. • Allow wash water to evaporate or collect wash water and all concrete debris in a concrete washout system bin. • Do not dump liquid wastes into storm drainage system. • Dispose of liquid and solid concrete wastes in compliance with federal, state, and local standards. • See Waste Management, Concrete Wash and Waste Management Section SM-4 for additional requirements.	See Waste Management, Concrete Wash and Waste Management Section SM-4

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Sediment Track-Out</i>	• <i>Include Stabilized Construction Entrance at all points that exit onto paved roads.</i> • <i>A sediment trapping device is required if a wash rack is used in conjunction with the stabilized construction entrance/exit.</i> • <i>The pavement shall not be cleaned by washing down the street.</i> • <i>If sweeping is ineffective or it is necessary to wash the streets, wash water must be contained either by construction of a sump, diverting the water to an acceptable disposal area, or vacuuming the wash water.</i> • <i>Use BMPs for adjacent drainage structures.</i> • <i>Remove sediment tracked onto the street by the end of the day in which the track-out occurs.</i> • <i>Restrict vehicle use to properly designated exit points.</i> • <i>Include additional BMPs that remove sediment prior to exit when minimum dimensions cannot be met.</i> <i>See Stabilized Construction Entrance/Exit Section SC-11 for additional requirements.</i>	<i>See Stabilized Construction Entrance/Exit Section SC-11</i>
<i>Irrigation Water</i>	• <i>Consider irrigation requirements.</i> • <i>Where possible, avoid species which require irrigation.</i> • <i>Design, timing and application methods of irrigation water to eliminate the runoff of excess irrigation water into the storm water drainage system.</i> <i>See Seeding and Planting Section EC-12 and California Stormwater BMP Handbook SD-12 Efficient Irrigation included in SWPPP Attachment A for additional requirements.</i>	<i>See Seeding and Planting Section EC-12 and California Stormwater BMP Handbook SD-12 Efficient Irrigation</i>
<i>Hydrotesting Effluent</i>	• <i>If work includes removing, relocation or installing waterlines, and Contractor elects to flush waterline or discharge hydrotesting effluent into State waters or drainage systems, the Contractor shall prepare and obtain HDOT acceptance of a NOI/NPDES Permit Form F application for HDOT submittal to DOH CWB at least 30 calendar days prior to the start of Hydrotesting Activities if necessary. Site specific BMPs will be included in the NOI/NPDES Permit Form F submittal.</i>	<i>Site specific BMPs will be included in the NOI/NPDES Permit Form F submittal.</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Dewatering Effluent</i>	<i>If excavation or backfilling operations require dewatering, and Contractor elects to discharge dewatering effluent into State waters or existing drainage systems, Contractor shall prepare and obtain HDOT acceptance of a NOI/NPDES Permit Form G application for HDOT submittal to DOH CWB at least 30 calendar days prior to the start of Dewatering Activities if necessary. See Site Planning and General Practices, Dewatering Operations Section SM-18 for additional requirements.</i>	<i>See Dewatering Operations SM-18. Site specific BMPs will be included in the NOI/NPDES Permit Form G submittal.</i>
<i>Saw-cutting Slurry</i>	• <i>Saw cut slurry shall be removed from the site by vacuuming.</i> • <i>Provide storm drain protection during saw cutting. See Paving Operations Section SM-20 for additional requirements.</i> <i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.</i>	<i>See Paving Operations Section SM-20, Storm Drain Inlet Protection SC-1, Perimeter sediment controls where applicable</i>
<i>Concrete Curing Water</i>	• <i>Avoid overspraying of curing compounds.</i> • <i>Apply an amount of compound that covers the surface, but does not allow any runoff of the compound.</i> <i>See California Stormwater BMP Handbook NS-12 Concrete Curing included in SWPPP Attachment A for additional requirements.</i>	<i>See California Stormwater BMP Handbook NS-12 Concrete Curing</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Plaster Waste Water</i>	• <i>Direct all washwater into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation.</i> • <i>Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies.</i> • <i>Any significant residual materials remaining on the ground after the completion of construction shall be removed and properly disposed. If the residual materials contaminate the soil, then the contaminated soil shall also be removed and properly disposed of.</i> • <i>Plaster waste water shall not be allowed to flow into drainage structures or State waters. See Material, Storage and Handling Use SM-2, Stockpile Management Use Section SM-3, and Hazardous Materials and Waste Management Section SM-9 for additional requirements.</i>	<i>See Material, Storage and Handling Use Section SM-2, Stockpile Management Use Section SM-3, and Hazardous Materials and Waste Management Section SM-9</i>
<i>Water-Jet Wash Water</i>	• <i>For Water-Jet Wash Water used to clean vehicles, use off site wash racks or commercial washing facilities when practical.</i> • <i>See Vehicle and Equipment Cleaning Section SM-11 for additional information.</i> • <i>For Water-Jet Wash Water used to clean impervious surfaces, the runoff shall not be allowed to flow into drainage structures or State Waters.</i>	<i>See Vehicle and Equipment Cleaning Section SM-11</i>
<i>Sanitary/Septic Waste</i>	• <i>Locate Sanitary facilities in a convenient place away from drainage facilities.</i> • <i>Position sanitary facilities so they are secure and will not be tipped over or knocked down.</i> • <i>Wastewater shall not be discharged to the ground or buried.</i> • <i>A licensed service provider shall maintain sanitary/septic facilities in good working order.</i> • <i>Schedule regular waste collection by a licensed transporter.</i> • <i>See Sanitary Waste Section SM-7 for additional requirements.</i>	<i>See Sanitary Waste Section SM-7.</i>

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END OF SECTION 209**NH-019-2(076)****209-28a****1/14/22**

1 Make the following Section a part of the Standard Specifications:
2
3

4 **“SECTION 212 - ARCHAEOLOGICAL MONITORING**
5

6 **212.01 Description.** This work includes monitoring construction activity for
7 archaeological items as specified in the plans or as directed by the Engineer.
8 The Contractor shall be responsible for the incidental procedures and equipment
9 required for full compliance with the requirements of the provisions for
10 archaeological monitoring as outlined below.
11

12 The Contractor's attention is directed to the following requirements related
13 to the archaeological monitoring work:
14

- 15 (A) The Contractor shall obtain the services an Archaeologist or firm as
16 holding valid annual permit issued by the State of Hawaii
17 Department of Land and Natural Resources Historic Preservation
18 Division's Archaeology Branch to provide archaeological services
19 in the State of Hawaii. A list of qualified individuals/firms can be
20 found on SHPD's Archaeology Branch webpage at the link in:
21 <https://dlnr.hawaii.gov/shpd/about/branches/archaeology/>.
22

23 If the Archaeologist or firm is not on the current permit list, they
24 shall obtain an annual permit from SHPD at the time of bid opening.
25 Application for a permit may be obtained at the link in
26 <https://dlnr.hawaii.gov/shpd/forms/>
27

28 Permits are issued to consulting firm who have on staff at least one
29 principal investigator who meets the minimal professional standards
30 for archaeologist as provided in Hawaii Administrative Rules
31 Chapter 13-281.
32

33 The archaeological firm(s) selected by the Contractor must have a
34 demonstrated history of following the applicable Hawaii
35 Administrative Rules for conducting archaeology work (HAR §275,
36 §276, §277, §278, §279, §280, §281, §282, §283, §284, §300) and
37 successfully completing archaeological reports that have been
38 regularly accepted by SHPD. This includes firms with a
39 demonstrated history of collecting adequate field data and no
40 history of work on HDOT projects in which the project was closed
41 with any of the archaeological reporting being found inadequate.
42 Contractors shall contact HDOT for additional information.
43

- 44 (B) Pre-Construction Conference: A pre-construction conference
45 between the archaeological monitor retained by contractor, design
46 project manager, and the construction crew shall be required. The

archaeological monitor shall submit documentation of their compliance with requirements outlined in Subsection 212.01 (C).

(C) Upon discovery of cultural deposits or historic property other human skeletal remains, the Contractor shall immediately suspend the operation and follow all of the requirements in accordance with HAR 13-279 and HAR 13-280 of this section.

(D) The SHPD (Oahu office) shall be notified via telephone and/or email upon the on- set and completion of the proposed undertaking.

(E) Upon completion of archaeological monitoring activities, the archaeologist shall submit an Archaeological Monitoring Report in accordance with HAR §13-279-5.

212.02 Materials. None.

212.03 Construction. Ground disturbance shall be monitored for historic remains including but not limited to artifacts, burials, concentrations of shell or charcoal. Whenever the Contractor encounters possible archaeological, historical or burial site findings, the contractor shall immediately suspend the operation in the immediate area and inform the Engineer verbally and follow up with a written letter. The Engineer will contact HDOT Highways, Design, Environmental Permitting and Project Compliance Section and the Department of Land and Natural Resources (DLNR) and other agencies to evaluate such findings and decide the course of action.

The Contractor shall not resume suspended operations without the prior written acceptance of the Engineer. The Contractor shall not count delays resulting from the discovery, investigation, and handling of such findings against the completion date. The Engineer will govern suspensions of work according to Subsection 108.05(B)(5) -Delays for Suspension of Work. Also, the Contractor shall conform to Chapter 6E, Hawaii Revised Statutes (HRS).

Failure or refusal to comply with the terms of this. Section or Chapter 6E, HRS, may subject the Contractor to the penalties described in Section 6E-11, HRS:

- (1) a fine of not more than ten thousand (\$10,000) dollars for each separate offense,
- (2) seizure and disposition of equipment, and
- (3) if the Contractor knowingly fails or refuses to comply, a prohibition from participating in the construction of State or County projects for ten (10) years.

Construction work and equipment shall remain within the right-of-way limits of this project.

212.04 Measurement. The Engineer will measure Archaeological Monitoring on a force account basis according to Subsection 109.06 - Force Account Provisions and Compensation and as ordered by the Engineer.

212.05 Payment. The Engineer will pay for the accepted Archaeological Monitoring on a force account basis according to Subsection 109.06 Force Account Provisions and Compensation. Payment will be full compensation for the work prescribed in this Section, by the Engineer and Subsection 109.04 - Full Compensation; Changes.

The Engineer will pay for the following item:

Pay Item	Pay Unit
Archaeological Monitoring	Force Account

An estimated amount for the force account is allocated in the proposal schedule under Archaeological Mitigation. The actual amount to be paid will be the sum shown on the accepted force account records whether this sum be more or less than the estimated amount allocated in the proposal schedule.

END OF SECTION 212"

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(I) Amend Section 301.03(B) Compaction by revising the second paragraph from lines 84 to 87 to read as follows:

(II) Amend **Section 301.04 Measurement** from lines 98 to 100 to read as follows:

(III) Amend Section 301.05 Payment, from lines 102 to 111 to read as follows:

The Engineer will pay for the following pay item when included in the proposal schedule:

The Engineer may, in lieu of requiring removal and replacement, use the sliding scale factor to accept HMAB compacted below 92.0 percent. The Engineer will make payment for the material in that production day at a reduced price arrived at by multiplying the contract unit price by the pay factor shown in Table 301.05-1.

Table 301.05-1 – Sliding Scale Pay Factor	
Percent Compaction	Percent Payment
92.0 or greater	100
90.0 – 91.9	80
<90.0	Removal

END OF SECTION 301

1 **SECTION 305 – AGGREGATE SUBBASE COURSE**

2
3 Make the following amendments to said Section:

4
5 **(I)** Amend **305.04 – Measurement** by revising lines 54 to 55 to read as follows:

6
7 **“305.04 Measurement.**

8
9 The Engineer will measure aggregate subbase per cubic yard in
10 accordance with the contract documents.”

11
12 **(II)** Amend **305.05 – Payment** by revising lines 57 to 66 to read as follows:

13
14 **“305.05 Payment.** The Engineer will pay for the accepted aggregate
15 subbase at the contract price per pay unit, as shown in the proposal schedule.
16 Payment will be full compensation for the work prescribed in this section and the
17 contract documents.

18
19 The Engineer will pay for the following pay item when included in the
20 proposal schedule:

21
22 **Pay Item** **Pay Unit**
23
24 Aggregate Subbase Cubic Yard”

25
26
27
28
29
30 **END OF SECTION 305**
31

1 **SECTION 314 – CONTROLLED LOW STRENGTH MATERIALS (CLSM) FOR**
2 **UTILITIES AND STRUCTURES**

3
4 Make the following amendments to said Section:

5
6 **(I) Amend 314.04 – Measurement** by revising line 83 to read as follows:

7
8 **“314.04 Measurement.**

9
10 The Engineer will measure CLSM per cubic yard in accordance with the
11 contract documents.”

12
13 **(II) Amend 314.05 – Payment** by revising lines 85 to 90 to read as follows:

14
15 **“314.05 Payment.**

16
17 The Engineer will pay for the accepted CLSM at the contract unit price per
18 cubic yard, as shown in the proposal schedule. Payment will be full
19 compensation for the work prescribed in this section and the contract
20 documents.

21
22 The Engineer will pay for the following pay item when included in the
23 proposal schedule:

Pay Item	Pay Unit
Controlled Low Strength Materials (CLSM)	Cubic Yard”

24
25
26
27
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29
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33 **END OF SECTION 314**

1 **Amend Section 401- HOT MIX ASPHALT (HMA) PAVEMENT to read as follows:**

2
3 **“SECTION 401 – HOT MIX ASPHALT (HMA) PAVEMENT**

4
5 **401.01 Description.** This section describes furnishing and placing dense graded
6 HMA pavement (herein referred to as HMA) on a prepared surface.

7
8 **401.02 Materials.**

9
10 Asphalt Cement (PG 64-16) 702.01(A)

11
12 Use for non-surface mixes, unless otherwise specified in the project documents.

13
14 Asphalt Cement (PG 64E-22) 702.01(B)

15
16 Use for all surface mixes, except for on Lanai and Molokai, and unless otherwise
17 specified in the project documents. Polymer modified asphalt (PMA) pavement
18 refers to asphalt mix using PG 64E-22, unless otherwise indicated.

19
20 Emulsified Asphalt 702.04

21
22 Warm Mix Asphalt Additive 702.06

23
24 Aggregate for Hot Mix Asphalt Pavement 703.09

25
26 Filler 703.15

27
28 Hydrated Lime or a liquid anti-strip approved by the engineer 712.03

29
30 **(A) General.** HMA pavement shall be plant mixed and shall include
31 mixture of aggregate and asphalt binder and may include reclaimed asphalt
32 pavement (RAP) or filler, or both.

33
34 The manufacture of HMA may include warm mix asphalt (WMA)
35 processes in accordance with these specifications. WMA processes include
36 combinations of organic additives, chemical additives, and foaming.

37
38 HMA pavement shall include surface course and may include one or
39 more binder courses, depending on HMA pavement thickness indicated in
40 the contract documents.

41
42 RAP is defined as removed or reprocessed pavement materials
43 containing asphalt and aggregates. Process RAP by crushing until 100
44 percent of RAP passes 3/4-inch sieve. Size, grade uniformly, and combine
45 materials such that blend of RAP and aggregate material conforms to grading
46 requirements of Subsection 703.09 - Aggregate for Hot Mix Asphalt

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.

(B) Job-Mix Formula and Tests. 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 either Marshall Method or Hveem Method of Mix Design.

Limit compacted lift thickness and asphalt content of job-mix formula as specified in Table 401.02-1 - Limits of Compacted Lift Thickness and Asphalt Content.

TABLE 401.02-1 - LIMITS OF COMPACTED LIFT THICKNESS AND ASPHALT CONTENT				
MIX NO.	II	III	IV	V
Minimum to Maximum Compacted Thickness for Individual Lifts (Inches)	2-1/4 to 3	2 to 3	1-1/2 to 3	1-1/4 to 3
Asphalt Content Limits (Percent of Total Weight of Mix)	3.8 to 6.1	4.3 to 6.1	4.3 to 6.5	4.8 to 7.0

Asphalt content limits for porous aggregate may be exceeded only if it is requested ahead of placement and is reviewed then accepted in writing by the Engineer.

Meet job-mix formula design criteria specified in Table 401.02-2 - Job-Mix Formula Design Criteria.

TABLE 401.02-2 - JOB-MIX FORMULA DESIGN CRITERIA	
Hveem Method Mix Criteria (AASHTO T 246 and AASHTO T 247)	
Stability, minimum	37
Air Voids (percent) ¹	3 - 5
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	3 - 5
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 401.02-3 - Minimum Percent Voids in Mineral Aggregates (VMA).

TABLE 401.02-3 - 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	11.0	12.0	13.0	14.0	15.0
Notes: 1. VMA: See Asphalt Institute Manual MS-2					

(C) Submittals. Establish and submit job-mix formula for each type of HMA pavement mix indicated in the contract documents a minimum of 30 days before paving production. Job mix shall include the following applicable information:

- (1) Design percent of aggregate passing each required sieve size.
- (2) Design percent of asphalt binder material (type determined by type of mix) added to the aggregate (expressed as % by weight of total 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 binder.
- (7) Test data used to develop job-mix formula.

Except for item (4) in this subsection, if design requirements are modified after the Engineer accepts job-mix formula, submit new job-mix formula before using HMA produced from modified mix design. Submit any changes to the design temperature of mixture at point of discharge for acceptance by the Engineer.

Submit a certificate of compliance for the asphalt binder, accompanied by substantiating test data from a certified testing laboratory.

(D) Range of Tolerances for HMA. Provide HMA within allowable tolerances of accepted job mix formula as specified in Table 401.02-4 - Range of Tolerances HMA. These tolerances are not to be used for the design of the job mix, they are solely to be used during the testing of the production field sample of the HMA mix.

TABLE 401.02-4 - RANGE OF TOLERANCES HMA	
Passing No. 4 and larger sieves (percent)	± 7.0
Passing No. 8 to No. 100 sieves (inclusive) (percent)	± 4.0
Passing No. 200 sieve (percent)	± 3.0
Asphalt Content (percent)	± 0.4
Mixture Temperature (degrees F)	± 20

The tolerances shown are the allowable variance between the physical characteristics of laboratory job mix submitted mix design and the production or operational mix, i.e., field samples.

401.03 Construction.

(A) Weather Limitations. Placement of HMA shall not be allowed under the following conditions:

- (1) On wet surfaces, e.g., surface with ponding or running water, surface that has aggregate or surface that appears beyond surface saturated dry, as determined by the Engineer.

(2) When air temperature is below 50 degrees F and falling. HMA may be applied when air temperature is above 40 degrees F and rising. Air temperature will be measured in shade and away from artificial heat.

(3) When weather conditions prevent proper method of construction.

(B) 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.

172 **2. Stockpiling Procedures.** Separate aggregate
173 for Mix II, Mix III and Mix IV into at least three stockpiles
174 with different gradations as follows: coarse,
175 intermediate, and fine. Separate aggregates for Mix V
176 into at least two stockpiles. Stockpile RAP separately
177 from virgin aggregates.

178
179 **3. Checking Aggregate Stockpile.** Check
180 condition of the aggregate stockpile often enough to
181 ensure that the aggregate is in optimal condition.
182

183 **(c) Batch and Continuous Mix Plants.**
184

185 **1. Hot Aggregate Bin.** Provide bin with three or
186 more separate compartments for storage of screened
187 aggregate fractions to be combined for mix. Make
188 partitions between compartments tight and of sufficient
189 height to prevent spillage of aggregate from one
190 compartment into another.
191

192 **2. Load Cells.** Calibrated load cells may be used in
193 batch plants instead of scales.
194

195 **(2) Hauling Equipment.** Use trucks that have tight, clean, smooth
196 metal beds for hauling HMA.
197

198 Thinly coat truck beds with a minimum quantity of non-stripping
199 release agent to prevent mixture from adhering to beds. Diesel or
200 petroleum-based liquid release agents, except for paraffin oil, shall not
201 be used. Drain excess release agent from truck bed before loading
202 with HMA.
203

204 Provide a designated clean up area for the haul trucks.
205

206 Equip each truck with a tarpaulin conforming to the following:
207

208 **(a)** In good condition, without tears and holes.
209

210 **(b)** Large enough to be stretched tightly over truck bed,
211 completely covering mix. The tarpaulin shall be secured in such
212 a manner that it remains stretched tightly over truck bed and
213 HMA mix until the bed is about to be raised up in preparation
214 for discharge.
215

216 **(3) Asphalt Pavers.** Use asphalt pavers that are:
217

- (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 means 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:

1. **Blaw-Knox Bituminous Pavers.** Blaw-Knox bituminous pavers shall be equipped with the Blaw-Knox Materials Management Kit (MMK).
2. **Cedarapids Bituminous Pavers.** Cedarapids bituminous pavers shall be those that were manufactured in 1989 or later.

260 **3. Barber-Green/Caterpillar Bituminous Pavers.**

261 Barber-Green/Caterpillar bituminous pavers
262 shall be equipped with deflector plates as
263 identified in the December 2000 Service
264 Magazine entitled "New Asphalt Deflector Kit
265 {6630, 6631, 6640}".

266
267 Bituminous pavers not listed above shall have similar
268 attachments or designs that shall make them equivalent to the
269 bituminous pavers listed above. The Engineer will solely
270 decide if it is equal to or better than the setups described for the
271 equipment listed above.

272
273 Submit for review and acceptance, prior to the start of
274 using the paver for the placing of plant mix, a full description in
275 writing of the means and methods that will be used to prevent
276 the bituminous paver from having both aggregate and
277 temperature segregation. Use of any paver that has not been
278 accepted is prohibited until acceptance of the paver is received
279 from the Engineer. Any pavement placed with an unaccepted
280 paver will be regarded as not compliant work and may not be
281 paid for and may require removal.

282
283 Supply a Certificate of Compliance that verifies that the
284 manufacturer's approved means and methods used to prevent
285 bituminous paver from having both aggregate and temperature
286 segregation have been implemented on all pavers used on the
287 project and are working in accordance with the manufacturer's
288 requirements and Contract Documents.

289
290 **(4) Rollers.** Rollers shall be self-propelled, steel-tired tandem,
291 pneumatic-tired, or vibratory-type rollers capable of reversing without
292 shoving or tearing the just placed HMA mixture. Provide sufficient
293 number, sequencing, type, and rollers of sufficient weight to compact
294 the mixture to required density while mixture is still in workable
295 condition. Equipment shall not excessively crush aggregate. Operate
296 rollers in accordance with manufacturer's recommendations and
297 Contract Documents. The use of intelligent compaction is encouraged
298 and may be required elsewhere in the Contract Documents.

299
300 **(a) Steel-Tired Tandem Rollers.** Steel-tired tandem rollers
301 used for initial breakdown or intermediate roller passes shall
302 have minimum gross weight of 12 tons and shall provide
303 minimum 250-pound weight per linear inch of width on drive
304 wheel.

305 Steel-tired tandem rollers used for finish roller passes

shall have minimum total gross weight of 3 tons.

Do not use roller with grooved or pitted rolling drum or worn scrapers or wetting pads. Replace excessively worn scrapers and wetting pads before use.

(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.

Pneumatic-tired rollers used for breakdown or intermediate roller passes shall have a 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 with tires inflated 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.

Pneumatic-tired rollers used for kneading finished asphalt surfaces shall have a 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 with tires inflated to 50 to 60 pounds per square inch pressure. If required, equip rollers with skirt-type devices to maintain temperature of tires during rolling operations.

(c) Vibratory Rollers. Vibratory rollers shall be steel-tired tandem rollers having minimum total weight of 3 tons. Equip vibratory rollers with amplitude and frequency controls and speedometer. Operate vibratory roller in accordance with manufacturer's recommendations. For very thin lifts, 1 inch or less in thickness, vibratory rollers shall not be used in the vibratory mode. Instead, operate the unit in the static mode.

(5) Hand Tools. Keep hand tools used in production, hauling, and placement of HMA clean and free of contaminants. Diesel or mineral spirits or other cleaning material that is potentially deleterious to HMA may be used to clean hand tools providing:

(a) It does not contaminate HMA with cleaning material.

(b) Clean hand tools over catch pan with capacity to hold all

the cleaning material.

(c) Remove all diesel or mineral spirits or other cleaning material that is potentially deleterious to HMA from hand tools before using with HMA.

(d) Hand tools used shall be in a condition such that it meets the requirements that it was manufactured for, e.g., a straightedge shall meet the straightness requirement of the manufacturer.

(6) Material Transfer Vehicle (MTV).

(a) **Usage.** MTV usage applies to surface courses of paving projects on all Islands except Lanai, unless otherwise indicated. When placing HMA surface course use MTV to independently deliver mixtures from hauling equipment to paving equipment. MTV usage will not be required for the following:

1. Projects with less than 1,000 tons of HMA.
2. Temporary pavements.
3. Bridge deck approaches.
4. Shoulders.
5. Tapers.
6. Turning lanes.
7. Driveways.
8. Areas with low overhead clearances.

(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. An auger mixing system in one of the following: the MTV storage bin, or paver hopper insert, or paver

hopper to continuously mix HMA prior to discharging to the paver's conveyor system.

Avoid stop-and-go operations by coordinating plant production rate, number of haul units, and MTV and paver speeds to provide a continuous, uniform, segregation-free material flow and smooth HMA pavement. Maintain uniform paver speed to produce smooth pavements.

(c) Performance Evaluation. Evaluate the performance of MTV and mixing equipment by measuring mat temperature profile immediately behind paver screed on first day of paving and when it feels the need to do so due to perceived changes in performance or as directed by the Engineer.

Use a hand-held temperature device that has been calibrated within the past 12 months. It shall be an infrared temperature gun is capable of measuring in one degree or finer increments between the temperatures of 80 degrees to 400 degrees F with a laser to indicate where the temperature reading is being taken. Six temperature profile measurements shall be taken of mat surface using infrared temperature gun at 50-foot intervals behind paver. Each temperature profile shall consist of three surface temperature measurements taken transversely across the 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. The difference between maximum and minimum temperature measurements for each temperature profile shall not exceed 10 degrees F. If any two or more temperature profiles exceeds the 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. Redo the measuring of mat temperature profile until adjustment of the MTV or mixing equipment is adequate. Submit all temperature profiles to the Engineer by next business day. Information on the report shall show location and temperature readings and time test was performed. Enough information shall be given, so the Engineer will be able to easily locate the test site of the individual measurement.

When requested temperature profile measurements shall be done in the presence of the Engineer.

Once adjustments are made, repeat measurement procedure for the next two placements 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, replace equipment before conducting any further temperature profile measurements

The Engineer may perform surface temperature profile measurements at any time during project. The Engineer may in lieu of a hand-held infrared temperature device use an infrared camera or device that is capable of measuring temperatures to locate cold spots. If such cold spots exist, the Engineer may require adjustments to the MTV.

If bleeding or fat spots occur in the pavement adjust means and methods to eliminate such pavement defects and perform remedial repair to pavement acceptable to the Engineer. Bleeding is defined as excess binder occurring on the surface of the pavement. It may create a shiny, glass-like, reflective appearance and may be tacky to the touch. Fat spots are localized bleeding.

(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 will not be allowed to stop on bridge.

c. No other vehicle or equipment will be allowed on bridge.

d. The MTV shall not attempt to cross a bridge where the posted load limit is less than or equal to the weight of the MTV empty. Permission to cross the bridge shall be obtained from the Engineer and HWY-DB in writing.

(C) Preparation of Surface. Clean existing pavement in accordance with Section 310 - Brooming Off. Apply tack coat in accordance with Section 407 - Tack Coat. Tack coat shall not be applied to surfaces to receive an application of joint adhesive.

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 V. 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.

In multiple-lift leveling course construction, spread subsequent lifts beyond edges of previously spread lifts in accordance with procedures contained in current edition of the Asphalt Institute's *Construction of Hot Mix Asphalt Pavements*, Manual Series No. 22 (MS-22) for leveling wedges.

Notify the Engineer of existing surfaces that may not be in a condition that will have enough strength to be a good bonding surface or foundation and should be removed or have remedial repairs done before new pavement placement.

(D) Plant Operation.

(1) Preparation of Asphalt Binder. Uniformly heat asphalt binder and provide continuous supply of heated asphalt cement from storage to mixer. Do not heat asphalt binder above the recommendation of the supplier for modified binders or above 350 degrees F for neat binders.

(2) 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 binder.

(3) Mixing. Measure aggregate and asphalt; or aggregate, RAP, and asphalt into mixer in accordance with an accepted job-mix formula. Mix until components are completely mixed and adequately coated with asphalt binder in accordance with AASHTO M 156. Percent of coated particles shall be 95 percent when tested in accordance with AASHTO T 195.

(4) Plant Inspection. For control and acceptance testing during periods of production, provide a testing laboratory that meets the requirements of AASHTO M 156. Provide space, utilities, and equipment required for performing specified tests.

(E) Spreading and Finishing. Prior to each day's paving operation, check screed or strike-off assembly surface with straight edge to ensure straight alignment and there is no damage or wear to the machine that will affect performance. Provide screed or strike-off assembly that produces finished surface without tearing, shoving, and gouging HMA. Discontinue using spreading equipment that leaves ridges, indentations, or other marks, or combination thereof in surface that cannot be eliminated by rolling or affects the final smoothness of the pavement or be prevented by adjustment in operation.

Maintain HMA at minimum 250 degrees F temperature at discharge to paver. The Engineer shall observe the contractor measuring the temperature of mix in hauling vehicle just before depositing into spreader or paver or MTV.

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. Where practical, use asphalt pavers to distribute mixture.

Where practical, control horizontal alignment using automatic grade and slope controls from reference line, slope control device. Existing pavements or features shall not be used for grade control alone.

Obtain sensor grade reference, horizontal alignment by using established grade and slope controls. 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. Maintain a constant forward speed of

paver during paving operation and minimize other methods that impact smoothness.

Offset longitudinal joint in successive lifts by approximately 6 inches. Incorporate into paving method an overlap of material of 1-inch +/- 0.5 inches at the longitudinal joint. The HMA overlap material shall be left alone when initially placed and shall not be bumped back or pushed back with a lute or any other hand-held device. If the overlap exceeds the maximum amount, remove the excess with a flat shovel, allowing recommended amount of overlap HMA material to remain in place to be compacted. Do not throw the removed excess HMA material on to the paving mat. The longitudinal joint in a surface course when total roadway width is comprised of two lanes shall be near the centerline of pavement or near lane lines when roadway is more than two lanes in width. The longitudinal joint shall not be constructed in the wheel path or under the longitudinal lane lines. Make a paving plan drawing showing how the longitudinal joint will not be located in these areas.

Control the horizontal alignment of the longitudinal edge of the HMA mat being installed so that the edge is parallel to the centerline or has a uniform alignment, e.g., the edge of the mat is straight line or uniform curve, no wavy edge, etc. to have a consistent amount of HMA material at the joint.

Check the compaction of the longitudinal joint during paving often enough to ensure that it will meet the compaction requirements.

If nuclear gauges and ground penetrating radar are used as the contractor's quality control method, they shall be properly calibrated and periodically checked by comparison to cores taken from the pavement. The use of sand as an aid in properly seating the gauge may also be considered for improving the accuracy of the gauge.

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 evenly, 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 Engineer will permit the Contractor to finish day's work using manual controls. The Engineer may also allow additional HMA to be ordered and placed using manual controls if it will provide a safer work site for the public to travel through. Do not resume work until automatic control system is made operative. The Engineer may waive requirement for electronic screed control device when paving gores, shoulders, transitions, and miscellaneous reconstruction areas where the use of the devices is not practical.

When production of HMA can be maintained and when practicable, use pavers in echelon shall be used to place surface course in adjacent lanes.

At the end of each workday, HMA pavement that is open to traffic shall not extend beyond the panel of the adjacent new lane pavement by more than the distance normally placed in one workday. At end of each day's production, construct tapered transitions along all longitudinal and transverse pavement drop-offs; this shall apply to areas where existing pavement is to meet newly placed pavement. Use slopes of 6:1 for longitudinal taper transitions and 48:1 for transverse tapered transitions. Maximum drop-off height along the joints shall be 2 inches. Also, using a 48:1 slope provides a taper around any protruding object, e.g., manholes, drain boxes, survey monuments, inlets, etc., that may be above pavement surface when opened to the public. If the object is below the surface of the pavement then fill the depression until it is level with the surrounding pavement or raise depressed objects to the finish grade of the placed pavement. Remove and dispose of all transition tapers before placing adjoining panel or next layer of HMA. Notify traveling public of pavement drop-offs or raised objects with signs placed in every direction of traffic that may use and encounter pavement drop-offs or protruding objects or holes.

Use the same taper rates for areas where there is a difference in elevation due to construction work.

At end of each workweek, complete full width of the roadway's pavement, including shoulders, to same elevation with no drop-offs.

(F) Compaction. 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 of longitudinal trips parallel to centerline.

If necessary, repair damage immediately using rakes and fresh mix. Do not displace line and grade of HMA edges during rolling.

Keep roller wheels properly moistened with water or water mixed with

small quantities of detergent. Use of excess liquid, diesel, and petroleum-based liquids will not be allowed on rollers.

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.

Before the start of compaction or during compaction or both remove pavement that is loose, broken, or contaminated, or combination thereof; pavement that shows an excess or deficiency in asphalt binder 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 and uniform speed with no sudden stops. The drive wheels shall be nearest to the paver. Continue rolling to attain specified density and until roller marks are eliminated.

Rollers shall not be parked on the pavement placed that day or shift.

(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 93.0 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.

Place HMA pavement in individual lifts that are within minimum and maximum allowable compacted thickness for various types of mixture as specified in Table 401.02-1 - Limits of Compacted Lift Thickness and Asphalt Content.

(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 will not be required.

Use only 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.

717 Finish rolling using steel-tired, tandem roller. Continue rolling
718 until entire surface has been compacted with minimum of three passes
719 of roller, and roller marks have been eliminated.
720

721 Do not use rollers that will excessively crush aggregate.
722

723 **(3) HMA Pavement Courses One and a Half Inches Thick or**
724 **Greater In Special Areas Not Designated For Vehicular Traffic.**

725 For areas such as bikeways that are not part of roadway and other
726 areas not subjected to vehicular traffic, compact to not less than 90.0
727 percent of maximum specific gravity determined in accordance with
728 AASHTO T 209, modified by deletion of Supplemental Procedure for
729 Mixtures Containing Porous Aggregate. Increase asphalt content by
730 at least 0.5 percent above that used for HMA pavements designed for
731 vehicular traffic. Paved shoulders shall be compacted in the same
732 manner as pavements designed for vehicular traffic.
733

734 **(G) Joints, Trimming Edges and Utility Marking.** At HMA pavement
735 connections to existing pavements, make joints vertical to depth of new
736 pavement. Saw cut existing pavement and cold plane in accordance with
737 Section 415 - Cold Planing of Existing Pavement to depth equal to thickness
738 of surface course or as indicated in the Contract Documents.
739

740 At HMA connections to previously placed lifts, form transverse joints
741 by cutting back on previous run to expose full depth of course. Dispose of
742 material trimmed from edges. Protect end of freshly laid mixture from rollers.
743

744 Before and after paving, identify and mark location of existing utility
745 manholes, valves, and handholes on finished surface. Adjust existing frames
746 and covers and valve boxes to final pavement finish grade in accordance with
747 Section 604 - Manholes, Inlets and Catch Basins and Section 626 - Manholes
748 and Valve Boxes for Water and Sewer Systems.
749

750 **(1) Longitudinal joints.** Submit for review the means and methods
751 that will be used to install longitudinal joints at the required compaction
752 and density. Compact longitudinal joints to be not less than 91.0
753 percent of the maximum specific gravity determined in accordance
754 with AASHTO T 209, modified by deletion of Supplemental Procedure
755 for Mixtures Containing Porous Aggregate. Verify the compaction of
756 the longitudinal joints meets requirements by using non-destructive
757 testing methods during paving and submit the results on the daily
758 quality control test reports.
759

760 Test for compaction and density regardless of layer thickness.
761 Compaction and density of the longitudinal joint shall be determined by using
762 six-inch diameter cores. For longitudinal joints made using butt joints cores

shall be taken over the joint with half of the core being on each side of the joint. For longitudinal joints using notched wedge joints, center core over the center of the wedge so that 50 percent of the material is from the most recently paved material and the remaining 50 percent of the core is from the material used to pave the previous layer. One core shall be taken at a maximum frequency of every 1,500 lineal feet (LF) of the second side of the longitudinal joint and any fraction of that length for each day of paving with a minimum of one core taken for each longitudinal joint per day. Cores taken for the testing of the longitudinal joint may be used to determine pavement thickness.

When the longitudinal joints are found to have less than 91.0 percent of the maximum specific gravity, overband all longitudinal joints within the entire lot represented by the non-compliant core, PG binder seal coat, or other type of joint enrichment accepted by the Engineer. The overband shall not decrease the skid resistance of the pavement under any ambient weather condition. Submit overband material's catalog cuts, test results and application procedure for review and acceptance by the Engineer before use. Center the overband over the longitudinal joint. The overband shall be placed in a uniform width and horizontal alignment. The overband shall have no holidays or streaking in its placement. The width of the overband shall be based on how the longitudinal joint was constructed or as directed by the Engineer. If a butt joint is used, the overband width shall be a minimum of 12-inches. For notch wedge or wedge joints the overband width shall be the width of the wedge plus an additional six-inches minimum. Replace any pavement markings damaged or soiled by the overband remedial repair process.

For longitudinal joints that have a compaction of less than 89 percent of the maximum specific gravity; removal may be required by the Engineer instead of overbanding the non-compliant joint.

Persistent low compaction results may be cause to suspend work and remove non-conforming work. During the suspension of paving, revise means and methods used in constructing longitudinal joints and submit to the Engineer for review and acceptance. Suspension may occur when:

- (1) Two or more longitudinal joints tests fail to meet the minimum compaction
- (2) One sample reveals that the joint compaction is 89 percent or less.

(H) HMA Pavement Samples. Obtain test samples from compacted HMA pavement within 72 hours of lay down. Provide minimum 4-inch diameter cores consisting of undisturbed, full-depth portion of compacted mixture taken at locations designated by the Engineer in accordance with the "Sampling and Testing Guide for Acceptance and Verification" in Hawaii DOT Highways Division, *Quality Assurance Manual for Materials*, Appendix 3. Cores shall be taken in the presence of the Engineer. Turn cores over to Engineer immediately after cores have been taken.

For pavement samples for longitudinal joints provide 6-inch diameter cores minimum. For pavement samples for other than longitudinal joints 4-inch diameter cores minimum shall be taken. All cores shall consist of undisturbed, full-depth of the lift of the compacted mixture taken at locations designated by the Engineer in accordance with the "Sampling and Testing Guide for Acceptance and Verification" in Hawaii DOT Highways Division, *Quality Assurance Manual for Materials*, appendix 3.

Cores that separate shall indicate to the Engineer that there is insufficient bonding of layers. Modify the previously used paving means and methods to prevent future debonding of layers. Debonding of a core sample after adjustment of the Contractor's methods will be an indication of continued non-conforming work and the Engineer may direct removal of the layer at no additional cost or contract time.

Restore HMA pavement immediately after obtaining samples. Clean core hole and walls of all deleterious material that will prevent the complete filling of the core hole and the bonding of the new HMA to the existing. Apply tack coat to vertical faces of sample holes. Fill sampled area with new HMA pavement of same type as that removed. If hand compaction is used; fill in layers not exceeding the minimum thickness stated in Table 401.02-1 - Limits of Compacted Lift Thickness And Asphalt Content. Compact each layer to compaction requirements. If Mechanical Compaction methods are used, then layers may be the maximum layer thickness stated in Table 401.02-1 - Limits of Compacted Lift Thickness And Asphalt Content. Using tires or hand tamping to compact the HMA material to restore the pavement shall not be considered as mechanical compaction.

Only sample and test leveling course if 1-1/2 inches or greater. No compaction requirements for less than 1-1/2 inches.

(I) HMA Pavement Thickness Tolerances.

Thickness of finished HMA pavement shall be within 0.25 inch of thickness indicated in the Contract Documents. Pavement not meeting the thickness requirements of the Contract Documents may be required by the Engineer to be removed and replaced.

Corrective methods taken on pavement exceeding specified tolerances, e.g., insufficient thickness by methods accepted by the Engineer, including removal and replacement, shall be at no increase in contract price or contract time.

The checking of pavement thickness shall be done after all remedial repairs, e.g., smoothness compliance repairs, compaction, have been completed, reviewed, and accepted by the Engineer.

(J) Quality Control Using New Technology. The Engineer and MTRB reserves the right to utilize new technology and methods to improve the detection of noncompliant work on the project. The technology or method may be used to locate defects in the work, e.g., ground penetrating radar to locate delaminations, moisture damage, thin sections, voids, non-compliant compaction, other non-destructive testing to locate flaws. The defect will be verified by the methods stated in the Contract Documents or by other established conventional means. If the technology or method has already been accepted elsewhere or has standardized testing procedures the results may be judged acceptable by the Engineer and no further testing will be required. These new technologies and methods may be used for the selection of sampling locations.

(K) Protection of HMA Pavement. Except for construction equipment directly connected with paving operations, keep traffic off HMA pavement.

Protect HMA pavement from damage until it has cooled and set.

Do not refuel equipment or clean equipment or hand tools over paved surfaces unless catch pan or device that will contain spilled fuel and other products is provided. After completion of refueling or cleaning, remove catch pan or device without spilling any of the collected content.

Do not park roller or other paving equipment on HMA pavement paved within 24 hours of laydown.

(L) Pavement Joint Adhesive

(1) Pavement Joint Adhesive on Joints. Use on all asphalt pavement construction where joints are formed at such locations but not limited to the following:

(a) Adjacent asphalt pavements, e.g., trafficked lanes, shoulders, etc.

(b) Asphalt pavement and adjacent concrete pavement or

curb and gutter or any other surface where the bonding of the asphalt pavement and concrete surface is desired,

(c) Transverse joints between asphalt pavements not placed at the same time or if the pavement's temperature on one side of the joint is below the minimum temperature the mix can be at, during asphalt pavement compaction or installation.

(d) Cut face of an existing pavement where it will have new HMA pavement placed against it, e.g., utility trenches, partial or full depth repairs, etc.

Pavement joint adhesive is not required on a longitudinal construction joint between adjacent hot mix asphalt pavements formed by echelon paving. Echelon paving is defined as paving multiple lanes side-by-side with adjacent pavers slightly offset at the same time.

A longitudinal construction joint between one shift's work and another shall have pavement joint adhesive applied at the joint. Any longitudinal construction joint formed, with the temperature on one side of the joint that is below the minimum temperature the mix can be when compacted to contract requirements during asphalt pavement installation, shall have pavement joint adhesive applied at the joint.

(2) **Material requirements.** Asphalt joint adhesive shall meet requirements as specified in Table 401.03-1 - Asphalt Joint Adhesive Specifications.

TABLE 401.03-1 – ASPHALT JOINT ADHESIVE SPECIFICATIONS		
TEST		SPECIFICATION
Brookfield Viscosity, 204 °C [400 °F]	ASTM D 3236	4,000-10,000 cp
Cone Penetration, 25 °C [77 °F]	ASTM D 5329	60-100 dmm
Resilience, 25 °C [77 °F]	ASTM D 5329	30% minimum
Ductility, 25 °C [77 °F]	ASTM D 113	30 cm minimum
Ductility, 4 °C [39.2 °F]	ASTM D 113	30 cm minimum
Tensile Adhesion, 25 °C [77 °F]	ASTM D 5329	500% minimum
Softening Point	ASTM D 36	77 °C [170 °F] min.
Asphalt Compatibility	ASTM D 5329	Pass

(3) **Construction Requirements for Asphalt Joint Adhesive**

(a) **Equipment Requirements.** Use a jacketed double

boiler type melting unit, with both agitation and recirculation systems. Provide a pressure feed wand application system.

(b) Material Handling. Submit a copy of the manufacturer's recommendations for heating, re-heating, and applying the joint adhesive material. Follow manufacturer's recommendations. Do not remove the joint adhesive from the package until immediately before it is placed in the melter. Joint adhesive boxes must be clearly marked with the name of the manufacturer, the trade name of the adhesive, the manufacturer's batch and lot number, the application/pour temperature, and the safe heating temperature. Feed additional material into the melter at a rate equal to the rate of material used.

Verify the pouring temperature of the joint adhesive at least once per hour at the point of discharge. Stop production if the adhesive falls below the recommended application/pour temperature. When the temperature of the adhesive exceeds the maximum safe heating temperature, stop production, empty the melter, and dispose of that adhesive in an environmentally safe method. No payment will be made for this material or its disposal.

Do not blend or mix different manufacturer's brands or different types of adhesives.

(c) Joint Adhesive Application: The face of the joint that the new asphalt pavement will bind to shall be clean and dry before the joint adhesive is applied. Apply the pavement joint adhesive material to the entire face of the surface where HMA pavement shall be installed. The thickness of the asphalt adhesive application shall be approximately 1/8 inch. Use an application shoe attached to the end of application wand. Do not overlap the joint by greater than 1/2-inch at the top of the joint or two-inches at the bottom of the joint. Apply the joint adhesive immediately in front of the paving operation. If the adhesive is tracked by construction vehicles, repair the damaged area, and restrict traffic from driving on the adhesive.

(d) Field Sampling. Take a sample from the application wand during the first 20 minutes of placing sealant. One sample should be taken per manufacturer's batch or minimum of every 6 months on the Project in the presence of the Engineer.

Each sample shall consist of one quart in an aluminum or steel sample container. The sampling container shall be labeled with Contractor's name; project name and number; date and time sample taken; location of where material was used at, e.g., from where to where it was used at in stations; manufacturer and lot number of the sealant. Turn over samples to Engineer without Engineer losing sight of the sample. The Engineer reserves the right to conduct supplementary sampling and testing of the sealant material.

(M) Pavement Smoothness Rideability Test. Perform surface profile tests frequently to ensure that the means and methods being used produces pavement that is compliant with the surface profile smoothness requirement. Test the pavement surface for smoothness with High-Speed Inertial Profiler to determine the International Roughness Index (IRI) of the pavement. For the locations determined by the Engineer, a 10-foot straightedge shall be used to measure smoothness.

All smoothness testing must be performed with the presence of the Engineer. The High-Speed Inertial Profiler operator shall be a certified operator by MTRB or the manufacturer.

The High-Speed Inertial Profiler operator's certification shall be no older than five years old at the date of the Notice to Proceed and at the day of the pavement profile measurement.

The finished pavement shall comply to all the following requirements:

(a) Smoothness Test using 10-Foot Straightedge (Manual or rolling) The 10-foot straightedge is used to identify the locations that vary more than 3/16 inch from the lower edge when the 10-foot straightedge is laid on finished pavement on the direction parallel with the centerline or perpendicular to centerline. Remove the high points that cause the surface to exceed that 3/16 inch tolerance by grinding.

The Contractor shall use a 10-foot straightedge for the following locations:

1. Longitudinal profiling parallel to centerline, when within 15 feet of a bridge approach or existing pavement which is being joined.
2. Transverse profiling of cross slopes, approaches, and as otherwise directed. Lay the straightedge in a direction perpendicular to the centerline.

1022 3. When pavement abuts bridge approaches or pavement
1023 not under this Contract, ensure that the longitudinal slope
1024 deviations of the finished pavement comply with Contract
1025 Document's requirements.

1026
1027 4. Short pavement sections up to 600 feet long, including
1028 both mainline and non-mainline sections on tangent sections
1029 and on horizontal curves with a centerline radius of curve less
1030 than 1,000 feet.

1031
1032 5. Within a superelevation transition on horizontal curves
1033 having centerline curve radius less than 1,000 feet, e.g.,
1034 curves, turn lanes, ramps, tapers, and other non-mainline
1035 pavements.

1036
1037 6. Within 15 feet of transverse joint that separates
1038 pavement from existing pavement not constructed under the
1039 contract, or from bridge deck or approach slab for longitudinal
1040 profiling.

1041
1042 7. At miscellaneous areas of improvement where width is
1043 less than 11 feet, such as medians, gore areas, and shoulders.

1044
1045 8. As otherwise directed by the Engineer. The Engineer
1046 may confine the checking of through traffic lanes with the
1047 straightedge to joints and obvious irregularities or choose to
1048 use it at locations not specifically stated in this Section.

1049
1050 **(b) High-Speed Inertial Profiler**
1051

1052 There shall be a minimum 3 profile runs per lane, for each wheel path
1053 (left and right) which is approximately three feet from edge lane line. The
1054 segment length shall be 0.1 mi. The final segments in a lane that are less
1055 than 0.1 mi shall be evaluated as an independent segment and pay
1056 adjustments will be prorated for length. The profiles shall be taken in the
1057 direction of traffic only.

1058
1059 The latest version of FHWA ProVAL software shall be used to conduct
1060 profile analysis to determine IRI and areas of localized roughness. The IRI
1061 values shall be reported in units of in/mi.

1062
1063 Areas of localized roughness will be identified by using ProVAL's
1064 "Smoothness Assurance" analysis, calculating IRI with a continuous short
1065 interval of 25 feet and the 250-mm filter applied.
1066

Additional runs may be required by the Engineer if the data indicate a lack of repeatability of results. A 92% agreement is required for repeatability and IRI values shall have at minimum a 95% confidence level.

(N) Required Pavement Smoothness

The IRI for the left and right wheel paths in an individual lane will be computed and then averaged to determine the Mean Roughness Index (MRI) values. The MRI will be used to determine acceptance and pay adjustment. Each lane shall be tested and evaluated separately.

There are three (3) categories of target MRI values:

TABLE 401.03-2 – PAVEMENT SMOOTHNESS CATEGORIES		
Category	Description	MRI
Type A	Three or more opportunities for improving ride	Shall not exceed 60 in/mi
Type B	Two opportunities for improving ride	Shall not exceed 70 in/mi
Type C	One opportunity for improving ride	Shall not exceed 75 in/mi

An opportunity for improving ride is considered as one (1) lift of asphalt pavement, including but not limited to HMAB, HMA, PMA, and SMA.

For the location where a 10-foot manual straightedge is required, the surface shall not vary more than 3/16 inch from the lower edge of a straightedge.

No pre-final inspection, final inspection, and substantial completion granted will be made until the pavement meets smoothness requirement and all required profile reports are submitted to the Engineer and MTRB and are accepted.

(O) Request for Profile Testing by the Department.

For Type C, prior to pavement activities, the Engineer will measure the smoothness of the existing pavement.

The Contractor shall submit a written request to the Engineer to perform all required profile tests.

The request shall be made at least 30 days before desired testing date and shall include an approximate acceptance profile testing date, a plan view drawing of the area to be tested with the limits of the test area highlighted.

The Contractor shall reimburse HDOT for any incurred cost related to any Contractor-caused cancellation or a deduction to the monthly payment will be made.

(P) Department Requirements for Profile Testing. When a request for testing is made, the requested area to be tested shall be 100% of the total area indicated to be paved in the Contract Documents unless the requirement is waived by the Engineer and MTRB.

Department acceptance surface tests will not be performed earlier than 14 days after HMA placement.

Clean debris and clear obstructions from area to be tested, as well as a minimum of 100 feet before and beyond the area to be tested before testing starts for use as staging areas. Provide traffic control for all profile testing.

The Engineer or MTRB or both may cancel the profile testing if the test area is not sufficiently clean, traffic control is unsatisfactory, or the area is not a safe work environment or test area does not meet Contract Document requirements. This canceled profile test will count as one profile test.

(Q) Cost of Acceptance Profile Testing by The Department. The Engineer, MTRB, or State's Third-Party Consultant will perform one initial profile test, at no cost to the Contractor for each area to be tested.

The Department's High-Speed Inertial Profiler pavement profile will be used to determine if the pavement's profile, i.e., smoothness is acceptable.

If the profile of the pavement does not meet the requirements of the Contract Documents, the Contractor shall perform remedial work, i.e. corrective work then retest the area to ensure that the area has the required MRI, i.e., smoothness, before requesting another profile test by the Engineer.

(1) Additional testing. Additional testing, by the Department beyond the initial test will be performed at cost to the Contractor as follows:

(a) \$2,500 per test will be required when Department personnel or State's Third-Party Consultant is used.

(R) Remedial Work for Pavements.

(1) Corrective work shall be required for any 25 ft interval with a localized roughness in excess of 160 in/ mi. The Engineer may waive localized roughness requirements for deficiencies resulting from

manholes or other similar appurtenances. Adjust manholes or other similar appurtenances so that using a 10-ft. straightedge the area around that manhole or other similar appurtenance shall not have more than 3/16-in. variation between any 2 contacts on the straightedge.

If corrective action is not successful, the Engineer may require continued corrective action, or apply a payment adjustment of \$250 per occurrence.

(2) Corrective work shall also be required for any 0.1 mile interval with an average MRI above 95.0 in/mi for Types A and B. For Type A, correct the deficient section to an MRI of 60 in/mi or less. For Type B, correct the deficient section to an MRI of 70 in/mi or less. For Type C, corrective work may be required by the Engineer for 0.1 mile intervals that have an average MRI above the threshold shown in Tables 401.03-4 and 5 as applicable.

If corrective action does not produce the required improvement, the Engineer may require continued corrective action, or apply payment adjustment as shown in Tables 401.03-4 and 5.

(3) The Contractor shall notify the Engineer at least 24 hours prior to commencement of the corrective work. The Contractor shall not commence corrective work until the methods and procedure have been approved in writing by the Engineer.

(4) All smoothness corrective work for areas of localized roughness shall be for the entire lane width. Pavement cross slope shall be maintained through corrective areas.

(5) The remedial repair areas shall be neat, rectangular areas having a uniform surface appearance.

(6) If grinding is used on HMA pavement, the surface shall have nearly invisible grinding marks to passing motorist.

(7) Other methods may include milling and overlaying HMA pavement. The length, depth of the milling and the replacement material will be solely decided by the Engineer.

(8) The finished repaired pavement surface shall leave no ridges or valleys or fins of pavement other than those allowed below.

1194 (9) Remedial repairs shall not leave any drainage structures' inlets
1195 higher than the surrounding pavement or alter the Contract
1196 Document's drainage pattern.

1197
1198 (10) For items in the pavement other than drainage structures, e.g.,
1199 manhole frame and covers, survey monuments, expansion joints etc.,
1200 the finish pavement, ground or not, shall not be more than 1/4 inch in
1201 elevation difference. Submit to the Engineer remedial repair method
1202 to correct these conditions for acceptance.

1203
1204 (11) Pick up immediately grinding operation residue by using a
1205 vacuum attached to grinding machine or other method acceptable to
1206 the Engineer.

1207
1208 (a) Any remaining residue shall be picked up before the end
1209 of shift or before the area is open to traffic, whichever is earlier.

1210
1211 (b) Prevent residue from flowing across pavement or from
1212 being left on pavement surface or both.

1213
1214 (c) Residue shall not be allowed to enter the drainage
1215 system.

1216
1217 (d) The residue shall not be allowed to dry or remain on the
1218 pavement.

1219
1220 (e) Dispose of all material that is the result of the remedial
1221 repair operation, e.g., HMA residue, wastewater, and dust at a
1222 legal facility.

1223
1224 (12) Complete corrective work before determining pavement
1225 thickness for HMA pavements in accordance with Subsection
1226 401.03(I) – HMA Pavement Thickness Tolerances.

1227
1228 (13) All HMA wearing surface areas that have been ground shall
1229 receive a coating, e.g., a coating material that will restore any lost
1230 impermeability of the HMA due to the grinding of the surface. The
1231 coating used shall not be picked up or tracked by passing vehicles or
1232 be degraded after a short period of time has passed, i.e., it shall have
1233 a service life equal to or greater than the HMA pavement. The coating
1234 shall not decrease the pavement's friction value. The coating's limits
1235 shall be the full width of the lane regardless how small. If the remedial
1236 repair area extends into the next lane, then the repair area will be full
1237 lane width also. Extend the length of coating areas in order for the
1238 coating area to look like the rest of the road and does not have patches
1239 on it, i.e., make the road look uniform in color. The coating shall be of

a color that matches the surrounding pavement. The areas receiving the coating shall not be open to traffic until it has cured enough so that it cannot be picked up or tracked by passing vehicles or degrade. Submit means and methods of the coating and type of coating to the Engineer or MTRB for review and acceptance. Do not proceed with the coating without acceptance from the Engineer.

(14) Recompacting cold HMA, i.e., HMA that has reached ambient temperature is not an acceptable remedial repair method.

(15) Replace all pavement markings damaged or discolored by remedial repairs.

(16) Reprofile the corrected area and provide the Engineer the results that show the corrective action, i.e., remedial repairs were successful.

(S) Pavement Smoothness and Acceptance.

(1) Price and payment in various paving sections, e.g., 401 (Hot Mix Asphalt Pavement), shall be full compensation for all work and materials specified in the various paving sections and this section, including but not limited to furnishing all labor, materials, tools, equipment, testing, incidentals and for doing all work involved in micro milling, milling (cold planing), grinding existing or new pavement, removing residue, cleaning the pavement, necessary disposal of residue, furnishing of any water or air used in cleaning the pavement and any other related ancillary work or material or services. Also, it includes any remedial work, e.g., re-paving, surface grinding, application of a coating, curing compound, and replacement of damaged pavement markings.

(2) The contract price in those sections may be adjusted for pavement smoothness by the Engineer. The pavement smoothness contract unit price adjustments and work acceptance will be made in accordance with the following schedules.

TABLE 401.03-3 –SMOOTHNESS PAY INCENTIVES		
Category	MRI (in/mi)	Pay Adjustment \$ per 0.1 mi
Type A	<30.0	\$580
	30.0- less than 35.0	\$480
	35.0- less than 40.0	\$380
	40.0- less than 45.0	\$280
	45.0- less than 50.0	\$180
	50.0- less than 55.0	\$80
	55.0- less than 60.0	\$0
Type B	<35.0	\$420
	35.0- less than 40.0	\$360
	40.0- less than 45.0	\$300
	45.0- less than 50.0	\$240
	50.0- less than 55.0	\$180
	55.0- less than 60.0	\$120
	60.0- less than 65.0	\$60
	65.0- less than 70.0	\$0
Type C	<40.0	\$280
	40.0- less than 45.0	\$240
	45.0- less than 50.0	\$200
	50.0- less than 55.0	\$160
	55.0- less than 60.0	\$120
	60.0- less than 65.0	\$80
	65.0- less than 70.0	\$40
	70.0- less than 75.0	\$0

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(3) Pay Pavement Smoothness Adjustment will be based on the initial measured MRI for both left and right wheel path, prior to any corrective work for the 0.10-mile section, except for sections that the Contractor has chosen to remove and replace. For sections that are replaced, assessments will be based on the MRI determined after replacement.

(a) The Pavement Smoothness Adjustment will be computed using the plan surface area of pavement shown in the Contract Documents. This Pavement Smoothness Adjustment will apply to the total area of the 0.10-mile section for the lane width represented by MRI for the same lane. It does not include any other price adjustments specified in the Contract Documents. Those price adjustments will be, for each adjustment, calculated separately using the original contract price to determine the amount of adjustment to be made to the contract price. Sections shorter than 0.1 mile and longer than 50 feet shall be prorated.

(b) For 0.1 mile intervals with an average MRI above the threshold shown in Table 401.03-3, the Engineer shall apply a disincentive payment adjustment up to the limit shown.

i. For Types A and B, payment adjustments shall be applied up to an MRI of 95.0 per Table 401.03-4.

ii. For Type C, the payment adjustment shall be dependent on the average MRI of the pavement prior to paving activities

1. If the MRI of the pavement prior to paving activities is 125.0 in/mi or less, the payment adjustment shall be per Table 401.03-4.

2. If the MRI of the pavement prior to paving activities is more than 125.0 in/mi, the disincentive payment adjustment shall be per Table 401.03-5, and based on the percent improvement using the following formula:

$$\% \text{ Improvement} = (\text{Initial segment MRI} - \text{Final segment MRI}) \times 100 / (\text{Initial Segment MRI})$$

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TABLE 401.03-4 –SMOOTHNESS PAY DISINCENTIVES WITH MRI		
Category	MRI (in/mi)	Pay Adjustment \$ per 0.1 mi
Type A	60.0- less than 70.0	-\$100
	70.0- less than 75.0	-\$250
	75.0- less than 80.0	-\$350
	80.0- less than 85.0	-\$450
	85.0- less than 95.0	-\$550
	> 95.0	Corrective Work
Type B	70.0- less than 75.0	-\$100
	75.0- less than 80.0	-\$200
	80.0- less than 85.0	-\$300
	85.0- less than 95.0	-\$400
	> 95.0	Corrective Work
Type C (pre-paving MRI < 125)	75.0- less than 80.0	-\$50
	80.0- less than 85.0	-\$100
	85.0- less than 90.0	-\$150
	90.0- less than 100.0	-\$200
	>100.0	-\$250

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TABLE 401.03-5 –SMOOTHNESS PAY DISINCENTIVES FOR PERCENT IMPROVEMENT		
Category	Percent Improvement %	Pay Adjustment \$ per 0.1 mi
Type C	≥ 40	\$0
(pre-paving MRI > 125)	20.0- less than 40.0	-\$100
	< 20	-\$200

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(c) Incentives will not apply to areas where payment deductions or remedial repairs has been made for non-compliant work, e.g., low compaction, thin pavement, thermal segregation, low compressive or flexural strength, non-compliant alignment. Incentives will also not apply to areas where corrective work was required to meet contract smoothness requirements, unless the pavement section was

replaced. All areas where corrective work was performed shall be tested again to ensure the smoothness requirements are met.

(d) There will be no incentive price adjustments to the contract prices regardless of the pavement meeting the Contract Documents' requirements for incentive contract price adjustment, when 25% of the total area paved of that particular type of pavement on the project has failed to meet any of the Contract document requirements, e.g., smoothness, thickness, unit weight, asphalt content, pavement defects, compaction, flexural or compressive strength. Areas exempt from the smoothness requirements may not be included in the total area calculation unless it is non-compliant.

(e) For contracts using lump sum the method described in Subsection 104.06 Methods of Price Adjustment paragraph (3), will be used to calculate proportionate unit price, i.e., the Engineer's calculated theoretical unit price. This calculated proportionate unit price will be used to calculate the unit price adjustment.

401.04 Measurement.

(A) The Engineer will measure HMA pavement per ton in accordance with the Contract Documents.

(B) The Engineer will measure leveling course and HMA pavement overlay per ton in accordance with the Contract Documents.

(C) Engineer will measure additional State pavement profiling work when applicable on a cost-plus basis as specified in this section and as ordered by Engineer. The Engineer will issue a billing for the pavement profile work done for the time period with the invoices and receipts that the billing was based on attached to the Contractor for each contract item. The Contractor's pavement profile work required in this section will not be measured and will be considered incidental to the various paving items unless stated otherwise.

401.05 Payment. The Engineer will pay for the accepted HMA pavement at the contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for the work prescribed in this section and the contract documents.

(A) Price and payment in Section 401 – HMA Pavement will be full compensation for all work and materials specified in this Section including furnishing all labor, materials, tools, equipment, testing, pavement profiles and incidentals and for doing all work involved in grinding existing or new

pavement, removing residue, and cleaning the pavement, including necessary disposal of residue and furnishing any water or air used in cleaning the pavement and remedial work needed to conform to the requirements of the Contract Documents.

(B) No payment for the Contractor's pavement profile work required in this section will be made. The Contractor's pavement profile work shall be considered incidental to the various paving items unless stated otherwise.

(C) Engineer will pay or deduct for the following pay items when included in proposal schedule:

Pay Item	Pay Unit
Pavement Smoothness Incentive	Allowance
4" PMA Pavement, Mix No. IV	Ton
(1) 70% of the contract unit price or the theoretical calculated unit price upon completion of submitting a job-mix formula acceptable to the Engineer; preparing the surface, spreading, and finishing the mixture; and compacting the mixture.	
(2) 20% of the contract unit price or the theoretical calculated unit price upon completion of cutting samples from the compacted pavement for testing; placing and compacting the sampled area with new material conforming to the surrounding area; protecting the pavement; and compaction acceptance. Maintain temporary pavement markings and other temporary work zone items, maintain a clean work site.	
(3) 10% of the contract unit price or calculate the unit price when the final configuration of the pavement markings is in place.	
(1) 80% of the contract unit price upon completion of submitting a job-mix formula acceptable to the Engineer; preparing the surface, spreading, and finishing the mixture; and compacting the mixture.	
(2) 20% of the contract unit price upon completion of cutting samples from the compacted pavement for testing; placing and compacting the sampled area with new material conforming to the surrounding area; protecting the pavement; and compaction acceptance.	

The Engineer will pay for adjusting existing frames and covers and valve boxes in accordance with and under Section 604 – Manholes, Inlets and Catch

Basins. Adjustments for existing street survey monument frames and covers will be paid for as if each were a valve box frame and cover.

The Engineer may, at his sole discretion, use the sliding scale factor as specified in Table 401.05-1 – Sliding Scale Pay Factor for Compaction to accept HMA pavements compacted between 90.0 percent and 98.0 percent. If the sliding scale factor is used, the Engineer will make payment for the material in that production day at a reduced price by multiplying the contract unit price by the pay factor. The Engineer is not obligated to allow non-compliant work to remain in place and may choose to require removal of the pavement that is less than 93.0 percent or greater than 97.0 percent.

Removal of non-compliant pavement shall be in accordance with Subsection 105.12 Removal of Non-Conforming and Unauthorized Work.

Table 401.05-1 – Sliding Scale Pay Factor for Compaction	
Percent Compaction	Percent of Quantity Paid
> 98.0	Removal
>97.0 - 98.0	95
93.0- 97.0	100
90.0 - <93.0	80
<90.0	Removal

END OF SECTION 401”

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(I) Amend Subsection 411.03(I)(1) — General by revising the first paragraph from line 205 to 210 to read:

(II) Amend **411.04 — Measurement** by revising lines 955 to 961 to read as follows:

(A) The Engineer will measure concrete pavement per cubic yard in accordance with the contract documents."

Pay Item	Pay Unit
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The Engineer will not pay for longitudinal joints, transverse expansion joints, transverse contraction joints, or construction joints separately and will consider the cost for those items as included in the contract price for the concrete pavement pay item. The cost is for the work prescribed in this section, Section 411 — Portland Cement Concrete Pavement, and the contract documents."

NH-019-2(076)
411-1a

8/20/20

1 Make this section a part of the Standard Specifications:

2
3 **“SECTION 413 – STAMPED TEXTURED CEMENT CONCRETE**

4
5 **413.01 Description.** This section describes construction of the stamped
6 textured truck aprons and splitter islands.

7
8 **413.02 Materials.**

9
10 Structural Concrete 601

11
12 Aggregate for Untreated Base 703.06

13
14 Joint Filler 705.01

15
16 Welded Wire Fabric Reinforcement 709.01(C)

17
18 **413.03 Construction.** The Contractor shall stamp the textured cement
19 concrete areas as indicated on the plans. The stamped concrete shall be a two
20 color system with a base color hardener and a release color. Color shall be a red
21 brick hardener with a Red Brick release. Color hardener and release shall be
22 applied and installed in accordance with the manufacturer’s written
23 recommendations. The stamp pattern shall be Herringbone pattern or approved
24 equal.

25
26 The Contractor shall provide a job-site sample to be approved by the Engineer
27 prior to placing stamped textured cement concrete. The sample shall be a
28 minimum of six feet by six feet, completed panel including stamp pattern, colored
29 concrete and sealer.

30
31 **(A) Excavating.** Excavate the required depth, remove unsuitable
32 material, and compact subgrade to firm, even surface in accordance with
33 Subsection 203.03(A)(4) – Subexcavation.

34
35 **(B) Forms.** Use full-depth wood or metal forms that are straight, free of
36 warp and of sufficient strength to resist pressure of concrete without
37 springing. Brace and stake forms to remain in both horizontal and vertical
38 alignment until removal.

39
40 **(C) Bed Course.** Use aggregate for untreated base conforming to
41 Subsection 703.06 – Aggregate for Untreated Base, as bed course material.
42 Place bed course material a minimum of 4 inches in depth. Compact with
43 three passes of lightweight mechanical taper, roller, or vibratory system.

44
45 **(D) Reinforcement.** Provide welded wire reinforcement, in accordance
46 with Section 602 – Reinforcing Steel, if specified.

(E) Placing Concrete. Concrete thickness shall be in accordance with construction plans and shall be constructed using Class A as specified in Section 601 – Structural Concrete. The slump of the concrete shall not exceed 3-1/2 inches, or as recommended by the color manufacturer, whichever is greater. Moisten aggregate and forms to saturated, surface dry condition immediately before placing concrete. Placing concrete islands and sidewalk thickness in accordance with plans and Section 503 – Concrete Structures. Following placement, screeding and floating of the concrete, color hardener shall be troweled into the concrete. After troweling the hardener in to the concrete, a second coat of color hardener shall be placed uniformly on top of concrete.

After 4 days of curing or according to the manufacturer's instructions, the color release shall be pressure washed and allowed to dry completely. When the textured concrete is dry, the Contractor shall apply a sealer to the concrete. Sealer shall be as recommended by the color hardener manufacturer's recommendation and as approved by the Engineer.

(F) Finishing. Finish concrete in accordance with Subsection 503.03(M)(3)(b) – Sidewalks and Median Strips. Use edging tool with 1/4-inch radius to finish the outside edges of islands and sidewalks. Finish islands and sidewalks as plane surface with 2-percent (allowable construction tolerance of plus or minus 0.4-percent maximum) cross slope towards roadway. Test surface of concrete sidewalk with 10-foot straightedge. Correct any deviation in excess of 1/4-inch.

(G) Joints. Match Joints with curb or pavement joints.

(1) Expansion Joints. Use 1/2-inch-thick preformed expansion joint filler at fixed structures, such as buildings, bridges, or walls, and at curb returns. Extend preformed expansion joint filler from bottom of sidewalk to approximately 1/4-inch below top of sidewalk.

(2) Weakened-Plane Joints. Divide sidewalk between expansion or construction joints into sections approximately 5-feet in length by providing transverse, weakened-plane joints. Provide transverse, weakened-plane joints when time period between consecutive concrete placements is more than 45 minutes.

Where sidewalks are more than 7-feet in width, provide longitudinal, weakened-plane joints to obtain secure uniform blocks that are approximately square.

Provide weakened-plane joints where corners of drop inlets project into sidewalk. Form weakened-plane joints to 1-inch

minimum depth and approximately 1/8-inch width using scoring tool, saw, or other means acceptable to the Engineer.

(3) Construction Joints. Form construction joints around appurtenances such as manholes and utility poles extending through entire sidewalk. Provide 1/4-inch-thick preformed expansion joint filler for full depth of joints.

(4) Roundabout Island Joints. Transverse construction joints and transverse contraction joints shall be placed perpendicular or radial to the back of curb. Joint spacing shall be a maximum of 15-feet apart and equally spaced along the length of the texture cement concrete.

(H) Curing. Cure concrete for at least 96 hours in accordance with Subsection 503.03(L)(1) – Water Curing or as required in the color manufacturer's written installation instructions and approved by the Engineer. Protect concrete from pedestrian traffic for 96 hours and from vehicular traffic for seven days.

(I) Backfilling. After sidewalk has set, fill remaining excavated areas with material acceptable to the Engineer. Place and tamp fill in lifts up to 6-inches in depth.

410.04 Measurement. The Engineer will measure the stamped textured truck aprons and splitter islands by the square yard of finished surface.

410.05 Payment. The Engineer will pay for the accepted quantities of the stamped textured truck aprons and splitter islands at the contract unit price per square yard complete in place as shown in the proposal.

Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for the following pay item when included in the proposal schedule:

Pay Item	Pay Unit
10-Inch Stamped Textured Cement Concrete (Truck Apron)	Square Yard
4-Inch Stamped Textured Cement Concrete (Splitter Islands)	Square Yard

The Engineer will pay for excavation of unsuitable Material and backfill with material acceptable to the Engineer under Section 203 – Excavation and

142 embankment. If no pay item exists, refer to Subsection 104.20 – Changes.

143
144 The pay unit price per square yard for “Stamped Textured Cement
145 Concrete” shall include all costs for the labor, materials and tools necessary to
146 construct the “Stamped Textured Cement Concrete” including all preparation of
147 the subgrade, all joints, sawcutting, any special forming around manhole lids or
148 other utility features shown in the plans or as required to complete the work. No
149 measurement for the job-site samples will be made and all costs in preparing and
150 providing test samples shall be included in the unit contract cost for “Stamped
151 Textured Cement Concrete” that is permanently placed.”

152
153
154 **END OF SECTION 413**

1 **SECTION 503 - CONCRETE STRUCTURES**
2

3 Make the following amendments to said Section:
4

5 **(I)** Amend **503.04 – Measurement** by revising lines 1201 to 1205 to read as
6 follows:
7

8 **“503.04 Measurement.** Concrete will be paid on a lump sum basis.
9 Measurement for payment will not apply.
10

11
12 **(II)** Amend **503.05 – Payment** by revising lines 1206 to 1223 to read as
13 follows:
14

15 **“503.05 Payment**

16
17 The Engineer will pay for the following pay item when included in the
18 proposal schedule:
19

20 Pay Item	21 Pay Unit
22 Concrete in Retaining Wall	23 Lump Sum

24 The Engineer will pay for excavation and backfill for foundations in
25 accordance with and under Section 205 – Excavation and Backfill for Bridge and
26 Retaining Structures and Section 206 – Excavation and Backfill for Drainage
27 Facilities.”
28

29 The Engineer will pay for reinforcing steel in accordance with and under
30 Section 602 – Reinforcing Steel
31

32
33
34 **END OF SECTION 503**
35

Amend **Section 511 - Drilled Shafts** to read as follows:

“SECTION 511 - DRILLED SHAFTS

511.01 Description. This section is for installing, drilling, reinforcing, and concreting of drilled shafts in the locations shown on the plans and in accordance with the Geotechnical Engineering Exploration, Pavement Justification Report, Intersection Improvements at Bayfront Highway, Hilo, Hawaii by Geolabs, Inc., dated September 16, 2022.

511.02 Materials. Materials shall conform to the following:

(A) Portland Cement Concrete. Concrete shall conform to Section 601 - Structural Concrete and Section 511 – Drilled Shafts.

The in-place concrete shall have minimum 28-day compressive strength f'_c = 4500 pounds per square inch and maximum water to cement ratio of 0.45 based on a maximum cementitious material content of 640 pounds per cubic yard.

Proportion the concrete mix designs to get properties of high workability, compaction under self-weight, resistance to segregation, and resistance to excessive bleeding. The maximum nominal aggregate size shall be 0.75 inch. The slump range shall be 7.0 inches $\pm$ 1.0 inch for concrete poured into a water free borehole and 8.0 inches $\pm$ 1.0 inch for concrete placed under water or under drilling slurry. Slump for the concrete shall be a minimum of four inches after four hours from initial mixing or after the completion of the concrete placement, whichever occurs later. Superplasticizers shall be allowed.

At the time of placement, measured at the point of discharge or at concrete pump, the concrete temperature shall not exceed 85°F. The temperature of the concrete during curing should not exceed 168°F unless the Contractor can justify higher temperatures and it is acceptable to the Engineer.

(B) Reinforcing Steel. Reinforcing steel shall conform to Section 602 - Reinforcing Steel. Federal Aid projects shall comply with “Buy America” requirements.

(C) Casings. Casings shall have inside diameters not less than the required diameter of the shafts and wall thicknesses specified or adequate to withstand construction loads and stresses.

511.03 Preconstruction Requirements.

(A) Installation Plan. At least 30 days before constructing the drilled shafts, submit an installation plan for acceptance by the Engineer. This plan shall at a minimum provide information on the following:

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- (1) Name and experience record of drilled shaft superintendent who will be in charge of drilled shaft operations for this project. Drilled shaft superintendent shall have minimum three years of experience within the last 10 years in drilled shaft construction similar to type proposed.,
 - (2) List of proposed equipment such as cranes, drills, augers, bailing buckets, final cleaning equipment, concrete pumps, and casing,
 - (3) Details of construction operation sequence,
 - (4) Details of shaft excavation methods including how the excavated material from the drilled shaft will be controlled on site and removed; and method of setting and extracting temporary casing,
 - (5) If the Contractor plans to use slurry, details of the methods to mix, circulate and desand slurry,
 - (6) Details of methods to clean the shaft excavation,
 - (7) Details of reinforcement placement including lifting, support, and centralization methods,
 - (8) Details of concrete placement including proposed operational procedures for pumping method, and
 - (9) Proposed concrete mix design, including expected strengths at 3, 7, 14, and 28 days. Submit test results of a trial mix test, a slump loss test, and a unit weight test using two, 6-inch by 12-inch concrete cylinders conducted by an accredited testing laboratory using methods specified in Section 601 - Structural Concrete. Tests shall demonstrate that concrete meets 4-hour plasticity requirement at expected ground ambient temperature and at highest expected ambient air temperature (two separate slump loss tests required).

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The Engineer will evaluate the drilled shaft installation plan for conformance with the contract documents. Within 30 days after receipt of the plan, the Engineer will notify the Contractor of additional information required including if applicable, changes necessary to meet the contract requirements. The Engineer will reject parts of the installation plan that are unacceptable. The Contractor shall resubmit changes for re-evaluation within 15 days. The Engineer will have another 30 days to review all resubmittals. Procedural acceptance given by the Engineer shall be subject to trial in the field. The acceptance shall not relieve the Contractor of the responsibility to complete the work according to the contract.

95
96

511.04 Construction Requirement. This subsection shall be applicable to production drilled shafts unless otherwise directed by the Engineer.

97
98 **(A) Construction Sequence.** Complete the excavation to footing elevations
99 before shaft construction begins. Repair the disturbances caused by shaft
100 installation to the footing area before pouring the footing.
101

102 When installing drilled shafts with embankment placement, construct drilled
103 shafts after the placement of fills.
104

105 Do not cap the drilled shafts before placing the fills as near to final grade as
106 possible. Only leave room for construction of the caps.
107

108 Footings are set on the subgrade soil. Pier Caps are constructed on the pier.
109 Footing and pier cap elevations are referenced to the bottoms of the footings and
110 pier caps.
111

112 **(B) Construction Methods.** Excavate for shafts to the dimensions and
113 elevations shown in the contract. Its methods and equipment shall be suitable for
114 the intended purpose and materials met. Use the permanent casing method only
115 when required by the contract or authorized by the Engineer. Blasting shall not be
116 permitted.
117

118 **(1) Dry Construction Method.** The dry method includes drilling the
119 shaft excavation, removing accumulated water and loose material from the
120 excavation, and placing the reinforcing cage and shaft concrete in a dry
121 excavation. Use this method only at sites where the groundwater table and
122 soil conditions are suitable to permit construction of the shaft in a dry
123 excavation. The Engineer will inspect the sides and bottom of the shaft
124 visually before placing the concrete. Dry excavation is defined as an
125 excavation where maximum depth of water does not exceed 3 inches.
126

127 **(2) Wet Construction Method.** This method includes using water,
128 mineral, or polymer slurry to maintain stability of the hole perimeter while
129 advancing the excavation to final depth, placing the reinforcing cage, and
130 concreting the shaft. Use this method at sites where a dry excavation for
131 placement of the shaft concrete cannot be maintained. Contractor needs
132 to use methods, procedures, and equipment to contain all fluids used and
133 generated by this method within the work area. Reusing of drilling water
134 shall not be permitted.
135

136 **(3) Casing Construction Method.** The casing method may be used
137 when shown in the contract or at sites where the dry or wet construction
138 methods are inadequate. The casing may be placed either in a predrilled
139 hole or advanced through the ground by twisting, driving, before cleaning
140 the casing.
141

142 **(C) Excavation.**
143

(1) **General.** Make the shaft excavations at locations, and to shaft geometry and dimensions shown in the contract. A Geotechnical Engineer shall be on site during construction to determine depth to adjust drilled shaft tip elevations based on the soil conditions encountered during drilling. After acceptance by the Engineer, adjust drilled shaft tip elevations when the material met during excavation is unsuitable and/or differs from that anticipated in the design of the drilled shaft.

Maintain a construction method log during shaft excavation. Submit method log within 24 hours of shaft drilling completion. The log shall contain information such as:

- (a) Excavation diameters;
- (b) Equipment used;
- (c) Type of material excavated with the elevations of the material;
- (d) Drilling rate (minutes/foot) including time drilling started, when different material is encountered, tool changes, finish of shaft excavation, and difficulties encountered;
- (e) The description of and approximate top and bottom elevation of each soil or rock material encountered.
- (f) Elevation and approximate rate of any seepage or groundwater; and
- (g) Remarks, including temporary stoppages

Contractor shall include marks on the drilling equipment that the inspector can reference to note the drill depth to estimate the drilling rate information and estimated depth of material changes or obstructions during drilling.

Drilling of shafts within a horizontal distance of 3.0 times the shaft diameter to the hole being drilled, measured from center to center, shall not commence until a minimum of 24 hours after the drilled shaft has been completed by placement of concrete to the top of shaft elevation in order to avoid interaction effects between adjacent shafts.

Furnish drilled shaft concrete required to fill excavations for shafts dimensioned in the contract documents.

Any drilled shaft concrete over the theoretical amount required to fill any excavations for the shafts dimensioned on the plans shall be furnished at no additional cost.

192
193 Dispose the excavated material according to Section
194 203 - Excavation and Embankment.
195

196 Do not permit workers to enter the shaft excavation unless:
197

198 (a) A suitable casing is in place.
199

200 (b) The water level is lowered and stabilized below the level the
201 workers will occupy, and
202

203 (c) Adequate safety equipment and procedures are provided,
204 performed and in place.
205

206 **(2) Excavation and Drilling Equipment.** The excavation and drilling
207 equipment shall have adequate capacity including power, torque, and down
208 thrust to excavate a hole to the maximum diameter and to a depth of ten
209 feet or 20% beyond the depths shown in the contract, whichever is greater.
210

211 The use of special drilling equipment and/or procedures will be
212 necessary to drill through the hard coral, cobbles, boulders, tuff and basalt.
213 The Contractor shall anticipate an abundance of boulders of various sizes
214 and shall make allowance for difficult drilling in his bid.
215

216 The excavation and overreaming tools shall be of adequate design,
217 size, and strength to do the work shown in the contract.
218

219 (a) **Special Drilling Equipment.** When conventional earth
220 augers and/or underreaming tools cannot be used for drilling, provide
221 special drilling equipment including rock core barrels, rock tools, air
222 tools and other equipment as necessary to construct the shaft
223 excavation to the size and depth required. The use of special drilling
224 equipment and/or procedures will be necessary to drill through the
225 cobbles, boulders, tuff and basalt and cost shall be incidental to
226 unclassified shaft excavation.
227

228 (b) **Sidewall Overreaming.** When the sidewall of the hole has
229 softened, swelled, or degraded, sidewall overreaming will be
230 required by the Engineer. Overreaming thickness shall be a
231 minimum of 0.5 inch and a maximum of 3.0 inches. The Contractor
232 may overream with a grooving tool or overreaming bucket. The
233 thickness and elevation of sidewall overreaming shall be according
234 to the contract or as directed by the Engineer. A Geotechnical
235 Engineer shall be on site during construction to determine the
236 thickness and depth of the overreaming. Overream sidewall and
237 place additional shaft concrete at no cost to the State.
238

239 **(3) Unclassified Excavation.** All excavation for the production drilled
240 shafts shall be designated as unclassified. The Contractor shall anticipate
241 the presence of cobbles and boulders within the depths of the drilled shafts.
242 The Contractor shall provide the necessary equipment to remove and
243 dispose of materials encountered in forming the drilled shaft excavation,
244 including installation of temporary casing and/or use of slurry, as necessary.
245 The Engineer will not make separate payment for excavation of materials
246 of different densities and character (hardness) or employment of special
247 tools and procedures necessary to excavate. The Engineer will pay for
248 obstruction removal separately.

249
250 **(4) Obstructions Removal.** Remove obstructions at drilled shafts
251 locations when authorized by the Engineer. Obstructions shall include
252 man-made materials such as but not limited to old concrete foundations not
253 shown on the Plans.

254
255 The Contractor shall employ special procedures and/or tools after
256 the Contractor cannot advance the hole using conventional augers fitted
257 with soil or rock teeth, drilling buckets, core barrels and/or underreaming
258 tools. Such special procedures/tools may include: chisels, boulder
259 breakers, air tools, hand excavation, temporary casing, and increasing the
260 hole diameter.

261
262 Drilling tools and any other equipment, lost in excavation, are not
263 considered obstructions. Remove the drilling tools and any other equipment
264 promptly. The cost due to tools lost in the excavation shall be at no
265 additional cost to the State including costs associated with hole degradation
266 (requiring overreaming or other methods) due to removal operations or the
267 time the hole remains open or any other remedial actions needed to be
268 performed to correct the situation caused by the tool lost.

269
270 Natural materials used as fill materials such as cobbles and boulders
271 shall be anticipated at the site during excavation and shall not be considered
272 an obstruction regardless of the size and hardness of the boulder. These
273 natural materials used as fill materials shall not be considered an
274 obstruction under this section.

275
276 **(D) Casings.**

277
278 **(1) Temporary Casing.** The Engineer will consider subsurface casing
279 temporary unless shown in the contract as permanent casing. Remove the
280 temporary casing before completing the placing of concrete in the drilled
281 shaft. The Contractor may require telescoping, predrilling with slurry, and/or
282 overreaming to beyond the outside diameter of the casing to install casing.

283
284 When choosing to remove a casing and substituting a longer or
285 larger diameter casing through caving soils, stabilize the excavation with
286 slurry or backfill before installing the new casing.

287
288 Before withdrawing the casing, the level of fresh concrete in the
289 casing shall be the higher of the following:

290
291 (a) Minimum of five feet above the hydrostatic water level, or

292
293 (b) Level of drilling fluid, outside the casing.

294
295 While withdrawing the casing, maintain an adequate level of
296 concrete within the casing to:

297
298 (a) Displace the fluid trapped behind the casing upward and

299
300 (b) Discharge the fluid at the ground surface without
301 contaminating or displacing the shaft concrete.

302
303 When temporary casings become bound or fouled during shaft
304 construction and cannot be removed, the Engineer will consider the drill
305 shaft defective. Improve such defective shafts according to the contract or
306 submit remedial repair for acceptance by the Engineer. Such improvement
307 may consist of removing the shaft concrete and extending the shaft deeper,
308 providing straddle shafts to compensate for capacity loss, or providing a
309 replacement shaft. Do corrective measures including redesign of pier caps
310 caused by defective shafts according to the contract at no cost to the State
311 or extension of the contract time. Any redesign of the pier cap shall be
312 submitted to the Engineer for acceptance. The redesign shall be performed
313 by a structural engineer and a civil engineer specializing in the geotechnical
314 practice both licensed in the State of Hawaii. All remedial repairs shall have
315 drawings and calculations signed and stamped by both of the above
316 licensed engineers. The Engineer will not pay for the casing remaining in
317 place as well as any redesign or remedial repair.

318
319 **(E) Slurry.** Drilling slurry will not be allowed.

320
321 **(F) Excavation Inspection.** Provide equipment for checking the dimensions
322 and alignment of each permanent shaft excavation. Determine the dimensions
323 and alignment according to the contract. Measure the final shaft depths with a
324 suitable weighted tape after final cleaning.

325
326 A minimum of 50% of the base of each shaft shall have less than 0.5 inch
327 of sediment at the time the concrete is placed. The maximum depth of sediment
328 or debris on the base of the shaft shall not exceed 1.5 inches. The Contractor will
329 dewater the shaft, as needed, and measure the shaft cleanliness in the presence
330 of the Engineer by methods deemed appropriate to the Engineer.

331
332 Also, for dry excavations the maximum depth of water shall not exceed 3
333 inches before pouring the concrete.

(G) Reinforcing Steel Cage Construction and Placement. Assemble and place the reinforcing steel cage immediately after the Engineer inspects and accepts the shaft excavation before pouring the concrete. To prevent deformation of the cage while lifting, brace the reinforcing steel cage until the cage is set in its final position. The reinforcing steel cage includes longitudinal bars, ties, cage stiffener bars, spacers, centralizers, and other necessary appurtenances to acceptably complete and place the cage.

Tie and support the reinforcing steel in the shaft so that the reinforcing steel will remain within allowable tolerances given in Subsection 511.05(I) – Construction Tolerances. Use the concrete spacers or other approved non-corrosive spacing devices at sufficient intervals (near the bottom and at intervals not exceeding 10 feet up the shaft) to insure concentric spacing for the entire cage length. Use minimum of four spacers, equally spaced around circumference, at each vertical interval. The spacers shall be constructed of accepted material equal in quality and durability to concrete specified for the shaft, and shall be of adequate dimension to insure a minimum of four inches annular space between the outer portion of the reinforcing steel cage and the side of the excavated hole. Provide accepted cylindrical concrete bottom supports to maintain the proper distance between bottom of the cage and base of the shaft excavation.

Check the elevation of the top of the steel reinforcing cage and center of cage location before, during and after pouring the concrete. When not maintaining the rebar within the specified tolerances, make the corrections needed to bring to within tolerances of the contract. Do not construct additional shafts until after modifying the reinforcing steel cage support according to the contract.

If the depth of the drilled hole is deeper than that shown on the contract documents, the over-drilled portion shall be filled with concrete during the pouring of the drilled shaft concrete. Provide necessary support at the bottom of the drilled hole to elevate the cage to the design elevation.

(H) Concrete Placement.

(1) General. Place the concrete in the drilled shafts using a concrete pump and tremie pipe or other means as accepted by the Engineer using accepted methods as described below.

Concrete shall be placed in the shaft immediately after placing the reinforcing steel.

Concrete placement for the production drilled shaft shall be continuous from the bottom to at least the top of shaft cutoff elevation and until good quality concrete emerges above the top of the shaft cutoff elevation.

A minimum of four and two, 6-inch by 12-inch concrete cylinders shall be made for the compressive strength testing and unit weight testing,

respectively. Cylinders shall be stored and cured in accordance with the methods specified in Section 601 - Structural Concrete. Production shafts with compressive strength less than the minimum 28-day compression strength will be considered defective. Production shafts with air-dry core sample unit weight less than three pounds per cubic foot of the air-dry unit weight test cylinders will be considered defective. Contractor shall submit a corrective method plan for the defective shaft to the Engineer for review and approval prior to their use.

The elapsed time from the beginning of concrete placement in the shaft to the completion of the placement shall not exceed two hours. Adjust admixtures accepted by the Engineer so that concrete remains in a workable plastic state throughout 2-hour placement limit. A longer placement time may be requested, and requests shall be submitted to the Engineer for review and acceptance 30 days prior to the time the concrete pour (with a longer placement time) is needed. Should the Contractor exceed the 2-hour limit without obtaining prior acceptance by the Engineer, the Contractor may be required to core the drilled shaft. These drilled shaft corings shall be at no additional cost to the State and no additional time will be granted.

Before placing the concrete, provide results of 3-day, 7-day, 14-day and 28-day compressive strength tests of a trial mix and a slump loss test at least 30 days prior to placement of concrete. Supply a concrete mix that will maintain a slump of four inches or greater after four hours from initial mixing. Conduct the trial mix and slump loss tests using concrete and under ambient temperatures appropriate for the site conditions. The ambient temperature used shall be the temperature at the elevation of existing ground before any excavation started.

The top surface of the drilled shafts shall be leveled, cleaned, and roughened prior to concrete placement for the footing.

(2) Monitoring Concrete Volume. For each drilled shaft, prepare and submit a monitoring record the next working day after concrete placement has been completed. All monitoring shall be performed in the presence of the Engineer or his representative. As a minimum, the monitoring record shall consist of the following:

(a) A chart that is made up after drilled shaft excavation has been completed and accepted by the Engineer and before concrete placement has commenced. Indicated on the chart, depth of hole plotted with theoretical volume of concrete to fill drilled shaft hole. Plot concrete elevation (surface) along the vertical axis and concrete volume along the horizontal axis.

(b) As concrete is being place, measure concrete surface at an interval of approximately each cubic yard of concrete discharged.

Plot concrete volume actually placed at each elevation point. Use this chart to determine if any necking down or enlargement of shaft has occurred during concrete placement.

(c) Keep records of steel and concrete movement to document the following conditions:

(1) When removing temporary or permanent casing, elevation of the top of reinforcing cage shall not rise more than 2 inches from its original elevation;

(2) As temporary casing is extracted, static level of fluid concrete shall not rise.

(3) Concreting by Pump. Concrete pumps and discharge lines for concrete placement in wet or dry excavations shall be used. Pumps and pump lines used to place concrete shall be of sufficient length, weight, and diameter to discharge concrete at the shaft base elevation. The pump and pump lines that will come in contact with concrete shall not contain aluminum parts. Discharge line shall have a minimum diameter of 4 inches and watertight joints. Concrete placement shall not begin until the pump line discharge orifice is at the shaft base elevation.

For wet excavations, use a plug to separate the concrete from the fluid in the hole until pumping begins. Remove the plug from the excavation or use plugs, made from a material accepted by the Engineer that will not cause a defect, if not removed.

The discharge orifice shall remain at least five feet below the surface of the fluid concrete. When lifting the pump line during concreting, reduce the line pressure temporarily until the orifice at a higher level in the excavation has been repositioned.

Upon removal of the pumpline orifice from the fluid concrete column and/or discharging concrete above the rising concrete level during the concrete pour, the Engineer will consider the shaft defective. In such a case, remove the reinforcing cage and concrete, the necessary sidewall removal specified by the Engineer, and repour the shaft. Costs of replacement of defective shafts shall be at no costs to the State and no additional time will be granted.

(l) Construction Tolerances. The following construction tolerances apply to drilled shafts:

(1) The center of the drilled shaft concrete and reinforcing bars shall be within 1/12 of the shaft diameter or 3 inches, whichever is less, in the horizontal plane at the plan elevation for the top of the shaft.

(2) The vertical alignment of the shaft excavation shall not vary from the plan alignment by more than 0.25 inch per foot of depth.

(3) After placing the concrete, the top of the reinforcing steel cage shall be no more than 6.0 inches above and no more than 3.0 inches below plan position.

(4) The cutoff (top) elevation of the shaft shall have a tolerance of ± 0.5 inch from the plan top of shaft elevation.

(5) The dimensions of casing are subject to American Pipe Institute tolerances applicable to regular steel pipe.

(6) Design the excavation equipment and methods so that the completed shaft excavation will have a flat bottom. The cutting edges of excavation equipment shall be normal to the vertical axis of the equipment within a tolerance of $\pm 3/8$ inch per foot of diameter.

Drilled shaft excavations that cannot be completed within the required tolerances are unacceptable. When accepted by the Engineer, corrections may be made to an unacceptable drilled shaft excavation by accepted combination of the following methods:

(1) Overdrill the shaft excavation to a larger diameter to permit accurate placement of the reinforcing steel cage with the required minimum concrete cover.

(2) Increase the number, size, or length of the reinforcing steel.

(3) Redesign the foundation.

(4) Other methods accepted by the Engineer.

The acceptance of correction procedures is dependent on analysis of the effect of the degree of misalignment and improper positioning. The Contractor is solely responsible to submit remedial repair procedures that shall make the structure equal to or better than the original design. The Engineer will solely determine if the remedial repair meets the requirements and is acceptable. A Hawaii Licensed Professional Structural Engineer and a Hawaii Licensed Professional Civil Engineer who specializes in Geotechnical Engineering shall stamp and sign the redesign drawings and computations. Correct out of tolerance drilled shaft excavations including engineering analysis and redesign at no cost to the State. No time extension will be granted for any impact to the critical path due to the Contractor's incorrect installation of the drilled shaft.

525 **(J) As-Built Drilled Shaft Location.** The Contractor shall provide survey
526 ties to all as-built location of all drilled shafts. All survey work shall be done by a
527 surveyor licensed in the State of Hawaii.
528

529 The Contractor shall notify the Engineer prior to performing the survey work
530 and the Contractor shall survey the drilled shafts under the supervision of the
531 Engineer or the Engineer's representative. A copy of the survey notes and the
532 scaled plan locating all the completed drilled shafts for each footing shall be
533 submitted to the Engineer for review and acceptance. The submitted plan shall
534 show the plan location of the drilled shafts and the as-built location, indicate that
535 difference in location if any. The submittal shall be stamped and signed by the
536 Hawaii licensed surveyor who did the work. Submit accepted copy of the survey
537 notes and the scaled plan.
538

539 No form work for any footing shall proceed until the drilled shafts are found
540 acceptable by the Engineer.
541

542 **(K) Integrity Testing.** Drilled shafts shall be visually inspected and tested for
543 density, strength and soundness. Integrity testing will be performed on drilled
544 shafts as determined by the Engineer. Integrity testing shall consist of partial or
545 full depth concrete coring at drilled shafts determined by the Engineer. Coring
546 shall be performed by the Contractor at the locations designated by the Engineer
547 in the presence of the Engineer. The Engineer will solely determine if the cored
548 shaft is acceptable or defective. Defective shafts shall be replaced or repaired
549 using drawings and computations by a Hawaii Licensed Professional Engineers in
550 the Structural Branch and Civil Branch (specializing in the Geotechnical field) in
551 the employment of the Contractor. The drawings and computations shall be
552 stamped and signed. The Contractor shall submit the drawings and computations
553 for acceptance to the Engineer. The Engineer may reject the submittal and have
554 the contractor resubmit its proposal until, in the sole opinion of the Engineer, it is
555 acceptable. If no acceptable proposal is made by the Contractor, the Engineer may
556 provide one. The Contractor shall reimburse the Engineer the design and
557 administration costs in a manner acceptable to the Engineer, e.g., deduction from
558 monthly payment, check to the State of Hawaii. Costs of the repair shall be solely
559 borne by the contractor; no contract time will be given. The Contractor shall core
560 vertical holes at locations and depths determined by the Engineer. The number of
561 core holes to be done shall be determined by the Engineer. The core hole shall
562 be accepted by the Engineer. The recovered core samples shall have a minimum
563 diameter of 3.3 inches or 3 times the nominal maximum aggregate size of the
564 concrete mix, use whichever is larger. When cores that are recovered are too small
565 for compression testing, it may be used to reject the shaft or be an indicator that
566 the drilled shaft is defective and needs remedial repairs.
567

568 Provide concrete cores properly marked in a core box with labels of the
569 drilled depth at each interval of core recovery to the Engineer for evaluation and
570 testing. Cores shall be stored and cured in accordance with the methods specified
571 in Section 601 - Structural Concrete. The Engineer will be allowed a minimum of
572 7 working days for evaluation and testing of the core samples. The cored holes

shall be filled with prepackaged, non-shrink, non-metallic, non-gaseous grout of the same minimum strength as the drilled shaft.

Cost of coring performed on acceptable production drilled shafts with no defects will be borne by the State. Cost of coring performed on any drilled shaft that has defects shall be borne by the Contractor. If the drilled shaft in question is on the critical path, a time extension and the linear foot payment for coring will be the sole remedy given if the drilled shaft has no defects. The delay will be calculated from the end of the 20 working days review period of the cores to when the last core was taken. Contractor shall submit a corrective methods plan for the defective shafts to the Engineer for review and approval prior to their use. The corrective methods plan shall restore the defective drilled shaft to a condition equal or better than that of a drilled shaft that had no defects. Do not begin repair operations until receiving the Engineer's acceptance of the corrective methods plan for that defective drilled shaft.

511.05 Measurement.

(A) The Engineer will measure unclassified shaft excavation per linear foot, along shaft centerline. The Engineer will compute length between plan top of shaft elevation to plan estimated tip elevation. Furnishing drilled shaft drilling equipment shall be considered incidental to unclassified shaft excavation.

(B) The Engineer will measure drilled shaft per linear foot. The Engineer will compute length between plan top of shaft elevation and final bottom of shaft elevation. Construction of the square pedestals at the tops of the drilled shafts shall be considered incidental to drilled shafts.

511.06 Payment. The Engineer will pay for the accepted pay items listed below at the contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for each of the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Unclassified Shaft Excavation (30-inch Diameter)	Linear Foot
Drilled Shaft (30-inch Diameter)	Linear Foot

END OF SECTION 511"

1 **DIVISION 600 - MISCELLANEOUS CONSTRUCTION**

2
3 Amend **Section 601 - STRUCTURAL CONCRETE** to read as follows:

4
5 **SECTION 601 - STRUCTURAL CONCRETE**

6
7
8 **601.01 Description.** This section describes structural concrete consisting of
9 Portland Cement, fine aggregate, coarse aggregate, and water. This will include
10 adding admixtures for the purpose of entraining air, retarding or accelerating set,
11 tinting, and other purposes as required or permitted.

12
13 **601.02 Materials.**

14

15 Portland Cement	701.01
16	
17 Fine Aggregate for Concrete	703.01
18	
19 Coarse Aggregate for Portland Cement Concrete	703.02
20	
21 Admixtures	711.03
22	
23 Water	712.01

24

25 Use coarse aggregate for lightweight concrete conforming to ASTM C330
26 except Sections 5, 7 and 9.

27
28 **601.03 Construction.**

29
30 **(A) Quality Control.** Portland Cement concrete production requires
31 Contractor responsibility for quality control of materials during handling,
32 blending, mixing, curing, and placement operations.

33
34 Sample, test, and inspect concrete to ensure quality control of
35 component materials and concrete. Sampling and testing for quality control in
36 accordance with standard methods shall be performed by certified ACI
37 Concrete Field Technician Grade I. Perform quality control tests for slump, air
38 content, temperature, and unit weight during production of structural concrete
39 other than concrete for incidental construction. Submit quality control test
40 results.

41 **(B) Design and Designation of Concrete.** Design concrete mixture for
42 concrete work specified. Submit mix design using State Highways Division
43 form DOT 4-151 or an Engineer accepted equivalent form. Do not start work
44 until the Engineer accepts mix design. The Engineer will accept concrete mix
45 design using information given in Table 601.03-1 - Design of Concrete, and
46 other pertinent requirements.

47
48 Whenever 28-day compressive strength, f'_c , is 4,000 psi or greater,
49 designate concrete by required minimum 28-day compressive strength.
50

51 The 28-day compressive strength, f'_c , less than 4,000 psi listed in Table
52 601.03-1 – Design of Concrete, is for design information and designation of
53 class only.
54

55 Proportion concrete designated by compressive strength such that
56 concrete conforms to required strength.
57

58 Design concrete placed in bridge decks and pavements exposed to
59 traffic wear, with air content of 3 percent, including entrapped and entrained
60 air. Maintain air content for plastic concrete within tolerance of 1 percent air
61 content, plus or minus, during the work.
62

63 Use Class BD concrete in bridge deck unless concrete is designated by
64 compressive strength. Incorporate anti-corrosion and shrinkage reduction,
65 water-reducing and set-retarding admixture into concrete mix design, with
66 capability of varying degree of retardation without adversely affecting other
67 characteristics of concrete. Submit design admixture dosage.
68

69 Class A concrete shall be used when type of concrete is not indicated in
70 the contract documents.
71

72 Design concrete as specified in Table 601.03-1 – Design of Concrete.
73

TABLE 601.03-1 - DESIGN OF CONCRETE (800 Maximum Cement Content lbs./c.y.)					
Class of Concrete	28-Day Strength f_c, psi.	Minimum Cement Content lbs./c.y.	Maximum Water-Cement Ratio, lb./lb.	Minimum Cement Content with Mineralized CO2 lbs./c.y.	Maximum Water-Cement Ratio with Mineralized CO2 lb./lb.
A	3000	532	0.59	504	0.62
B	2500	475	0.66	450	0.70
C	2000	418	0.75	396	0.79
D	1500	380	0.85	360	0.87
BD	3750	610	0.49	NA	NA
SEAL	3000	610	0.55	NA	NA
Designated by Strength f_c or f_r	As Specified	610	0.49	NA	NA
f_r = Specified Modulus of Rupture					

Use the absolute volume method to proportion concrete materials in accordance with requirements of concrete designated by class, cement content in pounds per cubic yards, or specified 28-day compressive strength. Use absolute volumetric proportioning methods as outlined in the American Concrete Institute (ACI) Standard 211.1, "Recommended Practices for Selecting Proportions for Normal and Heavyweight Concrete."

Use coarse aggregate size No. 57 (one inch to No. 4) or No. 67 (3/4 inch to No. 4) for concrete. For concrete placed in bottom slabs and stems of box girders, use No. 67 size aggregate. Smaller size aggregates may be permitted when encountering limited space between forms and reinforcement or between reinforcement when accepted by the Engineer in writing. Maximum aggregate size shall not be greater than 1/3 of the space between reinforcing steel bars or reinforcing steel and the form.

Use the following standard methods in Table 601.03-2 – Standard Methods for determining compliance with requirements indicated in this subsection:

TABLE 601.03-2 – STANDARD METHODS	
Sampling Fresh Mixed Concrete	AASHTO T 141
Mass Per Cubic Meter (Cubic Foot) Yield and Air Content (Gravimetric) of Concrete	AASHTO T 121
Slump of Hydraulic Cement Concrete	AASHTO T 119
Air Content of Freshly Mixed Concrete by the Pressure Method	AASHTO T 152
Specific Gravity and Absorption of Fine Aggregate	AASHTO T 84
Specific Gravity and Absorption of Coarse Aggregate	AASHTO T 85
Temperature of Freshly Mixed Portland Cement Concrete	ASTM C1064
Making and Curing Concrete Test Specimens in the Field	AASHTO T 23
Compressive Strength of Molded Concrete Cylindrical Specimens	AASHTO T 22 (4 inch by 8 inch or 6 inch by 12 inch cylinders)
Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)	AASHTO T 97

When concrete is designated by compressive strength, f'_c , or flexural strength, f'_r , or includes CO₂ Mineralization technology, CSH-SEA or SCMs, the Engineer will require prequalification of materials and mix proportions proposed for use before placing such concrete. The Engineer will prequalify concrete based on past performance records using statistical computations of population sizes and (n-1) weighting, or trial batch test reports in compliance with computed minimum average strength for material and mix proportions. The Engineer will determine minimum average strength on probability of not more than one in 20 tests falling below specified strength for the following conditions:

(1) When past performance records are available, furnish the following documented performance records:

(a) Minimum of 15 consecutive 28-day strength tests from projects having same materials and mix proportions.

(b) Two groups totaling 30 or more test results representing similar materials in which mix proportion strengths are within 20 percent of specified strength, from data obtained within one year of proposed use.

The Engineer will analyze performance records to establish standard deviation.

(2) When sufficient past performance records are not provided, the Engineer will assume current standard deviation to be 500 psi for compressive strength, f'_c , and 50 psi for flexural strength, f'_r .

Unless sufficient performance records are available from other projects at DOT Materials Testing and Research Branch, submit test performance records or trial test reports for prequalifications, based on data of most recent tests made on concrete of proposed mix design, and data obtained within one year of proposed use.

When shrinkage reducing admixtures are used, submit test results showing compliance to the Contract Documents' requirements.

Include the following information in test data and trial batch test reports: date of mixing; mixing equipment and procedures used; size of batch in cubic yards and weight, type, and source of ingredients used; slump of concrete; air content of concrete when using air entraining agent; age at time of testing; and strength of concrete cylinders tested.

141 Show that concrete strength tests equal or exceed minimum average
142 strength in trial test reports. Test is average 28-day test results of five
143 consecutive concrete cylinders or concrete beams taken from single batch. No
144 cylinder or beam shall have strength less than 85 percent of minimum average
145 strength.

146
147 Submit test data and trial test reports signed by official of firm that
148 performed tests.

149
150 The Engineer reserves the right to stop work when a series of low
151 strength tests occur. Do not continue concrete work until cause is established
152 and the Engineer is informed of and accepts, necessary corrective action to be
153 taken.

154
155 **(C) Batching.** Measure and batch materials in accordance with the
156 following provisions:

157
158 **(1) Portland Cement.** Either sacked or bulk cement may be used.
159 Do not use fraction of sack of cement in concrete batch unless cement
160 is weighed.

161
162 Weigh bulk cement on weighing device accepted by the Engineer. Seal
163 and vent bulk cement-weighing hopper properly to preclude dusting
164 during operation. Do not suspend discharge chute from weighing
165 hopper. Arrange discharge chute so that cement will not lodge in
166 hopper or leak from hopper.

167
168 Batching accuracy shall be within 1 percent, plus or minus, of
169 required weight.

170
171 **(2) Water.** Measure water by volume or by weight. Use readily
172 adjustable device for measurement of water, with accuracy within 1
173 percent, plus or minus, of quantity of water required for batch. Arrange
174 device so that variable pressure in water supply line does not affect
175 measurements. Equip measuring tanks with outside taps and valves or
176 other accepted means to allow for checking calibration.

177
178 **(3) Aggregates.** When storing and stockpiling aggregates, avoid
179 separation of coarse and fine particles within each size, and do not
180 intermix various sizes before proportioning. Protect stored or stockpiled
181 aggregates from dust or other foreign matter. Do not stockpile together,
182 aggregates from different sources and of different gradations.

When transporting aggregates from stockpiles or other sources to batching plant, ensure uniform grading of material is maintained. Do not use aggregates that have become segregated or mixed with earth or foreign matter. Stockpile or bin aggregates at least 12 hours before batching. Produce or handle aggregates by hydraulic methods and wash and drain aggregates. If aggregates exhibit high or non-uniform moisture content, the Engineer will order storage or stockpiling for more than 12 hours.

Proportion aggregates by weight, with the exception that aggregates in concrete for minor structures, curbs, and sidewalks may be proportioned by either volume or weight. For volumetric proportioning, use measuring boxes of known capacity to measure quantity of each aggregate size.

Use batch weight based on dry materials plus total weight of moisture (both absorbed and surface) contained in aggregate. Measure individual aggregates to within 2 percent, plus or minus, of required weight, and total weight of aggregates to within 1 percent, plus or minus, of required weight.

(4) Admixtures. Store, proportion, and dispense admixtures in accordance with the following provisions:

(a) Liquid Admixtures. Dispense chemical admixtures, air entraining admixtures, and corrosion inhibiting admixtures in liquid form. Use mechanical dispensers for liquid admixtures with sufficient capacity to measure prescribed quantity for each batch of concrete. Include graduated measuring unit in each dispenser to measure liquid admixtures to within 5 percent, plus or minus, of prescribed quantity for each batch. Read graduations accurately from point of measuring unit, and control proportioning operations to permit visual check of batch accuracy before discharging. Mark each measuring unit clearly for type and quantity of admixture.

Arrange with supplier to provide sampling device consisting of valve located in safe and accessible location for sampling admixtures.

When using more than one liquid admixture for concrete mix, use separate measuring unit for each liquid admixture and dispense separately to avoid interaction that may interfere with admixture efficiency and adversely affect concrete. Dispense liquid admixture by injecting so as not to mix admixture at high concentrations.

When using liquid admixtures in concrete that is completely mixed in paving or continuous mixers, operate dispensers automatically with batching control equipment. Equip such dispensers with automatic warning system that shall provide visible or audible signals at points where proportioning operations are controlled, when the following occurs:

- a. Quantity of admixture measured for each batch of concrete varies from pre-selected dosage by more than 5 percent; or
- b. Entire contents of measuring unit from dispenser is not emptied into each batch of concrete.

Unless liquid admixtures are added to batch with pre-measured water, discharge liquid admixtures into stream of water that disperses admixtures uniformly throughout batch. An exception is that air-entraining admixtures may be dispensed directly into moist sand in batching bins, provided adequate control of concrete air content can be maintained.

Measure and disperse special admixtures, as recommended by admixture manufacturer, and as accepted by the Engineer. Special admixtures include high-range water reducers requiring dosages greater than capacity of conventional dispensing equipment. For site-added, high-range water reducers, use calibrated, portable dispenser supplied by manufacturer.

(b) Mineral Admixtures. Protect mineral admixtures from exposure to moisture until used. Pile sacked material of each shipment to permit access for tally, inspection, and identification.

Provide adequate facilities to ensure that mineral admixtures meeting specified requirements are kept separate from other mineral admixtures and that only specified mineral admixtures are allowed to enter into the work. Provide safe and suitable facilities for sampling mineral admixtures at weigh hopper or in feed line immediately in advance of hopper.

Incorporate mineral admixtures into concrete using equipment conforming requirements for Portland Cement weigh hoppers and charging and discharging mechanisms specified in ASTM C94 and Subsection 601.03(C) - Batching.

When concrete is completely mixed in stationary paving or continuous mixers, weigh mineral admixture in separate weigh hopper. Introduce mineral admixture and cement simultaneously into mixer, proportionately with aggregate.

When interlocks are required for cement-charging mechanisms, and cement and mineral admixtures are weighed cumulatively, interlock their charging mechanisms to prevent introduction of mineral admixture until mass of cement in weigh hopper is within tolerances specified in Subsection 601.03(C)(1) - Portland Cement.

In determining maximum quantity of free water that may be used in concrete, consider mineral admixture and supplementary cementitious materials (SCMs) to be cement.

(5) Bins and Scales. At batching plant, use individual bins, hoppers, and scale for each aggregate size. Include separate bin, hopper, and scale for bulk cement and fly ash.

Except when proportioning bulk cement for pavement or structures, cement weigh hopper may be attached to separate scale for individual weighing or to aggregate scale for cumulative weighing. If cement is weighed cumulatively, weigh cement before other ingredients.

When proportioning for pavement or structures, keep bulk cement scale and weigh hopper separate and distinct from aggregate weighing equipment.

Use springless-dial or beam-type batching scales. When using beam-type scales, make provisions to show operator that required load in weighing hopper is approaching. Use devices that show condition within last 200 pounds of load and within 50 pounds of overload.

Maintain scale accuracy to 0.5 percent throughout range of use. Design poises to lock to prevent unauthorized change of position. Use scales inspected by the State Measurement Standards Branch of the Department of Agriculture to ensure their continued accuracy. Provide not less than ten 50-pound weights for testing scales.

Batching plants may be equipped to proportion aggregates and bulk cement by automatic weighing devices.

318 **(6) Batching and Hauling.** When mixing is to be performed at work
319 site, transport aggregates from batching plant to mixer in batch boxes,
320 vehicle bodies, or other containers of adequate capacity and
321 construction. Use partitions to separate batches and prevent spilling
322 from one compartment to another while in transit or during dumping.
323

324 Transport bulk cement to mixer in tight compartments carrying
325 full quantity of cement required for batch. Once cement is placed in
326 contact with aggregates, batches shall be mixed and placed within
327 1-1/2 hours of contact. Cement in original shipping packages may be
328 transported on top of aggregates. Ensure that each batch contains
329 number of sacks required by job mix.
330

331 Deliver batches to mixer intact. Charge each batch into mixer
332 without loss of cement. When carrying more than one batch on truck,
333 charge batch into mixer without spilling material from one batch
334 compartment into another.
335

336 **(D) Mixing.** Mix concrete in mechanically operated mixers.
337

338 Use stationary or truck mixers that distribute materials thoroughly and
339 produce concrete uniform in color and appearance. When there is variation in
340 mixed concrete attributable to worn pickup or throw-over blades, the Engineer
341 will inspect mixer. If inspection reveals that blades are worn more than one
342 inch below original height of manufacturer's design, repair or replace blades.
343 Upon request, make copy of manufacturer's design, showing dimensions and
344 arrangement of blades.
345

346 Charge batches into central or truck mixers so that portion of mixing
347 water enters ahead of cement and aggregates. Deliver uniform flow of water.
348 Place entire amount of batch water in mixer by end of first quarter of mixing
349 period. When mixers with multiple compartment drums are used, time
350 required to transfer material between compartments will be included as mixing
351 time. Use drum rotation speed as designated by manufacturer. If mixing does
352 not produce concrete of uniform and smooth texture, provide additional
353 revolutions at same speed until thorough mixing of each concrete batch is
354 attained. Begin measuring mixing time from time cement, aggregates, and 60
355 percent of water are in drum. Do not exceed manufacturer's rated capacity for
356 volume of concrete mixed in each batch.
357

Equip central or truck mixers with attachment for automatically timing mixing of each concrete batch. Timing device shall include automatic feature for locking discharge chute and device for warning operator when required mixing duration has been met. If timing or locking device fails to operate, immediately furnish clock or watch that indicates seconds, to mixer operator. If timing device is not repaired within three days after becoming inoperative, shut down batching operation until timing device is repaired.

For stationary mixers, use mixing time between 50 seconds and 5 minutes. Select mixing time, as necessary, to produce concrete that meets uniformity criteria when tested in accordance with Section 11.3.3 of ASTM C94. The Contractor may designate mixing time for which uniformity tests are to be performed, provided mixing time is not less than 50 seconds or more than 5 minutes. Before using concrete for pavements or structures, mix concrete to meet specified uniformity requirements. The Contractor shall furnish labor, sampling equipment, and materials required for conducting uniformity tests of concrete mixture. The Engineer will furnish required testing equipment, including scales, cubic measure, and air meter; and will perform tests. The Engineer will not pay separately for labor, equipment, materials, or testing, but will consider the costs incidental to concrete. After batching and mixing operational procedures are established, the Engineer will not allow changes in procedures without the Contractor re-establishing procedures by conducting uniformity tests. Repeat mixer performance tests whenever appearance of concrete or coarse aggregate content of samples is not conforming to requirements of ASTM C94. For truck mixers, add four seconds to specified mixing time if timing starts as soon as skip reaches its maximum raised position.

Unless otherwise indicated in the contract documents or accepted by the Engineer, concrete shall be mixed at proportioning plant. Operate mixer at agitating speed while in transit. Concrete may be truck-mixed only when cement or cement and mixing water are added at point of delivery. Begin mixing truck-mixed concrete immediately after introduction of mixing water to cement and aggregates, or introduction of cement to aggregates.

Inclined-axis, revolving drum truck mixers shall conform to Truck Mixer, Agitator and Front Discharge Concrete Carrier Standards TMMB 100-01, 15th Revision, published by Truck Mixer Manufacturers Bureau. Truck mixers shall produce thoroughly mixed and uniform mass of concrete and shall discharge concrete without segregation.

Manufacturer's standard metal rating plate shall be attached to each truck mixer, stating maximum rating capacity in terms of volume of mixed concrete for various uses and maximum and minimum mixing speeds. When using truck mixers for mixing, adhere to maximum capacity shown on metal rating plate for volume of concrete in each batch.

Operate truck mixers at mixing speed designated by manufacturer, but at not less than 6 or more than 18 revolutions per minute. Mix truck-mixed concrete initially between 70 and 100 revolutions at manufacturer-designated mixing speed, after ingredients, including water, are in mixer. Water may be added to mixture not more than two times after initial mixing is completed. Each time that water is added, turn drum an additional 30 revolutions or more at mixing speed until concrete is mixed uniformly.

When furnishing shrink-mixed concrete, transfer partially mixed concrete at central plant to truck mixer. Apply requirements for truck-mixed concrete. The Engineer will not credit number of revolutions at mixing speed for partial mixing in central plant.

When accepted by the Engineer, hand mixing may be allowed. The entire concrete placement at one location shall not exceed 1/3 cubic yard. It shall be hand mixed on a watertight, level platform. Use no aluminum to construct platform. Measure proper amount of coarse aggregate in measuring boxes and spread on platform. Spread fine aggregate on that coarse aggregate layer. Limit coarse and fine aggregate layers to total depth of one foot. Spread dry cement on this mixture. Turn whole mass not less than two times dry. Add sufficient clean water, distributed evenly. Turn whole mass again, not less than three times, not including placing in carriers or forms.

(E) Transporting Mixed Concrete. Transport central-mixed concrete to delivery point in truck agitators or truck mixers operating at speed designated by equipment manufacturer as agitating speed; or in non-agitating hauling equipment, provided consistency and workability of mixed concrete upon discharge at delivery point is suitable for placement and consolidation in place; and provided mixed concrete after hauling to delivery point conforms to uniformity criteria when tested as specified in Section 12.5 of ASTM C94.

For revolving drum truck mixers transporting central-mixed concrete, limit concrete volume to manufacturer's rated capacity for agitator operation. Maintain agitating speed for both revolving drum mixers and revolving blade type agitators as designated on manufacturer's data plate. Equip truck mixers or truck agitators with electrically or mechanically actuated counters. Actuate counters after introducing cement to aggregates.

Bodies of non-agitating hauling equipment shall be smooth, watertight, metal containers equipped with gates to permit control of concrete discharge. Protect open-topped haul vehicle against weather with cover accepted by the Engineer.

When hauling concrete in non-agitating trucks, complete discharge within 30 minutes after introducing mixing water to cement and aggregates.

When truck mixer or agitator is used for transporting central-mixed concrete to delivery point, complete discharge within 1-1/2 hours, or before 250 revolutions of drum or blades, whichever comes first after introduction of mixing water to cement and aggregates, or cement to aggregates. For truck-mixed concrete, complete concrete discharge within 1-1/2 hours, or before 300 revolutions of drum or blades, whichever comes first. These limitations are permitted to be waived if concrete is of such slump after the 1-1/2 hour time or 300-revolution limit has been reached, that it can be placed, without addition of water to the batch.

Submit delivery tickets from manufacturers of truck-mixed concrete and central-mixed concrete with each truckload of concrete before unloading at jobsite. Printed, stamped, or written delivery ticket shall include the following information:

- (1) Name of concrete plants.
- (2) Serial number of ticket.
- (3) Date and truck number.
- (4) Name of Contractor.
- (5) Specific project, route, or designation of job (name and location), and truck overweight permit number when required.
- (6) Specific class or designation of concrete in accordance with contract documents.
- (7) Quantity of concrete in cubic yards.
- (8) Time of loading batch or mixing of cement and aggregates.
- (9) Water added by receiver of concrete and receiver's initials.
- (10) Information necessary to calculate total mixing water added by producer. Total mixing water includes free water on aggregates, water, and water added by truck operator from mixer tank.
- (11) Readings of non-resettable revolution counters of truck mixers after introduction of cement to aggregates, or introduction of mixing water to cement aggregates.
- (12) Supplier's mix number or code.

Furnish additional information designated by the Engineer and required by job specifications upon request.

(F) Consistency. Regulate quantity of water used in concrete mixes so that concrete consistency, as determined by AASHTO T 119 test method, is within nominal slump range specified in Table 601.03-3 - Slump for Concrete or as stated on the accepted concrete mix design. If concrete slump exceeds nominal slump, adjust mixture of subsequent batches. If slump exceeds maximum slump, the Engineer will reject concrete unless deemed satisfactory for its use.

The Engineer will also reject harsh or unworkable concrete that cannot be properly placed. Remove rejected concrete at no increase in contract price or contract time.

Slump for concrete shall be as specified in Table 601.03-3 – Slump for Concrete.

TABLE 601.03-3 - SLUMP FOR CONCRETE		
Type of Work	Nominal Slump Inches	Maximum Slump Inches
Concrete Pavements	0 – 3	3-1/2
Reinforced Concrete Structures:		
Sections Over 12 Inches	0 – 4	5
Sections 12 Inches Thick or Less	2 – 5	6
Non-Reinforced Concrete Facilities	1 – 3	4
Concrete Placed Underwater	6 – 8	9
Bridge Decks	0 – 3	3-1/2

In adverse or difficult conditions that may affect placement of concrete, the above slump limitations may be exceeded for placement workability, with the addition of admixture conforming to Subsection 711.03 - Admixtures, if accepted by the Engineer in writing and provided water-cement ratio is maintained. Provide additional cement and water, or admixture at no increase in contract price or contract time.

(G) Forms. Construct forms in accordance with applicable sections.

(H) Placing Concrete. Place concrete in accordance with applicable sections.

(I) Finishing Concrete Surfaces. Finish concrete surfaces in accordance with applicable sections.

529 **(J) Curing Concrete.** Cure concrete in accordance with applicable
530 sections.
531

532 **601.04 Measurement.** The Engineer will measure concrete in accordance with the
533 applicable sections.
534

535 **601.05 Payment.** The Engineer will pay for the accepted concrete under the
536 applicable sections.
537

538

539

540

541

END OF SECTION 601

SECTION 602 – Reinforcing Steel

Make the following amendments to said Section:

(I) Amend **602.04 – Measurement** by revising lines 803 to 808 to read as follows:

“602.04 Measurement. The Engineer will not measure reinforcing steel for payment.

The Engineer will base the weights calculated upon Table 602.04-1 – Bar Designation, Weight and Area.

TABLE 602.04-1 – BAR DESIGNATION, WEIGHT AND AREA		
Bar No.	Weight Per Linear Foot (Pounds)	Area (Square Inches)
3	0.376	0.11
4	0.668	0.20
5	1.043	0.31
6	1.502	0.44
7	2.044	0.60
8	2.670	0.79
9	3.400	1.00
10	4.303	1.27
11	5.313	1.56
14	7.650	2.25
18	13.600	4.00

The Engineer will not make allowance for clips, wire or other material used for fastening reinforcement in place. The cost is for the work prescribed in this section and the contract documents.

The Engineer will not measure mesh reinforcement.”

(II) Amend **602.05 – Payment** by revising lines 810 to 830 to read as follows:

23 **"602.05 Payment.** The Engineer will not pay for the accepted reinforcing
24 steel separately. The Engineer shall consider the cost for the accepted
25 reinforcing steel as included in the contract price of the various contract items.
26 The cost is for the work prescribed in this section and the contract document.
27
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32

END OF SECTION 602

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(I) Amend **603.03(C)(1) - Culverts** by revising lines 106 to 108 to read as follows:

(II) Amend **603.04 – Measurement** by revising lines 282 to 292 to read as follows:

(A) The Engineer will measure bed course material for culverts per cubic yard in accordance with contract documents.

(III) Amend 603.05 – Payment by revising lines 294 to 349 to read as follows:

The Engineer will pay for each of the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Bed Course Material for Culvert	Cubic Yard
24 Inch Reinforced Concrete Pipe, Class III	Linear Foot"

NH-019-2(076)
603-1a

7/1/18

Amend **Section 606 – Guardrail** to read as follows:

“SECTION 606 – GUARDRAIL

606.01 Description. This section describes furnishing and installing guardrails including assembly and erection of component parts, designated as follows:

- (1) Type 1 (Unassigned)
- (2) Type 2 (Unassigned)
- (3) Type 3 Beam Type Guardrail
- (4) Type 4 Rigid Barrier Type Guardrail

606.02 Materials.

Joint Fillers	705.01
Reinforcing Steel	709.01
Wire Rope or Wire Cable	709.02
Chain Link Fencing	710.03
Metal Beam Rail	710.04
Guardrail Posts	710.07
Guardrail Hardware	710.08

Concrete for Type 4 Rigid Barrier Type Guardrail shall conform to Section 601 – Structural Concrete.

Steel posts and steel rail beams for the Type 3 Beam Type Guard Rail shall be zinc-coated. Damaged zinc-coated base metal surfaces shall be repaired according to Subsection 501.03(G)(2) - Repairing Damaged Zinc-Coated Surfaces.

606.03 Construction Requirements. Assemble and erect guardrails.

Preserve and protect existing facilities to remain. Replace guardrails damaged by the Contractor. At the end of each work day, protect any opening in the guardrail system not yet completed with acceptable typical barriers.

47 **(A) Beam Type Guard Rail.** Repair zinc-coated base metal surfaces
48 damaged during installation and assembly, in accordance with Subsection
49 501.03(G)(2) - Repairing Zinc-Coated Surfaces.

50
51 **(1) Posts.** When using a suitable method, the Contractor may
52 drive only steel posts, except those with anchors, into the ground. Maintain an
53 accurate vertical alignment and shall not deform the steel post.

54 Set the wood and posts with anchors plumb in hand or
55 mechanically dug holes. Backfill post holes with acceptable material placed in
56 layers and compact thoroughly.

57
58 The Contractor may vary the guardrail post locations shown
59 in the contract to ease clearing utility lines or to produce smooth transitions.
60 Request such variance for acceptance by the Engineer. The Contractor may not
61 vary the guardrail post locations of terminal sections.

62
63 When the contract requires additional bolts and holes on
64 posts, drill the additional bolt holes and furnish the bolts for proper installation.
65 Drill, furnish, and install these additional bolts at no cost to the State.

66
67 Do not make the additional bolt holes in posts by burning with
68 a torch or other method or device. Manufacture or drill the holes in the posts.

69
70 Apply a preservation treatment to the wood posts and blocks
71 according to Section 714 – Structural Timber and Related Materials.

72
73 Where field cutting or boring is done after treatment,
74 thoroughly swab, spray, or brush the cuts and holes with two applications of
75 preservatives accepted by the Engineer.

76
77 **(2) Rail Elements.** Install the rail elements that results in a
78 smooth, continuous installation. Draw the bolts, except adjustment bolt, tight.
79 Bolts shall be of sufficient length to extend beyond the nuts.

80
81 When the contract requires setting the guardrail pots at non-
82 standard spacing, cut the rail elements and drill bolt holes as necessary for proper
83 installation.

84
85 Do not make the additional bolt holes by burning with a torch
86 or other method or device.

87
88 The Contract does not require paint on zinc-coated steel
89 railing.

90
91 **(3) Existing Guardrail.** The Contractor shall be responsible for
92 verifying underground facilities such as utilities ducts, cables, and pipes in

locations where the Contractor will drive guardrail posts. Repair damages done to the facilities despite the location or if shown in the contract at no cost to the State.

When removing the existing guardrails, backfill and compact the holes with suitable material. Grade and compact the shoulder area before installing the new guardrails and posts.

Reinstallation of guardrail shall be according to Subsection 606.03(A).

When replacing the existing guardrails with new guardrails and posts, do not leave an unprotected opening in the guardrail system of more than 500 linear feet. Also, after each work day, protect the areas not yet completed with physical barriers according to the latest MUTCD.

(4) Reset Guardrail Post. Adjust the height of existing guardrail post such that the guardrail element will be at the required height according to the contract.

Spacer blocks bolted to the existing post are to remain intact. When required or specified by the Engineer, excavate or fill and compact around the post to be adjusted. Replace the guardrails that are damaged by the Contractor due to its operation at no cost to the State and according to the contract.

(B) Cable-Chain Link Barrier Guardrail.

(1) Post. Place the post at equal intervals. The Contractor may space the end post closer to adjacent posts, if specified by the Engineer. Set the posts vertical. Crown the concrete portion of the post footing at the top to shed water.

(2) Chain Link and Tension Cable or Top Rail. Fasten the chain link fabric to the tension cable, top tension wires or top rail, and posts with tie wires. Space the tie wires at approximately.

(a) 24 inch intervals to the tension cable, top tension wires or top rail and

(b) 15 inch intervals to the posts.

The tie wires shall start two inches from the top of the fabric with tie wires. Give the tie wire at least one complete twist.

Install the chain link fabric on the outer portion of the cables after clamping the cables in place and torque the u-bolts properly. The chain link fabric shall be on the "U" side of the cable clamps.

Stretch the tension wire tight with the turnbuckles. Install the turnbuckles at the beginning and end of each continuous section of chain link fabric and at such intermediate points as may be necessary for tightness.

Provide turnbuckles between 500 feet and 600 feet intervals for each tension cable.

Stagger the turnbuckle connections for tension cables so that the Contractor may locate not more than one turnbuckle in one panel. When a turnbuckle assembly falls at or within six inches of a post, clamp only the cable on the side of the post opposite the turnbuckle assembly to the post. At these locations, fasten the turnbuckle assembly or the cable on the turnbuckle side to the post with a No. 9 gage tie wire.

When connecting tension cables to pipe-type turnbuckles by factory swaged steel pulls, the complete turnbuckle assembly shall develop 100% of the breaking strength of the cable.

Furnish one test sample of cable to the Engineer for each 10,000 feet or less of cable the Contractor will install. The test sample shall be three feet in total length. Fit the test sample properly with right-hand thread swaged pulls at both ends as specified in the above paragraph.

When connecting the tension cables to drop forged steel closed sockets, the complete turnbuckle assembly shall develop 100% of the breaking strength of the cable. Fill the sockets with pure zinc.

Furnish one test sample of cable to the Engineer for each 10,000 feet or less of cable the Contractor will install. The test sample shall be three feet in total length. Fit the test sample properly socketed at both ends as specified in the above paragraph.

The Contractor may use preformed zinc-coated cable dead ends as an alternative method of connecting the tension cables to the turnbuckles at anchor blocks only. The installed dead ends shall develop 100% of the breaking strength of the cable.

At structures where constructing two barrier fences, bound or weld the exposed ends of the connecting tension cables.

Do not overtighten the tension cables. Position the tension cables firmly so that between 0.25 inch and 0.5 inch sag in the cables between posts occurs.

Place the u-bolts of the cable clamp assemblies across the lay of the tension cables. Tighten the nuts on the u-bolts by applying between 30 and 35 foot-pounds of torque.

When installing barrier on existing structures, anchor the posts to the deck shown in the contract.

Drill anchor bolt holes in the deck without spalling or damaging the concrete surrounding the hold. Set the anchor bolts with a mixture of commercial quality, modified epoxy adhesive and sand. The proportions of modified epoxy shall be between one adhesive to four sand and one adhesive to six sand. The Engineer will establish the exact proportions. The cementing agent

includes two component mixture of modified epoxy adhesive manufactured especially for the making of epoxy-sand grouts. Mix two components according to the manufacturer's directions for use.

(C) Rigid Barrier Type Guardrail.

(1) Preparation. Shape and compact the foundation to a firm even surface according to the contract. Remove and replace soft and yielding material with acceptable material according to Section 305 – Aggregate Subbase Course.

(2) Forms. Forms shall be according to Section 503 – Concrete Structures.

(3) Placing Concrete. Moisten the foundation thoroughly immediately before placing the concrete. Concrete shall be cast-in-place. Place the concrete according to Section 503 – Concrete Structures.

On new and existing concrete bridge deck, dowel the barrier into the deck shown in the contract.

(4) Finishing. Finish the surface to a smooth, even surface according to Subsection 503.03(M)(2) - Class 2 Rubbed Finish.

(5) Joints. Construct expansion joint shown in the contract or at existing expansion joints of structures. Expansion joint filler shall be 0.5 inch thick.

Provide the construction joints with keys and at intervals shown in the contract.

(6) Transition Sections. At the end of the barrier, adjust or construct new and/or existing guardrail or chain link fence as specified by the Engineer or shown in the contract.

606.04 Method of Measurement. Terminal section type MSKT and the end anchorage system will be measured as each. Guardrail will be measured per linear foot. The pay items listed below will be paid based on pay unit provided. See below.

606.05 Basis of Payment. The Engineer will pay for the accepted pay items listed below at the contract price per pay unit. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for each of the following pay item when included in the proposal schedule.

Pay Item	Pay Unit
Guard Type Midwest Guardrail System (MGS)	LF
Terminal Section Type MSKT	Each

234
235
236
237

End Anchorage Type Trailing-End Anchorage System

Each”

END OF SECTION 606

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(I) Amend **607.04 - Measurement** by replacing lines 105 to 106 to read:

(II) Amend **607.05 – Payment** by revising lines 108 to 115 to read as follows:

The Engineer will pay for following pay items when included in proposal schedule:

Pay Item	Pay Unit
4-feet, Chain Link Fence	Linear Foot"

NH-019-2(076)
607-1a

7/1/18

1 **SECTION 610 – REINFORCED CONCRETE DRIVEWAYS**

2
3 Make the following amendment to said Section:

4
5 **(I) Amend 610.04 - Measurement** by replacing lines 56 to 57 to read:

6
7 **“610.04 Measurement.** The Engineer will measure reinforced concrete
8 driveways per square yard as specified in the proposal.
9

10 **(II) Amend 610.05 – Payment** by revising lines 59 to 76 to read as follows:

11
12 **“610.05 Payment.** The Engineer will pay for the accepted quantities of
13 reinforced concrete driveways at the contract unit price per square yard basis as
14 specified in the proposal.
15

16 Payment will be full compensation for the work prescribed in this section
17 and contract documents.
18

19 The Engineer will pay for following pay item when included in proposal
20 schedule:
21

22 Pay Item	23 Pay Unit
24 (6 - Inch) Reinforced Concrete Driveway	25 Square Yard

26 The Engineer will pay for precast concrete drop curb and driveway curb, or
27 cast-in-place integral curb and gutter under Section 638 - Portland Cement
28 Concrete Curb and Gutter.
29

30 The Engineer will pay for excavation of unsuitable material and backfill
31 with material acceptable to the Engineer under Section 203 – Excavation and
32 Embankment. If no pay item exists, refer to Subsection 104.02 – Changes.”
33
34
35

36 **END OF SECTION 610**

SECTION 617 – PLANTING SOIL

Make the following amendments to said Section:

- (I) Amend **Subsection 617.01 Description** by revising line 4 to read as follows:

“617.01 Description. This work includes furnishing and placing of planting soil and soil amendments in designated areas according to the contract.”

- (II) Amend **Subsection 617.02 Materials** by revising lines 8 to 64 to read as follows:

“(A) Imported Planting Soil. Imported planting soil shall be material obtained from sources outside the right-of-way that has been accepted by the Engineer.

(B) Qualities of Imported Planting Soil. Imported planting soil shall comprise the following qualities:

(1) General.

(a) Texture. Texture of imported planting soil shall be as near as practicable to texture of existing subgrade.

(b) Nutrients. Imported planting soil shall contain, or shall be amended to contain, in accordance with the Soil Analysis Report, available nitrogen, phosphorus, potassium, calcium, and magnesium in sufficient quantities to support normal plant growth.

(2) Physical Properties.

(a) Designation. Imported planting soil shall be sandy loam or loamy sand conforming to Table 617.02-1 – USDA Classification for U.S. Department of Agriculture (USDA) classification for passage through sieves.

TABLE 617.02-1 – USDA CLASSIFICATION			
Class	Particle Size Range	Maximum Percentage	Minimum Percentage
Coarse Sand	0.020 – 0.079 inch	15	0
Silt plus Clay	<0.002 inch	5	15

TABLE 617.02-1 – USDA CLASSIFICATION			
Class	Particle Size Range	Maximum Percentage	Minimum Percentage
Gravel	0.079 – 0.512 inch	20	0
Rock	1/2 - 1 inch	10 percent by volume	----
Organic Material	----	15	0

(b) **Chemistry.** Imported planting soil shall comply with USDA No. 60 for the following:

1. **Salinity.** Imported planting soil shall have Saturation Extract Conductivity (ECe) less than 7.6 millimhos per inch at 77 degrees F.
2. **Sodium.** Imported planting soil shall have Sodium Absorption Rate (SAR) less than 1.0 part per million.
3. **Boron.** Imported planting soil shall have Saturation Extraction Concentration less than 1.0 part per million.
4. **Reaction.** Imported planting soil shall have pH of saturated paste of 5.5 to 7.5.

Representative samples of imported planting soil shall be submitted to Crop Nutrient Solutions, Inc., Post Office Box 40, Waimanalo, Hawai'i, 96795, Phone: 386-4120; University of Hawai'i Agricultural Extension Service at Manoa, 1910 East West Road, Sherman Lab 134, Honolulu, Hawai'i, 96822, Phone: 956-6706; or laboratory acceptable to the Engineer for analysis of required fertilizers and amendments.

Soil analysis results shall also include a summary of the findings and recommendations to correct soil deficiencies including, but not limited to, type of amendment and fertilizer to be added, application rates for amendments and fertilizers at pre-planting, planting, and plant establishment periods.

Test results and recommendations for correcting soil deficiencies shall be presented to the Engineer for review and acceptance before placing planting soil.

(c) Soil types such as "Palolo Clay" or soils high in manganese concentrations such as the "Lualualei Clay", "Wahiawa", or "Molokai" soil series or similar materials will not be accepted.

(d) Refuse, stumps, roots, heavy or stiff clay, noxious seeds, sticks, brush, litter, concrete, asphalt, cement, construction debris, and other material considered undesirable by the Engineer to the proper development of vegetative growth will not be accepted.

(C) Compost. Compost shall meet U.S. Composting Council specifications. Compost shall be well decomposed, stable, weed free organic matter source. It shall be derived from aerobic decomposition of yard trimmings and shall be brown to dark brown in color. Moisture content shall range from 30 to 60 percent with no visible free water.

The carbon:nitrogen (C:N) ratio shall be between 25:1 to 20:1. Compost shall have no unpleasant odor and shall have an earthy smell. 30 to 65 percent of the content shall be organic. 98 percent of the material shall pass through a screen of 3/4-inch or smaller and pH shall be between 6.0 to 8.5. Typical electrical conductivity shall be less than 5 mhos/cm (dS/m), with a maximum of 8 mhos/cm.

Compost shall be free of live weed seed or other propagates and shall have reached a temperature of at least 150 degrees Fahrenheit for a minimum of three days. Active composting shall occur for no less than 90 days at 130 degrees Fahrenheit or higher, with a minimum of one turning per week.

Compost shall contain less than 5 percent foreign objects such as rock, metal, paper, plastic, or glass by weight. Compost shall also contain less than the maximum level of heavy metals established by EPA 503. Compost shall not contain any resin, tannin, or other materials that are detrimental to plant life, and shall not contain any treated or painted woods"

(III) Amend **Subsection 617.03 Construction** by revising lines 67 to 102 to read as follows:

"(A) Pre-Construction. Eradicate weeds and remove construction debris, litter, stones greater than 1/2-inch in diameter, and unwanted

vegetation from areas designated for planting before doing any soil preparation or grading work. Remove noxious weeds and grasses by roots wherever found at any stage of work. Dispose of weeds and construction debris in accordance with Section 202 – Removal of Structures and Obstructions.

(B) Soil Preparation.

(1) Subgrade. Do not start soil preparation until the Engineer accepts rough grades. Allow for thickness of planting soil in determining difference between finished subgrade and finished grade for planting. Refer to 617.03(B)(3) for preparation of subgrade.

(2) Site Preparation. Only loosen the soil and spread compost in the area for which soil preparation can be completed by the end of the work day.

(3) Scarify Soil. Lift and turn compacted soil to a depth of eighteen (18) inches. Apply generous amounts of water to break soil clumps to between one inch and four (4) inches in diameter. At the end of scarifying, the surface should be rough. Soil will expand two to four inches from turning but will quickly settle after watering. Remove all stones greater than ½-inch in diameter. Do not lift soil within eighteen (18) inches of all pavement edges.

(4) Imported Planting Soil. Notify the Engineer of proposed borrow site for imported planting soil before excavating. Submit a Soil Analysis report of the proposed imported planting soil and recommendations for soil amendments required to improve soil quality for plant growth. If the Engineer accepts material and borrow site, make all arrangements for importing soil and pay all associated costs. Transport imported planting soil directly from source to final location for spreading.

(5) Soil Placement. Provide even four-inch layer (after settlement) of planting soil over all areas to be planted. Where trees are to remain, maintain existing ground elevation around tree trunks.

(6) Soil Amendment and Tilling. Spread two inches of compost and soil amendments required by the Soil Analysis recommendations and till into top six (6) inches of soil. Only spread compost, soil amendments, and till an area for which work can be completed by the end of the work day. Till the entire area to be planted including within eighteen (18) inches of pavement

edges. No equipment or vehicles that may compact the soil shall be allowed onto tilled areas.

(7) Moisture Content. Do not work soil when air is so moist that excessive compaction occurs, or so dry that dust forms and clods do not break up readily. Apply water if necessary to bring soil to optimal moisture content for tilling and planting.

(8) Grading and Drainage. Grade soil to smooth and even finish without abrupt changes or pockets. Verify that surface drainage is adequate. Notify the Engineer of discrepancies, obstructions, and other impediments to proper execution of work."

(IV) Amend **Subsection 617.04 Measurement** by revising lines 104 to 105 to read as follows:

"617.04 Measurement. . The Engineer will measure soil preparation and imported planting soil per cubic yards and imported compost and soil amendments per square foot in accordance with the contract documents.

(V) Amend **Subsection 617.05 Payment** by revising lines 107 to 116 to read as follows:

"617.05 Payment. The Engineer will pay for the accepted soil preparation, imported planting soil, imported compost, and soil amendments on the contract price per pay unit. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for the following pay item when included in proposal schedule:

Pay Item	Pay Unit
Soil Preparation, 18" Depth	Cubic Yards
Imported Screened Topsoil, 4" Layer	Cubic Yards
Imported Compost, 2" Layer	Square Feet
Soil Amendments	Square Feet

END OF SECTION 617

Amend **Section 619 – Planting** to read as follows:

“SECTION 619 - PLANTING

619.01 Description. This section describes planting trees and ground cover.

619.02 Materials.

(A) Plant Materials. Shrubs shall be type and size shown in contract documents or as specified by the Engineer.

(1) Certification of Plants. The Contractor’s submission of a bid shall constitute certification of availability of plants of required type, size, and quantity.

(2) Selection, Tagging, and Ordering of Plants.

(a) Engineer will inspect plants at place of growth and after delivery to the Project. Plants not conforming to contract document requirements will be rejected.

(b) Request plant inspection at least one month prior to start of planting work. Submit a written request for inspection and documentation to Engineer, not less than one month prior to start of planting work, that all plant materials have been ordered and are ready to be planted.

(c) At the Contractor’s option, plant material may be contract – grown at the Contractor’s expense to ensure availability of plants that meet the required type, size, and quantity. Plants not conforming to contract document requirements will be rejected.

(3) Plant Names. Shrubs shall be true to name and follow standards for nomenclature adopted by *The American Joint Committee on Horticultural Nomenclature*, and The Bernice P. Bishop Museum’s Special Publication No. 50, *In Gardens of Hawaii*.

(4) Condition of Plants. Plants shall conform to specified nomenclature, grades, and standards.

(a) General. Provide shrubs with normal habit of growth, such as sound, healthy, vigorous, and free of disease and insect infestation.

47 **(b) Container Grown Plants.** Plants shall be grown in
48 containers of specific size. Plant shall hold its root ball
49 without being root bound upon removal from container.
50

51 **(c) Native Hawaiian Plants.** The plant nursery shall
52 certify the native Hawaiian plants are native to Hawai'i and
53 true to the species.
54

55 **(d) Sprigs.** Get grass by digging up luxuriant growths
56 from areas that are free of seeds, roots, plants, and other
57 types of grasses. A certificate of compliance shall be
58 provided by a Hawaii-licensed seed dealer and sprigs shall
59 be purchased from a commercial Hawaii grass farm utilizing
60 certified grass seed obtained from a Hawaii-licensed seed
61 dealer. The Engineer will not accept the grass unless the
62 Contractor plants and waters the grass sprigs within 24
63 hours after digging the grass out from its original growing
64 position.
65

66 **(5) Size of Plants.** Plants shall meet the size indicated by
67 minimum and maximum height, and minimum and maximum
68 spread, as specified in the proposal.
69

70 **(a) Height.**
71

72 1. Height shall be defined as vertical
73 measurement from ground surface of plant in its
74 natural growing position in nursery.
75

76 2. Measurement of height shall stop where main
77 growth ends and shall not include fine or slender
78 terminal leader, twig, or branch.
79

80 3. Range shall be specified for height of leggy
81 plants.
82

83 **(b) Spread.**
84

85 1. Spread shall be defined as horizontal
86 measurement of plant in its natural growing position in
87 nursery.
88

89 2. Measurement of spread shall not include fine
90 or slender terminal shoot.
91

92 3. Spread of plant shall be determined by
93 averaging smallest and largest measurements.
94 Smallest measurement shall not be less than 60
95 percent of largest.
96

97 **(B) Hydro-Mulch.** Mulch shall be specially processed fiber conforming
98 to Subsection 641.02(C) – Mulch. Sprigs shall be added to mix as
99 indicated in the contract documents.
100

101 **(C) Herbicides.** Submit a weed control program to the Engineer for
102 review and acceptance prior to construction. Chemical herbicides shall
103 contain either or both glyphosate and cacodylic acid. Use only State
104 Department of Agriculture approved herbicides.
105

106 Manufacturer's instructions for applying herbicides shall be
107 followed. Adjustments shall be made for field conditions. Chemical
108 herbicides shall be applied using photosensitive dye that does not stain
109 concrete or painted surfaces, will not injure plants and animals, and
110 disappears within 3 days after spraying. Application shall be between
111 8:30 a.m. and 3 p.m. on normal State workdays only. Herbicide
112 application shall not be done when wind is brisk, when raining, or when
113 rain is expected. Avoid applying herbicide in areas where herbicide can
114 enter storm drainage systems or receiving waters. Records shall be kept
115 by the Contractor of dates of application, type of herbicide or pesticide
116 used, quantities, and areas that were covered. Submit records to the
117 Engineer within 24-hours of application.
118

119 **(1) Pre-emergent Herbicide.** Pre-emergent herbicide may only
120 be applied where no grass seed is used or where new plants do not
121 propagate by seeds. Pre-emergent herbicide shall be used to
122 control weeds by absorption, including through plant's root system.
123 Label of herbicide shall indicate that the product is environmentally
124 safe and non-toxic to humans and animals. Herbicide shall be
125 acceptable for use with native Hawaiian plants.
126

127 **(2) Selective, Post-emergent, Granular Herbicide.** Selective,
128 post-emergent granular herbicide shall be used to control weedy
129 grasses and broadleaf weeds in turf and wide variety of woody
130 ornamentals, shrubs, vines, and trees. Product shall kill young
131 seedlings on contact during germination. Herbicide shall be
132 acceptable for use with native Hawaiian plants.
133

134 **(3) Post-emergent, Non-granular Herbicide.** Post-emergent,
135 non-granular herbicide shall be used to control weeds by
136 absorption, including through roots of plant. Label of herbicide shall
137 indicate that product is environmentally safe and non-toxic to

humans and animals. Herbicide shall be acceptable for use with native Hawaiian plants.

(D) Fertilizer.

(1) Commercial Fertilizer. Fertilizer shall be in new, clean, sealed, and properly labeled bags or containers. Fertilizer shall be protected from weather after delivery to the Project. Fertilizer shall be:

(a) Nitrogen, phosphoric acid, and potash (N-P-K) in percentages recommended in the Soil Analysis Report, uniform in composition, free flowing, and suitable for applications;

(b) 21-gram slow-release plant tablet conforming to criteria in (a) above.

(2) Organic Fertilizer. Fertilizer shall be in new, clean, sealed, and properly labeled bags or containers. Fertilizer shall be protected from weather after delivery to the Project. Fertilizer shall be nitrogen, phosphoric acid, and potash (N-P-K) in percentages recommended in the Soil Analysis Report, uniform in composition, free flowing, and suitable for application.

(3) Application Records. Records shall be kept by Contractor of dates of application, type of fertilizer or manure used, quantities, and areas that were covered and shall be submitted to the Engineer within 24 hours of application. Document if rates and amounts of fertilizer deviate from manufacturer's specifications.

(E) Soil Amendments. Soil amendment shall be Hawaiian Earth Products "Menehune Mulch", Kellog's "Nitrohumus Soil Conditioner", or approved equal. Compost shall comply with U.S. Composting Council specifications.

(F) Plastic Header. Plastic header shall be standard black polyethylene or vinyl edging, 0.1 inch thick by 5 inches deep, round top: 1/2 inch in diameter, V-lipped bottom, extruded in standard lengths, with 9-inch steel angle stakes.

(G) Tree Guard. Tree guards shall be flexible polyethylene with ultraviolet inhibitor.

(H) Root Control Barrier. Root control barriers shall be high density, high impact polypropylene with ultraviolet inhibitor. Barriers shall have minimum thickness of 0.06 inch, raised vertical ribs, and locking strips

made of same material. Bio-chemical root control barriers will not be accepted.

(I) Renaturalized Lava. Renaturalized lava shall be naturally occurring lava rock obtained locally in Hawaii with particle gradation that passes 6-inch, 5-inch, and 4-inch sieves.

(J) Wood Stakes. Wood stakes shall be rough construction-grade redwood or eucalyptus, 2x2's, 8 feet long, unpainted and unstained.

(K) Hose and Wire Ties. Hose shall be 1/2 inch diameter. Wire ties shall be No. 11 gage zinc-coated steel wire.

(L) Markers. Markers shall be bright-colored plastic surveyors tape at least 18 inches long. Tape of same color shall be used throughout the Project.

(M) Weed-blocking Geotextile. Weed-blocking geotextile shall be woven or non-woven, rot-proof, mildew and chemical resisting, delustered polypropylene product that allows passage of air, water, fertilizer, and insecticide into soil by precludes growth of weeds.

619.03 Construction.

(A) Quality Assurance.

(1) Codes and Standards. Perform work in accordance with applicable laws, codes, and regulations. Provide inspections and permits required by Federal, State, and local government authorities.

(2) Qualifications. To become qualified in the work class of Landscaping, the applicant shall provide a letter containing the following:

(a) A statement declaring at least five continuous years of experience of a scope similar to that required for the work, including installing temporary irrigation, hydro-mulch application, soil preparation, and plant installation and establishment.

(b) The letter must be signed and dated by the Owner of the Company or Company Officer.

(c) Produce a list of completed projects similar to the scope and size of the required work to substantiate the

experience. The list shall contain a minimum of five different landscape projects, excluding single-family residential landscape. A minimum of five different landscape projects shall be rated positive on a performance evaluation by the references in the list below. Names and references must be current and verifiable. Use separate sheets of paper that contain all of the following information:

1. Project name
2. Location of project (city, state)
3. Owner
4. Owner Contact (name and current phone number)
5. Architect or Engineer Company Name
6. Architect or Engineer Contact (name and current phone number)
7. Construction Manager (name and current phone number)
8. Description of Project, Scope of Work Performed
9. Total Value of Construction (including change orders)
10. Original Scheduled Completion Date
11. Actual Date of Completion

(d) Acceptance. The Contractor shall submit the items under this section to the Engineer for acceptance prior to construction. If the applicant does not have proof of five continuous years of experience with a minimum of five completed projects similar in scope and size as this project, the Contractor shall not hire the applicant. If it is discovered the hired applicant is not qualified, remove the applicant from the project immediately upon discovery or upon receipt of a written notice from the Engineer. All work that would have been allowed if a qualified applicant was on the project site shall not be conducted until a qualified applicant is hired and

accepted by the Engineer. Requests to substitute an applicant will be allowed under Subsection 105.16 – Subcontracts.

(B) Preparing Areas for Landscaping.

(1) Remove trash, debris, and weeds from work area. Planting areas shall be free from loose stones greater than ½ inch in diameter. Dispose of material outside the Right-Of-Way as specified in Section 201 – Clearing and Grubbing.

(2) Perform clearing, grubbing, and tree demolition work in accordance with Section 201 – Clearing and Grubbing. Within the project limits, clear the project area to finish grade as directed by the Engineer.

(3) Within limits of clearing, grub natural ground to depth necessary to remove stumps, roots, and other objectionable material.

(4) Apply herbicide before weeds become taller than 2-inches.

(5) Before applying chemical herbicide, obtain Engineer's acceptance of proposed weed control program.

(C) Soil Preparation. Prepare soil in accordance to Section 617 – Planting Soil.

(D) Adding Fertilizer and Amendments.

(1) Uniformly distribute fertilizer and amendments over planting areas as recommended by the Soil Analysis Report. Document if rates and amounts of fertilizer deviate from manufacturer's specifications. Rototill top 4-inches of soil to evenly incorporate fertilizer and amendments. Rototill before installing temporary irrigation system.

(2) Level undulations or irregularities caused by tilling or other work from surface of soil before proceeding to plant.

(E) Coordination of Work. Adjust planting work for conformance with ground and weather conditions. Plant so that finished grades of planted areas are properly related to finished elevations of adjacent pavements, structures, curbs, and existing grades.

321 **(F) Placing Renaturalized Lava.** Place renaturalized lava rock in
322 accordance with contract documents. Mix renaturalized lava size
323 gradation to achieve a natural appearance.
324

325 **(G) Installing Plastic Header.** Trench ditches four inches deep. Install
326 plastic headers in accordance with manufacturer's instructions. Backfill
327 and compact while maintaining proper alignment of header.
328

329 **(H) Installing Weed-blocking Geotextile.** Prepare subgrade, install
330 headers, and plant trees. Install geotextile in accordance with
331 manufacturer's instructions.
332

333 **(I) Placing Aggregates.** After installing plastic header and excavating
334 to required depth, place renaturalized lava rock over weed-blocking
335 geotextile or in mortar as indicated in the contract documents.
336

337 **(J) Planting Soil.** Place planting soil as specified in Section 617 –
338 Planting Soil.
339

340 **(K) Herbicides.** After establishing finish grade, commence weed
341 control program using pre-emergent and/or post-emergent herbicide.
342 Maintain weed control program through planting period to prevent weeds
343 from emerging.
344

345 **(L) Preparing for Planting.** Do not plant until site has been prepared,
346 is neat and orderly, and Engineer accepts site for planting.
347

348 **(M) Planting.**
349

350 **(1) Plant Holes.** Scarify sides and bottom of planting pits.
351 Place trees, shrubs and ground cover in plant pits as indicated in
352 the contract documents.
353

354 **(2) Setting Container Plants.** Perform planting without delay
355 to prevent foliage from effects of evaporation and drying. Prune
356 bruised or broken roots with clean cut at time of planting.
357

358 **(a)** Set plants to keep soil surface level within planting pit
359 and planted to give the best appearance in relationship to
360 adjacent structures or surroundings.
361

362 **(b)** Use appropriate excavated material to continue filling
363 plant pits. Set plant plumb, brace rigidly in position, and
364 tamp backfill mix solidly around root ball. After pit is $\frac{3}{4}$ full,
365 water thoroughly to saturate root ball.
366

367 (c) Distribute plant tablets or comparable fertilizer within
368 pit in accordance with manufacturer's instructions. Continue
369 filling pit to finished grade with backfill mix.

371 (d) When plant pit is filled, form saucer berm around
372 plants as necessary or as noted on details.

374 (e) Water immediately after planting until soil around and
375 below root ball is thoroughly saturated.

376
377 (3) **Staking.** Stake trees immediately after planting as indicated
378 in the contract documents.

379
380 (4) **Protecting Trees.** Install tree guard at base of each tree.

381
382 (5) **Windbreaks.** Erect windbreaks immediately after planting if
383 tree is less than 8-feet tall. Place windbreak to face prevailing
384 wind. Remove windbreaks after conclusion of plant establishment
385 period.

386
387 Construct windbreak that consists of two wood panels
388 forming right angle with apex of angle facing wind, and the wood
389 posts. Drive posts two feet into ground to secure windbreak.
390 Cover panels with screen material such as palm leaves or burlap.
391 Finished panels shall be 6-feet high. Each panel shall be 4-feet
392 wide.

393
394 Locate post where two panels meet at center of windbreak,
395 and another post at end of each panel. Post shall be 2x3 by 8-feet
396 long. Nail 1x3 horizontal wood battens securely to posts at top of
397 panel and bottom near ground. Lumber does not have to be new
398 but must be sound and free of discoloration. Staple screen material
399 to posts and battens.

400
401 (6) **Removing Surplus Excavated Material.** Dispose of
402 surplus excavated material from planting holes as specified in
403 Section 203 – Excavation and Embankment. Do not place surplus
404 excavated material on top of root systems of existing trees.

405
406 (7) **Cleanup.** Remove and dispose of empty containers and
407 accumulated debris when planting is completed.

408
409 (N) **Planting Period.** Planting period extends 90 days from date
410 Engineer accepts site. When area has a mixture of grass with either or
411 both trees and ground cover, planting period shall not start until all trees,
412 ground cover, and grass in the area are planted and accepted by the

Engineer. Replace plants that fail to develop healthy growth or die during the planting period. Provide and install replacements within two weeks of receiving notification from Engineer that plants are unacceptable. Apply fertilizer at time of planting and at the rate and frequency recommended by the Soil Analysis Report. Notify Engineer 24 hours in advance of fertilization. If satisfactory growth is attained before 90 days, Contractor may submit written request for earlier end of planting period. The planting period shall be completed before substantial completion will be granted.

(1) Native Hawaiian Plants. Provide a list of recommended fertilizers, application rates, and application schedule for fertilizer to the Engineer for review and acceptance. The list of recommended fertilizers, application rates, and application schedule for fertilizer shall be from the native Hawaiian plant nursery that plants were obtained. Exercise caution when fertilizing to avoid burning plants. Notify the Engineer, in writing, 24 hours in advance of fertilization. If satisfactory growth is attained before 90 days, Contractor may submit written request for earlier end of planting period.

(O) Controlling Weeds. Keep new planting areas at least 90 percent free of weeds and grass considered undesirable by the Engineer. Remove weeds by pulling roots. Do this daily if necessary. Deposit trash in appropriate container, remove from the Project site, and dispose of offsite. Chemical weed control, if chosen, shall be by method acceptable to the Engineer. Keeping new planting areas at least 90 percent free of weeds and grass considered undesirable by the Engineer is required as a condition of acceptance for the planting period. The Engineer will use the 90 percent weed-free condition of the site at the end of the planting period as the standard to determine acceptable performance by the Contractor during the plant establishment period.

(P) Hydro-mulching. Perform hydro-mulch seeding and hydro-mulching as specified in Section 641 – Hydro-mulch Seeding.

(Q) Pre-emergent Herbicide. Broadcast granular pre-emergent herbicide over planted areas in accordance with the accepted weed control program. Do not use pre-emergent herbicide in areas where grass seed is being applied or where new plants propagate by seed.

(R) Pruning. Prune existing trees that will remain in landscape. Trees should be pruned prior to construction operations beginning during the construction phase.

(1) Remove by methods acceptable to the Engineer, no more than 20 percent of the canopy from trees, preserving natural shape and characteristics of the trees. Canopy removal shall be

completed during the clearing and construction phase. Broken or badly bruised branches shall be removed with a clean cut during the construction phase, before wounds are allowed to dry out.

(2) Pruning work must be done by or under the direct supervision of a qualified arborist. Trim in accordance with publication ISBN 1-881956-07-5, "Tree Pruning Guidelines," of the International Society of Arboriculture. Dispose of cuttings outside the Right-of-Way as specified in Section 201.03(F) – Removal and Disposal of Material.

(S) Watering.

(1) Water all newly planted areas in quantity and frequency necessary to sustain plant growth. Install a temporary irrigation system. Contractor will be responsible for determining and establishing the water source and delivery method to the Project site. Contractor shall be responsible for obtaining and maintaining all necessary permits and agreements for the source of water for the irrigation system as well as ensuring water is delivered to the site for the duration of the project. Replace watering equipment that cause erosion or runoff. Watering equipment shall not cause any erosion or runoff. Water will be considered an incidental cost.

(2) If there is slope erosion or movement of silt, remove displaced material immediately. Restore areas that are eroded to a depth greater than 2-inches of original grade or width greater than 3-inches. Cost to repair erosion due to watering shall be borne by the Contractor.

(T) Plant Establishment Period.

(1) Planting period of 90-days plus a 9-month plant establishment period as per HDOT Standard Specifications.

During plant establishment period for all sites, water, fertilize, weed, cultivate, prune plants, and apply pesticide when required. Weeding will be required for all newly planted areas. Replace plants that fail to develop healthy growth, become injured, or die. Provide replacements within 2 weeks of receiving notification from Engineer that plants are unacceptable.

(2) **Barricades.** Where safety allows, set up barricades after planting to keep foot and vehicular traffic out of newly planted areas.

505 **(3) Watering.** Continue watering throughout the plant
506 establishment period with the temporary irrigation system. The cost
507 of water use and maintaining the temporary irrigation system shall
508 be considered incidental. Contractor shall be responsible for
509 obtaining and maintaining all necessary permits and agreements
510 for the source of water for the irrigation system as well as ensuring
511 water is delivered to the site for the duration of the project. Water
512 to keep planted areas moist but not oversaturated, and to ensure
513 good growth. Regulate quantity and method of water being applied
514 to prevent erosion, formation of gullies, and damage to hydro-
515 mulch. Immediately replace or modify the watering equipment that
516 causes erosion, runoff, formation of gullies, or damage to hydro-
517 mulch.

518
519 **(4) Fertilizing.** In addition to fertilizing during the planting
520 period, apply fertilizer at the rate and frequency recommended by
521 the Soil Analysis Report during the plant establishment period.
522

523 **(a) Native Hawaiian Plants.** Contractor shall continue to
524 use the list of recommended fertilizers, application rates, and
525 schedule of fertilizer application from the native Hawaiian
526 plant nursery initially provided to the Engineer.
527

528 **(b)** Notify the Engineer, in writing, 24 hours in advance of
529 fertilizer application. Notification shall include date of
530 application, type of fertilizer used, quantities, and areas that
531 were covered.
532

533 **(c)** Submit recommendations from a licensed Landscape
534 Architect when deviating from the application rates
535 recommended by the Soil Analysis Report. Document if
536 rates and amounts of fertilizer deviate from manufacturer's
537 specifications.
538

539 **(5) Controlling Weeds.**
540

541 **(a)** Keep new planting areas at least 90 percent free of
542 weeds and grass considered undesirable by the Engineer.
543 Remove weeds by pulling roots. Do this daily if necessary.
544 Deposit trash in appropriate container, remove from the
545 project site, and dispose of offsite. Chemical weed control, if
546 chosen, shall be by method acceptable to the Engineer.
547 Deposit pulled weeds immediately in bags to prevent the
548 spread of weed seeds. Removed dead weeds immediately.
549

(b) The Engineer will use the 90 percent weed-free site condition at the time of acceptance of the planting period as the standard for determining acceptable weed control performance by the Contractor during the plant establishment period. The Contractor shall ensure the site remains at least 90 percent free of weeds and grass considered undesirable by the Engineer for all 9-months of the plant establishment period.

(6) Disease or Insect Infestation.

(a) Inspect plants, including grass, weekly for disease or insect damage. Treat infected plants immediately with methods appropriate to control disease or insect damage. In all cases, Contractor shall follow manufacturer's specifications for application.

(b) Remove damaged or diseased growth from trees and shrubs.

(c) In all cases, ensure treatment of disease or insect infestation is not detrimental to the health and continued development of plants, especially native Hawaiian plant species and existing trees to remain.

(d) Notify the Engineer, in writing, 24 hours in advance of pesticide application. Notification shall include date of application, pesticide used, quantity, and areas that were covered. Document if rates and amounts of pesticide deviate from manufacturer's specifications. All personnel applying pesticides shall be certified if Restricted-Use pesticides are used.

(7) Dead or Dying Plants. Immediately remove plants that are not in a vigorous, thriving condition. Replace with plants of same type and size as was originally planted.

(8) Stakes. Reset plants to upright or proper growing position. Restake, tighten, or repair as necessary. Remove stakes at the conclusion of plant establishment period.

(9) Windbreaks. Adjust, repair, or replace windbreaks that have sustained damage or moved out of position.

(10) Plastic Headers. Replace or reset headers that have been damaged during maintenance.

596
597 **(11) Renaturalized Lava and Aggregates.** Remove weeds,
598 trash, and debris from renaturalized lava and aggregate beds at
599 least weekly. Dispose of refuse outside right-of-way. Replace list
600 renaturalized lava and aggregate and restore bed to original
601 finished grade.
602

603 The Engineer will credit the Contractor plant establishment days
604 when work is done in accordance with the contract documents and when
605 the Engineer determines that no work is required, regardless of whether
606 the Contractor actually performs plant establishment work. The Engineer
607 will not credit the Contractor with plant establishment days when the
608 Engineer determines that work is necessary but the Contractor fails to
609 adequately perform plant establishment work.
610

611 **(U) Acceptance.** Acceptance, if granted, will be at the end of the plant
612 establishment period. Engineer will base acceptance on 98 percent
613 minimum coverage with health, well-established ground cover. Plants
614 shall be in healthy growing condition and planting areas shall be 90
615 percent weed free.
616

617 Engineer will schedule semi-final inspection to decide acceptability
618 90 days before end of plant establishment period. At this time, Engineer
619 will notify the Contractor of plants that need to be replaced and other
620 apparent deficiencies
621

622 Final inspection will be held 90 days after Contractor provides plant
623 replacements and achieved healthy established growth.
624

625 **619.04 Measurement.** The Engineer will measure the various planting items
626 in the units specified in the proposal schedule and in accordance with the
627 contract documents.
628

629 **619.05 Payment.** The Engineer will pay for the accepted pay items listed
630 below at the contract price per pay unit. Payment will be full compensation for
631 the work prescribed in this section and the contract documents.
632

The Engineer will pay for each of the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Hau (<i>Hibiscus tiliaceus</i> , 25 Gal, 1.5"-2" Cal, 4'-6' Brown Trunk Height)	Each
Ohia Lehua (<i>Metrosideros polymorpha</i> , 25 Gal, 1.5"-2" Cal, 4'-6' Brown Trunk Height)	Each
Naupaka Kahakai (<i>Scaevola taccada</i> , 6" Pots @ 24" O.C. Full and Bushy, 18" – 24" Height)	Each
Pohinahina (<i>Vitex rotundifolia</i> , 6" Pots @12" O.C., Triangular Spacing)	Each
Plastic Header	Linear Foot
Root Control Barrier	Linear Foot
Re-naturalized Lava	Square Foot
Mortared Renaturalized Lava	Square Foot

Partial Payment Schedule For Planting Period With Plant Establishment Period. The Engineer will pay for:

- (A) 50 percent of the contract bid price upon completion of planting.
- (B) 15 percent of the contract bid price in three monthly payments of 5 percent for satisfactory performance during the planting period.
- (C) 16 percent of the contract bid price in eight monthly payments of 2 percent for satisfactory performance during the plant establishment period.
- (D) 19 percent of the contract bid price upon final acceptance at the end of the plant establishment period."

END OF SECTION 619

1 Make the following section a part of the Standard Specifications:

2
3 **SECTION 621 – INVASIVE SPECIES MANAGEMENT**
4
5

6 **621.01 Description.** This section describes the best management practices for
7 the prevention, identification, control, eradication, and reporting of invasive plant
8 and animal species (collectively, invasive species). Invasive species impacts can
9 include damage to infrastructure, public health and safety issues, reduction of
10 biodiversity, and reduced cover of desirable native and/or nonnative species. The
11 material found in Section 621 – Invasive Species Management shall be applied to
12 the following sections, as appropriate: Section 201 – Clearing and Grubbing,
13 Sections 202 – Removal of Structures and Obstructions, 203 – Excavation and
14 Embankment, 204 –Excavation and Backfill for Miscellaneous Facilities, 205 –
15 Excavation and Backfill for Bridge and Retaining Structures, and 206 –Excavation
16 and Backfill for Drainage Facilities, which cover various excavations; Section 209
17 – Temporary Water Pollution, Dust, and Erosion Control; Section 619 – Planting;
18 Section 641 – Hydro-Mulch Seeding; Section 642 – Landscape Maintenance; and
19 Section 643 – Maintenance of Existing Landscape Areas.
20

21 **(A) Definitions.** Whenever the following words, terms, or pronouns are
22 used in contract documents, unless otherwise prescribed therein and
23 without regard to the use or omission of uppercase letters, the intent and
24 meaning shall be interpreted as follows:
25

26 **(1) Alien Species.** Any species, including its seeds, eggs,
27 spores, or other biological material capable of propagating that
28 species, that is not native to that ecosystem.
29

30 **(2) Botanist/Arborist.** A person with a minimum of 5 years of
31 experience in the botanical field, including the identification,
32 eradication, control, and reporting of invasive plant species. The
33 CONTRACTOR's selected botanist/arborist shall be approved by the
34 Engineer.
35

36 **(3) Hawaii Invasive Species Council (HISC).** Inter-
37 departmental collaboration comprised of the Departments of Land &
38 Natural Resources (DLNR), Agriculture (DOA), Health (DOH),
39 Transportation (DOT), Business, Economic Development & Tourism
40 (DBEDT), and the University of Hawaii (UH). The HISC was
41 established in 2003 for the special purpose of providing policy level
42 direction, coordination, and planning among state departments,
43 federal agencies, and international and local initiatives for the control
44 and eradication of harmful invasive species infestations throughout
45 the State and for preventing the introduction of other invasive species
46 that may be potentially harmful.

47 **(4) Invasive Species.** An alien species whose introduction does,
48 or is likely to, cause economic or environmental harm or harm to
49 human health.
50

51 **(5) Invasive Species Committee (ISC).** Committees located in
52 Hawai'i that are island-based partnerships of government agencies,
53 nongovernmental organizations, and private businesses protecting
54 each island from the most threatening invasive weeds and pests.
55

56 **(6) Noxious Weed.** Any plant species that is, or that may be
57 likely to become, injurious, harmful, or deleterious to the agricultural,
58 horticultural, aquacultural, or livestock industry of the state and to
59 forest and recreational areas and conservation districts of the state,
60 as regulated by the Secretary of Agriculture and the federal land
61 management agencies and the State of Hawai'i Department of
62 Agriculture (HDOA) Hawai'i Revised Statutes (HRS) Chapter 152.
63 The HDOA Noxious Weed List can be found in HRS 4:6:68 (Noxious
64 Weed Rules).
65

66 **(7) Pest.** Any insect, rodent, nematode, fungus, weed, or any
67 other form of terrestrial or aquatic plant or animal life or virus,
68 bacteria, or other microorganism (except viruses, bacteria, or other
69 microorganisms on or in living humans or other living animals) that
70 the Engineer declares to be a pest (Federal Insecticide, Fungicide,
71 and Rodenticide Act, Section 2(t)).
72

73 **(8) Physical Construction.** Activities associated with clearing,
74 grubbing, grading, excavating, filling of land, or other similar site work
75 activities and that cause ground disturbance and/or site disturbance.
76

77 **(9) Propagule.** A vegetative structure that can become detached
78 from a plant and give rise to a new plant, e.g., a bud, sucker, or spore.
79

80 **(10) Priority Invasive Plants for the State of Hawai'i**
81 **Department of Transportation Construction Projects.**
82

83 **(a)** Plants and weeds identified in State of Hawai'i
84 Department of Transportation (HDOT) contract specifications.
85

86 **(b)** Plants on the U.S. Department of Agriculture Federal
87 Noxious Weed List and in HRS 4:6:68 (Noxious Weed Rules)
88 *provided that* the HDOA and/or the ISC also recommend that
89 weed as a target.
90

(c) Species identified as targets for the early detection, eradication, or containment and control by the local island ISC in each county, found at the following websites:

1. Hawai'i Island: <https://www.biisc.org/>
2. Kaua'i: <https://www.kauaiisc.org/>
3. Maui: <https://mauiinvasive.org/>
4. O'ahu: <https://www.oahuisc.org/>

(d) Species determined by HDOT to impact roadside maintenance operations, infrastructure, or health and safety of the public (as determined by the Engineer). These species can be found in Chapter 2 of the HDOT Invasive Species Project Prioritization Plan.

(e) Species that are actively controlled by neighboring landowners and agreed upon by the Engineer, as identified during pre-construction consultation with landowners (as applicable).

(11) Priority Pests for the State of Hawai'i Department of Transportation.

(a) Animals and pathogens designated as high-priority invasive species for early detection, eradication, or containment by the ISCs or HDOA in each county.

(b) Animals and pathogens known to impact roadside maintenance operations, infrastructure, or public safety, as determined by HDOT.

(c) Animals and pathogens that are of concern to neighboring landowners and the Engineer agrees should be targets for HDOT.

(12) Weed. Any plant growing where it is not wanted, as determined by the Engineer.

(13) Wildlife Biologist. A person with a minimum of 5 years of experience in the wildlife field, including identification, eradication, control, and reporting of invasive animal species. The CONTRACTOR's selected Wildlife Biologist shall be approved by the Engineer.

137 **621.02 Materials.**

138
139 **(A) Free from Invasive Plants or Pests.** All material, including plant
140 material, gravel, sand, and soil, provided for the project shall be free of
141 invasive plants or pests. Such action is to prevent the introduction of
142 invasive species onto the project site.

143
144 **(B) Plant Material Sources.**

145
146 **(1)** The CONTRACTOR shall buy plants propagated on the island
147 where the plants will be planted. The CONTRACTOR shall provide
148 the Engineer with the names of the nursery or nurseries they will use
149 to provide landscaping plants in accordance with Section 619 –
150 Planting. A Botanist/Arborist and a Wildlife Biologist (collectively,
151 Biologists) shall inspect the nursery for the presence of invasive
152 species on the property and in planting materials destined for the
153 project site within 90 days of planting. Inspection results shall be
154 provided to the Engineer in a report.

155
156 **(2)** Should plants not be available on-island, imported plants from
157 off-island may be used but shall not be brought directly to the project
158 site. State of Hawai'i Plant Quarantine Branch–certified nurseries
159 should be given priority when selecting off-island plant imports (State
160 of Hawai'i Plant Industry Division 2020, available at:
161 <https://hdoa.hawaii.gov/1pi/pq/certified-nurseries/>). These plants
162 shall not be mixed with locally grown plants and shall be first
163 quarantined in a location away from the project site for a period not
164 less than 30 days in an area approved by the Engineer. Biologists
165 shall inspect all plants imported from off-island to ensure that they
166 are free from invasive species, such as coqui frogs
167 (*Eleutherodactylus coqui*), fire ants (*Wasmannia auropunctata* and
168 *Solenopsis geminata*), and weed seedlings, that could arrive
169 inadvertently. The Biologists shall screen out any priority invasive
170 plants or other potentially invasive plants or organisms, including
171 imported plants that appear to be sick or carrying disease. Any plant
172 that appears to be diseased shall be submitted to the University of
173 Hawai'i College of Tropical Agriculture and Humane Resources
174 extension agents for positive identification of the disease. The
175 Biologists may also seek assistance from other organizations,
176 including the State of Hawai'i Department of Land and Natural
177 Resources (DLNR), HDOA, and the local island ISC in the
178 identification or detection of non-plant invasive species. Imported
179 plants shall be planted out only after they have been determined to
180 be free of unwanted weeds or animal pests at the quarantine location
181 determined by the Engineer. All pests or invasive species shall be

reported by calling the Hawai'i Invasive Species Council at 808-643-PEST (7378) to determine appropriate treatment.

(3) In conjunction with Section 641 – Hydro-Mulch Seeding, a botanist/arborist shall inspect seeded areas a minimum of 45 days after hydroseed is applied.

(C) Construction Material.

(1) The Contractor shall make sure all material stockpile sites are free of invasive plants (including seeds and propagules) and animals. Stockpile site surveys shall be included in the Biologists' inventory report.

(2) All imported materials, including gravel, soil, rock, and sand shall be free of invasive species.

(3) All materials shall be stockpiled at a designated staging area to prevent contamination. If possible, permanent containment areas shall be constructed for long-term projects.

(4) Stockpiles of materials such as gravel, soil, rock, and sand shall be inspected every 6 months by the Biologists to ensure that they are not encroached upon by invasive plants or animals (a buffer of 30 feet shall be maintained).

(5) If invasive species are present, the CONTRACTOR shall either chemically or mechanically remove them, as determined by the Engineer.

621.03 Construction.

(A) Responsibility.

(1) Any priority invasive plants and priority pests that establish after notice to proceed and prior to final acceptance by the Engineer that were not present before construction shall be the sole responsibility of the CONTRACTOR to remove or control. Acceptable removal is dependent on the type of species and shall be approved by the Engineer.

(2) The CONTRACTOR shall be responsible for the control or eradication of priority invasive plants and/or priority pests that are already established at a project site before construction begins. CONTRACTOR responsibility is determined by the Engineer.

Removal of already established species shall be paid from the force account; see Payment section below.

(3) The CONTRACTOR shall ensure that weed and/or pest removal is carried out in a legal manner, including obtaining all necessary training, licenses, and permits from applicable regulatory agencies for the specific methods proposed for removal and disposal of invasive species.

(B) Inventory of Invasive Species before Physical Construction.

(1) A full list of plant and animal species present at the site (botanical inventory and faunal inventory, respectively) is required for projects that have more than 1 acre or 43,560 square feet of roadside soil or vegetation and which will remain as soil or vegetation at the end of the construction project. The botanical and faunal inventory can either be combined into one report or the floral and faunal inventories can be reported on separately. Biologists shall provide one electronic copy of each inventory report to the Engineer. Botanical and faunal inventories shall be undertaken within 30 days before physical construction activities (e.g., site work, clearing, grubbing, ground disturbance, and/or any other site disturbance) are initiated. The postconstruction botanical and faunal inventories shall be undertaken during the Plant Establishment Period, which extends 9 months from the accepted completion date of the Planting Period. See Section 619 – Planting for definitions on the Planting Period and the Plant Establishment Period. The botanical and faunal inventory of the right-of-way shall be done by Biologists hired by the CONTRACTOR. The botanical inventory report shall include scientific names of plant species and their abundance (area covered and/or number of plants, as appropriate, depending on growth form). For priority invasive plants, the inventory shall provide details on GPS location (NAD 83) and reproductive status: mature (reproductive parts present) or immature. For priority invasive animals, the inventory shall include scientific names of faunal species and shall provide details on GPS location (NAD 83) and individual(s) detected.

(2) The Biologists shall inventory and report any priority invasive plants and/or priority invasive pests within 30 feet of any proposed on-site stockpiles for gravel, sand, and soil that may be sourced for the construction project.

(C) Invasive Species Removal Plan.

(1) If invasive species are found before physical construction, including within 30 feet of material stockpile locations, the CONTRACTOR shall submit an invasive species removal plan for approval by the Engineer. This plan shall include specific removal methods for all priority invasive species identified by the Engineer, such as physical removal and/or chemical treatments, and a detailed post-removal monitoring plan. The plan should address how to prevent the spread of the invasive species if not removed. A cost to remove and a cost to prevent the spread shall be submitted by the CONTRACTOR. Preparation of the removal plan will be paid for from the force account.

(2) If the invasive species is/are not removed prior to physical construction, the CONTRACTOR shall surround areas of all invasive plants with a protective 4-foot-high, orange plastic mesh or equivalent fence accepted by the Engineer, supported on a minimum 6-foot-long steel T-post. The CONTRACTOR shall provide signage on the fence that states "not to disturb or work within the fenced area." Fences shall be erected before removal work begins and shall not be removed until removal work is completed. For trees or shrubs, flagging tape can be used to mark plants. The CONTRACTOR shall contact the local island ISC to determine the best method to contain invasive animals.

(D) Removal of Priority Invasive Species Found before Physical Construction.

(1) The CONTRACTOR shall be required to remove invasive plants and/or priority pests present at the site after approval of the removal plan or implement mitigation measures to prevent their spread. Removal of invasive species present prior to construction will be paid from the force account. Removal shall be completed prior to any physical construction at the project site.

(2) The CONTRACTOR shall be responsible for ensuring the plant and animal removal is carried out in a legal manner, including obtaining all necessary training, licenses, and permits from applicable regulatory agencies for the specific methods proposed for clearing and removing invasive species.

(3) If pesticides are proposed for use in the removal plan, the CONTRACTOR shall ensure that their application is supervised by a licensed commercial applicator. The labels for pesticides being used must be in the applicator's possession; the applicator shall have proper safety equipment and be prepared to handle chemical spills before they occur. The CONTRACTOR shall use the least toxic

chemical that shall achieve the desired results. If a chemical spill occurs, the Engineer must be notified, and the proper authorities shall be notified in accordance with the pesticide label requirements. A record of chemical applications shall be kept by the commercial applicator and submitted to the Engineer.

(4) Green waste resulting from invasive species removal shall be disposed in a manner that will prevent spread by seeds or regrowth from plant fragments. Material contaminated with invasive species shall be covered and secured during transport to prevent other areas from becoming contaminated. In addition, seeds and fruit shall be placed and secured in bags by the CONTRACTOR. As determined by the Engineer, plant material shall be incinerated or buried in a landfill.

(E) **Post-removal Monitoring and Inspection.** A Biologist shall carry out post-removal monitoring at least every 6 months to confirm that the removal plan was successfully implemented. The post-removal monitoring is intended to ensure that the treated areas remain free of invasive species during the construction. Before handing the site over to the Engineer, the CONTRACTOR shall perform an inspection of the entire construction site. The Engineer shall determine whether the CONTRACTOR has met the responsibilities for invasive species removal based on the post-removal inspection report.

(F) **Decontaminating Equipment, Machinery, and Vehicles.**

(1) **Clean Equipment.**

(a) All CONTRACTOR equipment and vehicles shall arrive at the work site clean and visibly free of any soil, plants, or plant parts (e.g., seeds); insects and insect eggs; reptiles and amphibians and their eggs; or any other invasive species. Routine clean-down procedures shall be implemented to prevent contaminants from building up using visible inspection and power washing equipment. All equipment cleaning and sanitation shall be incidental to the lump-sum pay items.

(b) The CONTRACTOR shall certify that equipment is arriving free of soil and debris capable of transporting viable invasive plant parts, seeds, or propagules, or invasive animals. The CONTRACTOR shall provide the Engineer with sequentially numbered decals and an accompanying spreadsheet with the decal numbers indicated in one column and subsequent column headings for the date of inspection and license plate number. Decals shall include the contract

number and be consistent with the format supplied by the Engineer. The CONTRACTOR shall place the decal on construction project machinery and vehicles, and the Engineer will initial and date the decal after an inspection determines that the vehicles are acceptably clean. After initialing the decal on the vehicle/ machinery, the Engineer will use the submitted spreadsheet to record the date of inspection and license plate number. The CONTRACTOR shall remove the decal after project completion.

(c) Vehicles or equipment that are off-site for 1 or more working days shall be cleaned and inspected at least once prior to their arrival at site. For other vehicles left on-site, the CONTRACTOR shall attempt to maintain reasonable standards of vehicle hygiene, and frequency of inspection will be determined by the Engineer.

(d) All vehicles and equipment brought in for construction work from off-island are required to be thoroughly washed at the port of export before they arrive at the project site. If invasive species are found at the project site, all vehicles that are deemed to be contaminated by the Engineer must be washed before leaving the project site and being returned to its island of origin, or if not feasible or appropriate at the project site, then at an approved alternative site.

(e) Cleaning Stations.

1. The Engineer will designate a cleaning station for the project site. The location of cleaning stations shall be recorded using a GPS unit and provided to the Engineer. The Engineer will consider the following when selecting and approving a cleaning station at the project site:

a. The cleaning stations shall not contribute to further contamination of machinery. To prevent this, gravel or other appropriate material shall be used to minimize contact with mud or dirt, which may contain invasive plant seeds.

b. Cleaning stations shall be located in low-value areas (e.g., away from native vegetation) or off-site.

c. The designated cleaning area must provide an environment for operators to safely undertake clean-down procedures (i.e., is safe for road traffic and personnel).

d. Cleaning station locations must be clearly posted with signs that say: "Cleaning Station."

2. The CONTRACTOR shall only use designated cleaning stations at the project site to decontaminate equipment, machinery, and vehicles. All earthwork equipment shall be cleaned and be completely free of soil, seeds, vegetative matter, or other debris that could contain plant seeds or propagules prior to arrival and/or before leaving the project site. Manual clean-down procedures consist of using hand tools such as brushes, brooms, air compressors, vacuums, and/or high-pressure water guns. If using high-pressure water, apply only as much water as needed to avoid unnecessary run-off. As part of the cleaning, the CONTRACTOR must pay particular attention to key areas such as the chassis and wheels. A clean-down checklist for vehicles shall include the following:

a. Underside: wheels, rollers, tracks, wheel arches, wheel trim, bumpers, mud flaps, tire rims, axle, differentials, and spare tire

b. Digging apparatus, blades, and buckets

c. Interior: foot wells, carpets, and under mats

d. Engine bay: radiator, air filters, grille, recess under windscreen wipers, and transmission gearbox

e. Tray and trunk (for soil, seed, and plant material)

3. The CONTRACTOR shall clean and inspect equipment before it arrives at the project site. Equipment shall be considered free of soil, seeds, and other such debris after a visual inspection confirms it. Visual inspection shall include the complete exterior,

including undercarriages, tires, wheel wells, and grille. Disassembly of equipment components or specialized inspection tools are not required. The Engineer will maintain a log of vehicle inspections. Earthwork equipment shall not be allowed to operate within the state right-of-way until approved by the Engineer.

4. Priority pests found hitchhiking on equipment shall be reported to HDOA by calling 808-643-PEST (7378).

5. Equipment shall not be sprayed with pesticides as a preventative measure. Spraying equipment with pesticides is not consistent with label specifications. Additionally, many pesticides target a wide range of vegetation and invertebrates and using pesticides in this way may harm nontarget vegetation and invertebrates.

6. The CONTRACTOR shall thoroughly inspect seeding equipment prior to conducting seeding activities to ensure they are free of invasive plant propagules.

(G) Ensuring No Invasive Species Become Established during Construction.

(1) The CONTRACTOR is responsible for keeping the construction site free of invasive species. Monitoring shall be carried out by the CONTRACTOR after removal of invasive species found prior to construction, every 6 months during construction, after physical construction, and after the Plant Establishment Period, before handing the site over to the State. This monitoring shall be undertaken by a Botanist/Arborist for invasive plants and a Wildlife Biologist for invasive animals who shall provide an inventory report which will include scientific names of plant and animal species and their abundance (e.g., area covered and/or number of plants, as appropriate, depending on growth form; and number of individual animals detected). The invasive species inventory report can either report on invasive plants and animals separately or joined as a single document. The report for priority invasive plants shall provide GPS (NAD 83) locations and reproductive status, and the report for priority invasive pests shall provide GPS (NAD 83) locations and the number of individuals detected. Each Biologist shall provide one electronic copy of each inventory report to the Engineer.

(2) Invasive Species Information Signage at the Project Site. Invasive species and noxious weed signage shall be prominently posted at the CONTRACTOR's workplace and at the project site. Signage shall include one laminated 8.5 × 11-inch color page for each HDOT priority invasive species relevant to the project site. The CONTRACTOR may obtain free digital files with invasive species photographs that shall be printed and laminated for use on the project site; these are available at: <http://www.hawaiiinvasivespecies.org>. All signage shall include "Call 808-643-PEST (7378)."

(3) Training. HDOT and the CONTRACTOR's field staff shall attend a mandatory training by biologists knowledgeable about invasive plants and animals about on-site decontamination protocols, identification of priority invasive species and pests, and reporting procedures, once annually (or prior to any physical construction). The local island ISC should be contacted for training information. Trainers shall record the name and date of training for those individuals that complete the training, which shall be provided to the Engineer upon request.

(4) Unannounced Inspections. The CONTRACTOR shall provide unfettered access to the state right-of-way to any ISC staff, HDOA staff, or anyone else acting for the Engineer for the purpose of detecting or monitoring invasive species.

(H) Post-Physical Construction Prior to Returning the Site to the State—Post-Construction Inventory. The CONTRACTOR shall conduct a post-construction invasive species inventory to verify and confirm that the CONTRACTOR maintained the site in the original condition after the initial removal of invasive species was conducted. If additional invasive species are found, the CONTRACTOR would be responsible to develop a removal plan, remove the invasive species found, and conduct post-removal monitoring at their own expense. The removal plan shall be subject to Engineer approval.

621.04 Measurement.

(A) Invasive species control measures during construction, including signage and decontamination training, will be paid on a lump sum basis. Measurement for payment will not apply.

(B) The development of the invasive species removal plan, removal of invasive species established before physical construction and not part of the project's physical construction work, as well as the post-removal monitoring, shall be paid with force account funds. The Engineer will measure invasive species removal planning, removal, and monitoring

required and requested by Engineer on a force account basis in accordance with Subsection 109.06 – Force Account Provisions and Compensation.

621.05 Payment. The Engineer will pay for the accepted invasive species management on a contract lump-sum basis after the final acceptance of the project. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Inventory of Invasive Species before Construction	Lump sum
Invasive Species Removal Plan	Force account
Removal of Plants and Animals Established before Physical Construction or Site Work, Post-removal Monitoring	Force account
Monitoring of Invasive Species during and after Construction	Lump sum
Post-Construction Inventory Prior to Returning the Site to the State	Lump sum

An estimated amount for the force account is allocated in the proposal schedule under Existing Invasive Species Removal, which includes the Invasive Species Removal Plan and the Removal of Plants and Animals Established before Physical Construction or Site Work, Post-removal Monitoring. The actual amount to be paid will be the sum shown on accepted force account records, whether this sum is more or less than the estimated amount allocated in the proposal schedule.

END OF SECTION 621

Delete Section 622 in its entirety and replace with the following:

SECTION 622 - ROADWAY AND SIGN LIGHTING SYSTEM

622.01 Description. This section describes the following:

(A) Furnishing and installing roadway lighting system, including HELCO metering equipment, and materials necessary for operating and controlling roadway lighting system.

(B) Removing and salvaging existing roadway lighting system, and delivering salvaged equipment and materials to County of Hawaii.

(C) Removing and salvaging existing traffic signal system, and delivering salvaged equipment and materials to County of Hawaii.

622.02 Materials.

All concrete must comply with the CO2 footprint reduction requirements in Section 601 Structural Concrete.

Structural Concrete (Class B)	601
Reinforcing Steel	602
Dark Green Enamel Paint	708.03
Welded Wire Fabric Reinforcement	709.01(C)
Concrete Pull Box	712.06(B)
Conduits	712.27
Aluminum Light Poles	760.01(A)
Luminaire Mast Arms	760.02
Cables and Wires for Roadway Lighting System	760.04
Disconnect and Protective Devices	760.05
Waterproof Connectors for Roadway Lighting	760.06
Photoelectric Control	760.07

Structural steel anchor bolts and steel plates shall conform to AASHTO M 164 and ASTM A 36, respectively. Exposed anchor bolts, nuts, and washers shall be zinc-coated, in accordance with ASTM F2329. Anchor bolts and nuts shall be galvanized after threads are cut. After galvanizing, ensure that all nuts will turn on bolts to full thread depth. Coat threads with paraffin wax.

Crossarms, hardware, and anchoring materials shall match materials normally stocked and used for similar purpose by local public utility companies.

Electrical equipment shall conform to standards of the following, wherever applicable:

- (A) NEMA.
- (B) UL, Inc.
- (C) Electrical Testing Laboratories (ETL).
- (D) National Electrical Testing Association, Inc. (NETA)

Materials shall conform to requirements of the contract documents and the following:

- (A) NEC.
- (B) Hawaii Administrative Rules Chapter 6-73.
- (C) ASTM.
- (D) ANSI.
- (E) Local utility company rules.
- (F) Local ordinances that may apply.

Design of steel pole, arm, and appurtenances shall conform to:

- (A) Hawaii Department of Transportation Design Criteria for Bridges and Structures including all subsequent interim revisions and editions.
- (B) AASHTO LRFD Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 1st Edition (2015) including all subsequent interim revisions and editions.

622.03 Construction. Perform work in accordance with requirements of the contract documents and the following: NEC; Hawaii Administrative Rules Chapter 6-73; ASTM; ANSI; local utility company rules; and local ordinances that may apply.

(A) Equipment List and Drawings. Submit within seven days following contract award, 6 copies of materials and equipment list. Include name of manufacturer, size and identifying number of each item, detailed scale drawings, wiring diagrams of special equipment, and proposed deviations from the contract. If required, submit samples of materials.

Prepare diagrams and drawings using graphic symbols indicated in IEEE publication *Graphic Symbols for Electrical and Electronic Diagrams*.

Submit six copies of materials and equipment list for temporary lighting system. When existing lights are removed, damaged, or nonfunctional, install and operate temporary lighting system during hours of darkness. Provide same amount of illumination as existing lighting system.

Upon completion and acceptance of work, submit construction as-built drawings showing detailed construction changes.

(B) Excavation and Backfill. Excavate and backfill in accordance with Section 204 - Excavation and Backfill for Miscellaneous Facilities.

(C) Installation.

(1) Foundations. Construct foundations as indicated in the contract documents. Foundations within clear zone, as defined by AASHTO *Roadside Design Guide*, including anchor bolts, shall not extend more than 4 inches above surrounding ground.

Set forms true to correct line and grade. Use rigid forms, securely braced in place. Place conduit ends and anchor bolts in proper position and height and hold in place with rigid top template. In addition to rigid top template, hold anchor bolts in place by means of rigid bottom template made of steel. Bottom template shall provide proper spacing and alignment of anchor bolts near their bottom embedded end. Install bottom template before placing footing concrete. Anchor bolts installed more than 1:40 from vertical will be rejected. Hold conduit ends and anchor bolts in place by template until concrete sets. Cure concrete for not less than 72 hours.

Mix, place, and cure concrete for foundations in accordance with Section 601 - Structural Concrete and Section 503 - Concrete Structures.

(2) Metal Lamp Standards. Install metal lamp standard with shaft plumb on anchor bolts and concrete foundation. Set bracket arm perpendicular to roadway centerline.

Set standards at required locations or as ordered by the Engineer. Install transformer base such that access cover is located on trailing face perpendicular to oncoming traffic.

Place leveling grout with weep holes under entire metal lamp standard base plates. Form exposed portions to present neat appearance.

(3) Mast Arms. Set mast arms perpendicular to roadway centerline.

(4) Luminares. Assemble luminaires and install on metal lamp standards and mast arms. Set luminaire's vertical axis perpendicular to roadway and longitudinal axis parallel to roadway.

Install luminaires at pedestrian stairways, underpasses, and sign luminaire brackets, as indicated in the contract documents.

(5) Pull Boxes. Furnish and install pull boxes as indicated in the contract documents. Carefully excavate for pull boxes.

Install pull boxes so that covers are level with curb or sidewalk grade or 1 inch above existing ground.

(6) Conduits. Lay polyvinyl chloride (PVC) conduits carefully in trenches prepared to receive conduits. Concrete encase PVC Schedule 40 conduits under roadway areas. Use PVC Schedule 80 conduits, direct buried, in areas not exposed to traffic.

Set conduits to be placed in concrete structure or encased in concrete to required lines and grades. Support conduit rigidly in place by masonry material, manufactured conduit spacers, or other accepted means, so that conduit will not dislodge during concrete placing and tamping. Place concrete encasement using hand shovels only. Cure concrete for at least 12 hours before backfilling and compacting.

Whether shop or field cut, ream end of conduits to remove burrs and rough edges. Make cuts square and true. Slip joints or running threads will not be allowed for coupling conduit. When standard coupling cannot be used for coupling metal-type conduit, use of UL or ETL listed threaded union will be allowed.

Install rigid steel conduit in accordance with NEC requirements for rigid metal conduit. Use white and tinted ready-mixed paint on threads of joints. Repair zinc-coated surfaces in accordance with Subsection 501.03(G)(2) - Repairing Damaged Zinc-Coated Surfaces.

Apply two coats of asphaltic base paint to exterior portions of direct burial steel conduits not encased in concrete immediately after installation.

Install and repair surfaces of PVC-coated rigid steel conduit in accordance with manufacturer's recommendations.

Install PVC conduit in accordance with NEC requirements. Use solvent weld connections. Make solvent weld joints in accordance with conduit manufacturer's recommendations.

Make directional changes in non-metallic conduit with curved segments using accepted deflection couplings, or with short lengths of straight conduits and couplings. Deflection angle between two adjacent lengths of conduit shall not exceed 6 degrees. Do not use radius of less than 12 times nominal size of conduit, unless using factory-made ells.

Thread connection for PVC conduits to rigid metal conduits on metal conduit side.

Provide each conduit run with No. 10 gauge flexible, zinc-coated pull wire or 1/8-inch polyolefin line extending through entire length. Double additional 2 feet of wire or polyolefin line back into conduit at both ends of run. End metal conduits entering pull boxes with insulating grounding bushings. End non-metallic conduits with end bells. Cap or plug ends temporarily.

Cap or plug and mark ends of conduit stubouts. Ends of conduit runs shall extend at least 24 inches past face of curb or edge of pavement, unless entering pull boxes. Install markers or markings on curbs for conduit runs. Show locations on as-built plans, as specified under Subsection 622.03(A) - Equipment List and Drawings.

Pass bullet-shaped test mandrel, 14 inches long with diameter 1/2 inch less than inside diameter of each conduit run. Scores found on mandrel deeper than 1/32 inch shall be indication of burrs or obstruction in conduit run. Remove burrs and obstructions. Redo mandrel test until no scoring on mandrel deeper than 1/32 inch is evident.

Keep interior of conduits clean during construction by temporarily plugging ends of conduits. Plug conduit ends at end of each workday, whenever work is stopped, and whenever conduits are subject to submergence in water. Install conduits to drain toward pull boxes or handholes.

Provide pulling wire, No. 12 AWG galvanized steel or polypropylene cord, in all empty ducts and conduits.

(7) Cables and Wires. Provide cables and wires conforming to the NEC. Arrange cables and wires within enclosures, cabinets, luminaires, standards, and pull boxes neatly; and cable together using self-clinching nylon cable ties or other method accepted by the Engineer.

Encase cables and wires installed underground or in concrete rigid barrier type guardrail in conduits.

Immediately before installing cables and wires in conduits, pull wire brush through each conduit to remove extraneous matter, obstructions, and debris.

Furnish cables and wires on reels.

Pull cables and wires directly from their cores or reels into conduits with cable grip designed to provide firm hold on exterior covering of conductor and cable. Do not pull off and lay cables and wires on the ground before installation. Make pulls in one direction only. Use UL or ETL listed inert lubricant. Do not leave cables and wires under tension or tight against bushings or fittings.

Remove damaged ends resulting from use of pulling grips immediately after pulling cable and wire. Maintain cable and wire end seals. Do not pull open-ended cables and wires through conduits. Install cables and wires continuous from pulling point to pulling point. Splices between pulling points will not be allowed. Splices shall only occur inside pull boxes, handholes, or transformer bases.

After cables and wires are installed, seal conduit ends with duct sealing compound conforming to Subsection 712.27(E) - Duct Sealing Compound. Seal vacant conduits with duct sealing compound or plug designed for that purpose and accepted by the Engineer.

When splicing is required, join cables and wires with no-solder pressure connectors. Use no-solder pressure connectors for splicing cables and wires, No. 8 AWG or larger. Leave no sharp points that can pierce taping. Splice and terminate cable and wire in accordance with cable and wire manufacturer's recommendations. Submit cable and wire manufacturer's splicing instruction sheets.

Trim cable and wire insulation to conical shape. Roughen cable and wire insulation before applying splice insulation. Splice insulation includes layers of thermoplastic electrical insulating tape not over 0.007 inch thick conforming to Military Specification MIL-I-24391C. Apply splice insulation well lapped over and with same thickness as original insulation. For high voltage and multiple lighting cable and wire splices, apply two layers of synthetic oil-resistant rubber tape conforming to ASTM D 4388 over each cable and wire before placing thermoplastic tape. Then cover splice with at least two layers of asphaltic-impregnated, open-mesh, fabric tape and coating of high-grade insulating paint or similar material.

Coil neatly, at least 5 feet of slack cable or wire near each lamppost foundation, pull box, or transformer base.

String overhead line cables and wires in accordance with Hawaii Administrative Rules Chapter 6-73;

Encase cables and wires on surface of wood poles in rigid steel or PVC-coated rigid steel conduits from 6 inches above ground level to 10 feet above ground and in PVC Schedule 80 conduits above 10 feet.

(8) Bonding and Grounding.

(a) Provide grounding for entire electric installation in accordance with the NEC and as specified herein. Ground the following:

- (1)** Electrical service including equipment and enclosures.

(2) Conduits, other conductor enclosures, and panelboards.

(3) Equipment with non-current carrying metal parts, such as controller cabinets, and lighting fixtures.

(b) **Grounding Electrode.** Furnish copper-cladded steel core ground rod with 25 ohm maximum resistance to ground. Size of ground rod shall be 5/8 inch by 10 feet. Where resistance exceeds 25 ohm maximum, provide one additional ground rod.

(c) **Manner of Grounding.** Sizes and types of ground conductors, ground clamps, bonding jumpers, conduit, fittings, methods of securing same to obtain electric continuity and effective grounding, when not indicated, shall be in accordance with NEC requirements.

(d) Install ground wire in non-metallic conduits. Furnish ground wire size in accordance with the NEC. Bond street lights and equipment enclosures together by using ground conductor running in conduit system.

(9) **Pull boxes.** Install pull boxes so that covers are level with curb or sidewalk grade or 1 inch above existing ground.

Give frames and covers two coats of asphaltic base paint after installation.

(10) **Continuity of Service.** During relocation, reconstruction, removal or other improvements of existing roadway and sign lighting system, keep existing system operational until reconstructed or new system is in service. Arrange work accordingly and provide temporary lighting system as necessary.

(11) **Secondary Connections.** Make connections from secondary power supply line to fuse boxes with copper cable and wire matching existing secondary cable and wire material.

(D) **Painting.** Furnish metal poles and mast arms with natural zinc-coated finish. Do not paint metal poles and mast arms.

(E) **Electric Service.** Arrange for electric power service with such promptness as to cause no delay in work or work of any other Contractor, and comply with power company's requirements. Provide secondary circuit extensions to power company's service. Power company shall provide

metered service connections and all applicable power company owned equipment.

On multiple circuits, install laminated black and white plastic identification tag at each source, wood pole, or metal lamppost supporting luminaire.

(F) Field Test. Perform the following tests in presence of the Engineer and submit test results as follows:

(1) Test for continuity of each circuit.

(2) Test for grounding of each circuit. Upon completion of the project, Contractor shall submit in writing to the Engineer the measured ground resistance of each ground rod and grounding system, as well as the resistance and soil conditions at the time the measurements were made.

(3) Megger test each circuit between circuit and ground. Insulation resistance shall not be less than values specified in Table 622.03-1 - Insulation Resistance when measured with instrument having voltage rating of 500 volts.

TABLE 622.03-1 - INSULATION RESISTANCE	
Cable or Circuit	Minimum Resistance (ohms)
No.14 - No.12 wire	1,000,000
25 to 50 amperes	250,000
51 to 100 amperes	100,000
101 to 200 amperes	50,000
201 to 400 amperes	25,000
401 to 800 amperes	12,000
over 800 amperes	5,000

387 **(4)** Functional test to show that system functions as specified.

388
389 Replace or repair faults in material or installation revealed by these
390 tests. Repeat same tests until no fault appears. All test results shall be
391 recorded and submitted.

392
393 **(G) Salvaging Electrical Equipment.** Carefully remove, clean, store,
394 reinstall, and reconnect relocated lighting fixtures.

395
396 Remove and dispose of existing electrical equipment not reused in
397 the contract and remove top of abandoned foundation, including anchor
398 bolts and conduits, in accordance with Section 202 - Removal of Structures
399 and Obstructions. Backfill resulting hole with material acceptable to the
400 Engineer.

401
402 **(H) Restoring Pavements and Other Improvements.** Restore to their
403 original condition, existing pavements and other improvements, such as
404 driveways, sidewalks, curbs, and gutters, disturbed by excavation. Use
405 replacement material equal to or better in quality than existing materials.
406 Match existing grades, thickness, texture, and color whenever applicable.

407
408 **(I) Warranty.** Provide new material and equipment for permanent
409 construction.

410
411 Furnish copies of manufacturer's warranty or warranties
412 guaranteeing equipment free from defects in materials, design, and
413 manufacturing, for not less than 12 months from date of acceptance.

414
415 Adjust or repair material and equipment under warranty within 24
416 hours from time of notification.

417
418 Temporarily replace under-warranty material and equipment
419 requiring factory corrections, within 24 hours from time of notification.
420 Install factory corrected or new material and equipment no later than 30
421 days from time of notification.

422
423 **(J) Certification and Mill Test Reports.** Certification and mill test
424 reports shall be submitted with the following information:

425
426 **(1)** List of component parts including the following:

427
428 **(a)** Description of each part.

429
430 **(b)** Materials manufacturing location (including ASTM
431 number where applicable).

433 (c) Certificate of compliance.

434

435 (2) Shop drawings accompanied by complete and detailed
436 engineering computations that justify selection of dimensions and
437 material. Hawaii Licensed Professional Engineer (Structural) shall
438 certify computations.

439

440 (3) Copy of mill test report for structural members (posts and
441 beams), including physical and chemical descriptions of material
442 incorporated

443

444 (G) **Removals.** Contractor shall demolish existing foundations 2 feet
445 below the finished grade. Backfill in accordance with Section 204 -
446 Excavation and Backfill for Miscellaneous Facilities. Restore landscaping
447 to match adjacent area.

448

449 **622.04 Measurement.** The Engineer will measure roadway and sign lighting
450 systems as described below. Pay units such as linear footage (L.F.) for conductors
451 and conduits and per each item for other street lighting equipment in accordance
452 with the contract documents.

453

454 **622.05 Payment.** The Engineer will pay for accepted pay items listed below at contract
455 price per pay unit, as shown in proposal schedule. Payment will be full compensation
456 for work prescribed in this section and contract documents.

457

458 The Engineer will pay for each of the following pay items when included in the proposal
459 schedule:

460

461 Pay Item	Pay Unit
--------------	----------

462

463 Removal of Existing Roadway Lighting System	Lump Sum
---	----------

464

465 Temporary Roadway Lighting System	Lump Sum
---------------------------------------	----------

466

467 Street Light System Cabinet and Foundation	Each
--	------

468

469 Street Light Luminaire, 85W, E2-HI50-ST-85W-7PD-SF LED	Each
--	------

470 Luminaire, 30' Aluminium Pole, Transformer Base, Dualhead,

471 8' Bracket Arms, Concrete Base, and Appurtenances

472

473 Street Light Luminaire, 85W, E2-HI50-ST-85W-7PD-SF LED	Each
--	------

474 Luminaire, 30' Aluminium Pole, Transformer Base, Single head,

475 15' Bracket Arm, Concrete Base, and Appurtenances

476	Street Light Luminaire, 100W, E2-HI50-ST-100W-7PD-SF LED	Each
477	Luminaire, 30' Aluminium Pole, Transformer Base, Single head,	
478	8' Bracket Arm, Concrete Base, and Appurtenances	
479		
480	Street Light, Type A Pullbox	Each
481		
482	Street Light, Type C Pullbox	Each
483		
484	Street Light Conductors, #4 RHW	Lin. Ft
485		
486	Ground Conductors, #6 RHW	Lin. Ft
487		
488	Street Light Conduit, 2" PVC Sch. 40	Lin. Ft
489		
490	Concrete Jacket, Lighting	Cu. Yd
491		
492	Removal of Existing Traffic Signal System	Lump Sum
493		
494	The Engineer will pay for the accepted hauling and stockpiling of salvaged	
495	materials and equipment off the right-of-way, as ordered by the Engineer in	
496	accordance with Subsection 104.02 - Changes.	
497		
498		
499	END OF SECTION 622	

SECTION 626 – MANHOLES AND VALVE BOXES FOR WATER AND SEWER SYSTEMS

Make the following amendment to said Section:

(I) Amend 626.04 - Measurement by replacing lines 172 to 173 to read:

“626.04 Measurement. The Engineer will measure manhole frame and cover, meter boxes, and valve boxes per each for water and sewer systems.

(II) Amend 626.05 – Payment by revising lines 174 to 192 to read as follows:

“626.05 Payment. The Engineer will pay for the accepted pay items listed below on a per each basis, as shown in proposal schedule. Payment will be full compensation for work prescribed in this section and in contract documents.

The Engineer will pay for each of the following pay items when included in proposal schedule:

Pay Item	Pay Unit
Adjusting Sewer Manhole Frame and Cover	Each
Adjusting Water Standard Meter Box	Each
Adjusting Water Standard Valve Box	Each

The Engineer will pay for excavation and backfill in accordance with and under Section 204 - Excavation and Backfill for Miscellaneous Facilities."

END OF SECTION 626

1 Make the following section part of the Standard Specifications:

2
3 **"SECTION 627 – TRAFFIC MONITORING AND SIGNAL CONTROL SYSTEM**

4
5 **627.01 Description.** This section shall consist of all work and materials necessary to
6 provide traffic monitoring infrastructure including CCTV cabinet, duct system with
7 handholes and concrete encased conduits, camera poles with concrete bases and
8 spoke arm for camera mounting.

9
10 **627.02 Video, Signal Control and Fiberoptic Hardware.** For bidding purposes, the
11 qualified, as stated in Section 627.01, CCTV Supplier shall furnish and install the
12 following items and quantity. All other equipment necessary to complete a fully
13 operational system will be considered incidental.

14
15 **(A) Camera Site Equipment.** The Contractor shall at each of the sites where shown
16 on the plans, furnish and install, but not limited to, the following items:

17
18 1 Each, Aluminum Pole with Transformer Base

19
20 1 Each, Side mounted spoke arm bracket for camera.

21
22 **627.03 CCTV Cabinet.** 1 cabinet to serve site. Cabinet shall be furnished
23 assembled and configured with the components stated below:

24
25 Cabinet shall be a Traffic Signal 332A anodized aluminum cabinet with a 19" rack,
26 50 amp circuit breaker, surge-protected, and thermo-control fan.

27
28 Each Model 332A Cabinet shall meet the following additional requirements:

29 a. Provide Best Lock (County of Hawaii keyed) Security Tumbler Door
30 locks of solid brass rim and include 4 keys.

31 b. A rack mounted 6 outlet surge protector power strip

32 c. A 19 inch pull out shelf

33 d. Remote data port with monitor and control, Stand Alone, all connectors
34 and cables included

35 e. Rack Mounted 48 fiber optic Splice Capacity Tray

36 f. Rack Mounted 72 fiber optic SC jumper connector

37
38 Surge Protection: Contractor shall install a 120V AC, 3-wire, 20 Amp inline surge
39 protection device. The surge protection device will have an operating temperature
40 of -40 to 85 degree C, maximum surge current of 30,000 amps and surge voltage
41 of 10,000 volts, 138 Volts for clamping voltage, power indicator, open circuit for fail
42 safe operation, and protection shall be between line to neutral, line to ground,
43 ground to neutral.

44 Furnish and install power cables from existing traffic signal meter or new Hawaiian
45 Electric service point.

627.04 Cabinet Foundation. 1 Each, per CCTV cabinet. Construction per details on drawings.

627.05 Measurement. CCTV Cabinet and Foundation, and associated HELCO Meter Equipment, CCTV Camera Pole with Mounting Bracket, 30' Aluminum Pole Concrete Base, and Appurtenances, CCTV Type A Pullbox, CCTV Conduit 2" PVC Sch. 40, and Concrete Jacket for CCTV conduit will be paid per each in accordance with contract documents.

627.06 Payment. The Engineer will pay for accepted pay items listed below at contract price per pay unit, as shown in proposal schedule. Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for each of the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
CCTV Cabinet and Foundation, and associated HELCO Meter Box	Each
CCTV Camera Pole with Mounting Bracket, 30' Aluminum Pole, Concrete Base, and Appurtenances	Each
CCTV Type A Pullbox	Each
CCTV Conduit, 2" PVC Sch. 40	Lin. Ft.
Concrete Jacket, CCTV	Cu. Yd

END OF SECTION 627

SECTION 629 - PAVEMENT MARKINGS

Make the following amendments to said Section:

(I) Amend **Subsection 629.03(B) – Temporary Pavement Markings** by revising the third paragraph from line 62 to 63 to read:

“Maintain and replace temporary pavement markings, flexible delineators, and barricades. ”

(II) Amend **Table 629.03 – 1 – Temporary Pavement Markings** to read as follows:

“TABLE 629.03-1 TEMPORARY PAVEMENT MARKINGS	
TYPE	PAVEMENT MARKINGS
Passing Permitted - Both Sides	Single 4-inch yellow stripe 5 feet in length spaced 20 feet on center with Type D markers spaced 40 feet on center and located on center of 5-foot length of stripe.
Passing Prohibited - Both Sides	Double solid 4-inch yellow stripes with Type D markers placed 20 feet on center on one of 4-inch yellow stripes selected by the Engineer.
Passing Permitted - One Side Only	Single continuous 4-inch yellow stripe with Type D markers placed on stripe 20 feet on center on no-passing side and single 4-inch yellow stripes 5 feet in length spaced 20 feet on center on passing side.
Lane Lines - Lane Changing Permitted	Single 4-inch yellow or white stripe 5 feet in length spaced 20 feet on center with Type C or Type D markers spaced 40 feet on center.
Lane Lines - Lane Changing Prohibited	Double solid 4-inch white stripes with Type C markers placed 20 feet on center on one of the 4-inch white stripes selected by the Engineer.
Crosswalk	Two 12-inch white transverse lines spaced 8 feet on center or as ordered by the Engineer.
Stop Line	Single 12-inch white transverse line.
Note: Paint may be used for temporary markings in areas where final paving is not complete.”	

(III) Amend **629.04 – Measurement** by revising lines 292 to 294 to read as follows:

20 **“629.04 Measurement.**

21
22 (A) The Engineer will measure thermoplastic and preformed pavement
23 marking tape per linear foot in accordance with the contract documents.
24 The longitudinal pavement markings will be measured per linear foot as
25 a single stripe for the width specified in the contract and in the proposal.
26 The Engineer will include the longitudinal gaps for skip striping, up to
27 thirty (30) feet long, in the measurement.

28
29 The Engineer will measure the transverse markings by per each
30 according to the contract.

31
32 The Engineer will not measure temporary pavement markings including
33 flexible delineator posts with reflector markers or Type I Barricades and
34 temporary signs installed for the longitudinal guidance of public traffic
35 over reconstructed areas, cold planed surfaces, newly paved surfaces
36 or other unmarked or scarified areas for payment.

37
38 The Contractor shall consider the work required for the removal of
39 pavement markings incidental to the various contract items, except as
40 provided in the proposal or elsewhere in the contract.

41
42 (B) The Engineer will measure the pavement markers per each for the types
43 shown in the proposal.

44
45 (C) The Engineer will measure the painted stripes that are twelve (12)
46 inches wide or less as a single stripe. The Engineer will measure the
47 painted stripes over twelve (12) inches wide as two (2) stripes. The
48 Engineer will measure the double stripes that are twelve (12) inches or
49 less in total width including the transverse space between the stripes as
50 a single stripe.

51
52 The Engineer will measure the longitudinal pavement markings by the
53 linear foot according to the contract. Longitudinal gaps for skip striping
54 that are 30 feet or less will be included in the measurement.

55
56 The Engineer will measure the transverse markings by per each
57 according to the contract.”

58
59
60 (IV) Amend **629.05 – Payment** by revising lines 296 to 330 to read as follows:

61
62 **“629.05 Payment.**

63
64 (A) The Engineer will pay for thermoplastic and preformed pavement
65 marking tape at the contract price per linear foot according to the
66 contract, complete in place, including primers.

The Engineer will pay for double six (6) inch striping with a four (4) inch space between stripes at the contract price per linear foot according to the contract.

The Engineer will pay for crosswalk markings at the contract price per each according to the contract.

The Engineer will pay for pavement arrows (single and multiple heads), and white yield lines at the contract price per each according to the contract.

The contract unit price paid shall be full compensation for furnishing labors, materials, tools, equipment and incidentals and for doing the work involved in furnishing and installing pavement markings complete in place according to the contract.

The Engineer will not pay for the temporary pavement markings including flexible delineator posts with reflector markers or Type I Barricades and temporary signs 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 if not shown in the proposal separately. The Engineer will consider them incidental to the various contract items.

(B) The Engineer will pay for the various types of pavement markers at the contract price per each according to the contract, complete in place, including adhesives.

(C) The Engineer will pay for painted pavement striping at the contract price per linear foot according to the contract.

The Engineer will pay for quantities of crosswalk marking at the contract price per each according to the contract.

The Engineer will pay for pavement arrows (single or multiple arrow heads and white yield lines at the contract price per each according to the contract.

The Engineer will pay for the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
4 - Inch Double Yellow Pavement Striping (Thermoplastic)	Linear Foot
6 - Inch Yellow Pavement Striping (Thermoplastic)	Linear Foot

114		
115	6 - Inch Double Yellow Pavement Striping (Thermoplastic)	Linear Foot
116		
117	8 - Inch White Pavement Striping (Thermoplastic)	Linear Foot
118		
119	Crosswalk Marking (Thermoplastic)	Each
120		
121	White Yield Line (Thermoplastic)	Each
122		
123	Pavement Arrow (Thermoplastic)	Each
124		
125	Type C Pavement Marker	Each
126		
127	Type H Pavement Marker	Each
128		
129	Type F Pavement Marker	Each"
130		
131	END OF SECTION 629	
132		

1 **SECTION 630 – TRAFFIC CONTROL GUIDE SIGNS**

2
3 Make the following amendment to said Section:

4
5 **(I)** Amend **Section 630.02 - Materials**, by replacing lines 28 to 29 to read:

6
7 “Retroreflective sheeting shall conform to criteria listed in ASTM D 4956
8 for the applicable type and class, or as amended in accordance with Subsection
9 750.01 - Signs.”

10
11 **(II)** Amend **Section 630.04 - Measurement**, by replacing lines 204 to 221 to
12 read:

13
14 **“630.04 Measurement.** The Engineer will measure destination sign panels by
15 the square foot of sign face.

16
17 The Engineer will measure post and arm posts for designation sign per
18 each as complete units of the type and design specified in the proposal.

19
20 The Engineer will measure the number of route markers assemblies as
21 complete units of the type and design specified in the proposal.

22
23 The Engineer will not measure the footings for destination signs and will
24 consider them incidental to the various contract items.

25
26 When the Engineer accepts an alternative design, the method of
27 measurement for the various contract items affected by the design shall be
28 identical with the various original contract items shown in the contract. The
29 Engineer will not measure the additional items that the Contractor requires for the
30 alternate design.

31
32 The Engineer will not measure removal and disposal and storing of existing
33 and temporary signs and markers that the Contractor will not incorporate in the
34 completed highway for payment.”

35
36 **(III)** Amend **630.05 – Payment** by revising lines 223 to 303 to read as follows:

37
38 **“630.05 Payment.** The Engineer will pay for destination panels at the contract
39 price per square foot for the type specified complete in place. Payment will be full
40 compensation for the work prescribed in this section and the contract documents.

41
42 The Engineer will pay for post and arm for designation sign at the contract
43 price per each type as specified complete in place. Payment will be full
44 compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for route marker assemblies at the contract price per each for the type and design specified complete in place. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will not pay for footings for destination signs and will consider them incidental to the various contract items.

The Engineer will not pay for removing and disposing or storing of existing and temporary signs that the Contractor will not incorporate in the completed highway separately. The Engineer will consider them incidental to the various contract items.

The Engineer will pay for the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Panel for Destination Sign	Square Foot
Type B Post and Arms for Destination Sign	Each
Type A Route Marker Assembly	Each

When the Engineer accepts an alternate design, the total amount paid shall be full compensation for furnishing and installing materials and furnishing equipment, tools, labors, and incidentals necessary to complete the work. The Engineer will not make payment for additional materials, equipment, tools, labor and other incidentals that might become necessary to complete the installation due to the alternate design.

END OF SECTION 630

1 **SECTION 631 – TRAFFIC CONTROL, REGULATORY, WARNING, AND**
2 **MISCELLANEOUS SIGNS**

3
4 Make the following amendment to said Section:

5
6 **(I)** Amend Section 631.03(C) Labeling of Signs, from lines 42 to 51 to read:

7
8 **“(C) Labeling of Signs.** Label back of each sign with sign stickers as
9 directed by the State. Sign stickers will be provided by the State.”

10
11 **(II)** Amend **Section 631.04 – Measurement** by replacing lines 67 to 69 to read:

12
13 **“631.04 Measurement.** The Engineer will measure regulatory and warning
14 signs per each of the type and design specified in the proposal.

15
16 The Engineer will measure relocating existing regulatory and warning signs per
17 each.

18
19 The Engineer will not measure removal and disposal and storing of existing and
20 temporary signs that the Contractor will not incorporate in the completed highway
21 for payment.”

22
23 **(III)** Amend **Section 631.05 – Payment** by replacing lines 71 to 99 to read as
24 follows:

25
26 **“631.05 Payment.** The Engineer will pay for regulatory and warning signs
27 at the contract price per each for the type and design specified complete in place.
28 Payment will be full compensation for excavating and backfilling, furnishing and
29 installing materials, furnishing equipment, tools, labors and incidentals necessary
30 to complete the work.

31
32 The Engineer will pay for the relocation of existing regulatory and warning
33 signs at contract price per each. Payment will be full compensation for excavating
34 and backfilling, storing and installing materials, furnishing equipment, tools, labors
35 and incidentals necessary to complete the work.

36
37 The Engineer will not pay for removing and disposing or storing of existing
38 and temporary signs that the Contractor will not incorporate in the completed
39 highway separately. The Engineer will consider them incidental to the various
40 contract items.

41
42 The Engineer will pay for the following pay items when included in the
43 proposal schedule:

44

Pay Item	Pay Unit
Regulatory Sign (10 Square Feet or Less)	Each

48		
49	Regulatory Sign (More than 10 Square Feet)	Each
50		
51	Warning Sign (10 Square Feet or Less)	Each
52		
53	Warning Sign (More than 10 Square Feet)	Each
54		
55	Relocation of Existing Sign	Each"
56		
57		
58		
59		
60		

END OF SECTION 631

SECTION 634 – PORTLAND CEMENT CONCRETE SIDEWALKS

Make the following amendment to said Section:

(I) Amend Section 634.04 - Measurement by replacing lines 60 to 61 to read:

“634.04 Measurement. The Engineer will measure Portland cement concrete sidewalks by the square yard of finished surface.

(II) Amend Section 634.05 – Payment by replacing lines 62 to 72 to read:

“634.05 Payment. The Engineer will pay for the accepted quantities of Portland cement concrete sidewalk at the contract unit price per square yard complete in place as shown in the proposal.

Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for following pay item when included in proposal schedule:

Pay Item

Pay Unit

Portland Cement Concrete Sidewalk

Square Yard

The Engineer will pay for excavation of unsuitable material and backfill with material acceptable to the Engineer under Section 203 – Excavation and Embankment. If no pay item exists, refer to Subsection 104.02 – Changes.”

END OF SECTION 634

1 Make the following Section a part of the Standard Specifications:

2
3 **SECTION 636 – E-CONSTRUCTION**
4
5

6 **636.01 Description.** This section specifies requirements for performing the
7 Project in a “paperless” manner, using electronic tools for all submittals,
8 communications, quantity tracking, testing and sampling, scheduling, quality
9 control, and performance monitoring.

10
11 **636.02 General Requirements.** The Contractor shall implement the use of the
12 E-Construction platform, as provided by the HDOT and directed by the Engineer,
13 for use throughout the project. Paper-based or hard copy submittals will not be
14 accepted.

15
16 This Special Provision shall take precedence over all other Specification
17 sections with respect to providing and receiving paper copy communications,
18 submittals, and any project records. Where conflicts exist, and a decision between
19 a hard-copy item and a corresponding electronic version is needed, the electronic
20 version shall be selected, unless otherwise directed by the Engineer.

21
22 **636.03 Construction**
23

24 **(A) Plans and Specifications.** Project drawings will not be provided to
25 the Contractor in hard copy format. An electronic version will be provided
26 in the E-Construction platform for use during the project.

27
28 The Contractor shall note all changes to the work, including all
29 subcontractor’s work, in electronic format using the E-Construction
30 platform. Red annotations shall be used to note changes. Blue annotations
31 shall be used for any additional notes that will be helpful for the State in
32 interpreting the field posted drawings. Other drafting standards may be
33 implemented by the Engineer and shall be adhered to by the Contractor.
34 Changes shall be input by the Contractor and reviewed by the Engineer
35 monthly. The Contractor shall make any changes that the Engineer
36 requires.

37
38 **(B) Submittals.** The Contractor shall provide all required submittals, as
39 listed within the contract documents, via the E-Construction platform. All
40 review, approval, and resubmittal regarding submittals shall also be
41 documented within the E-Construction platform.

42
43 **(C) Correspondence.** Electronic mail (email) shall be the preferred
44 method of electronic communication. All communications that affect project
45 scope, schedule, cost, or quality, including changes and requests for
46 information, shall be submitted as directed by the Engineer.

(D) Prosecution and Progress. The Contractor shall provide all administrative, management, and project support documents required by various specification sections, using the E-Construction platform. These elements include, but are not limited to:

- (1) Preconstruction Data Submittal (Section 108.03)
- (2) Correspondence regarding Contract Time (Section 108.05) and Delays
- (3) Progress Schedules (Section 108.06)
- (4) Weekly Meeting preparatory materials (Section 108.07)
- (5) Samples, certifications, material data, installation instructions, and shop drawings (Sections 105 – Control of Work and 106 -Material Restrictions and Requirements)
- (6) Field-posted Drawings (Section 648)
- (7) Pre-Final and Final Inspection submittals (Section 108.13)
- (8) Warranty documentation – Guarantee of Work (Section 108.17)
- (9) Project Closing Documents – Final Settlement of Contract (Section 108.19)

In addition to the foregoing, the Contractor shall provide any other materials, correspondence, and submittals using the E-Construction platform as directed by the Engineer.

(E) Resources. The Contractor shall provide a comprehensive list of Contractor labor and equipment, including all subcontractor labor and equipment, that will be deployed on the project, using spreadsheet-based templates provided in the E-Construction platform. All template fields shall be completed. The submitted information shall comply with the requirements of Specification Section 108 – Prosecution and Progress (identification of labor and equipment resources) and Specification Section 109 - Measurement and Payment (cost data) and represent all individual personnel with labor categories and rates, and all equipment owned or rented, with associated rates, on this project. Updates for additional personnel or equipment shall be accomplished by the Contractor at will and shall be completed when directed by the Engineer.

(F) Electronic Ticketing. The Contractor/supplier shall provide electronic material tickets for all loads of Asphalt Mix (Hot Mix Asphalt Concrete, Hot Mix Asphalt Base Course, or Stone Matrix Asphalt), Portland Cement Concrete (PCC), or Construction Aggregates delivered to the project.

The Contractor/supplier may use the plant ticketing system of their choice to create the material ticket data.

Digital material records created, altered, or voided by a person with direct knowledge of the event (the weighmaster or batch person) must be transmitted directly from the plant computer system (scale and batch) to the Department of Transportation at or near the time of the event.

Should digital material records be transmitted to the Department of Transportation through other methods, the weighmaster or batch person must certify the digital material records received by the Department of Transportation daily.

The Department's minimum service level expectation is to receive tickets no later than 5 minutes from when they were created, 99.5% of the time. The Department of Transportation may reject any ticket(s) received later than 5 minutes from when the ticket was created.

(1) Ticket data shall include the following:

(a) Material ticket data will be submitted to the agency via direct connection or a Hypertext Transfer Protocol (HTTPS) post as JavaScript Object Notation (JSON) documents.

(b) Material suppliers must test to confirm that ticketing data can be shared from the originating system no less than 10 days before the project starts. The topic shall be discussed at the pre-construction meeting.

(c) Ticket data must be available immediately upon project start so that tickets can be viewed without delay.

(d) Provide the same data currently accessible and viewed by agency users previously on printed tickets for state projects.

(2) The Contractor shall submit material ticket data in accordance with the plant manufacturer's system recommendations to provide the following unless otherwise directed by the Engineer:

(a) Net weight (or volume for ready mix concrete) of material being transported to the nearest 0.01 ton or cubic yard.

(b) Running daily total of net weight of material (or volume for ready mix concrete) being transported to the nearest 0.01 ton or cubic yard.

(c) Each material ticket shall contain the following:

a. General Ticket information (All Materials)

1. Date
2. State Project Name
3. State Project Number
4. Name of Contractor
5. Name of Material Supplier
6. Customer Name
7. Hauler
8. Unique Truck ID
9. Plant/scale name (source)
10. Unit of Measure
11. Ticketed time
12. Ticket Number

b. Asphalt Mix

1. Material Name/Description
2. Gross Weight (if not automatic)
3. Tare Weight (if not automatic)
4. Net weight
5. Mix Design Number
6. Weighmaster

c. Portland Cement Concrete

1. Loaded time (water/cement time)
2. Wet and dry batch weights (if computer generated)
3. Water:
 - i. In aggregate
 - ii. Total water
 - iii. Water/cement ratio
 - iv. Allowable water to add
4. Admixtures (including brand names if available):
 - i. Retarder and weights
 - ii. Water reducer and weights
 - iii. Air entrainment and weights
 - iv. Special performance admixtures and weights
 - v. Concrete fibers
5. Mix Design
6. Slump

184 7. Truck Revolution

185
186 d. Construction Aggregates:

- 187
188 1. Material Name/Description
189 2. Gross Weight (if not automatic)
190 3. Tare Weight (if not automatic)
191 4. Net weight
192 5. Mix Design Number
193 6. Weighmaster

194
195 e. Optional Additional Truck Status (Will be
196 accepted when available – All Materials)

- 197
198 1. Left plant
199 2. Arrive at project
200 3. Begin unload
201 4. Finish unload
202 5. Leave project
203

204 **636.04 Measurement.** The Engineer will measure additional E-Construction
205 programs, additional licenses, or additional equipment, if ordered by the Engineer,
206 on a force account basis in accordance with Subsection 109.06 – Force Account
207 Provisions and Compensation.

208
209 **636.05 Payment.** The Engineer will pay for the additional E-Construction
210 programs, additional licenses, or additional equipment, on a force account basis in
211 accordance with Subsection 109.06 – Force Account Provisions and
212 Compensation.

213
214 The Engineer may withhold progress payment until the Contractor is in
215 compliance with all E-Construction requirements.

216

217 Pay Item	218 Pay Unit
219 Additional E-Construction Programs, additional licenses 220 or additional equipment	221 Force Account

222 An estimated amount for force account may be allocated in the proposal
223 schedule under “Additional E-Construction Programs, additional licenses or
224 additional equipment.” The actual amount to be paid will be the sum shown on
225 accepted force account records.

226
227
228
229 **END SECTION 636**

1 **SECTION 638 – PORTLAND CEMENT CONCRETE CURB AND GUTTER**

2
3 Make the following amendments to said Section:

4
5 **(I)** Amend **638.04 – Measurement** by revising lines 130 to 131 to read as
6 follows:

7
8 **“638.04 Measurement.** The Engineer will measure curb and/or gutter, both new
9 and reset, by the linear foot. The Engineer will measure along the front face of the
10 curb at the finished grade elevation. If the Engineer measures gutter separately,
11 the Engineer will measure gutter along the front face of the gutter. The Engineer
12 will not make deduction in gutter length for drainage appurtenances installed such
13 as catch basins and drop inlets.
14

15
16 The Engineer will measure curb and/or gutter transition for payment as
17 follows:
18

From	To	Measurement for Payment
Cast-in-place Curb or Precast Curb	Cast-in-place Curb and Gutter	Cast-in-place Curb and Gutter
Cast-in-place Curb and Gutter	Precast Curb and Cast-in-place Gutter	Cast-in-place Curb and Gutter
Cast-in-place Curb and Gutter Type _____	Cast-in-place Curb and Gutter Type _____	Cast-in-place Curb and Gutter 1/2 of Transition to each type
Cast-in-place Curb Type _____	Cast-in-place Curb Type _____	Cast-in-place Curb 1/2 of Transition to each type

19
20 The Engineer will measure precast concrete drop curb and driveway curb
21 or cast-in-place integral driveway curb and gutter under the adjacent normal curb
22 and/or gutter.”
23
24
25
26

(II) Amend **638.05 – Payment** by revising lines 133 to 148 to read as follows:

“638.05 Payment. The Engineer will pay for the accepted quantities of curb and/or gutter at the contract unit price per linear foot for each type of curb and/or gutter specified.

Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for each of the following pay items when included in proposal schedule:

Pay Item	Pay Unit
Curb, Type 2D	Linear Foot
Curb and Gutter, Type 2DG	Linear Foot
Curb and Gutter, Rolled Mountable	Linear Foot”

END OF SECTION 638

SECTION 641 - HYDRO-MULCH

Make the following amendments to said Section:

- (I) Amend **Subsection 641.01 Description** by revising lines 4 to 6 to read as follows:

“641.01 Description. This section describes mixing of required sprigs, hydro-mulch fibers, pre-plant fertilizer, and hydraulically applying the hydro-mulch slurry mixture according to the contract or as ordered by the Engineer.”

- (II) Amend **Subsection 641.02 Materials** by revising lines 10 to 96 to read as follows:

“(A) Grass Sprigs. Turfgrass sprigs shall be Seashore Paspalum (*Paspalum vaginatum*). Seashore paspalum sprigs shall be acquired from a local State certified commercial grass grower. Grass sprigs shall comply with the following:

(1) Sprigs shall be healthy, living, well developed runners, 1-1/2 inch to 2-1/2 inches in length, freshly dug up and free from weeds.

(2) Immediately following harvesting, the sprigs shall be thoroughly watered and then kept moist during storage and transportation until planted. No sprigs shall be accepted which are not in a cool, moist, fresh condition.

(3) Sprigs are to be delivered and planted on the same day they are harvested to assure optimum rooting. If, for any reason, it is impossible to plant them at once, sprigs shall be kept in a cool, shady place so air can circulate, and they should be kept moist. Do not store directly on concrete or bituminous surfaces.

The Engineer will not accept or use grass sprigs that do not meet this criteria.

(B) Fertilizer. Proper fertilizer shall be used in hydro-mulch mix, depending on condition of soil. Apply at rates and in amounts consistent with Soil Analysis Report. Provide a Soil Analysis Report with fertilizer and amendment recommendations as specified in Section 617 – Planting Soil and use the report to determine quantity and ratio of fertilizer for sustained growth of grass. Submit recommendations from a licensed Landscape Architect or from the laboratory that performed the Soil Analysis Report.

47 **(C) Mulch.** Mulch shall be specially processed fiber containing no
48 growth or germination inhibiting components. Recycled mulch material,
49 such as processed newspaper, is allowed if accepted for use by the
50 Engineer. Fibers shall form a homogeneous slurry after addition and
51 agitation in hydro-mulch equipment with grass sprig, pre-plant fertilizer,
52 water, binder, and other additives not detrimental to plant growth. When
53 hydraulically applied on the soil, the fibers shall form a blotter-like ground
54 cover that readily absorbs water and allows infiltration to the underlying
55 soil. In every application, the Contractor shall attain complete coverage of
56 the soil. Apply at a minimum rate of one 1,700 pound per acre.

57
58 **(D) Soil and Mulch Tackifier.** Tackifier used with mulch shall be
59 hydrocolloidal or organic.

60
61 **(1) Hydrocolloidal Tackifier.** Hydrocolloidal tackifier shall be
62 formulated for use with hydraulically planted grass seed or stolons,
63 alone or in combination with fertilizer, wood fiber mulch, and other
64 additives acceptable to the Engineer. Tackifier shall consist of at
65 least three different but complimentary hydrocolloids, two of which
66 shall be Glactomannan and Plantago Ovata. Latter component
67 shall have muciloid content of at least 85 percent.

68
69 Tackifier shall be applied at rate of 80 pounds per acre, shall
70 be pH stable with fertilizer, and shall hydrate and disperse in mixing
71 tank with water and other materials to form homogeneous slurry.
72 Tackifier shall leave loose, chain-like stabilizing film on surface of
73 soil, allow moisture to percolate into soil during seed germination
74 and seedling growth, and break itself down through microbial
75 action. Tackifier shall not inhibit plant germination or growth.

76
77 **(2) Organic Tackifier.** Organic tackifier shall be starch-based
78 tackifier formulated for use with conventional mulches. Active
79 ingredient in tackifier shall be 100 percent derived from plant
80 starch.

81
82 Dry powder tackifier shall be blended with insolubilizer. After
83 blending and mixing with water, tackifier shall swell, become sticky,
84 and be suitable for use during heavy rain. Tackifier shall be applied
85 at rate of 125 pounds per acre. Emulsion shall cure on surface of
86 soil and become insoluble. Tackifier shall not inhibit plant
87 germination or growth.

88
89 **(E) Herbicides.** Submit a weed control program to the Engineer for
90 review and acceptance prior to construction. Chemical herbicides shall
91 contain either or both glyphosate and cacodylic acid. Use only State
92 Department of Agriculture approved herbicides.

93
94 Manufacturer's instructions for applying herbicides shall be
95 followed. Adjustments shall be made for field conditions. Chemical
96 herbicides shall be applied using photosensitive dye that does not stain
97 concrete or painted surfaces, will not injure plants and animals, and
98 disappears within three days after spraying. Application shall be between
99 8:30 a.m. and 3 p.m. on normal State work days only. Herbicide
100 application shall not be done when wind is brisk, when raining, or when
101 rain is expected. Avoid applying herbicide in areas where herbicide can
102 enter storm drainage system or receiving waters. Records shall be kept
103 by Contractor of dates of herbicide application, type of herbicide or
104 pesticide used, quantities, and areas that were covered. Submit records
105 to the Engineer within 24-hours of application.
106

107 **(1) Pre-emergent Herbicide.** Pre-emergent herbicide may only
108 be applied where no grass seed is used or where new plants do not
109 propagate by seeding. Pre-emergent herbicides shall be used to
110 control weeds by absorption, including through plant's root system.
111 Label of herbicide shall indicate that product is environmentally safe
112 and non-toxic to humans and animals.
113

114 **(2) Selective, Post-emergent Granular Herbicide.** Selective,
115 post-emergent granular herbicide shall be used to control annual
116 grasses and broadleaf weeds in turf and wide variety of woody
117 ornamentals, shrubs, vines, and trees. Product shall kill young
118 seedlings on contact during germination.
119

120 **(3) Post-emergent, Non-granular Herbicide.** Post-emergent,
121 non-granular herbicide shall be used to control weeds by
122 absorption, including through roots of plant. Label of herbicides
123 shall indicate that product is environmentally safe and non-toxic to
124 humans and animals."
125

126 **(III) Amend Subsection 641.03 Construction** by revising lines 100 to 171 to
127 read as follows:
128

129 **“(A) Preparation of Planting Area.** Clear and grub in accordance with
130 Section 201 – Clearing and Grubbing.
131

132 The Engineer will inspect slopes to ensure that surface and subsurface
133 water are properly collected and disposed of and areas to be planted are
134 protected from erosion. Acceptance for planting does not relieve the
135 Contractor of responsibility for repair of slope damage until grassed areas
136 are accepted as described in Subsection 641.03(H) – Acceptance.
137 Following the Engineer's acceptance of the area(s), the Contractor shall
138 begin hydro-mulching of accepted slopes promptly.

139
140 (B) Apply grass sprigs at a rate of 8 bushels (10 cubic feet) per 1,000
141 square feet and mulch at a rate of 1,700 lbs. per acre. In every
142 application, completely cover the soil. Contractor shall obtain proper soil
143 moisture before broadcasting grass sprigs.
144

145 (C) Hydro-sprigging of grass areas shall consist of broadcasting the
146 grass sprigs by hand, and mixing the hydro-mulch fibers, pre-plant
147 fertilizer, and spraying the hydro-mulch slurry mixture over the grass
148 sprigs.
149

150 (D) The Contractor shall utilize "hydro-mulch" equipment in applying the
151 hydro-mulch. When hydraulically sprayed on the soil, the fibers shall form
152 a blotter-like ground cover, which readily absorbs water and allows
153 infiltration to the underlying soil. In every application, complete coverage
154 of the soil shall be attained. Mulch shall be applied at the minimum rate of
155 40 pounds per 1,000 square feet (1,700 pounds per acre) using water at
156 the rate of 25 gallons per 1,000 square feet (1,000 gallons per acre).
157

158 Water within 2 hours after planting to moisten the soil and mulch.
159 Continue watering as necessary to ensure proper germination and growth.
160 Install an automatic, temporary irrigation system for new planting areas
161 inside the project limits that do not have a permanent irrigation system.
162 Contractor will be responsible for determining and establishing the water
163 source and delivery method to the project site for temporary irrigation
164 system. Replace watering equipment that cause erosion or runoff.
165

166 Cost to repair erosion due to watering shall be borne by the
167 Contractor with no additional compensation from the State. Water will be
168 considered an incidental cost.
169

170 (E) **Hydro-mulch Mixture.** Install hydro-mulch in accordance to the
171 manufacturer's installation guidelines.
172

173 (F) **Planting Period.** Adjust planting work for conformance with ground
174 and weather conditions. Planting period extends 90 days from date
175 Engineer accepts site. Planting period shall not start until all grass in the
176 area is planted and accepted by the Engineer. During the planting period
177 provide 95 percent coverage with 3-inch tall healthy grass within 90 days.
178

179 Reapply grass sprigs and hydro-mulch areas after 30 days that do
180 not show thorough "catch" in accordance with Subsection 641.03(A) –
181 Preparation of Planting Area until the Engineer determines there is
182 satisfactory growth.
183

184 Resprigging will not be required where solid rock is encountered or
185 if the Engineer determines that planting is unattainable by the means used
186 in this contract.

187
188 During this period, the Contractor shall be responsible for all newly
189 planted areas. This shall include watering, weeding, fertilizing, mowing,
190 removal and disposal of trash and debris, insects and disease control and
191 protection.

192
193 Water all newly planted areas in quantity and frequency necessary
194 to sustain plant growth. Install a temporary irrigation system. Contractor
195 will be responsible for determining and establishing the water source and
196 delivery method to the Project site. Contractor shall be responsible for
197 obtaining and maintaining all necessary permits and agreements for the
198 source of water for the irrigation system as well as ensuring water is
199 delivered to the site for the duration of the project. Watering equipment
200 shall not cause any erosion or runoff. Replace or modify watering
201 equipment that cause erosion or runoff. Water will be considered an
202 incidental cost.

203
204 Keep new planting areas at least 90 percent free of weeds and
205 grass considered undesirable by the Engineer. Remove weeds by pulling
206 roots. Do this daily if necessary. Deposit trash in appropriate container,
207 remove from the Project site, and dispose of offsite. Chemical weed
208 control, if chosen, shall be by method acceptable to the Engineer.
209 Keeping new planting areas at least 90 percent free of weeds and grass
210 considered undesirable by the Engineer is required as a condition of
211 acceptance for the planting period. The Engineer will use the 90 percent
212 weed-free condition of the site at the end of the planting period as the
213 standard to determine acceptable performance by the Contractor during
214 the plant establishment period.

215
216 Apply fertilizer at a rate and frequency recommended by the Soil
217 Analysis Report.

218
219 The Engineer will extend the planting period at no cost to the State
220 if the planting does not conform to the contract.

221
222 **(G) Plant Establishment.**

223
224 Planting period of 90-days plus a 9-month plant establishment
225 period as per HDOT Standard Specifications.

226
227 During plant establishment period cut grassed areas with accepted
228 equipment when planting reaches average height of 3 inches or as
229 directed by the Engineer. Cut the grass to maintain a minimum height of 2
230 inches and ensure that such operations do not disturb the hydro-mulch

mixture. Replace grass the Engineer considers unsuitable or sick. Replacement of grass will not be required where solid rock is encountered or if the Engineer determines that planting is unattainable by the means used in this contract.

Continue watering throughout the plant establishment period with temporary irrigation system. Cost of water use and maintaining the irrigation system shall be considered incidental. Contractor shall be responsible for obtaining and maintaining all necessary permits and agreements for the source of water for the irrigation system as well as ensuring water is delivered to the site for the duration of the project. Water to keep planted areas moist but not oversaturated and to ensure good growth. Regulate quantity of water being applied to prevent erosion and formation of gullies. Watering equipment shall not cause any erosion or runoff. Immediately replace or modify watering equipment that causes erosion, runoff, or formation of gullies.

Remove and dispose of trash and debris. Provide insect and disease protection and control. Continue weed control program.

Keep new planting areas at least 90 percent free of weeds and grass considered undesirable by the Engineer for the duration of the plant establishment period. Remove weeds by pulling roots. Do this daily if necessary. Deposit trash in appropriate container, remove from the Project site, and dispose of offsite. Chemical weed control, if chosen, shall be by method acceptable to the Engineer.

The Engineer will use the 90 percent weed-free site condition at the time of acceptance of the planting period as the standard for determining acceptable weed control performance by the Contractor during the plant establishment period. The Contractor shall ensure the site remains at least 90 percent free of weeds and grass considered undesirable by the Engineer for all 9 months of the plant establishment period.

In addition to fertilizer that is applied during planting period, fertilize plantings at the rate recommended by the Soil Analysis Report at least four times, no closer than 2-1/2 months apart, unless Soil Analysis Report recommends otherwise. Notify the Engineer 24 hours before applying fertilizer. Notification shall include date of application, type of fertilizer used, quantities, and areas that were covered. Submit recommendations from a licensed Landscape Architect when deviating from the application rates recommended by the Soil Analysis Report. Document if rates and amounts of fertilizer deviate from manufacturer's specifications.

The Contractor shall provide up to 3 additional hydro-mulch sprigging applications during the plant establishment period. The Engineer may direct the Contractor to apply hydro-mulch sprigging to

specific locations or complete coverage of the Project area. Areas utilizing hydro-mulch mix with shall be resprigged using the same high-performance hydraulic erosion control hydro-mulch. Additional applications of hydro-mulch sprigging will not apply if the Engineer determines the initial application provides sufficient coverage.

The Engineer will credit the Contractor plant establishment days when work is done in accordance with the contract documents and when the Engineer determines that no work is required, regardless of whether the Contractor actually performs plant establishment work. The Engineer will not credit the Contractor with plant establishment days when the Engineer determines that work is necessary, but the Contractor fails to adequately perform plant establishment work.

(H) Acceptance. Cut grassed areas with accepted equipment and remove and dispose of trash and debris before requesting inspection for acceptance. Do not cut or trim grass shorter than 2 inches in height. The Engineer will base acceptance on 98 percent coverage of the site at the end of the establishment period. Coverage is defined as the sum total of grass, at least 2 inches tall at the end of the plant establishment period. Contractor shall not disturb, damage, or displace the hydro-mulch mixture. No 100 square foot area shall show more than 2 cumulative square feet devoid of grass growth, unless the Engineer determines that the coverage is unattainable by the means used in this contract. Site shall be 90 percent weed free at the end of the plant establishment period."

(IV) Amend **Subsection 641.04 Measurement** by revising lines 173 to 174 to read as follows:

"641.04 Measurement.

(A) The Engineer will measure hydro-mulch with grass sprig applications per square yard in accordance with the contract documents.

(B) The Engineer will measure additional applications of hydro-mulch with grass sprig applications that are required and requested by the Engineer on a force account basis in accordance with Subsection 109.06 – Force Account Provisions and Compensation."

(V) Amend **Subsection 641.05 Payment** by revising lines 176 to 185 to read as follows:

"641.05 Payment. The Engineer will pay for the accepted hydro-mulch with grass sprig mix at the contract price per unit, as shown in the proposal schedule. Payment will be full compensation for the work prescribed in this section and the contract documents.

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The Engineer will pay for the following pay item when included in proposal schedule:

Pay Item	Pay Unit
Hydro-Mulch With Grass Sprig	Square Feet
Additional Hydro-Mulch With Grass Sprig Applications	Force Account

An estimated amount for the force account may be allocated in the proposal schedule under ‘Additional Hydro-Mulch With Grass Sprig Applications’, but the actual amount to be paid will be the sum shown on the accepted force account records, whether this sum be more or less than the estimated amount allocated in the proposal schedule.”

(VI) Amend **Subsection 641.05 Payment** by revising lines 189 to 199 to read as follows:

- “(1) 50 percent of the contract unit price upon completion of hydro-mulch sprigging.
- “(2) 15 percent of the contract unit price in three equal monthly payments of 5 percent for satisfactory performance during the planting period.
- “(3) 16 percent of the contract unit price in eight equal monthly payments of 2 percent for satisfactory performance during the plant establishment period.
- “(4) 19 percent of the contract price upon final acceptance at the end of the plant establishment period.”

END OF SECTION 641

SECTION 645 - WORK ZONE TRAFFIC CONTROL

645.01 Description. This section describes the following:

(A) Furnishing, installing, maintaining, and subsequently removing work zone traffic control devices, and personnel. Work zone traffic control shall include providing flaggers and police officers.

(B) Keeping roads for public traffic open and in passable condition; providing and maintaining temporary access crossings for trails, businesses, parking lots, garages, residences, farms, parks, and other driveways; taking necessary work precautions for the protection, safety, and convenience of the public; should pedestrian facilities exist, taking necessary measures for safe and accessible passage, with route information and ADAAG compliance, for pedestrians traveling through or near work zone; taking necessary precautions to protect work zone workers from situations that place workers at increased risk from motorized traffic.

(C) Taking safety and precautionary measures, such as illuminating roadway obstructions during hours of darkness, in accordance with Chapter 286, HRS; Title 19, Subtitle 5, Chapters 127, 128, and 129, HAR; and *MUTCD*.

645.02 Materials.

Signs	750.01
Sign Posts	750.02
Fasteners for Signs and Route Markers	750.03
Reflector Marker	750.07
Flexible Delineator Posts and Reflectors	750.08
Traffic Delineators	750.09
Preformed Pavement Marking Tape	755.04

Submit electronic crashworthy documentation, including but not limited to, drawings in pdf and CADD, crash test reports, and FHWA eligibility letters certifying compliance with MASH 2016, for signs, sign supports, barricades, tubular markers, cones, vertical panels, and other traffic control devices. Only devices that are deemed crashworthy will be allowed.

47 Upon request of the Engineer, furnish self-certified MASH 2016 compliant
48 letter from vendor(s) for each type of Category 1 traffic control device, as defined
49 by FHWA and/or AASHTO, including single-piece traffic cone, single-piece drum,
50 and tubular marker.

51
52 Traffic control devices, including signs, barricades, warning lights, arrow
53 boards, portable changeable message signs, cones, tubular markers, and
54 temporary concrete barriers shall conform to the American Traffic Safety Services
55 Association (ATSSA), *Quality Guidelines for Temporary Traffic Control Devices*
56 *and Features* and the *MUTCD*.

57
58 Protective devices including barricades, warning signs, lights, and
59 temporary signals shall conform to Title 19, Subtitle 5, Chapters 127, 128, and 129,
60 HAR. Retroreflectorization for protective devices such as barricades, tubular
61 markers, and warning signs shall conform to Subsection 750.01 – Signs.

62
63 **645.03 Construction.** Furnish, install, and maintain barricades, signs, cones,
64 tubular markers, lights, flashing signals, and other traffic control devices.

65
66 Furnish two police officers for each location that requires work zone traffic
67 control. If the Traffic Control Plan (TCP) is included in the contract documents,
68 furnish number of police officers indicated in the TCP, whichever is greater.

69
70 When directing traffic, flaggers, or police officers, or both shall be in direct
71 communication with each other.

72
73 TCP for lane closure on two-lane road will consider intersections and
74 driveway access. Maximum length of a lane closure on a two-lane road is 1,000
75 feet.

76
77 Submit TCP and schedule at least 15 working days before work starts.
78 Submit modifications and deviations from accepted TCP and schedule at least 15
79 working days before start of work requiring modification or deviation. Illegible TCP
80 will not be accepted.

81
82 Include the following in TCP and schedule:

- 83
84 (1) Signs (type, size, designation, and placement).
85
86 (2) Traffic movements shown by arrows.
87
88 (3) Positions of flaggers and police officers.

(4) Barricades, cones, tubular markers, and additional traffic control devices and measures necessary for protection of work and public safety; and placement, spacing, distances, and reference points for traffic control devices.

(5) Layout, drawn to scale, of traffic control devices, including information needed to layout TCP.

(6) Brief description of work.

(7) Dates of work.

(8) Times of day affected.

(9) Proposed public information sign.

(10) Proposed news release.

Place sign or device situated farthest upstream from work zone first. Then place others progressively downstream toward work zone.

Extend cones or tubular markers to point where cones or tubular markers are visible to approaching traffic.

For signs with messages on both faces, cover inapplicable message before placement.

Keep barricades, construction and warning signs, and other traffic control devices in good condition. Repair, clean, or replace barricades, signs, or other devices as required to maintain effectiveness and appearance. The Engineer alone will decide suitable condition of each barricade, sign, or other traffic control device.

Remove or cover regulatory and warning signs that conflict with TCP. Restore signs upon completion of work or as ordered by the Engineer. Affix object markers to post(s) of covered sign.

Promptly remove or cover construction and warning signs that are not applicable or not in use.

For sign covers, fully covers signs as indicated in the Acceptable category of the ATSSA Quality Guidelines for Temporary Traffic Control Devices and Features. Covers that are deemed to be in the Marginal or Unacceptable categories will not be accepted. Covers that are fabricated from rigid materials will also not be accepted unless it is certified to be MASH 2016 compliant.

Promptly remove traffic control devices that are no longer needed.
Remove traffic control devices in reverse order of installation, starting closest to work zone and continuing away from work zone.

Maintain abutting owners' existing access until replacement access is usable. Obtain permission from abutting owners, including conditions for closing existing access. Submit copy of agreement with abutting owners before beginning work in the affected area.

When working on existing facility that will be kept open to traffic, provide smooth and even surface for public traffic use. Only work on a portion of roadway at one time, and stage construction from one side to other while routing traffic over opposite side.

During subgrade and paving operations, paved shoulders may be used for public traffic.

Do not store material or equipment where it will interfere with public traffic. Remove equipment and other obstructions out of right-of-way or clear zone to permit free and safe passage of public traffic during non-working hours or suspension of work. For storage of materials and equipment, see Subsection 105.14 – Storage and Handling of Materials and Equipment.

Notify Fire Department, in writing, at least 24 hours before blocking or closing road access. Keep fire hydrants accessible to Fire Department by not placing material or other obstructions within five feet of fire hydrant or closer than permitted by applicable ordinances, rules, and regulations.

Notify the Engineer and County, including Bus Systems Division, Police Department, Fire Department, Emergency Medical Services, and Department of Health in writing at least five days before start of construction.

(A) Signs. Install signs sufficiently ahead of location where operations may interfere with use of road by traffic and at intermediate points where new work crosses or coincides with existing road.

Place signs in accordance with TCP as accepted by the Engineer.

(B) Construction Signs. Erect construction signs at the beginning of project and at the end of project at the location indicated by the Engineer. These signs shall remain for the duration of the highway project. Maintain these signs. Place these signs besides the required traffic control signs called for herein.

The construction signs shall be new and become the property of the Contractor.

181
182 **(C) Barricades.**
183

184 **(1) General.** Provide, erect, and maintain necessary barricades
185 suitable for protection of work and safety of the public.
186

187 Barricades shall be in good condition. Barricade application
188 and installation shall be in accordance with accepted TCP.
189

190 Provide sand bags if required or ordered by the Engineer.
191 Sand bags and installation method shall comply with *MUTCD* and be
192 accepted by the Engineer prior to use. Do not place sand bags on
193 striped barricade rail.
194

195 During hours of darkness, install steady burn or flashing lamps
196 on barricades selected by the Engineer. Attach lamps on barricade
197 ends closest to traveled way and visible to oncoming traffic.
198

199 Do not install signs on barricades unless signs and barricades
200 have been crash tested as a unit and accepted under NCHRP Report
201 350.
202

203 **(2) Retroreflectorization.** Retroreflectorize barricade rails and
204 attachment with retroreflective sheeting in accordance with
205 Subsection 750.01(C)(4) - Type III or IV Retroreflective Sheeting
206 (High Intensity) or Subsection 750.01(C)(5) - Hardened Aluminum-
207 Backed Retroreflective Sheeting.
208

209 Retroreflectorize both vertical faces of each barricade rail.
210

211 **(3) Color.** Provide white colored rails, frames, and braces with
212 front and back rail faces having 6-inch-wide alternating orange or red
213 and white stripes sloping downward toward traveled way at angle of
214 45 degrees from vertical. Use stripe colors in accordance with the
215 following:
216

217 **(a)** Use orange and white stripes for the following
218 conditions:
219

- 220 1. Construction work.
- 221
- 222 2. Detours.
- 223
- 224 3. Maintenance work.
- 225

226 **(b)** Use red and white stripes for the following conditions:

1. On roadways with no outlet, such as dead-ends and cul-de-sacs.

2. Ramps or lanes closed for operational purposes.

3. Permanent or semi-permanent closure or termination of roadway.

(4) Maintenance. Keep barricades in good condition. Repair, repaint, clean, or replace barricades to maintain effectiveness and appearance. Immediately replace missing or damaged barricades, lamps, sandbags, and other accepted weights.

Clean and repair barricades before relocating to other locations.

(D) Traffic Delineators. Install traffic delineators in accordance with accepted TCP.

Maintain traffic delineators in good condition. Immediately replace missing or damaged tubular markers.

Clean delineators prior to relocating to new location.

(E) Cones. Install traffic cones in accordance with accepted TCP.

Maintain traffic cones. Keep traffic cones clean and in good repair. Immediately replace lost, stolen, or damaged traffic cones.

Clean cones prior to relocating to new location.

(F) Lane Closures. Lane closures will be allowed only from 8:30 a.m. to 3:00 p.m., Monday through Friday. Exceptions to lane closure hours specified require written acceptance by the Engineer. Placement and removal of all work zone devices within the travel lanes, such as arrow boards, cones, etc., are restricted to allowable closure times. No increase in contract price or contract time will be given for lane closure restrictions specified.

For island of Oahu, no lane closures will be allowed during 24-hour periods as follows:

(1) Day preceding holiday (3:00 p.m. to Midnight), except as otherwise specified.

- 273
274 (2) Holidays (Midnight to Midnight).
275 (3) Day before and day after Thanksgiving Day (Midnight to
276 Midnight).
277
278 (4) Three-week holiday period for Christmas and New Years
279 (Midnight to Midnight).
280
281 (5) Three-week "Beat-the-School-Jam" period, to be determined,
282 (Midnight to Midnight) beginning approximately third week of August.
283
284 (6) Other dates of events indicated in the contract documents.
285

286 No time extension will be given for the above restrictions. The
287 contract time for the project has accounted for any loss of time due to the
288 above restrictions.
289

290 Closure of only one lane of traffic will be allowed during lane-closure
291 hours. Keep lanes open to traffic and allow flow at posted speed limit during
292 non-lane closure hours.
293

294 If applicable, coordinate lane closures with adjacent project(s) at no
295 increase in contract price or contract time.
296

297 Rental fees will be assessed in accordance with Subsection 108.10
298 – Rental Fees for Unauthorized Lane Closure or Occupancy, for failure to
299 open lanes to traffic during peak hours. Morning and afternoon peak hours
300 shall be from 5:30 a.m. to 8:30 a.m. and 3:00 p.m. to 6:00 p.m., respectively,
301 Monday through Friday.
302

303 Before scheduling work, submit requests for detours and lane
304 closures as follows:
305

- 306 (1) Detours - 8 weeks before implementing detours.
307
308 (2) Lane closures - 6 weeks before implementing lane closures.
309

310 Include the following with detour and lane closure requests:
311

- 312 (1) Explanation of proposed changes to existing traffic pattern.
313
314 (2) Installation schedule for informational and traffic control signs.
315
316 (3) Publication schedule for legal notices.
317
318 (4) Plan showing proposed informational signs.
319

(5) Plan showing lane changes or detours in accordance with accepted TCP, including details at beginning of multi-lane highway lane changes and detours.

Detours or lane closures will not be allowed before the Engineer accepts detour or lane closure request.

TABLE 645-I - FOR TRAFFIC CONTROL PLAN							
POSTED SPEED LIMIT (M.P.H.)	SIGN SPACING (D) (FEET)	TAPER LENGTH (T) (FEET)		LONGI- TUDINAL BUFFER SPACE (B) (FEET)	SPACING OF CONES OR TUBULAR MARKERS (FEET)		
		W = 12' OR LESS	W = GREATER THAN 12' *		TAPER	TANGENT	WORK AREA
20	250	200	W x 17	35	20	20	10
25	250	200	W x 17	55	25	25	10
30	250	250	W x 20	85	30	30	10
35	250	250	W x 20	120	35	35	10
40	500	350	W x 30	170	40	40	10
45	500	550	W x 45	220	45	45	10
50	1000	600	W x 50	280	50	50	10
55	1000	700	W x 55	335	55	55	10
* W = width of lane or shoulder							

(G) Advisory Signs. Submit advisory sign shop drawings. Construct, install, maintain, and remove two advisory signs as ordered by the Engineer. Place signs at locations designated by the Engineer. Provide signs, minimum 8 feet wide by 4 feet high, with black letters on orange background, and with three 4.00 pounds/foot flanged channel posts for each sign.

Include starting date and hours of construction in sign message. Use letter heights of 8 inches, Series D. The Engineer will review and accept advisory signs' wording before fabrication. Install advisory signs two weeks before start of construction. Remove advisory signs immediately after construction has been completed or as ordered by the Engineer.

(H) Advertisement. Place advertisement in newspaper, as ordered by the Engineer, for the following traffic pattern changes or night work:

(1) Detours.

- (2) Lane closure.
- (3) Permanent road closure.
- (4) Permanent new route that changes previous route.

Include the following information:

- (1) Map of traffic pattern change limits.
- (2) Map showing lane(s) closure and detour pattern.
- (3) Notice of starting and ending dates and duration.
- (4) Explanation of lane(s) closure or detours in "Notice To Motorist".

Quality of map shall conform to the following requirements:

- (1) No freehand printing or penciling.
- (2) Highlight important features by darkening, cross-hatching, crossing-out, or coloring important words, as necessary.
- (3) Provide maps with minimum size of five columns wide and four columns deep. Lesser width columns may be considered to balance against size of drawing.
- (4) Text specifications.
 - (a) Work being featured - 3/16-inch text.
 - (b) Major roads and features - 1/8-inch text.
 - (c) Other roads and features- first letter of sentence upper case.
 - (d) "NOTICE TO MOTORIST" in upper case.
 - (e) Message - first letter of sentence upper case.
- (5) Line Thickness.
 - (a) Important feature being advertised - line thicker than rest of map.
 - (b) Directional arrow - bolder than rest of lines shown on

map, when important, to show route traffic should use.

(6) Show reference direction such as "TO HONOLULU" with arrow Submit the following:

(a) "Notice to Motorists" before placement in newspaper, six weeks before start of work.

(b) Actual size of notice to be published in newspaper. The Engineer will not allow size reduction of notices once accepted. Submit final, camera-ready "Notice to Motorists" advertisement.

Place advertisement for three consecutive days and within one week before traffic pattern changes, in publication as ordered by the Engineer.

645.04 Measurement.

(A) Traffic control as specified in Subsection 645.03 - Construction will be measured on a contract lump sum (LS) basis and will not include any work performed under other specific traffic control contract bid items. Measurement for payment will not apply.

(B) "Cones" will be considered incidental to traffic control Measurement for payment will not apply.

(C) "Traffic Delineators" will be considered incidental to traffic control. Measurement for payment will not apply.

(D) "Construction Signs" will be considered incidental to traffic control.

(E) The Engineer will measure additional police officers, additional traffic control devices, and advertisement, if ordered by the Engineer, on a force account basis, in accordance with Subsection 109.08 - Force Account Provisions and Compensation.

(F) If the proposal specifies "Drum", they will be considered incidental to traffic control.

645.05 Payment. The Engineer will pay for the accepted traffic control, traffic control device, police officers, flaggers, additional traffic control devices, specific traffic control contract bid items and advertisement at the contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for the work prescribed in this section and the contract documents.

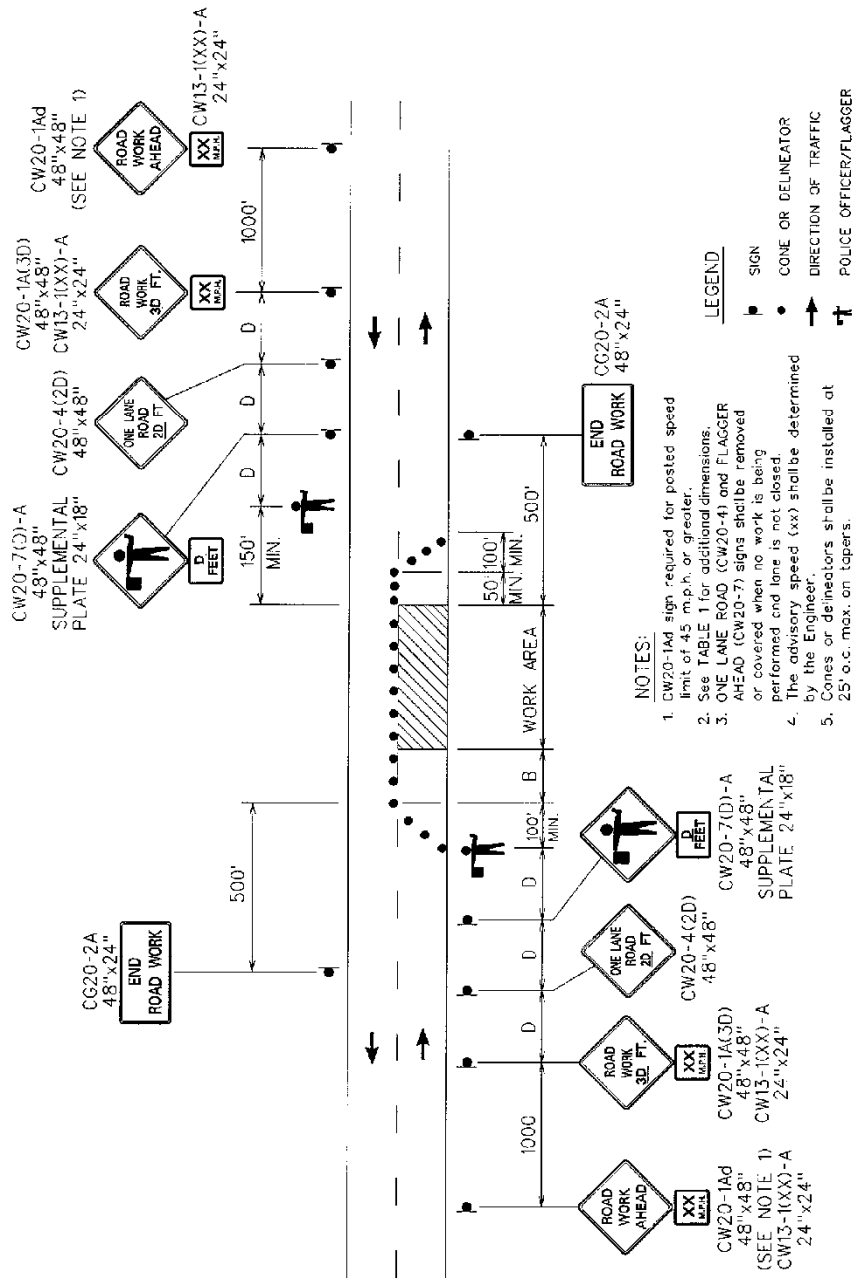
Costs associated with the provision of uniformed law enforcement to maintain safe and efficient travel through highway work zones and their payment terms are explained in more detail in Section III. D. of HDOT's WORK ZONE SAFETY MANAGEMENT GUIDELINES.

The Engineer will pay for the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Work Zone Traffic Control	Lump Sum
Additional Police Officers, Traffic Control Devices, and Advertisement	Force Account

An estimated amount for the force account may be allocated in the proposal schedule under "Additional Police Officers And Additional Traffic Control Devices", but the actual amount to be paid will be the sum shown on the accepted force account records, whether this sum be more or less than the estimated amount allocated in the proposal schedule.

The Engineer will not pay for request submittals. The Engineer will not consider claims for additional compensation of late submittals or requests by Contractor.

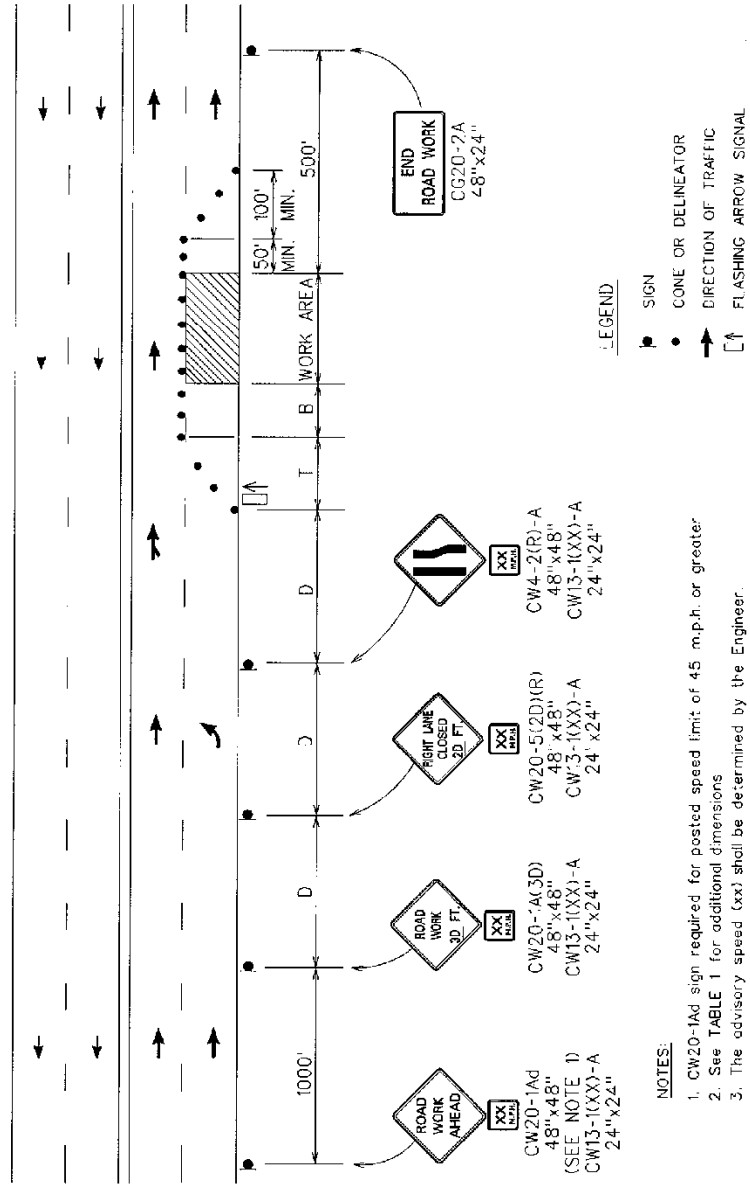


TWO-LANE HIGHWAY - ONE LANE CLOSED
FIGURE 1 - TRAFFIC CONTROL PLAN

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465
466

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645-13a

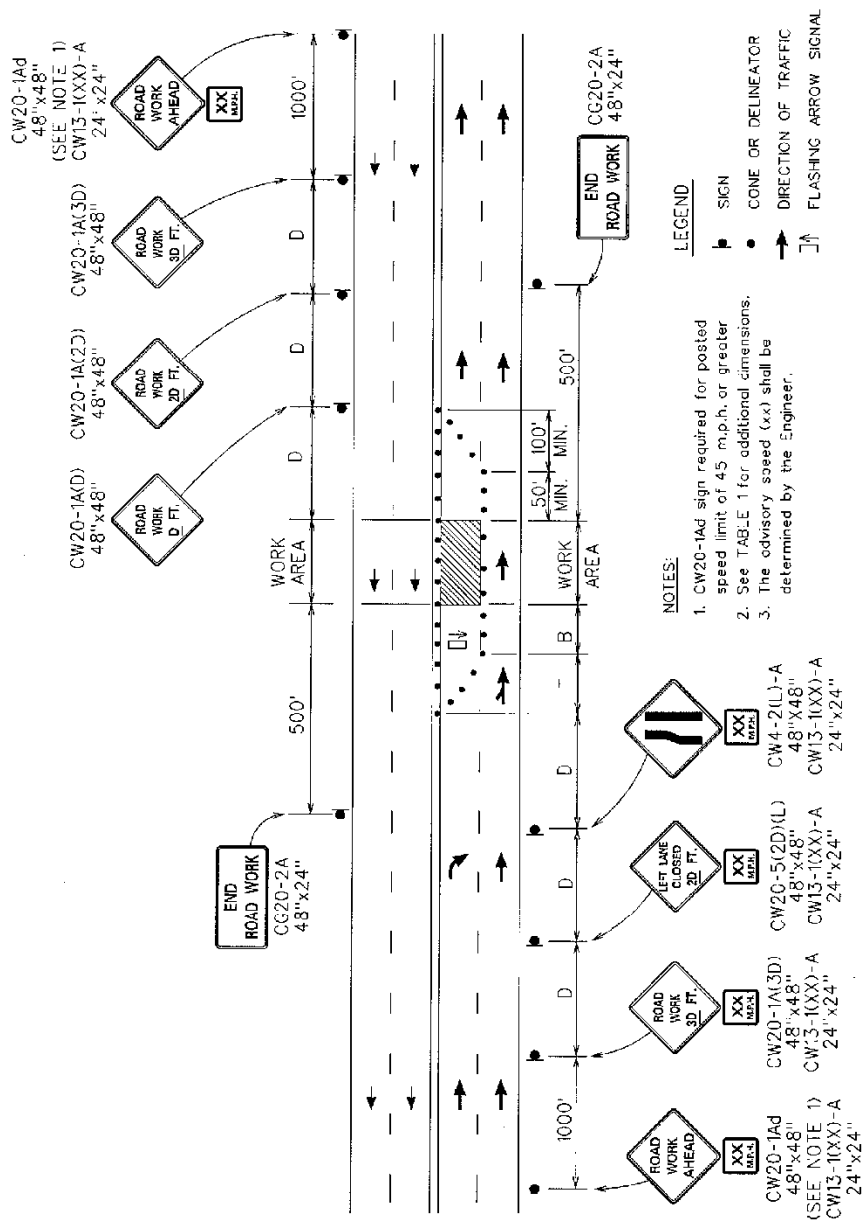
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MULTILANE UNDIVIDED HIGHWAY - RIGHT LANE CLOSED

FIGURE 2 - TRAFFIC CONTROL PLAN

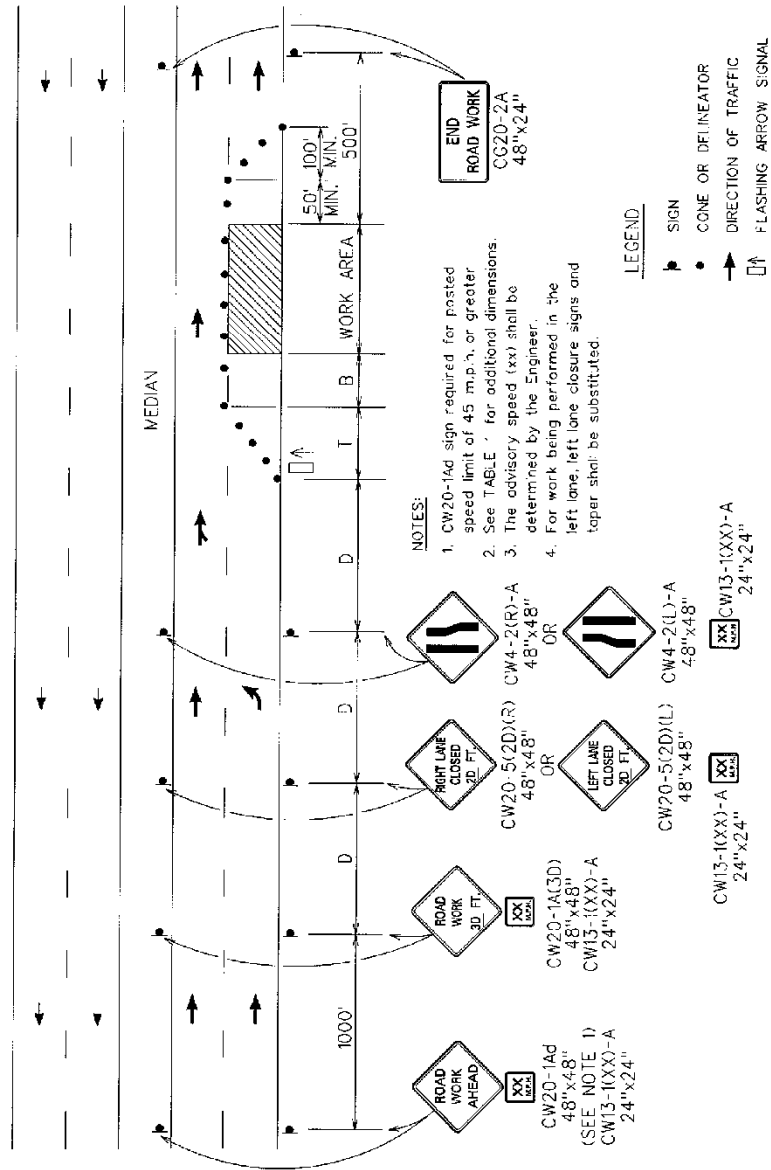
R2/97



MULTILANE UNDIVIDED HIGHWAY - LEFT LANE CLOSED

FIGURE 3 - TRAFFIC CONTROL PLAN

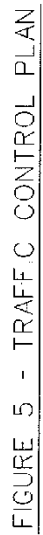
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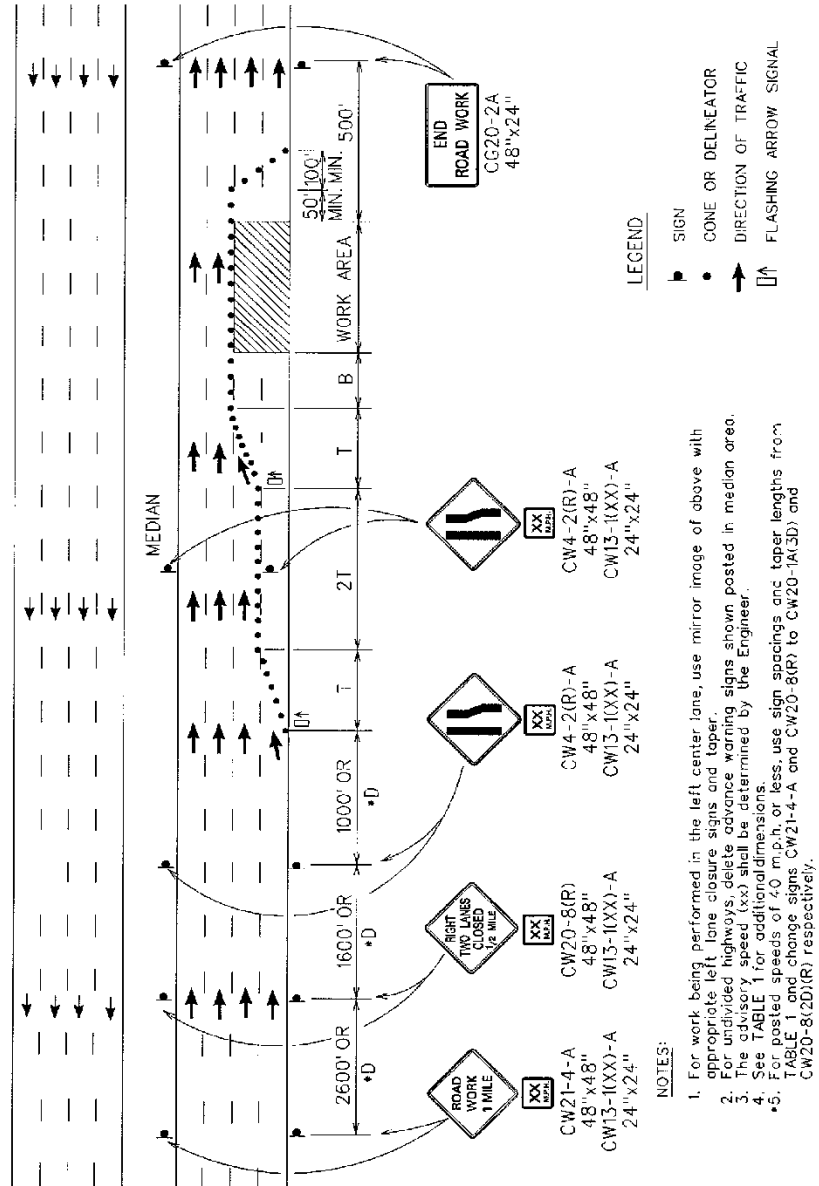
MULTILANE DIVIDED HIGHWAY - ONE LANE CLOSED

FIGURE 4 - TRAFFIC CONTROL PLAN

R10/96



475
476
477



MULTILANE HIGHWAY - MULTIPLE LANE CLOSED

FIGURE 6 - TRAFFIC CONTROL PLAN

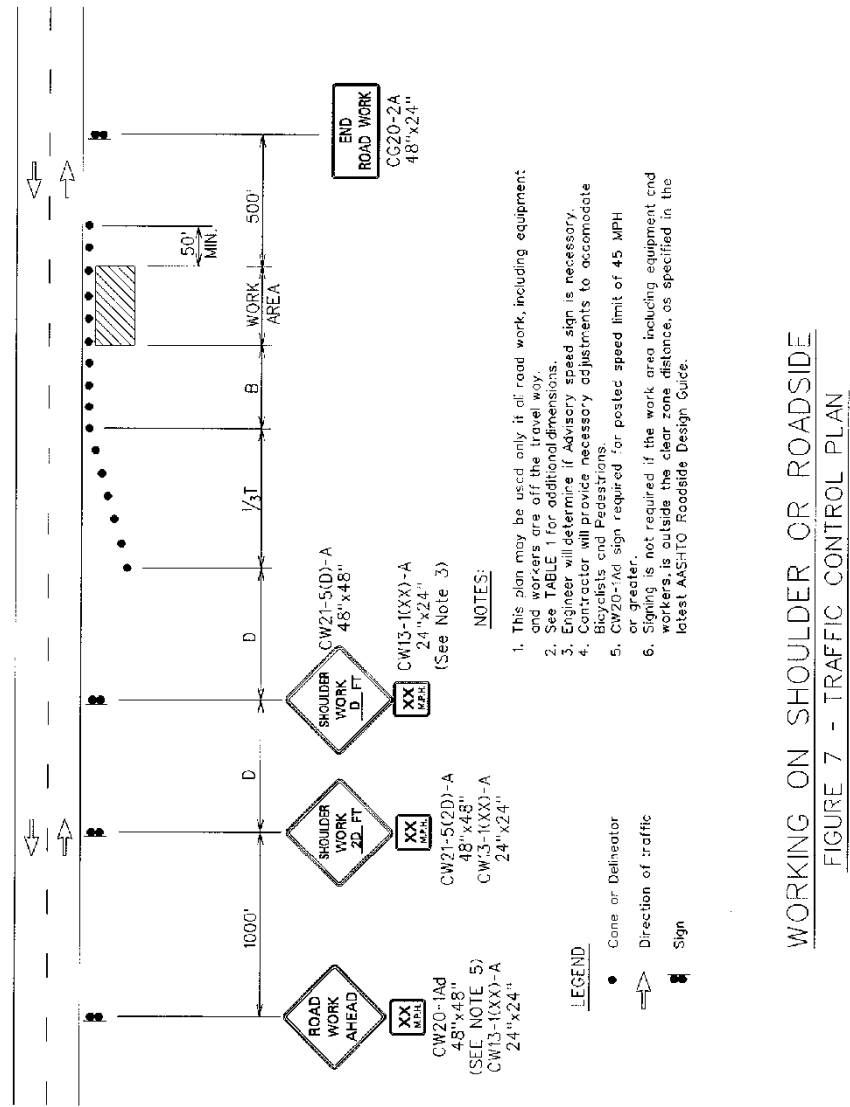
R10/96

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END OF SECTION 645

NH-019-2(076)
645-18a

12/24/25



R10/96

Delete Section 647 in its entirety and replace with the following:

“SECTION 647 – FIBER OPTIC CABLE

647.01 Description. This work includes furnishing labor, materials, tools, machinery, and equipment necessary to install a broadband ductline along Bayfront Highway to support the Internet for All Initiative.

There shall be a fiber optic cable Subcontractor, who shall have at least 3 (three) years experience in installing fiber optic systems specifically for outdoor overhead joint-pole and underground in traffic-highway applications. The fiber optic cable Subcontractor shall be responsible for testing all fiber optic cables to provide a documented optical budget loss analysis. The fiber optic cable Subcontractor shall be responsible for all hookups, assignments, dedication, testing, matching, termination, and splicing of the fiber optic cables, unless otherwise indicated. All fiberoptic splice points shall have pigtails on all fiberoptic members which attach to fiberoptic hardware and components with SC-connectors. All unused fiber optic strands shall be jumpered color for color using a fiberoptic patch panel. The fiber optic cable Subcontractor shall be fully responsible for all splices, budget loss, attenuators, appropriate fiber hardware, accessories, and pigtail connections for a fully operational system. All other hardware, equipment, and labor necessary shall be considered incidental.

647.02 Materials. The broadband ductline shall consist of handholes connected by concrete encased ducts with a pull chord placed in each duct. fiber optic cables, which will be used to transmit video and data signals, will consist of 72 single-mode fibers. Cables will be installed in existing and new conduits. The Contractor shall furnish and install fiber optic cable suitable, and meeting standards, for underground and aerial lashing installations. The fiber optic cables shall meet the following specifications:

A. Handholes Holes. The handhole shall be 3'-0" X 5'-0" meeting the requirements of Hawaiian Telcom and Spectrum Oceanic standards.

B. Ducts. Ducts/Conduits See Section 712.27.

C. Pull Chord. 4000 lbs breaking strength, NEPTCO RP4000P.

647.03 Construction Requirements.

(A) Material Sample and Certificate of Compliance. The Contractor shall submit material samples according to Subsection 106.04 – Material Sample, and any certificates of compliance according to Subsection 106.07 – Certificate of Compliance.

Upon completion of the work, submit an “As Built” or corrected plan showing in detail the following:

- (1) Construction changes.

(B) Excavation and Backfill. Excavation and backfill shall conform to Section 204 – Excavation and Backfill for Miscellaneous Facilities.

The Contractor shall be responsible for the repair of any damage to pavements, sidewalks and other improvements. Place the material from the excavation to prevent damage and obstruction to vehicular and pedestrian traffic and interference with surface drainage.

(E) Restoring Pavements and Other Improvements. Restore the existing pavements and other improvements such as driveways, sidewalks, curbs and gutters disturbed by excavation to their original condition according to the contract. Materials used for restoration work shall be equal to or better in quality than the materials the Contractor will replace, and matching in thickness, texture, and color whenever applicable. The grades of the restored surfaces shall conform to the existing grades.

(F) Warranty. Materials and equipment installed for permanent construction shall be new. The contract contemplates the use of first-class material and equipment throughout the performance of the contract.

Secure from the manufacturer(s), a warranty or warranties guaranteeing equipment from defects in materials, design and workmanship for not less than 12 months from the date of acceptance.

When requiring adjustments or repairs during the warranty period, adjust or repair the existing unit within 24 hours from the time of notification.

When requiring repairs that need factory corrections during the warranty period, replace the existing unit with an accepted temporary operational replacement unit within 24 hours from the time of notification until the Contractor can install the new unit. Install the new, identical non-defective unit within 30 days from the time of notification.

647.04 Method of Measurement. The Engineer will measure the fiber optic cable system as described below. Pay units such as linear footage (L.F) for conduits, cubic yard (Cu. Yd) for concrete jacket, and per each item for other fiber optic cable system equipment in accordance with the contract documents.

647.05 Basis of Payment. The Engineer will pay for the accepted fiber optic cable underground at the contract unit price per linear foot complete in place. The price includes full compensation for messenger cable both, existing and new, splicing, patch panels, and all other materials required to complete a fully functioning fiber optic infrastructure. submitting the equipment list and drawing; furnishing, installing, splicing and taping the cable, as required; making the connections; providing turn-on service, restoring pavements and other

improvements; testing and furnishing equipments, tools, labor, materials and other incidentals necessary to complete the work.

The Engineer will make payment under:

Pay Item	Pay Unit
Fiber Optic Cable, 3'x5' Telecom Handhole	Each
Fiber Optic Cable Conduit, 4" PVC Sch. 40	Lin. Ft.
Concrete Jacket, Fiber Optic Cable Conduit	Cu. Yd
Hawaiian Telcom Manhole, 4' x 6'-6" x 6'-6"	Each
Hawaiian Telcom Conduit, 5" PVC Sch. 40	Lin. Ft.
Concrete Jacket, Hawaiian Telcom Conduit	Cu. Yd

END OF SECTION

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(I) Amend 650.04 – Measurement by revising lines 41 to 42 to read as follows:

The Engineer will measure accepted bicycle ramps, curb ramps, and detectable warning mats per each in accordance with the contract documents.”

“650.05 Payment.

The Engineer will pay for the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
Bicycle Ramp	Each
Curb Ramp, Type A	Each
Detectable Warning Mat	Each"

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650-1a

7/1/18

1 Make the following section a part of the Standard Specifications:

2
3 **“SECTION 671 – PROTECTION OF ENDANGERED SPECIES**

4
5 **671.01 Description.** The Endangered Species Act (ESA) listed species
6 Hawaiian hoary bat (*Lasiurus cinereus semotus*), Hawaiian petrel (*Pterodroma*
7 *sandwichensis*), Newell's shearwater (*Puffinus newelli*), band-rumped storm petrel
8 (*Hydrobates castro*), Hawaiian stilt (*Himantopus mexicanus knudseni*), Hawaiian
9 coot (*Fulica alai*), Hawaiian common gallinule (*Gallinula galeata sandvicensis*),
10 Hawaiian duck (*Anas wyvilliana*), green sea turtle (*Chelonia mydas*), hawksbill sea
11 turtle (*Eretmochelys imbricata*) and Hawaiian monk seal (*Neomonachus*
12 *schauinslandi*) may be in or transit through the general vicinity of the proposed
13 project. The contractor shall protect these terrestrial and marine protected species
14 throughout the construction duration.

15
16 **671.02 Materials.** None

17
18 **671.03 Construction.**

19
20 **(A) Pre-Construction and Construction Requirements.** Comply with
21 the following conditions:

22
23 **(1) General Lighting Requirements:**
24 Nightwork is authorized by the Regulatory Permits, however
25 from May through December all lights must be downward
26 facing and fully shielded so bulbs can only be seen from
27 below. All lights will illuminated only when necessary and will
28 be turned off when human activity is not occurring in the
29 lighted area. Additionally, all construction lights will be lower
30 in height than the existing streetlight and not placed on the
31 beach. Lighting should also face mauka along the face of the
32 cliff where work is occurring and not outwards toward the
33 ocean.

34
35 **(2) Hawaiian Hoary Bats:** No disturbance, removal, or trimming of
36 woody plants taller than 15 feet (4.6 meters) during the
37 birthing and pup rearing season (June 1 through September
38 15). Trees along the existing fenceline must be cleared prior
39 to construction to address this seasonal restriction.
40 Additionally, barbed wire will not be used.

41
42 **(3) Hawaiian seabirds** (Newell's shearwater, Hawaiian petrel and
43 band-rumped storm-petrel) may traverse the project area at
44 night. Nighttime construction is permitted year-round.
45 However, the following measures must be implemented

46 during seabird fledging season (September 15 through
47 December 15):

- 48 • Monitoring for downed seabirds during night work will
49 be conducted by a qualified biologist experienced and
50 knowledgeable in Hawaiian seabird biology and
51 identification. Monitoring will be conducted at the
52 places and during the hours that construction night
53 lighting is in use, and at dawn. Surveys for seabirds
54 will be conducted regardless of weather conditions
55 unless the weather is dangerous to the observer
56 and/or nightwork is cancelled.
- 57 • Seabird monitors will be hired, trained, and geared up
58 with surveying and downed seabird rescue equipment
59 and supplies prior to September 15.
- 60 • At least one seabird monitor will be present every
61 night when there are work activities using nighttime
62 lighting during this three-month period.
- 63 • The seabird monitors will observe the nighttime
64 lighting with the unaided eye and use of binoculars to
65 observe if a seabird is circling lights or has fallen to
66 the ground. If a circling bird is observed to fall to the
67 ground, the seabird monitor will immediately rescue
68 the downed seabird if it has come down in an
69 accessible location. For personnel safety, seabird
70 monitors will have radio or cell phone contact with the
71 construction work crew supervisor in the field who is
72 overseeing nighttime work. For the rescue to be done
73 safely, the construction supervisor will notify workers
74 in the immediate area of the downed seabird to stop
75 work activities while the bird is picked up.
- 76 • Construction workers will be briefed prior to the first
77 nighttime monitoring session during each seabird
78 fallout season of the presence of seabird monitors at
79 the construction site, possible downed seabirds, and
80 the potential for brief work interruption (no more than
81 5-10 minutes) for the seabird monitor to rescue a
82 downed seabird. The seabird monitor will conduct a
83 search targeted specifically at finding grounded
84 seabirds one hour prior to sunrise. The progressive,
85 seasonal change in sunrise will be adjusted for this
86 survey start time. Because all construction activities
87 will begin well after sunset, there is no need to
88 conduct sunset ground searches.
- 89 • If work personnel see a downed seabird, they will stop
90 work immediately in the downed seabird area and

report their observation to the construction supervisor, who will notify the seabird monitor. The seabird monitor will go to the location with rescue supplies.

- All downed seabirds collected, identified, and recorded will be taken to Feather and Fur in Kailua immediately or no more than 7–8 hours after grounding (i.e., if a bird is picked up early in the evening of monitoring). Care must be taken in handling any dead or injured specimens of ESA-listed species to preserve biological material in the best possible state. In conjunction with the preservation of any dead specimens, the finder has the responsibility to ensure that evidence intrinsic to determining the cause of death of the specimen is not unnecessarily disturbed.
- The seabird monitor will photo document and record location of the downed seabird using smartphone technology. The seabird monitors will follow up with HWC regarding the final species identification and disposition of the bird within 48 hours of drop off of the bird.
- The USFWS will be notified by telephone (808-792-9400) and email (pifwo_admin@fws.gov) within 24 hours upon the discovery of an injured or dead ESA-listed seabird within the project area.
- If take of listed species occurs and the carcass is recovered, the Service may request that the carcass be necropsied. Otherwise, the depository designated to receive specimens that are found is the B.P. Bishop Museum, 1525 Bernice Street, Honolulu, HI, 96817 (telephone: 808/847-3511). If the B.P. Bishop Museum does not wish to accession the carcass, contact the Service's Division of Law Enforcement in Honolulu, HI (telephone: 808/861-8525; fax: 808/861-8515) for instructions on disposition.
- The FHWA will work with HDOT to provide the USFWS written notification, summarizing the event, within 30 days of injury or mortality, using the seabird intake forms which are included as an Appendix to these specs. The FHWA or HDOT will submit a final report to the Service summarizing the extent of take throughout the project timeframe. The final report is due 90 days after the completion of the proposed project.

- (4) Hawaiian Waterbirds (gallinule, coot, duck, stilt) – Best Management Practices (BMPs) will be implemented to avoid the accumulation of standing and open water within and immediately adjacent to project elements, including in and around work areas and staging areas to avoid attracting waterbirds to the project area. If there are areas of the road where waterbirds are known to cross, reduced speed limits will be posted and enforced. In addition, construction personnel and contractors will be informed about the presence of endangered species on-site.

A biologist that is familiar with Hawaiian waterbird biology and identification will conduct Hawaiian waterbird nest surveys where potential habitat occurs within the vicinity of the proposed project area, prior to initiation of construction. These surveys will be repeated within three days of construction start and after any subsequent work delay of three or more days (during which period of time the birds may attempt to nest). If a nest or active brood of a listed waterbird is found during these surveys, the Service will be contacted within 48 hours for further guidance to determine an appropriate buffer radius around the nest. The approved buffer will be established and maintained around any active nests and/or broods until the chicks/ducklings have fledged. No potentially disruptive activities or habitat alterations may occur within the buffer.

- (5) Hawaiian sea turtles – the following measures must be adhered to year-round:
- Modification of beaches and dune environments will not occur, and vehicles will not be used on the beach.
 - Native dune vegetation will not be removed.
 - Applicable BMPs for work in and around the aquatic environments will be incorporated into the construction plans.
 - Visual monitoring of sea turtles within 100 feet of work activities is required at least hourly. This could be conducted by individuals identified by the contractor working on the project, who will be provided with on-site training by a biologist. The biologist must be knowledgeable on Hawaiian sea turtle nesting behavior. The visual survey would be conducted from a vantage point above the beach.
 - If a basking sea turtle is found within or near the Project Area, all mechanical or construction activities will cease within 100 ft of the animal until it voluntarily

181 leaves the area or is assessed by a qualified biologist
182 and USFWS is contacted to determine next steps.

- 183 • All project-related debris, trash, and equipment will be
184 prevented from entering the beach or dune area.
185 Project-related materials will not be stockpiled in the
186 intertidal zone, on reef flats, on sandy beach, or within
187 stream channels.

188
189 From May 1 through December the following will be adhered
190 to:

- 191 • A biologist with experience identifying sea turtle nests
192 will survey the beach each morning at dawn. If a nest
193 is detected, the USFWS will be contacted within 24
194 hours for additional guidance and protective
195 measures.
- 196 • If a nest is detected during construction and if
197 hatchlings are observed emerging at night, lights
198 would be turned off and night work would be paused
199 until no hatchlings are observed on the beach or in
200 the water.

201
202 (6) Hawaiian monk seal – the following measures will be
203 implemented:

- 204 • Monk seal sightings and strandings must be reported
205 to the NOAA Marine Wildlife Hotline (888-256-9840).
- 206 • Maintain constant vigilance for the presence of monk
207 seals during all aspects of the permitted action.
- 208 • Postpone work if monk seals are observed within 150
209 feet of the proposed activities and do not resume
210 activity until after the animals have voluntarily departed
211 the area.
- 212 • No project-related activities will occur on the shoreline
213 and all plastic and project related wastes will not be
214 allowed to enter the water and will be contained and
215 disposed of at an approved disposal location. Prior to
216 commencing daily activities, all equipment and
217 vehicles will be maintained and checked to reduce any
218 risk of leaks or discharge.
- 219 • Minimize and contain turbidity and sediment from
220 project-related work through the appropriate use of
221 effective sediment containment devices and the
222 curtailment of work during adverse tidal and weather
223 conditions for the entire construction period.

(B) **Compliance Requirements.** The Contractor shall protect, Hawaiian hoary bats, Hawaiian seabirds, Hawaiian waterbirds, Hawaiian sea turtles and Hawaiian monk seals for the duration of construction. Failure to comply with the construction requirements, causing or inflicting harm or taking of an individual during the construction duration shall be enforceable by the USFWS or NMFS as set forth by the ESA and DLNR. Resultant penalties and/or fines shall be at the Contractors expense without cost or liability to the State.

671.04 Measurement. The Engineer will measure the work required for the protection of endangered species on a force account basis in accordance with Subsection 109.06 – Force Account Provisions and Compensation and as ordered by the Engineer.

The Engineer will not measure the work required for minimizing spread of Rapid Ohia Death for payment.

671.05 Payment. The Engineer will pay for the accepted protection of endangered species on a force account basis in accordance with Subsection 109.06 – Force Account Provisions and Compensation. Payment will be full compensation for the work prescribed in this section, by the Engineer, and in the contract documents.

The Engineer will pay for the following pay item when included in the proposal schedule:

Pay Item	Pay Unit
Protection of Endangered Species	Force Account

An estimated amount may be allocated in the proposal schedule under “Protection of Endangered Species”, but the actual amount to be paid will be the sum shown on the accepted force account records, whether this sum be more or less than the estimated amount allocated in the proposal schedule.

Downed Wildlife Incident Reporting Form

Report Date	
Type of Discovery (circle one)	Routine Search Incidental
Species (common name)	
Date Found	
Time Found	
Age	
Bands	
Found by	
Affiliation	
Documented by	
Time Initially Reported to Agencies	
Time Bird Transported to Feather and Fur	
Coordinates (Lat/Long)	
Location Found (including closest structure and distance to structure)	
Distance of bird to base of nearest light (m)	
Bearing from base of nearest light (deg)	
Ground Type (paved, grass, shrub, other)	
Wind Direction and Speed (mph)	
Cloud Cover (percent)	
Cloud Deck (estimated magl)	
Precipitation	
Air Temperature (° F, if known)	
Photos taken ¹ (circle one)	Yes No

¹ All photos are assigned an ID# and are recorded in the Photo Log.

Descriptive Information

Condition of Bird (include a description of general condition, as well as any visible injuries):

Probable Cause of Injury or Mortality and Supporting Evidence (attach photos and map, next page):

Action Taken (include notifications, reporting dates and times):

Additional Comments

Attach 2-3 photos to this report.

Seabird Monitoring Species Names and Acronym Codes
Hawaii Department of Transportation

Please use the following codes for grounded bird species recorded on the Primary Data Form. If a species is encountered which does not occur on this list, please record the common name.

Common Name	Species Code
Hawaiian Petrel	HAPE
Newell's Shearwater	NESH
Wedge-tailed Shearwater	WTSH
Band-rumped Storm-Petrel	BRSP
Buller's Shearwater	BUSH
Bulwer's Petrel	BUPE
Christmas Shearwater	CHSH
Sooty Shearwater	SOSH
Sooty Tern	SOTE
White-tailed Tropicbird	WTTR
Red-tailed Tropicbird	RTTR
Red-footed Booby	RFBO
Brown Booby	BRBO
Brown Noddy	BRNO
Black Noddy	BLNO
Unknown	UNKN

Rescuing Downed Seabirds—Standard Operating Procedures (SOP)

The following steps provide the procedure for recovering downed seabirds:

1. Take the seabird recovery kit and pet carrier to the downed seabird.
2. Put on gloves.
3. Using towel to gently cover the bird, pick up the seabird.
4. Place the seabird in the pet carrier and close the pet carrier.
5. Put the gloves and towel back in the seabird rescue kit.
6. Take the bird and pet carrier to safe location at airport.
7. Call Feather and Fur at 808-254-1548 to inform them a seabird has been picked up (leave message if no one answers phone).
8. Drive the downed seabird to Feather and Fur in early morning after nighttime monitoring is complete to deliver seabird at Feather and Fur.
9. Complete the "Seabird Intake Forms" (Appendix B of this biological opinion).
10. Give the completed "Seabird Intake Forms" to Feather and Fur, make two copies of forms, retain one copy, and send copy to the Pacific Islands Fish and Wildlife Office (PIFWO), pifwo_admin@fws.gov.
11. Notify PIFWO, pifow_admin@fws.gov, within 24 hours of downed seabird.

Contents of Seabird Recovery Kit

1. Latex or nitrile gloves;
2. Three towels;
3. Hand sanitizer;
4. Flashlight or headlamp;
5. Clipboard, pen, and blank "Bird Take Field Reports," or similar form; and
6. Pet carrier—medium sized. If a box is used it must be well ventilated and marked conspicuously "LIVE ANIMAL."

265
266
267

END OF SECTION 671"

1 Make the following section a part of the Standard Specifications:

2
3 **“SECTION 697 – PROJECT WEB PAGE**
4
5

6 **697.01 Description.** This section describes the development of the project web
7 page in accordance with the contract documents.
8

9 **697.02 Materials.** Not applicable.

10
11 **697.03 Construction.** The Department’s goal is to minimize inconvenience and
12 provide up to date information to highway users, businesses and neighborhoods that
13 abut, or are serviced by, the highways that comprise the project. It will be the
14 responsibility of the Contractor to provide the following services for the well-being of
15 the affected highway users, residents, and businesses.
16

17 The Contractor shall develop a project web page that contains the information
18 listed below:
19

	Information	Update Frequency
20		
21		
22	(A) Project Work Scope/Description	Beginning of job
23		
24	(B) Project Site Map with description	Beginning of job
25	of information needed	
26		
27	(C) Contractor’s 24 hour 7 day a week	Beginning of job
28	Phone Number for Complaints	
29		
30	(D) Project Schedule/Milestones	Beginning of job and when
31		schedule is adjusted or
32		updated. Schedule
33		changes shall be submitted
34		to the Engineer for review
35		and acceptance prior to
36		posting.
37		
38	(E) Work Progress Narrative	Every 14 calendar days
39		with Sketches
40		

41 Work progress narrative with sketches may be provided in PDF
42 format. Graphics images posted on the project web page shall not exceed
43 100k bytes per image and 300k bytes per page to facilitate public viewing.
44 Enlarged images such as maps and information provided in PDF format may
45 be linked to the project web page. Information on linked pages has no size
46 limits. Web technologies that require an extended waiting period for loading
47 like Flash shall not be used.

(F) Scheduled Road/Lane Closures 14 calendar days prior to closure changes. 14 calendar days notice shall be provided to the Engineer for any road/lane closures or changes to road/lane closures

The Engineer may link this project web page to the Department website. The Contractor shall include the web page address on a construction advisory sign that will be visible to the public in a format and location as directed by the Engineer.

The web page shall be established within 14 calendar days from construction award date or 14 calendar days prior to any lane closures, road closures, or traffic detours, whichever is earlier. The web page shall be maintained by the contractor until all lane closures, road closures, or traffic detours are completed.

697.04 Measurement. The Engineer will not measure project web page for payment.

697.05 Payment. The Engineer will not pay for project web page separately and will consider the cost for project web page as indicated in the contract prices for various contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION 697

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(I) Amend **699.03 Applicability** by revising from lines 21 to 24 to read as follows:

(II) Amend **699.05 Payment** by revising from lines 44 to 47 to read as follows:

“Mobilization (Not to exceed 6 percent of the sum of all items excluding the bid price of this item) Lump Sum”

END OF SECTION 699

1 **SECTION 702 – BITUMINOUS MATERIALS**

2
3 Make the following amendments to said Section:

4
5 **(I)** Amend **Subsection 702.01** by replacing lines 4 to 5 to read:

6
7 **“702.01 Asphalt Cement.**

8
9 **(A) PG 64-16.** Performance graded (PG) asphalt binder (neat or
10 unmodified) shall conform to AASHTO M 320.

11
12 **(B) PG 64E-22.** Performance graded binder (polymer modified) shall
13 conform to AASHTO M 332 and meet the following additional requirement:

14
15 AASHTO T 315 Determining the Rheological Properties of Asphalt
16 Binder Using a Dynamic Shear Rheometer (DSR). Phase angle on original
17 binder shall be less than 77 degrees.

18
19 **(C) Submittals.** Submit, before usage, a Certificate of Compliance,
20 accompanied by substantiating test data, showing conformance with
21 Performance Graded Asphalt Binder Specification. The Engineer will not
22 accept the PG binder without adequate documentation.”

23
24 **(II)** Amend **Subsection 702.06 (Unassigned)** by replacing line 23 to read:

25
26 **“702.06 Warm Mix Asphalt (WMA) Additive.** Additives for WMA shall be
27 approved by the Engineer.”

28
29
30
31
32
33 **END OF SECTION 702**

SECTION 703 – AGGREGATES

Make the following amendments to said Section:

(I) Amend **TABLE 703.01-3 FINE AGGREGATE GRADING REQUIREMENTS, HAWAII AND KAUAI** to read as follows:

“

TABLE 703.01-3 - FINE AGGREGATE GRADING REQUIREMENTS, HAWAII AND KAUAI		
Sieve Sizes	Percent Passing by Weight	
	Calcareous Sand	Crusher Screenings
3/8 Inch	100	100
No. 4	95 – 100	95 - 100
No. 8	-	50 - 85
No. 16	-	32 - 60
No. 30	-	-
No. 50	-	15 - 30
No. 100	0 – 5	5 - 20

“

END OF SECTION 703

1 **SECTION 706 - CONCRETE, CLAY AND PLASTIC PIPE**
2

3 Make the following amendments to said Section:

4
5 **(I)** Amend **Subsection 706.02(A) RCP for Drainage System** from lines 8 to 28
6 to read as follows:

7
8 **“(A) RCP for Drainage System.** RCP shall conform to AASHTO Load and
9 Resistance Factor Design (LRFD) specifications, and AASHTO M 170 for
10 specified diameters and strength class, and requirements below:
11

12 **(1)** Acceptance shall be based on:

13
14 **(a)** Plant Certification from the American Concrete Pipe
15 Association (ACPA), National Precast Concrete Association
16 (NPCA), or Precast/Prestressed Concrete Institute (PCI).
17

18 **(b)** Certified Plant Load Bearing Test results.
19

20 **(c)** Certified Material Test results.
21

22 **(d)** Inspection for visual defects and imperfections of the
23 manufactured pipe.
24

25 **(2)** Using three-edge-bearing test method, pipe shall be loaded
26 until 0.01-inch crack occurs. Pipe manufacturer shall furnish facilities
27 and provide personnel to perform test according to AASHTO T 280
28 (ASTM C 497). Each section of pipe, in addition to required pipe
29 markings, shall include project identification and inspection lot
30 designation.
31

32 **(3)** Precast reinforced concrete pipe end sections shall conform to
33 the requirements above.”
34
35

36
37 **END OF SECTION 706**

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(I) Amend 712.07(A) Frame and Cover from line 98 to line 112 to read as follows:

(II) Amend **712.07(B) Frame and Grate** from line 114 to line 132 to read as follows:

Steel frame and grate shall conform to ASTM A 283/A 283 M, Grade D; ASTM A 27/A 27M, Grade 65-35; or ASTM A 47/A 47 M, Grade 35018. Zinc coating shall be provided in accordance with ASTM A 123/A 123M.

Fabricated frame and grate shall be true to line and free of twists, bends, and open joints. Splices will not be allowed. Cut surfaces and edges shall be made smooth by machining or grinding before fabrication of frame and grate.

END OF SUBSECTION 712

1 **SECTION 717 – CULLET AND CULLET-MADE MATERIALS**

2
3 Make the following amendments to said Section:

4
5 **(I) Amend Subsection 717.01 – Cullet and Cullet-Aggregate Mixtures as**
6 **Construction Materials** by revising the third paragraph from line 16 to 20 to

7 read:
8
9 “Debris shall not exceed values specified in Tables 717.02-1 - Cullet in
10 Roadway Applications, 717.03-1 - Cullet in Utility Applications, and 717.04-1 -
11 Cullet in Drainage Applications. Debris is defined as deleterious material that
12 includes plastics, papers, and non-ceramic constituents of cullet. Hazardous
13 material will not be allowed in cullet such as but not limited to, TV or other
14 cathode ray tubes, fluorescent light bulbs, and any toxic or hazardous materials.
15 Test cullet stockpile for toxic or hazardous materials every 90 days and submit
16 the results to the Engineer.”

17
18 **(II) Amend Subsection 717.01 – Cullet and Cullet-Aggregate Mixtures as**
19 **Construction Materials** by adding the following paragraph after line 21:

20
21 “Cullet shall not be used in concrete.”

22
23 **(III) Amend Table 717.03-1 – Cullet in Utility Applications** from line 37 to
24 line 39 to read:

25

TABLE 717.03-1 - CULLET IN UTILITY APPLICATIONS		
Utility Trench Bedding and Backfill Applications	Maximum Cullet Content (Percent By Weight)	Maximum Debris Level (Percent By Weight Of Cullet)
Sewer Pipes	25	0.3
Electrical Conduits	25	0.3
Fiber Optic Lines	25	0.3

(IV) Amend **Table 717.04-1 – Cullet in Drainage Applications** from line 47 to line 49 to read:

TABLE 717.04-1 - CULLET IN DRAINAGE APPLICATIONS		
Drainage Fill Applications	Maximum Cullet Content (Percent By Weight)	Maximum Debris Level (Percent By Weight Of Cullet)
Retaining Walls	25	0.2
Foundation Drains	25	0.2
Drainage Blankets	25	0.2
French Drains	25	0.2

END OF SECTION 717

1 Make the following Section a part of the Standard Specifications:
2

3 **"SECTION 719 – MACRO-SYNTHETIC FIBERS FOR CONCRETE**
4 **REINFORCEMENT**
5

6 **719.01 Macro-Synthetic Fibers for Concrete Reinforcement.** Macro-Synthetic
7 Fibers for Concrete Reinforcement shall conform to the following requirements:
8

9 (A) Macro-synthetic fibers shall be manufactured from virgin polyolefins
10 (polypropylene and polyethylene) and comply with ASTM C 1116.4.1.3.
11 Fibers manufactured from materials other than polyolefins must show
12 documentary evidence confirming their long term resistance to deterioration
13 when in contact with moisture and alkalies present in cement paste and/or
14 the substances present in air-entraining and chemical admixtures.
15

16 (B) The minimum fiber length shall be 1.50 inches.
17

18 (C) Macro-synthetic fibers shall have an aspect ratio (length divided by the
19 equivalent diameter of the fiber) between 45 and 150.
20

21 (D) Macro-synthetic fibers shall have a minimum tensile strength of 40 ksi
22 when tested in accordance with ASTM D 3822.
23

24 (E) Minimum dosage rate in pounds of fibers per cubic yard of concrete
25 shall be established by determining a minimum average residual strength of
26 no less than 150 psi when tested in accordance with ASTM C 1399. The
27 minimum fiber dosage rate shall be 3 lbs/cubic yard.
28

29 (F) Macro-synthetic fibers shall have a minimum modulus of elasticity of 400
30 ksi when tested in accordance with ASTM D 3822."
31
32

33 **END OF SECTION 719**

1 **SECTION 750 – TRAFFIC CONTROL SIGN AND MARKER MATERIALS**

2
3 Make the following amendments to said Section:

4
5 **(I)** Amend **Subsection 750.01(A)(1) Retroreflectorization** by replacing lines
6 8 through 31 to read:

7
8 **“(1) Retroreflectorization.** The following shall be retroreflectorized:

9
10 **(a)** Background for illuminated guide signs and exit number panels ("E"
11 designation) with ASTM D 4956 Type XI retroreflective sheeting.

12
13 **(b)** Background for non-illuminated guide signs and exit number panels
14 ("D" designation) with ASTM D 4956 Type XI retroreflective sheeting.

15
16 **(c)** Messages, arrows, and borders of guide signs and exit number
17 panels ("D" and "E" designations) with ASTM D 4956 Type XI
18 retroreflective sheeting.

19
20 **(d)** Regulatory and warning signs, directional signs ("DIR" designation),
21 route and auxiliary markers, shield symbols, yellow "EXIT ONLY" panels,
22 construction warning signs, and barricade rails, completely, with Type III,
23 IV, or IX retroreflective sheeting.

24
25 **(e)** Pedestrian, school, bicycle crossing series, completely with Type IX
26 fluorescent yellow green retroreflective sheeting.”

27
28
29 **(II)** Amend **Subsection 750.01(B) Backing** by replacing lines 72 through 73
30 to read:

31
32 “Aluminum sheet shall conform to ASTM B 209, alloy 5052-H38 or 6061-
33 T6 flat sheet.”

34
35 **(III)** Amend **Subsection 750.01(E) Retroreflective Sheeting Materials** by
36 replacing lines 1126 through 1137 to read:

37
38 **“(E) Retroreflective Sheeting Materials.** Retroreflective sheeting
39 includes white or colored sheeting having smooth outer surface.

40
41 Retroreflective sheeting shall be classified in accordance with ASTM D
42 4956.

43
44 The coefficient of retroreflection shall meet the minimum requirements of
45 ASTM D 4956 for the type of reflective sheeting specified.

47 The color shall conform to the latest appropriate standard color tolerance
48 chart issued by the U.S. Department of Transportation, Federal Highway
49 Administration and to the daytime and nighttime color requirements of ASTM D
50 4956.

51
52 Test methods and procedures shall be in accordance with ASTM.

53
54 **(IV) Amend Subsection 750.02 Sign Posts** by replacing lines 1168 through
55 1172 to read:

56
57 **“750.02 Square Tube Posts.** Square and other tube posts shall conform to
58 ASTM A 653 for cold-rolled, carbon steel sheet, commercial quality; or ASTM A
59 787 for electric-resistance-welded, metallic-coated carbon steel mechanical
60 tubing.”

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67 **END OF SECTION 750**
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1 **SECTION 755 – PAVEMENT MARKING MATERIALS**
2

3 Make the following amendments to said Section:
4

5 **(I) Amend Subsection 755.02 (C) Retroreflective Pavement Markers** by
6 revising lines 223 to 236 to read:

7
8 “Exterior surface of shell shall be smooth and contain one or two
9 retroreflective faces of specified color.”
10

11 **(II) Amend Subsection 755.05 (C)(1) Material Properties** by adding the
12 following after line 869:

13
14 **“(f)** The glass spheres shall not contain more than 200 ppm (total)
15 arsenic, 200 ppm (total) antimony nor more than 200 ppm (total)
16 lead, when tested according to EPA Methods 3052 and 6010C.
17 Other suitable x-ray fluorescence spectrometry analysis methods
18 may be used to screen samples of glass spheres for arsenic and
19 lead content.”
20
21
22
23
24
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26

27 **END OF SECTION 755**
28
29

1 **SECTION 760 – ROADWAY AND SIGN LIGHTING SYSTEMS MATERIALS**

2
3 Make the following amendments to said Section:

4
5 Amend **Subsection 760.03 (A)** from line 53 to 130 to read as follows:

6
7 **(A) Luminaires for Roadway Lighting.** Luminaires for roadway lighting shall
8 be LED type as indicated herein and on the contract drawings.

9
10 (1) Housing

11 (a) Die cast aluminum housing.

12 (b) A modern design preserving the aesthetic look of traditional
13 roadway Cobrahead fixtures and shall incorporate the heat
14 sink directly into the unit ensuring maximum heat transfer
15 and long LED life.

16 (c) Shall meet 3G vibration per ANSI C136.31-2010.

17 (d) Power door assembly with removable retention latch.

18
19 (2) LED & Optical Assembly

20 (a) Structured LED array shall be provided for optimized
21 roadway photometric distribution.

22 (b) Evolve light engine consisting of scalable reflective
23 technology designed to optimize application efficiency and
24 minimize glare.

25 (c) Shall utilize high brightness LEDs, 70 CRI at 4000K.

26 (d) LM-79 tests and reports shall be performed in accordance
27 with IESNA standards.

28
29 (3) Ratings

30 (a) UL listed, suitable for wet locations per UL 1598.

31 (b) IP66 rated optical enclosure per ANSI C136.25-2009.

32 (c) Temperature rated at –40° to 50°C (–40° to 40°C for ERS2
33 347-480V fixtures).

34 (d) Upward Light Output Ratio (ULOR) = 0.

- 48 (4) Lumen Maintenance
49
50 (a) Lumen Maintenance per TM21.
51
52 (5) Mounting
53
54 (a) Slipfitter with +/- 5 degree of adjustment for leveling.
55
56 (b) Integral die cast mounting pipe stop feature.
57
58 (c) Wildlife intrusion protection at mounting pipe entry.
59
60 (d) Adjustable for 1.25 in. or 2 in. mounting pipe.
61
62 (6) Finish
63
64 (a) Corrosion resistant polyester powder painted, minimum 2.0
65 mil. thickness.
66
67 (b) Standard color: Gray.
68
69 (7) Electrical
70
71 (a) Universal voltage rating.
72
73 (b) System power factor is >90% and THD <26%.
74
75 (c) Class "A" audible sound rating.
76
77 (d) Surge Protection: Per ANSI C136.2-2015:
78
79 (e) Standard 6kV/3kA "Basic: (120 Strikes)".
80
81 (f) Optional Secondary: 10kV/5kA "Enhanced: (40 Strikes)"
82
83 (g) EMI: Title 47 CFR Part 15 Class A.
84
85 (h) LightGrid 2.0 nodes.
86
87 (i) 5-year limited system warranty standard.
88
89 (8) Warranty
90
91 (a) 5-year limited system warranty standard.
92
93

END OF SECTION 760

Requirements of Chapter 104, HRS

Wages and Hours of Employees on Public Works Law

Chapter 104, HRS, applies to every public works construction project over \$2,000, regardless of the method of procurement or financing (purchase order, voucher, bid, contract, lease arrangement, warranty, SPRB).

Rate of Wages for Laborers and Mechanics

- 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, shall be paid to the various classes of laborers and mechanics working on the job site. [§104-2(a), (b), Hawaii Revised Statutes (HRS)]
- If the Director of Labor determines that prevailing wages have increased during the performance of a public works contract, the rate of pay of laborers and mechanics shall be raised accordingly. [§104-2(a) and (b), HRS; §12-22-3(d) Hawaii Administrative Rules (HAR)]

Overtime

- Laborers and mechanics working on a Saturday, Sunday, or a legal holiday of the State or more than eight hours a day on any other day shall be paid overtime compensation at not less than one and one-half times the basic hourly rate plus the cost of fringe benefits for all hours worked. If the Director of Labor determines that a prevailing wage is defined by a collective bargaining agreement, the overtime compensation shall be at the rates set by the applicable collective bargaining agreement [§§104-1, 104-2(c), HRS; §12-22-4.1, HAR]

Weekly Pay

- Laborers and mechanics employed on the job site shall be paid their full wages at least once a week, without deduction or rebate, except for legal deductions, within five working days after the cutoff date. [§104-2(d), HRS]

Posting of Wage Rate Schedules

- Wage rate schedules with the notes for prevailing wages and special overtime rates, shall be posted by the contractor in a prominent and easily accessible place at the job site. A copy of the entire wage rate schedule shall be given to each laborer and mechanic employed under the contract, except when the employee is covered by a collective bargaining agreement. [§104-2(d), HRS]

Withholding of Accrued Payments

- If necessary, the contracting agency may withhold accrued payments to the contractor to pay to laborers and mechanics employed by the contractor or subcontractor on the job site any difference between the wages required by the public works contract or specifications and the wages received. [§104-2(e), HRS]

Certified Weekly Payrolls and Payroll Records

- A certified copy of all payrolls shall be submitted weekly to the contracting agency. [§104-3(a), HRS; §12-22-10, HAR]
- The contractor is responsible for the submission of certified copies of the payrolls of all subcontractors. The certification shall affirm that the payrolls are correct and complete, that the wage rates listed are not less than the applicable rates contained in the applicable wage rate schedule, and that the classifications for each laborer or mechanic conform with the work the laborer or mechanic performed. [§104-3(a), HRS; §12-22-10, HAR]
- Payroll records shall be maintained by the contractor and subcontractors for three years after completion of construction. The records shall contain: [§104-3(b), HRS; §12-22-10, HAR]
 - the name and home address of each employee
 - the last four digits of social security number
 - a copy of the apprentice's registration with DLIR
 - the employee's correct classification
 - rate of pay (basic hourly rate + fringe benefits)
 - itemized list of fringe benefits paid
 - daily and weekly hours worked
 - weekly straight time and overtime earnings
 - amount and type of deductions
 - total net wages paid
 - date of payment
- Records shall be made available for examination by the contracting agency, the Department of Labor and Industrial Relations (DLIR), or any of its authorized representatives, who may also interview employees during working hours on the job. [§§104-3(c), 104-22(a), HRS; §12-22-10, HAR]

Termination of Work on Failure to Pay Wages

- If the contracting agency finds that any laborer or mechanic employed on the job site by the contractor or any subcontractor has not been paid prevailing wages or overtime, the contracting agency may, by written notice to the contractor, terminate the contractor's or subcontractor's right to proceed with the work or with the part of the work in which the required wages or overtime compensation have not been paid. The contracting agency may complete this work by contract or otherwise, and the contractor or contractor's sureties shall be liable to the contracting agency for any excess costs incurred. [§104-4, HRS]

Apprentices

- Apprentice wage rates apply to contractors who are a party to a bona fide apprenticeship program which has been registered with the DLIR. In order to be paid apprentice rates, apprentices must be parties to an agreement either registered with or recognized as a USDOL nationally approved apprenticeship program by the DLIR, Workforce Development Division, (808) 586-8877, and the apprentice must be individually registered by name with the DLIR. [§12-22-6(1) and (2), HAR]
- The number of apprentices on any public work in relation to the number of journeyworkers in the same craft classification as the apprentices employed by the same employer on the same public work may not exceed the ratio allowed under the apprenticeship standards registered with or recognized by the DLIR. A registered or recognized apprentice receiving the journeyworker rate will not be considered a journeyworker for the purpose of meeting the ratio requirement. [§12-22-6(3), HAR]

Enforcement

- To ensure compliance with the law, DLIR and the contracting agency will conduct investigations of contractors and subcontractors. If a contractor or subcontractor violates the law, the penalties are: [§104-24, HRS]
 - First Violation Equal to 25% of back wages found due or \$250 per offense up to \$2,500, whichever is greater.
 - Second Violation Equal to amount of back wages found due or \$500 for each offense up to \$5,000, whichever is greater.
 - Third Violation Equal to two times the amount of back wages found due or \$1,000 for each offense up to \$10,000, whichever is greater; and
Suspension from doing any new work on any public work of a governmental contracting agency for three years.
- A violation would be deemed a second violation if it occurs within two years of the **first notification of violation**, and a third violation if it occurs within three years of **the second notification of violation**. [§104-24, HRS; §12-22-25(b), HAR]
- **Suspension:** For a first or second violation, the department shall immediately suspend a contractor who fails to pay wages or penalties until all wages and penalties are paid in full. For a third violation, the department shall penalize and suspend the contractor as described above, **except that if the contractor continues to violate the law, then the department shall immediately suspend the contractor for a mandatory three years. The contractor shall remain suspended until all wages and penalties are paid in full.** [§§104-24, 104-25, HRS]
- **Suspension:** Any contractor who fails to make payroll records accessible or provide requested information within 10 days, or fails to keep or falsifies any required record, shall be assessed a penalty including suspension as provided in Section 104-22(b) and 104-25(a)(3), HRS. [§104-3(c), HRS; §12-22-26, HAR]
- If any contractor interferes with or delays any investigation, the contracting agency shall withhold further payments until the delay has ceased. Interference or delay includes failure to provide requested records or information within ten days, failure to allow employees to be interviewed during working hours on the job, and falsification of payroll records. The department shall assess a penalty of \$10,000 per project, and \$1,000 per day thereafter, for interference or delay. [§104-22(b), HRS; §12-22-26, HAR]
- Failure by the contracting agency to include in the provisions of the contract or specifications the requirements of Chapter 104, HRS, relating to coverage and the payment of prevailing wages and overtime, is not a defense of the contractor or subcontractor for noncompliance with the requirements of this chapter. [§104-2(f), HRS]



For additional information, visit the department's website at <http://labor.hawaii.gov/wsd> or contact any of the following DLIR offices:

Oahu (Wage Standards Division)(808) 586-8777
Hawaii Island.....(808) 974-6464
Maui and Kauai(808) 243-5322

"General Decision Number: HI20260001 05/27/2026

State: Hawaii

Construction Types: Building, Heavy, Highway and Residential

Counties: Hawaii Counties of
Hawaii, Honolulu, Kalawao, Kauai and
Maui

BUILDING CONSTRUCTION PROJECTS

RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories)

HIGHWAY CONSTRUCTION PROJECTS

HEAVY CONSTRUCTION PROJECTS

Modification Number	Publication Date
1	01/16/2026
2	05/18/2026
3	05/27/2026

ASBE0132-001 09/07/2025

	Rates	Fringes
ASBESTOS WORKERS/INSULATOR (INCLUDES APPLICATION OF ALL INSULATING MATERIALS, PROTECTIVE COVERINGS, COATINGS AND FINISHES TO ALL TYPES OF MECHANICAL SYSTEMS. ALSO THE APPLICATION OF FIRESTOPPING MATERIAL FOR WALL OPENINGS AND PENETRATIONS IN WALLS, FLOORS, CEILINGS AND CURTAIN WALLS.).....	\$ 46.90	29.75

BOIL0627-005 01/01/2025

	Rates	Fringes
BOILERMAKER.....	\$ 49.37	31.25

BRHI0001-001 09/05/2023

	Rates	Fringes
BRICKLAYER: POINTERS, CAULKERS AND WEATHERPROOFERS..	\$ 48.28	32.23
BRICKLAYERS AND STONEMASONS.....	\$ 48.03	32.23

BRHI0001-002 09/05/2023

	Rates	Fringes
TILE, MARBLE & TERRAZZO WORKER (TERRAZZO BASE GRINDERS).....	\$ 44.69	33.00
TILE, MARBLE & TERRAZZO WORKER (TERRAZZO FLOOR GRINDERS AND TENDERS).....	\$ 43.14	33.00
TILE, MARBLE & TERRAZZO WORKER (TILE, MARBLE AND TERRAZZO WORKERS).....	\$ 46.50	33.00

CARP0745-001 09/01/2025

	Rates	Fringes
CARPENTERS: (CARPENTERS; HARDWOOD FLOOR LAYERS; PATENT SCAFFOLD ERECTORS (14 FT. AND OVER); PILEDRIERS; PNEUMATIC NAILERS; WOOD SHINGLERS AND TRANSIT AND/OR LAYOUT MAN).....	\$ 55.50	29.81
CARPENTERS: MILLWRIGHTS AND MACHINE ERECTORS.....	\$ 55.75	29.81
CARPENTERS: POWER SAW OPERATORS (2 H.P. AND OVER)...	\$ 55.65	29.81

CARP0745-002 09/01/2025

	Rates	Fringes
DRYWALL AND ACOUSTICAL WORKERS AND LATHERS.....	\$ 55.75	29.81

ELEC1186-001 08/24/2025

	Rates	Fringes
ELECTRICIANS.....	\$ 56.55	33.16
ELECTRICIANS: CABLE SPLICERS.....	\$ 63.90	33.38
ELECTRICIANS: TELECOMMUNICATION WORKER.....	\$ 41.00	16.28

ELEC1186-002 08/24/2025

	Rates	Fringes
LINE CONSTRUCTION: CABLE SPLICERS.....	\$ 63.90	33.38
LINE CONSTRUCTION: GROUND MEN/TRUCK DRIVERS.....	\$ 42.41	27.14
LINE CONSTRUCTION: HEAVY EQUIPMENT OPERATORS.....	\$ 50.90	30.75
LINE CONSTRUCTION: LINEMEN.....	\$ 56.55	33.16
LINE CONSTRUCTION: TELECOMMUNICATION WORKER.....	\$ 41.00	16.28

ELEV0126-001 01/01/2025

	Rates	Fringes
ELEVATOR MECHANIC A. VACATION: EMPLOYER CONTRIBUTES 8% OF BASIC HOURLY RATE FOR 5 YEARS SERVICE AND 6% OF BASIC HOURLY RATE FOR 6 MONTHS TO 5 YEARS SERVICE AS VACATION PAY CREDIT. B. PAID HOLIDAYS: NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS' DAY, THANKSGIVING DAY, THE FRIDAY AFTER THANKSGIVING DAY AND CHRISTMAS DAY.....	\$ 73.85	38.44

ENGI0003-002 09/01/2025

	Rates	Fringes
DIVER TENDER: OTHER THAN AQUA LUNG.....	\$ 59.94	35.68
DIVER: (AQUA LUNG) (SCUBA) (over 30 feet).....	\$ 81.72	35.68
DIVER: (AQUA LUNG) (SCUBA) (up to 30 feet).....	\$ 72.35	35.68
DIVER: OTHER THAN AQUA LUNG.....	\$ 81.72	35.68
HELICOPTER WORK, AIRBORNE HOIST OPERATOR FOR HELICOPTER.....	\$ 61.52	35.68
HELICOPTER WORK: CO-PILOT OF HELICOPTER.....	\$ 61.66	35.68
HELICOPTER WORK: PILOT OF HELICOPTER.....	\$ 62.83	35.68
POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 1: FORK LIFT (UP TO AND INCLUDING 10 TONS); PARTSMAN (HEAVY DUTY REPAIR SHOP PARTS ROOM WHEN NEEDED). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET 0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15 BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS OVER 250 FEET 1.75.....	\$ 57.96	35.68
POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 2: CONVEYOR OPERATOR (HANDLING BUILDING MATERIAL); HYDRAULIC MONITOR; MIXER BOX OPERATOR (CONCRETE PLANT). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE		

OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET

0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.15 BOOMS AND/OR LEADS OVER 250 FEET
1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.75.....\$ 58.07

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 3: BRAKEMAN; DECKHAND; FIREMAN; OILER; OILER/GRADECHECKER; SIGNALMAN; SWITCHMAN; HIGHLINE CABLEWAY SIGNALMAN; BARGEMAN; BUNKERMAN; CONCRETE CURING MACHINE (SELF-PROPELLED, AUTOMATICALLY APPLIED UNIT ON STREETS, HIGHWAYS, AIRPORTS AND CANALS); LEVEEMAN; ROLLER (5 TONS AND UNDER); TUGGER HOIST. BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET

0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET
1.15 BOOMS AND/OR LEADS OVER 250 FEET
1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS OVER 250 FEET

1.75.....\$ 58.24

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 4: BOOM TRUCK OR DUAL PURPOSE ""A"" FRAME TRUCK (5 TONS OR LESS); CONCRETE PLACING BOOM (BUILDING CONSTRUCTION); DINKY OPERATOR; ELEVATOR OPERATOR; HOIST AND/OR WINCH (ONE DRUM); STRADDLE TRUCK (ROSS CARRIER, HYSTER AND SIMILAR BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET

0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET
1.15 BOOMS AND/OR LEADS OVER 250 FEET
1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN

ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF
180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS OVER 250 FEET

1.75.....\$ 58.51

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 5:
ASPHALT PLANT FIREMAN; COMPRESSORS, PUMPS,
GENERATORS AND WELDING MACHINES ("BANK" OF 9 OR
MORE, INDIVIDUALLY OR COLLECTIVELY); CONCRETE PUMPS
OR PUMPCRETE GUNS; LUBRICATION AND SERVICE ENGINEER
(GREASE RACK); SCREEDMAN. BOOMS AND/OR LEADS
(HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER
50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING
JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF
100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM
FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS)
IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS
OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR
LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130
FEET 0.50 BOOMS
AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING
180 FEET 0.75 BOOMS AND/OR LEADS OF 180
FEET UP TO AND INCLUDING 250 FEET

1.15 BOOMS AND/OR LEADS OVER 250 FEET

1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER)
WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB)
SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR
WORKED ON SAID CRANE (50 TONS AND OVER) IN
ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF
180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS OVER 250 FEET

1.75.....\$ 58.82

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 6:
BOOM TRUCK OR DUAL PURPOSE "A" FRAME TRUCK (OVER 5
TONS); COMBINATION LOADER/BACKHOE (UP TO AND
INCLUDING 3/4 CU. YD.); CONCRETE BATCH PLANTS (WET
OR DRY); CONCRETE CUTTER, GROOVER AND/OR GRINDER
(SELF-PROPELLED UNIT ON STREETS, HIGHWAYS,
AIRPORTS, AND CANALS); CONVEYOR OR CONCRETE PUMP
(TRUCK OR EQUIPMENT MOUNTED); DRILLING MACHINERY
(NOT TO APPLY TO WATERLINERS, WAGON DRILLS OR JACK
HAMMERS); FORK LIFT (OVER 10 TONS); LOADER (UP TO
AND INCLUDING 3 AND 1/2 CU. YDS); LULL HIGH LIFT
(UNDER 40 FEET); LUBRICATION AND SERVICE ENGINEER
(MOBILE); MAGINNIS INTERNAL FULL SLAB VIBRATOR (ON
AIRPORTS, HIGHWAYS, CANALS AND WAREHOUSES); MAN OR
MATERIAL HOIST; MECHANICAL CONCRETE FINISHER (LARGE
CLARY, JOHNSON BIDWELL, BRIDGE DECK AND SIMILAR);
MOBILE TRUCK CRANE DRIVER; PORTABLE SHOTBLAST
CONCRETE CLEANING MACHINE; PORTABLE BORING MACHINE
(UNDER STREETS, HIGHWAYS, ETC.); PORTABLE CRUSHER;
POWER JUMBO OPERATOR (SETTING SLIP FORMS, ETC., IN
TUNNELS); ROLLERS (OVER 5 TONS); SELF-PROPELLED
COMPACTOR (SINGLE ENGINE); SELF-PROPELLED PAVEMENT
BREAKER; SKIDSTEER LOADER WITH ATTACHMENTS; SLIP
FORM PUMPS (POWER DRIVEN BY HYDRAULIC, ELECTRIC,
AIR, GAS, ETC., LIFTING DEVICE FOR CONCRETE FORMS);
SMALL RUBBER TIRED TRACTORS; TRENCHER (UP TO AND
INCLUDING 6 FEET); UNDERBRIDGE PERSONNEL AERIAL
PLATFORM (50 FEET OF PLATFORM OR LESS). BOOMS
AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A
CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR
MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS)
WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER
HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE
(UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING
SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT
INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT
NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO
BUT NOT INCLUDING 180 FEET 0.75 BOOMS
AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250
FEET 1.15 BOOMS AND/OR
LEADS OVER 250 FEET 1.50 THE OPERATOR OF A

CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS OVER 250 FEET

1.75.....\$ 59.47

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 7: CRUSHER PLANT ENGINEER, DOZER (D-4, CASE 450, JOHN DEERE 450, AND SIMILAR); DUAL DRUM MIXER, EXTEND LIFT; HOIST AND/OR WINCH (2 DRUMS); LOADER (OVER 3 AND 1/2 CU. YDS. UP TO AND INCLUDING 6 YARDS.); MECHANICAL FINISHER OR SPREADER MACHINE (ASPHALT), (BARBER GREENE AND SIMILAR) (SCREEDMAN REQUIRED); MINE OR SHAFT HOIST; MOBILE CONCRETE MIXER (OVER 5 TONS); PIPE BENDING MACHINE (PIPELINES ONLY); PIPE CLEANING MACHINE (TRACTOR PROPELLED AND SUPPORTED); PIPE WRAPPING MACHINE (TRACTOR PROPELLED AND SUPPORTED); ROLLER OPERATOR (ASPHALT); SELF-PROPELLED ELEVATING GRADE PLANE; SLUSHER OPERATOR; TRACTOR (WITH BOOM) (D-6, OR SIMILAR); TRENCHER (OVER 6 FEET AND LESS THAN 200 H.P.); WATER TANKER (PULLED BY EUCLIDS, T-PULLS, DW-10, 20 OR 21, OR SIMILAR); WINCHMAN (STERN WINCH ON DREDGE). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET

0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15

BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS OVER 250 FEET

1.75.....\$ 59.79

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 8: ASPHALT PLANT OPERATOR; BARGE MATE (SEAGOING); CAST-IN-PLACE PIPE LAYING MACHINE; CONCRETE BATCH PLANT (MULTIPLE UNITS); CONVEYOR OPERATOR (TUNNEL); DECKMATE; DOZER (D-6 AND SIMILAR); FINISHING MACHINE OPERATOR (AIRPORTS AND HIGHWAYS); GRADESETTER; KOLMAN LOADER (AND SIMILAR); MUCKING MACHINE (CRAWLER-TYPE); MUCKING MACHINE (CONVEYOR-TYPE); NO-JOINT PIPE LAYING MACHINE; PORTABLE CRUSHING AND SCREENING PLANT; POWER BLADE OPERATOR (UNDER 12); SAURMAN TYPE DRAGLINE (UP TO AND INCLUDING 5 YDS.); STATIONARY PIPE WRAPPING, CLEANING AND BENDING MACHINE; SURFACE HEATER AND PLANER OPERATOR, TRACTOR (D-6 AND SIMILAR); TRI-BATCH PAVER; TUNNEL BADGER; TUNNEL MOLE AND/OR BORING MACHINE OPERATOR UNDERBRIDGE PERSONNEL AERIAL PLATFORM (OVER 50 FEET OF PLATFORM). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO
BUT NOT INCLUDING 180 FEET 0.75 BOOMS
AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250
FEET 1.15 BOOMS AND/OR
LEADS OVER 250 FEET 1.50 THE OPERATOR OF A
CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR
MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR
PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS
AND OVER) IN ACCORDANCE WITH THE FOLLOWING
SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING
250 FEET 1.25 BOOMS
OVER 250 FEET

1.75.....\$ 59.90

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 9:
COMBINATION MIXER AND COMPRESSOR (GUNIT); DO-MOR
LOADER AND ADAMS ELEGRADER; DOZER (D-7 OR EQUAL);
WHEEL AND/OR LADDER TRENCHER (OVER 6 FEET AND 200
TO 749 H.P.). BOOMS AND/OR LEADS (HOURLY
PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS)
WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR
OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET
OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH
HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN
ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF
80 FEET UP TO BUT NOT INCLUDING 130 FEET OR
LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130
FEET 0.50 BOOMS
AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING
180 FEET 0.75 BOOMS AND/OR LEADS OF 180
FEET UP TO AND INCLUDING 250 FEET

1.15 BOOMS AND/OR LEADS OVER 250 FEET
1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER)
WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB)
SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR
WORKED ON SAID CRANE (50 TONS AND OVER) IN
ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF
180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS OVER 250 FEET

1.75.....\$ 60.01

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 9A:
DOZER (D-8 AND SIMILAR); GRADESETTER (WHEN REQUIRED
BY THE CONTRACTOR TO WORK FROM DRAWINGS, PLANS OR
SPECIFICATIONS WITHOUT THE DIRECT SUPERVISION OF A
FOREMAN OR SUPERINTENDENT); PUSH CAT; SCRAPERS (UP
TO AND INCLUDING 20 CU. YDS); SELF-PROPELLED
COMPACTOR WITH DOZER; SELF-PROPELLED, RUBBER-TIRED
EARTHMOVING EQUIPMENT (UP TO AND INCLUDING 20 CU.
YDS) (621 BAND AND SIMILAR); SHEEP'S FOOT; TRACTOR
(D-8 AND SIMILAR); TRACTORS WITH BOOM (LARGER THAN
D-6, AND SIMILAR). BOOMS AND/OR LEADS (HOURLY
PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS)
WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR
OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET
OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH
HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN
ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF
80 FEET UP TO BUT NOT INCLUDING 130 FEET OR
LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130
FEET 0.50 BOOMS
AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING
180 FEET 0.75 BOOMS AND/OR LEADS OF 180
FEET UP TO AND INCLUDING 250 FEET

1.15 BOOMS AND/OR LEADS OVER 250 FEET
1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER)
WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB)
SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR
WORKED ON SAID CRANE (50 TONS AND OVER) IN
ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF
180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS OVER 250 FEET

1.75.....\$ 60.24

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 10:
CHICAGO BOOM; COLD PLANERS; HEAVY DUTY REPAIRMAN OR

WELDER; HOIST AND/OR WINCH (3 DRUMS); HYDRAULIC SKOOPER (KOEHRING AND SIMILAR); LOADER (OVER 6 CU. YDS. UP TO AND INCLUDING 12 CU. YDS.); SAURMAN TYPE DRAGLINE (OVER 5 CU. YDS.); SELF-PROPELLED, RUBBER-TIRED EARTHMOVING EQUIPMENT (OVER 20 CU. YDS. UP TO AND INCLUDING 31 CU. YDS.) (637D AND SIMILAR); SOIL STABILIZER (P & H OR EQUAL); SUB-GRADER (GURRIES OR OTHER AUTOMATIC TYPE); TRACTORS (D-9 OR EQUIVALENT, ALL ATTACHMENTS); TRACTOR (TANDEM SCRAPER); WATCH ENGINEER. BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15 BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS OVER 250 FEET

1.75.....\$ 60.30

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 10A: BOAT OPERATOR; CABLE-OPERATED CRAWLER CRANE (UP TO AND INCLUDING 25 TONS); CABLE-OPERATED POWER SHOVEL, CLAMSHELL, DRAGLINE AND BACKHOE (UP TO AND INCLUDING 1 CU. YD.); DOZER D9-L; DOZER (D-10, HD41 AND SIMILAR) (ALL ATTACHMENTS); GRADALL (UP TO AND INCLUDING 1 CU. YD.); HYDRAULIC BACKHOE (OVER 3/4 CU. YDS. UP TO AND INCLUDING 2 CU. YDS.); MOBILE TRUCK CRANE OPERATOR (UP TO AND INCLUDING 25 TONS) (MOBILE TRUCK CRANE DRIVER REQUIRED); SELF-PROPELLED BOOM TYPE LIFTING DEVICE (CENTER MOUNT) (UP TO AND INCLUDING 25 TONS) (GROVE, DROTT, P&H, PETTIBONE AND SIMILAR); TRENCHER (OVER 6 FEET AND 750 H.P. OR MORE); WATCH ENGINEER (STEAM OR ELECTRIC). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET

0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15

BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS

OVER 250 FEET

1.75.....\$ 60.45

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 11: AUTOMATIC SLIP FORM PAVER (CONCRETE OR ASPHALT); BAND WAGON (IN CONJUNCTION WITH WHEEL EXCAVATOR); CABLE-OPERATED CRAWLER CRANES (OVER 25 TONS BUT LESS THAN 50 TONS); CABLE-OPERATED POWER SHOVEL,

CLAMSHELL, DRAGLINE AND BACKHOE (OVER 1 CU. YD. UP TO 7 CU. YDS.); GRADALL (OVER 1 CU. YDS. UP TO 7 CU. YDS.); DW-10, 20, ETC. (TANDEM); EARTHMOVING MACHINES (MULTIPLE PROPULSION POWER UNITS AND 2 OR MORE SCRAPERS) (UP TO AND INCLUDING 35 CU. YDS., ""STRUCK"" M.R.C.); HIGHLINE CABLEWAY; HYDRAULIC BACKHOE (OVER 2 CU. YDS. UP TO AND INCLUDING 4 CU. YDS.); LEVERMAN; LIFT SLAB MACHINE; LOADER (OVER 12 CU. YDS); MASTER BOAT OPERATOR; MOBILE TRUCK CRANE OPERATOR (OVER 25 TONS BUT LESS THAN 50 TONS); (MOBILE TRUCK CRANE DRIVER REQUIRED); PRE-STRESS WIRE WRAPPING MACHINE; SELF-PROPELLED BOOM-TYPE LIFTING DEVICE (CENTER MOUNT) (OVER 25 TONS M.R.C); SELF-PROPELLED COMPACTOR (WITH MULTIPLE-PROPULSION POWER UNITS); SINGLE ENGINE RUBBER TIRED EARTHMOVING MACHINE (WITH TANDEM SCRAPER); TANDEM CATS; TRENCHER (PULLING ATTACHED SHIELD). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15 BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS OVER 250 FEET

1.75.....\$ 60.60

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 12: CLAMSHELL OR DIPPER OPERATOR; DERRICKS; DRILL RIGS; MULTI-PROPULSION EARTHMOVING MACHINES (2 OR MORE SCRAPERS) (OVER 35 CU. YDS ""STRUCK""M.R.C.); OPERATORS (DERRICKS, PILEDRIVERS AND CRANES); POWER SHOVELS AND DRAGLINES (7 CU. YDS. M.R.C. AND OVER); SELF-PROPELLED RUBBER-TIRED EARTHMOVING EQUIPMENT (OVER 31 CU. YDS.) (657B AND SIMILAR); WHEEL EXCAVATOR (UP TO AND INCLUDING 750 CU. YDS. PER HOUR); WHEEL EXCAVATOR (OVER 750 CU. YDS. PER HOUR).\$ 60.96

35.68

POWER EQUIPMENT OPERATOR - TUNNEL WORK, GROUP 12A: DOZER (D-11 OR SIMILAR OR LARGER); HYDRAULIC EXCAVATORS (OVER 4 CU. YDS.); LIFTING CRANES (50 TONS AND OVER); PIONEERING DOZER/BACKHOE (INITIAL CLEARING AND EXCAVATION FOR THE PURPOSE OF PROVIDING ACCESS FOR OTHER EQUIPMENT WHERE THE TERRAIN WORKED INVOLVES 1-TO-1 SLOPES THAT ARE 50 FEET IN HEIGHT OR DEPTH, THE SCOPE OF THIS WORK DOES NOT INCLUDE NORMAL CLEARING AND GRUBBING ON USUAL HILLY TERRAIN NOR THE EXCAVATION WORK ONCE THE ACCESS IS PROVIDED); POWER BLADE OPERATOR (CAT 12 OR EQUIVALENT OR OVER); STRADDLE LIFTS (OVER 50 TONS); TOWER CRANE, MOBILE; TRAVELING TRUSS CRANES; UNIVERSAL, LIEBHERR, LINDEN, AND SIMILAR TYPES OF TOWER CRANES (IN THE ERECTION, DISMANTLING, AND MOVING OF EQUIPMENT THERE SHALL BE AN ADDITIONAL OPERATING ENGINEER OR HEAVY DUTY REPAIRMAN); YO-YO CAT OR DOZER. BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN

ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET 0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.15 BOOMS AND/OR LEADS OVER 250 FEET
1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS OVER 250 FEET

1.75.....\$ 61.32

35.68

POWER EQUIPMENT OPERATORS:, GROUP 1: FORK LIFT (UP TO AND INCLUDING 10 TONS); PARTSMAN (HEAVY DUTY REPAIR SHOP PARTS ROOM WHEN NEEDED). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.15 BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS OVER 250 FEET

1.75.....\$ 57.66

35.68

POWER EQUIPMENT OPERATORS:, GROUP 2: CONVEYOR OPERATOR (HANDLING BUILDING MATERIAL); HYDRAULIC MONITOR; MIXER BOX OPERATOR (CONCRETE PLANT). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.15 BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS

OVER 250 FEET

1.75.....\$ 57.77

35.68

POWER EQUIPMENT OPERATORS:, GROUP 3: BRAKEMAN; DECKHAND; FIREMAN; OILER; OILER/GRADECHECKER; SIGNALMAN; SWITCHMAN; HIGHLINE CABLEWAY SIGNALMAN; BARGEMAN; BUNKERMAN; CONCRETE CURING MACHINE (SELF-PROPELLED, AUTOMATICALLY APPLIED UNIT ON STREETS, HIGHWAYS, AIRPORTS AND CANALS); LEVEEMAN; ROLLER (5 TONS AND UNDER); TUGGER HOIST. BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A

CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15 BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS OVER 250 FEET

1.75.....\$ 57.94

35.68

POWER EQUIPMENT OPERATORS:, GROUP 4: BOOM TRUCK OR DUAL PURPOSE ""A"" FRAME TRUCK (5 TONS OR LESS); CONCRETE PLACING BOOM (BUILDING CONSTRUCTION); DINKY OPERATOR; ELEVATOR OPERATOR; HOIST AND/OR WINCH (ONE DRUM); STRADDLE TRUCK (ROSS CARRIER, HYSTER AND SIMILAR). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET 0.50 BOOMS

AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.15 BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS OVER 250 FEET

1.75.....\$ 58.21

35.68

POWER EQUIPMENT OPERATORS:, GROUP 5: ASPHALT PLANT FIREMAN; COMPRESSORS, PUMPS, GENERATORS AND WELDING MACHINES (""BANK"" OF 9 OR MORE, INDIVIDUALLY OR COLLECTIVELY); CONCRETE PUMPS OR PUMPCRETE GUNS; LUBRICATION AND SERVICE ENGINEER (GREASE RACK); SCREEDMAN BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET

0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15

BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS

OVER 250 FEET

1.75.....\$ 58.52

35.68

POWER EQUIPMENT OPERATORS:, GROUP 6: BOOM TRUCK OR DUAL PURPOSE ""A""FRAME TRUCK (OVER 5 TONS); COMBINATION LOADER/BACKHOE (UP TO AND INCLUDING 3/4 CU. YD.); CONCRETE BATCH PLANTS (WET OR DRY); CONCRETE CUTTER, GROOVER AND/OR GRINDER (SELF-PROPELLED UNIT ON STREETS, HIGHWAYS, AIRPORTS, AND CANALS); CONVEYOR OR CONCRETE PUMP (TRUCK OR EQUIPMENT MOUNTED); DRILLING MACHINERY (NOT TO APPLY TO WATERLINERS, WAGON DRILLS OR JACK HAMMERS); FORK LIFT (OVER 10 TONS); LOADER (UP TO AND INCLUDING 3 AND 1/2 CU. YDS); LULL HIGH LIFT (UNDER 40 FEET); LUBRICATION AND SERVICE ENGINEER (MOBILE); MAGINNIS INTERNAL FULL SLAB VIBRATOR (ON AIRPORTS, HIGHWAYS, CANALS AND WAREHOUSES); MAN OR MATERIAL HOIST; MECHANICAL CONCRETE FINISHER (LARGE CLARY, JOHNSON BIDWELL, BRIDGE DECK AND SIMILAR); MOBILE TRUCK CRANE DRIVER; PORTABLE SHOTBLAST CONCRETE CLEANING MACHINE; PORTABLE BORING MACHINE (UNDER STREETS, HIGHWAYS, ETC.); PORTABLE CRUSHER; POWER JUMBO OPERATOR (SETTING SLIP FORMS, ETC., IN TUNNELS); ROLLERS (OVER 5 TONS); SELF-PROPELLED COMPACTOR (SINGLE ENGINE); SELF-PROPELLED PAVEMENT BREAKER; SKIDSTEER LOADER WITH ATTACHMENTS; SLIP FORM PUMPS (POWER DRIVEN BY HYDRAULIC, ELECTRIC, AIR, GAS, ETC., LIFTING DEVICE FOR CONCRETE FORMS); SMALL RUBBER TIRED TRACTORS; TRENCHER (UP TO AND INCLUDING 6 FEET); UNDERBRIDGE PERSONNEL AERIAL PLATFORM (50 FEET OF PLATFORM OR LESS). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15 BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS OVER 250 FEET

1.75.....\$ 59.17

35.68

POWER EQUIPMENT OPERATORS:, GROUP 7: CRUSHER PLANT ENGINEER, DOZER (D-4, CASE 450, JOHN DEERE 450, AND SIMILAR); DUAL DRUM MIXER, EXTEND LIFT; HOIST AND/OR WINCH (2 DRUMS); LOADER (OVER 3 AND 1/2 CU. YDS. UP TO AND INCLUDING 6 YARDS.); MECHANICAL FINISHER OR SPREADER MACHINE (ASPHALT), (BARBER GREENE AND SIMILAR) (SCREEDMAN REQUIRED); MINE OR SHAFT HOIST; MOBILE CONCRETE MIXER (OVER 5 TONS); PIPE BENDING MACHINE (PIPELINES ONLY); PIPE CLEANING MACHINE (TRACTOR PROPELLED AND SUPPORTED); PIPE WRAPPING MACHINE (TRACTOR PROPELLED AND SUPPORTED); ROLLER OPERATOR (ASPHALT); SELF-PROPELLED ELEVATING GRADE PLANE; SLUSHER OPERATOR; TRACTOR (WITH BOOM) (D-6, OR SIMILAR); TRENCHER (OVER 6 FEET AND LESS THAN 200 H.P.); WATER TANKER (PULLED BY EUCLIDS, T-PULLS, DW-10, 20 OR 21, OR SIMILAR); WINCHMAN (STERN WINCH ON DREDGE). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE,

SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET

0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15

BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS OVER 250 FEET

1.75.....\$ 59.49

35.68

POWER EQUIPMENT OPERATORS:, GROUP 8: ASPHALT PLANT OPERATOR; BARGE MATE (SEAGOING); CAST-IN-PLACE PIPE LAYING MACHINE; CONCRETE BATCH PLANT (MULTIPLE UNITS); CONVEYOR OPERATOR (TUNNEL); DECKMATE; DOZER (D-6 AND SIMILAR); FINISHING MACHINE OPERATOR (AIRPORTS AND HIGHWAYS); GRADESETTER; KOLMAN LOADER (AND SIMILAR); MUCKING MACHINE (CRAWLER-TYPE); MUCKING MACHINE (CONVEYOR-TYPE); NO-JOINT PIPE LAYING MACHINE; PORTABLE CRUSHING AND SCREENING PLANT; POWER BLADE OPERATOR (UNDER 12); SAURMAN TYPE DRAGLINE (UP TO AND INCLUDING 5 YDS.); STATIONARY PIPE WRAPPING, CLEANING AND BENDING MACHINE; SURFACE HEATER AND PLANER OPERATOR, TRACTOR (D-6 AND SIMILAR); TRI-BATCH PAVER; TUNNEL BADGER; TUNNEL MOLE AND/OR BORING MACHINE OPERATOR UNDERBRIDGE PERSONNEL AERIAL PLATFORM (OVER 50 FEET OF PLATFORM). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET 0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.15 BOOMS AND/OR LEADS OVER 250 FEET

1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS OVER 250 FEET

1.75.....\$ 59.60

35.68

POWER EQUIPMENT OPERATORS:, GROUP 9: COMBINATION MIXER AND COMPRESSOR (GUNITE); DO-MOR LOADER AND ADAMS ELEGRADER; DOZER (D-7 OR EQUAL); WHEEL AND/OR LADDER TRENCHER (OVER 6 FEET AND 200 TO 749 H.P.). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15 BOOMS AND/OR

LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS OVER 250 FEET

1.75.....\$ 59.71

35.68

POWER EQUIPMENT OPERATORS:, GROUP 9A: DOZER (D-8 AND SIMILAR); GRADESETTER (WHEN REQUIRED BY THE CONTRACTOR TO WORK FROM DRAWINGS, PLANS OR SPECIFICATIONS WITHOUT THE DIRECT SUPERVISION OF A FOREMAN OR SUPERINTENDENT); PUSH CAT; SCRAPERS (UP TO AND INCLUDING 20 CU. YDS); SELF-PROPELLED COMPACTOR WITH DOZER; SELF-PROPELLED, RUBBER-TIRED EARTHMOVING EQUIPMENT (UP TO AND INCLUDING 20 CU. YDS) (621 BAND AND SIMILAR); SHEEP'S FOOT; TRACTOR (D-8 AND SIMILAR); TRACTORS WITH BOOM (LARGER THAN D-6, AND SIMILAR). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET 0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.15 BOOMS AND/OR LEADS OVER 250 FEET

1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET

1.25 BOOMS OVER 250 FEET

1.75.....\$ 59.94

35.68

POWER EQUIPMENT OPERATORS:, GROUP 10: CHICAGO BOOM; COLD PLANERS; HEAVY DUTY REPAIRMAN OR WELDER; HOIST AND/OR WINCH (3 DRUMS); HYDRAULIC SKOOPER (KOEHRING AND SIMILAR); LOADER (OVER 6 CU. YDS. UP TO AND INCLUDING 12 CU. YDS.); SAURMAN TYPE DRAGLINE (OVER 5 CU. YDS.); SELF-PROPELLED, RUBBER-TIRED EARTHMOVING EQUIPMENT (OVER 20 CU. YDS. UP TO AND INCLUDING 31 CU. YDS.) (637D AND SIMILAR); SOIL STABILIZER (P & H OR EQUAL); SUB-GRADER (GURRIES OR OTHER AUTOMATIC TYPE); TRACTORS (D-9 OR EQUIVALENT, ALL ATTACHMENTS); TRACTOR (TANDEM SCRAPER); WATCH ENGINEER. BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET

0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15

BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS

OVER 250 FEET

1.75.....\$ 60.00

35.68

POWER EQUIPMENT OPERATORS:, GROUP 10A: BOAT OPERATOR; CABLE-OPERATED CRAWLER CRANE (UP TO AND INCLUDING 25 TONS); CABLE-OPERATED POWER SHOVEL, CLAMSHELL, DRAGLINE AND BACKHOE (UP TO AND INCLUDING 1 CU. YD.); DOZER D9-L; DOZER (D-10, HD41 AND SIMILAR) (ALL ATTACHMENTS); GRADALL (UP TO AND INCLUDING 1 CU. YD.); HYDRAULIC BACKHOE (OVER 3/4 CU. YDS. UP TO AND INCLUDING 2 CU. YDS.); MOBILE TRUCK CRANE OPERATOR (UP TO AND INCLUDING 25 TONS) (MOBILE TRUCK CRANE DRIVER REQUIRED); SELF-PROPELLED BOOM TYPE LIFTING DEVICE (CENTER MOUNT) (UP TO AND INCLUDING 25 TONS) (GROVE, DROTT, P&H, PETTIBONE AND SIMILAR; TRENCHER (OVER 6 FEET AND 750 H.P. OR MORE); WATCH ENGINEER (STEAM OR ELECTRIC). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET

0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15

BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS OVER 250 FEET

1.75.....\$ 60.15

35.68

POWER EQUIPMENT OPERATORS:, GROUP 11: AUTOMATIC SLIP FORM PAVER (CONCRETE OR ASPHALT); BAND WAGON (IN CONJUNCTION WITH WHEEL EXCAVATOR); CABLE-OPERATED CRAWLER CRANES (OVER 25 TONS BUT LESS THAN 50 TONS); CABLE-OPERATED POWER SHOVEL, CLAMSHELL, DRAGLINE AND BACKHOE (OVER 1 CU. YD. UP TO 7 CU. YDS.); GRADALL (OVER 1 CU. YDS. UP TO 7 CU. YDS.); DW-10, 20, ETC. (TANDEM); EARTHMOVING MACHINES (MULTIPLE PROPULSION POWER UNITS AND 2 OR MORE SCRAPERS) (UP TO AND INCLUDING 35 CU. YDS., "" STRUCK"" M.R.C.); HIGHLINE CABLEWAY; HYDRAULIC BACKHOE (OVER 2 CU. YDS. UP TO AND INCLUDING 4 CU. YDS.); LEVERMAN; LIFT SLAB MACHINE; LOADER (OVER 12 CU. YDS); MASTER BOAT OPERATOR; MOBILE TRUCK CRANE OPERATOR (OVER 25 TONS BUT LESS THAN 50 TONS); (MOBILE TRUCK CRANE DRIVER REQUIRED); PRE-STRESS WIRE WRAPPING MACHINE; SELF-PROPELLED BOOM-TYPE LIFTING DEVICE (CENTER MOUNT) (OVER 25 TONS M.R.C.); SELF-PROPELLED COMPACTOR (WITH MULTIPLE-PROPULSION POWER UNITS); SINGLE ENGINE RUBBER TIERED EARTHMOVING MACHINE (WITH TANDEM SCRAPER); TANDEM CATS; TRENCHER (PULLING ATTACHED SHIELD). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO BUT NOT INCLUDING 180 FEET 0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.15 BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A

CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING

SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS

OVER 250 FEET

1.75.....\$ 60.30

35.68

POWER EQUIPMENT OPERATORS:, GROUP 12 CLAMSHELL OR DIPPER OPERATOR; DERRICKS; DRILL RIGS; MULTI-PROPULSION EARTHMOVING MACHINES (2 OR MORE SCRAPERS) (OVER 35 CU. YDS. ""STRUCK""M.R.C.); OPERATORS (DERRICKS, PILEDRIVERS AND CRANES); POWER SHOVELS AND DRAGLINES (7 CU. YDS. M.R.C. AND OVER); SELF-PROPELLED RUBBER-TIRED EARTHMOVING EQUIPMENT (OVER 31 CU. YDS.) (657B AND SIMILAR); WHEEL EXCAVATOR (UP TO AND INCLUDING 750 CU. YDS. PER HOUR); WHEEL EXCAVATOR (OVER 750 CU. YDS. PER HOUR). BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130

FEET UP TO BUT NOT INCLUDING 180 FEET

0.75 BOOMS AND/OR LEADS OF 180 FEET UP TO AND

INCLUDING 250 FEET 1.15

BOOMS AND/OR LEADS OVER 250 FEET 1.50 THE OPERATOR OF A CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS AND OVER) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING 250 FEET 1.25 BOOMS

OVER 250 FEET

1.75.....\$ 60.66

35.68

POWER EQUIPMENT OPERATORS:, GROUP 12A: DOZER (D-11 OR SIMILAR OR LARGER); HYDRAULIC EXCAVATORS (OVER 4 CU. YDS.); LIFTING CRANES (50 TONS AND OVER); PIONEERING DOZER/BACKHOE (INITIAL CLEARING AND EXCAVATION FOR THE PURPOSE OF PROVIDING ACCESS FOR OTHER EQUIPMENT WHERE THE TERRAIN WORKED INVOLVES 1-TO-1 SLOPES THAT ARE 50 FEET IN HEIGHT OR DEPTH, THE SCOPE OF THIS WORK DOES NOT INCLUDE NORMAL CLEARING AND GRUBBING ON USUAL HILLY TERRAIN NOR THE EXCAVATION WORK ONCE THE ACCESS IS PROVIDED); POWER BLADE OPERATOR (CAT 12 OR EQUIVALENT OR OVER); STRADDLE LIFTS (OVER 50 TONS); TOWER CRANE, MOBILE; TRAVELING TRUSS CRANES; UNIVERSAL, LIEBHERR, LINDEN, AND SIMILAR TYPES OF TOWER CRANES (IN THE ERECTION, DISMANTLING, AND MOVING OF EQUIPMENT THERE SHALL BE AN ADDITIONAL OPERATING ENGINEER OR HEAVY DUTY REPAIRMAN); YO-YO CAT OR DOZER. BOOMS AND/OR LEADS (HOURLY PREMIUMS): THE OPERATOR OF A CRANE (UNDER 50 TONS) WITH A BOOM OF 80 FEET OR MORE (INCLUDING JIB), OR OF A CRANE (UNDER 50 TONS) WITH LEADS OF 100 FEET OR MORE, SHALL RECEIVE A PER HOUR PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (UNDER 50 TONS) IN ACCORDANCE WITH THE FOLLOWING SCHEDULE: BOOMS OF 80 FEET UP TO BUT NOT INCLUDING 130 FEET OR LEADS OF 100 FEET UP TO BUT NOT INCLUDING 130 FEET

0.50 BOOMS AND/OR LEADS OF 130 FEET UP TO

BUT NOT INCLUDING 180 FEET 0.75 BOOMS

AND/OR LEADS OF 180 FEET UP TO AND INCLUDING 250

FEET 1.15 BOOMS AND/OR

LEADS OVER 250 FEET 1.50 THE OPERATOR OF A

CRANE (50 TONS AND OVER) WITH A BOOM OF 180 FEET OR MORE (INCLUDING JIB) SHALL RECEIVE A PER HOUR

PREMIUM FOR EACH HOUR WORKED ON SAID CRANE (50 TONS
AND OVER) IN ACCORDANCE WITH THE FOLLOWING
SCHEDULE: BOOMS OF 180 FEET UP TO AND INCLUDING
250 FEET 1.25 BOOMS
OVER 250 FEET

1.75.....	\$ 61.02	35.68
POWER EQUIPMENT OPERATORS:, GROUP 13: TRUCK DRIVER (UTILITY, FLATBED, ETC.).....	\$ 57.94	35.68
POWER EQUIPMENT OPERATORS:, GROUP 13A: DUMP TRUCK, 8 CU.YDS. AND UNDER (WATER LEVEL); WATER TRUCK (UP TO AND INCLUDING 2,000 GALLONS).....	\$ 58.21	35.68
POWER EQUIPMENT OPERATORS:, GROUP 13B: WATER TRUCK (OVER 2,000 GALLONS); TANDEM DUMP TRUCK, OVER 8 CU. YDS. (WATER LEVEL).....	\$ 58.52	35.68
POWER EQUIPMENT OPERATORS:, GROUP 13C: TRUCK DRIVER (SEMI-TRAILER. ROCK CANS, SEMI-DUMP OR ROLL-OFFS)...	\$ 59.17	35.68
POWER EQUIPMENT OPERATORS:, GROUP 13D: TRUCK DRIVER (SLIP-IN OR PUP).....	\$ 59.49	35.68
POWER EQUIPMENT OPERATORS:, GROUP 13E: END DUMPS, UNLICENSED (EUCLID, MACK, CATERPILLAR OR SIMILAR); TRACTOR TRAILER (HAULING EQUIPMENT); TANDEM TRUCKS HOOKED UP TO TRAILER (HAULING EQUIPMENT)	\$ 59.60	35.68
STAND-BY DIVER: (AQUA LUNG) (SCUBA).....	\$ 62.97	35.68
STAND-BY DIVER: OTHER THAN AQUA LUNG.....	\$ 62.97	35.68

ENGI0003-004 09/01/2025

	Rates	Fringes
DREDGING (BOAT OPERATORS): BOAT DECKHAND.....	\$ 57.94	35.68
DREDGING (BOAT OPERATORS): BOAT OPERATOR.....	\$ 60.15	35.68
DREDGING (BOAT OPERATORS): MASTER BOAT OPERATOR....	\$ 60.30	35.68
DREDGING:, CLAMSHELL OR DIPPER DREDGING: GROUP 1: CLAMSHELL OR DIPPER OPERATOR.....	\$ 60.66	35.68
DREDGING:, CLAMSHELL OR DIPPER DREDGING: GROUP 2: MECHANIC OR WELDER; WATCH ENGINEER.....	\$ 60.00	35.68
DREDGING:, CLAMSHELL OR DIPPER DREDGING: GROUP 3: BARGE MATE; DECKMATE.....	\$ 59.60	35.68
DREDGING:, CLAMSHELL OR DIPPER DREDGING: GROUP 4: BARGEMAN; DECKHAND; FIREMAN; OILER. HYDRAULIC SUCTION DREDGING CLASSIFICATIONS.....	\$ 57.94	35.68
DREDGING:, DERRICKS: GROUP 1: OPERATORS (DERRICKS, PILEDRIERS AND CRANES).	\$ 60.66	35.68
DREDGING:, DERRICKS: GROUP 2: SAURMAN TYPE DRAGLINE (OVER 5 CUBIC YARDS).	\$ 60.00	35.68
DREDGING:, DERRICKS: GROUP 3: DECKMATE; SAURMAN TYPE DRAGLINE (UP TO AND INCLUDING 5 YARDS).	\$ 59.60	35.68
DREDGING:, DERRICKS: GROUP 4: DECKHAND, FIREMAN, OILER.....	\$ 57.94	35.68
DREDGING:, HYDRAULIC SUCTION DREDGES: GROUP 1: LEVERMAN.	\$ 60.30	35.68
DREDGING:, HYDRAULIC SUCTION DREDGES: GROUP 2: WATCH ENGINEER (STEAM OR ELECTRIC).	\$ 60.15	35.68
DREDGING:, HYDRAULIC SUCTION DREDGES: GROUP 3: MECHANIC OR WELDER.	\$ 60.00	35.68
DREDGING:, HYDRAULIC SUCTION DREDGES: GROUP 4: DOZER OPERATOR.	\$ 59.94	35.68
DREDGING:, HYDRAULIC SUCTION DREDGES: GROUP 5: DECKMATE.	\$ 59.60	35.68
DREDGING:, HYDRAULIC SUCTION DREDGES: GROUP 6: WINCHMAN (STERN WINCH ON DREDGE).....	\$ 59.49	35.68
DREDGING:, HYDRAULIC SUCTION DREDGES: GROUP 7: DECKHAND (CAN OPERATE ANCHOR SCOW UNDER DIRECTION OF DECKMATE); FIREMAN; LEVEEMAN; OILER.....	\$ 57.94	35.68

ENGI0003-044 09/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATORS (PAVING): ASPHALT CONCRETE MATERIAL TRANSFER.....	\$ 58.67	34.86
POWER EQUIPMENT OPERATORS (PAVING): ASPHALT PLANT OPERATOR.....	\$ 59.07	34.86
POWER EQUIPMENT OPERATORS (PAVING): ASPHALT RAKER...	\$ 57.68	34.86

POWER EQUIPMENT OPERATORS (PAVING): ASPHALT SPREADER OPERATOR.....	\$ 59.16	34.86
POWER EQUIPMENT OPERATORS (PAVING): COLD PLANER.....	\$ 59.47	34.86
POWER EQUIPMENT OPERATORS (PAVING): COMBINATION LOADER/BACKHOE (OVER 3/4 CU.YD.).....	\$ 57.68	34.86
POWER EQUIPMENT OPERATORS (PAVING): COMBINATION LOADER/BACKHOE (UP TO 3/4 CU.YD.).....	\$ 56.70	34.86
POWER EQUIPMENT OPERATORS (PAVING): CONCRETE SAWS AND/OR GRINDER (SELF-PROPELLED UNIT ON STREETS, HIGHWAYS, AIRPORTS AND CANALS).....	\$ 58.64	34.86
POWER EQUIPMENT OPERATORS (PAVING): GRADER.....	\$ 59.47	34.86
POWER EQUIPMENT OPERATORS (PAVING): LABORER, HAND ROLLER.....	\$ 57.18	34.86
POWER EQUIPMENT OPERATORS (PAVING): LOADER (2 1/2 CU. YDS. AND UNDER).....	\$ 58.64	34.86
POWER EQUIPMENT OPERATORS (PAVING): LOADER (OVER 2 1/2 CU. YDS. TO AND INCLUDING 5 CU. YDS.).....	\$ 58.96	34.86
POWER EQUIPMENT OPERATORS (PAVING): ROLLER OPERATOR (FIVE TONS AND UNDER).....	\$ 57.41	34.86
POWER EQUIPMENT OPERATORS (PAVING): ROLLER OPERATOR (OVER FIVE TONS).....	\$ 58.84	34.86
POWER EQUIPMENT OPERATORS (PAVING): SCREED PERSON...	\$ 58.64	34.86
POWER EQUIPMENT OPERATORS (PAVING): SOIL STABILIZER.	\$ 59.47	34.86

IRON0625-001 09/01/2025

	Rates	Fringes
IRONWORKERS A. EMPLOYEES WILL BE PAID \$.50 PER HOUR MORE WHILE WORKING IN TUNNELS AND COFFER DAMS; \$1.00 PER HOUR MORE WHEN REQUIRED TO WORK UNDER OR ARE COVERED WITH WATER (SUBMERGED) AND WHEN THEY ARE REQUIRED TO WORK ON THE SUMMIT OF MAUNA KEA, MAUNA LOA OR HALEAKALA.....	\$ 50.50	43.46

LAB00368-001 09/02/2024

	Rates	Fringes
LABORERS: DRILLER.....	\$ 44.75	25.96
LABORERS: FINAL CLEAN UP.....	\$ 31.40	21.37
LABORERS: GUNITE/SHOTCRETE OPERATOR AND HIGH SCALER.	\$ 42.25	25.96
LABORERS: MASON TENDER/HOD CARRIER.....	\$ 42.25	25.96
LABORERS: POWDERMAN.....	\$ 42.75	25.96
LABORERS: WINDOW WASHER (BOSUN CHAIR).....	\$ 41.25	25.96
SEE LABORERS: LABORER I IN FOOTER.....	\$ 41.75	25.96
SEE LABORERS: LABORER II IN FOOTER.....	\$ 39.15	25.96

LAB00368-002 09/03/2024

	Rates	Fringes
LANDSCAPE & IRRIGATION LABORERS, GROUP 1: INSTALLATION OF NON-POTABLE PERMANENT OR TEMPORARY IRRIGATION WATER SYSTEMS PERFORMED FOR THE PURPOSES OF LANDSCAPING AND IRRIGATION ARCHITECTURAL HORTICULTURAL WORK; THE INSTALLATION OF DRINKING FOUNTAINS AND PERMANENT OR TEMPORARY IRRIGATION SYSTEMS USING POTABLE WATER FOR LANDSCAPING AND IRRIGATION ARCHITECTURAL HORTICULTURAL PURPOSES ONLY. THIS WORK INCLUDES (A) THE INSTALLATION OF ALL HEADS, RISERS, VALVES, VALVE BOXES, VACUUM BREAKERS (PRESSURE AND NON-PRESSURE), LOW VOLTAGE ELECTRICAL LINES AND, PROVIDED SUCH WORK INVOLVES ELECTRICAL WIRING THAT WILL CARRY 24 VOLTS OR LESS, THE INSTALLATION OF SENSORS, MASTER CONTROL PANELS, DISPLAY BOARDS, JUNCTION BOXES, CONDUCTORS, INCLUDING ALL OTHER COMPONENTS FOR CONTROLLERS, (B) AND METALLIC (COPPER, BRASS, GALVANIZED, OR SIMILAR) PIPE, AS WELL AS PVC OR OTHER PLASTIC PIPE INCLUDING ALL WORK INCIDENTAL THERETO, I.E., UNLOADING, HANDLING AND DISTRIBUTION OF ALL PIPES FITTINGS, TOOLS, MATERIALS AND EQUIPMENT, (C) ALL SOLDERING WORK IN CONNECTION WITH THE ABOVE WHETHER DONE BY TORCH, SOLDERING IRON, OR OTHER MEANS; (D) TIE-IN TO MAIN LINES, THRUST BLOCKS (BOTH PRECAST		

AND POURED IN PLACE), PIPE HANGERS AND SUPPORTS INCIDENTAL TO INSTALLATION OF THE ENTIRE IRRIGATION SYSTEM, (E) MAKING OF PRESSURE TESTS, START-UP TESTING, FLUSHING, PURGING, WATER BALANCING, PLACING INTO OPERATION ALL IRRIGATION EQUIPMENT, FIXTURES AND APPURTENANCES INSTALLED UNDER THIS AGREEMENT, AND (F) THE FABRICATION, REPLACEMENT, REPAIR AND SERVICING OF LANDSCAPING AND IRRIGATION SYSTEMS. OPERATION OF HAND-HELD GAS, AIR, ELECTRIC, OR SELF-POWERED TOOLS AND EQUIPMENT USED IN THE PERFORMANCE OF LANDSCAPE AND IRRIGATION WORK IN CONNECTION WITH ARCHITECTURAL HORTICULTURE; CHOKE-SETTING, SIGNALING, AND RIGGING FOR EQUIPMENT OPERATORS ON JOB-SITE IN THE PERFORMANCE OF SUCH LANDSCAPING AND IRRIGATION WORK; CONCRETE WORK (WET OR DRY) PERFORMED IN CONNECTION WITH SUCH LANDSCAPING AND IRRIGATION WORK. THIS WORK SHALL ALSO INCLUDE THE SETTING OF ROCK, STONE, OR RIPRAP IN CONNECTION WITH SUCH LANDSCAPE, WATERSCAPE, ROCKSCAPE, AND IRRIGATION WORK; GRUBBING, PICK AND SHOVEL EXCAVATION, AND HAND ROLLING OR TAMPING IN CONNECTION WITH THE PERFORMANCE OF SUCH LANDSCAPING AND IRRIGATION WORK; SPRIGGING, HANDSEEDING, AND PLANTING OF TREES, SHRUBS, GROUND COVERS, AND OTHER PLANTINGS AND THE PERFORMANCE OF ALL TYPES OF GARDENING AND HORTICULTURAL WORK RELATING TO SAID PLANTING; OPERATION OF FLAT BED TRUCKS (UP TO AND INCLUDING 2 1/2 TONS).:\$ 28.40

17.15

LANDSCAPE & IRRIGATION LABORERS, GROUP 3: MAINTENANCE OF TREES, SHRUBS, GROUND COVERS, LAWNS AND OTHER PLANTED AREAS, INCLUDING THE REPLANTING OF TREES, SHRUBS, GROUND COVERS, AND OTHER PLANTINGS THAT DID NOT "TAKE" OR WHICH ARE DAMAGED; PROVIDED, HOWEVER, THAT RE-PLANTING THAT REQUIRES THE USE OF EQUIPMENT, MACHINERY, OR POWER TOOLS SHALL BE PAID FOR AT THE RATE OF PAY SPECIFIED UNDER LANDSCAPE AND IRRIGATION LABORER, GROUP 1; RAKING, MOWING, TRIMMING, AND RUNING, INCLUDING THE USE OF "WEED EATERS", HEDGE TRIMMERS, VACUUMS, BLOWERS, AND OTHER HAND-HELD GAS, AIR, ELECTRIC, OR SELF-POWERED TOOLS, AND THE OPERATION OF LAWN MOWERS (NOTE: THE OPERATION OF SIT-DOWN TYPE AND "GANG" MOWERS SHALL BE PAID FOR AT THE RATE OF PAY SPECIFIED UNDER LANDSCAPE & IRRIGATION LABORER, GROUP 2); GUYWIRING, STAKING, PROPPING, AND SUPPORTING TREES; FERTILIZING, CHEMICAL SPRAYING USING SPRAY EQUIPMENT WITH LESS THAN 200 GALLON CAPACITY, MAINTAINING IRRIGATION AND SPRINKLER SYSTEMS, INCLUDING THE STAKING, CLAMPING, AND ADJUSTMENT OF RISERS, AND THE ADJUSTMENT AND/OR REPLACEMENT OF SPRINKLER HEADS, (NOTE: THE CLEANING AND GLUING OF PIPE AND FITTINGS SHALL BE PAID FOR AT THE RATE OF PAY SPECIFIED UNDER LANDSCAPE & IRRIGATION LABORER(GROUP 1); WATERING BY HAND OR SPRINKLER SYSTEM AND THE PERFORMANCE OF OTHER TYPES OF GARDENING, YARDMAN, AND HORTICULTURAL-RELATED WORK.....\$ 23.00

17.15

LANDSCAPE & IRRIGATION LABORERS, GROUP 2: LAYOUT OF IRRIGATION AND OTHER NON-POTABLE IRRIGATION WATER SYSTEMS AND THE LAYOUT OF DRINKING FOUNTAINS AND OTHER POTABLE IRRIGATION WATER SYSTEMS IN CONNECTION WITH SUCH LANDSCAPING AND IRRIGATION WORK. THIS INCLUDES THE LAYOUT OF ALL HEADS, RISERS, VALVES, VALVE BOXES, VACUUM BREAKERS, LOW VOLTAGE ELECTRICAL LINES, HYDRAULIC AND ELECTRICAL CONTROLLERS, AND METALLIC (COPPERS, BRASS, GALVANIZED, OR SIMILAR) PIPE, AS WELL AS PVC OR OTHER PLASTIC PIPE. THIS WORK ALSO INCLUDES THE READING AND INTERPRETATION OF PLANS AND SPECIFICATIONS IN CONNECTION WITH THE LAYOUT OF LANDSCAPING, ROCKSCAPE, WATERSCAPE, AND IRRIGATION WORK; OPERATION OF HYDRO-MULCHING MACHINES (SPRAYMAN AND DRIVER), DRILLERS, TRENCHERS (RIDING

TYPE, DAVIS T-66, AND SIMILAR) AND FORK LIFTS USED IN CONNECTION WITH THE PERFORMANCE OF SUCH LANDSCAPING AND IRRIGATION WORK; TREE CLIMBERS AND CHAIN SAW TREE TRIMMERS, SPORADIC OPERATION (WHEN USED IN CONNECTION WITH LANDSCAPING, ROCKSCAPE, WATERSCAPE, AND IRRIGATION WORK) OF SKID-STEER LOADERS (BOBCAT AND SIMILAR), CRANES (BANTAM, GROVE, AND SIMILAR), HOPTOS, BACKHOES, LOADERS, ROLLERS, AND DOZERS (CASE, JOHN DEERE, AND SIMILAR), WATER TRUCKS, TRUCKS REQUIRING A STATE OF HAWAII PUBLIC UTILITIES COMMISSION TYPE 5 AND/OR TYPE 7 LICENSE, SIT-DOWN TYPE AND ""GANG"" MOWERS, AND OTHER SELF-PROPELLED, SIT-DOWN OPERATED MACHINES NOT LISTED UNDER LANDSCAPE & IRRIGATION MAINTENANCE LABORER; CHEMICAL SPRAYING USING SELF-PROPELLED POWER SPRAYING EQUIPMENT (200 GALLON CAPACITY OR MORE).....\$ 29.40 17.15

LANDSCAPE & IRRIGATION LABORERS: GROUP 2 LAYOUT OF IRRIGATION AND OTHER NON-POTABLE IRRIGATION WATER SYSTEMS AND THE LAYOUT OF DRINKING FOUNTAINS AND OTHER POTABLE IRRIGATION WATER SYSTEMS IN CONNECTION WITH SUCH LANDSCAPING AND IRRIGATION WORK. THIS INCLUDES THE LAYOUT OF ALL HEADS, RISERS, VALVES, VALVE BOXES, VACUUM BREAKERS, LOW VOLTAGE ELECTRICAL LINES, HYDRAULIC AND ELECTRICAL CONTROLLERS, AND METALLIC (COPPERS, BRASS, GALVANIZED, OR SIMILAR) PIPE, AS WELL AS PVC OR OTHER PLASTIC PIPE. THIS WORK ALSO INCLUDES THE READING AND INTERPRETATION OF PLANS AND SPECIFICATIONS IN CONNECTION WITH THE LAYOUT OF LANDSCAPING, ROCKSCAPE, WATERSCAPE, AND IRRIGATION WORK; OPERATION OF HYDRO-MULCHING MACHINES (SPRAYMAN AND DRIVER), DRILLERS, TRENCHERS (RIDING TYPE, DAVIS T-66, AND SIMILAR) AND FORK LIFTS USED IN CONNECTION WITH THE PERFORMANCE OF SUCH LANDSCAPING AND IRRIGATION WORK; TREE CLIMBERS AND CHAIN SAW TREE TRIMMERS, SPORADIC OPERATION (WHEN USED IN CONNECTION WITH LANDSCAPING, ROCKSCAPE, WATERSCAPE, AND IRRIGATION WORK) OF SKID-STEER LOADERS (BOBCAT AND SIMILAR), CRANES (BANTAM, GROVE, AND SIMILAR), HOPTOS, BACKHOES, LOADERS, ROLLERS, AND DOZERS (CASE, JOHN DEERE, AND SIMILAR), WATER TRUCKS, TRUCKS REQUIRING A STATE OF HAWAII PUBLIC UTILITIES COMMISSION TYPE 5 AND/OR TYPE 7 LICENSE, SIT-DOWN TYPE AND ""GANG"" MOWERS, AND OTHER SELF-PROPELLED, SIT-DOWN OPERATED MACHINES NOT LISTED UNDER LANDSCAPE & IRRIGATION MAINTENANCE LABORER; CHEMICAL SPRAYING USING SELF-PROPELLED POWER SPRAYING EQUIPMENT (200 GALLON CAPACITY OR MORE).....\$ 29.40 17.15

LAB00368-003 09/02/2024

	Rates	Fringes
UNDERGROUND LABORER, GROUP 1: WATCHMEN; CHANGE HOUSE ATTENDANT.....	\$ 42.35	25.91
UNDERGROUND LABORER, GROUP 2: SWAMPER; BRAKEMAN; BULL GANG-MUCKERS, TRACKMEN; DUMPMEN (ANY METHOD); CONCRETE CREW (INCLUDES RODDING AND SPREADING); GROUT CREW; REBOUNDMEN.....	\$ 43.85	25.91
UNDERGROUND LABORER, GROUP 3: CHUCKTENDERS AND CABLETENDERS; POWDERMAN (PRIME HOUSE); VIBRATORMAN, PAVEMENT BREAKERS.....	\$ 44.35	25.91
UNDERGROUND LABORER, GROUP 4: MINERS - TUNNEL (INCLUDING TOP AND BOTTOM MAN ON SHAFT AND RAISE WORK); TIMBERMAN, RETIMBERMAN (WOOD OR STEEL OR SUBSTITUTE MATERIALS THEREOF); BLASTERS, DRILLERS, POWDERMAN (IN HEADING); MICROTUNNEL LABORER; HEADMAN; CHERRY PICKERMAN (WHERE CAR IS LIFTED); NIPPER; GROUT GUNMEN; GROUT PUMPMAN & POTMAN; GUNITE, SHOTCRETE GUNMEN & POTMEN; CONCRETE FINISHER (IN TUNNEL); CONCRETE SCREED MAN; BIT GRINDER; STEEL FORM RAISERS & SETTERS; HIGH		

PRESSURE NOZZLEMAN; NOZZLEMAN (ON SLICK LINE); SANDBLASTER-POTMAN (COMBINATION WORK ASSIGNMENT INTERCHANGEABLE); TUGGER.....	\$ 45.35	25.91
UNDERGROUND LABORER, GROUP 5: SHAFT WORK & RAISE (BELOW ACTUAL OR EXCAVATED GROUND LEVEL); DIAMOND DRILLER; GUNITE OR SHOTCRETE NOZZLEMAN; RODMAN; GROUNDMAN.....	\$ 45.70	25.91
UNDERGROUND LABORER, GROUP 6: SHIFTER.....	\$ 45.95	25.91
UNDERGROUND LABORER, GROUP 7: SHIFTER (SHAFT WORK & RAISER).....	\$ 46.40	25.91

PAIN1791-001 07/01/2025

	Rates	Fringes
PAINTERS: BRUSH.....	\$ 44.05	30.05
PAINTERS: SANDBLASTER; SPRAY.....	\$ 44.05	30.05

PAIN1889-001 07/01/2025

	Rates	Fringes
GLAZIERS.....	\$ 48.50	40.20

PAIN1926-001 03/02/2025

	Rates	Fringes
SOFT FLOOR LAYERS.....	\$ 43.27	35.18

PAIN1944-001 01/01/2025

	Rates	Fringes
TAPER.....	\$ 47.36	32.00

PLAS0630-001 09/04/2023

	Rates	Fringes
PLASTERER.....	\$ 46.12	34.53

PLAS0630-002 09/04/2023

	Rates	Fringes
CEMENT MASONS.....	\$ 44.12	33.63
CEMENT MASONS: TROWEL MACHINE OPERATORS.....	\$ 44.27	33.63

PLUM0675-001 07/06/2025

	Rates	Fringes
PLUMBER, PIPEFITTER, STEAMFITTER & SPRINKLER FITTER.....	\$ 53.83	33.19

ROOF0221-001 11/06/2022

	Rates	Fringes
ROOFERS (INCLUDING BUILT UP, COMPOSITION AND SINGLE PLY).....	\$ 43.15	21.21

SHEE0293-001 03/02/2025

	Rates	Fringes
SHEET METAL WORKER.....	\$ 50.16	33.32

SUHI1997-002 09/15/1997

	Rates	Fringes
DRAPERY INSTALLER.....	\$ 13.60	1.20
FENCE ERECTOR (CHAIN LINK FENCE).....	\$ 9.33	1.65

LABORERS: LABORER I: AIR BLASTING RUN BY ELECTRIC OR PNEUMATIC COMPRESSOR; ASPHALT
LABORER, IRONER, RAKER, LUTEMAN, & HANDROLLER, AND ALL TYPES OF ASPHALT SPREADER
BOXES; ASPHALT SHOVELER; ASSEMBLY & INSTALLATION OF MULTIPLATES, LINER PLATES, RINGS,
MESH, MATS; BATCHING PLANT (PORTABLE & TEMPORARY); BORING MACHINE OPERATOR
(UNDER STREETS & SIDEWALKS); BUGGYMOBILE; BURNING & WELDING; CHAINSAW, FALLER,
LOGLOADER, & BUCKER; COMPACTORS (JACKSON JUMPING JACK & SIMILAR); CONCRETE BUCKET

DUMPMAN; CONCRETE CHIPPING; CONCRETE CHUTEMAN/HOSEMAN (POURING CONCRETE) (THE HANDLING OF THE CHUTE FROM READY-MIX TRUCKS FOR SUCH JOBS AS WALLS, SLABS, DECKS, FLOORS, FOUNDATIONS, FOOTINGS, CURBS, GUTTERS, & SIDEWALKS); CONCRETE CORE CUTTER (WALLS, FLOORS, & CEILING); CONCRETE GRINDING OR SANDING; CONCRETE: HOOKING ON, SIGNALING, DUMPING OF CONCRETE FOR TREME WORK OVER WATER ON CAISSONS, PILINGS, ABUTMENTS, ETC.; CONCRETE: MIXING, HANDLING, CONVEYING, POURING, VIBRATING, OTHERWISE PLACING OF CONCRETE OR AGGREGATES OR BY ANY OTHER PROCESS; CONCRETE: OPERATION OF MOTORIZED WHEELBARROWS OR BUGGIES OR MACHINES OF SIMILAR CHARACTER, WHETHER RUN BY GAS, DIESEL, OR ELECTRIC POWER; CONCRETE PLACEMENT MACHINE OPERATOR: OPERATION OF SOMERO HAMMERHEAD, COPPERHEADS, OR SIMILAR MACHINES; CONCRETE PUMP MACHINE (LAYING, COUPLING, UNCOUPLING OF ALL CONNECTIONS & CLEANING OF EQUIPMENT); CONCRETE SHOVELERS/LABORERS (WET OR DRY); CONCRETE SCREEDING FOR ROUGH STRIKE-OFF: RODDING OR STRIKING-OFF, BY HAND OR MECHANICAL MEANS PRIOR TO FINISHING; CONCRETE VIBRATOR OPERATOR; CORING HOLES: WALLS, FOOTINGS, PIERS OR OTHER OBSTRUCTIONS FOR PASSAGE OF PIPES OR CONDUITS FOR ANY PURPOSE & THE POURING OF CONCRETE TO SECURE THE HOLE; CRIBBERS, SHORER, LAGGING, SHEETING, & TRENCH JACKING & BRACING, HAND-GUIDED LAGGING HAMMER WHALING BRACING; CURBING (CONCRETE & ASPHALT); CURING OF CONCRETE (IMPERVIOUS MEMBRANE & FORM OILER) MORTAR & OTHER MATERIALS BY ANY MODE OR METHOD; CUT GRANITE CURB SETTER (SETTING, LEVELING & GROUTING OF ALL PRECAST CONCRETE OR STONE CURBS); CUTTING & BURNING TORCH (DEMOLITION); DRI PAK-IT MACHINE; ENVIRONMENTAL ABATEMENT: REMOVAL OF ASBESTOS, LEAD, & BIO HAZARDOUS MATERIALS (EPA &/OR OSHA CERTIFIED); FALLING, BUCKING, YARDING, LOADING OR BURNING OF ALL TREES OR TIMBER ON CONSTRUCTION SITE; FORKLIFT (9 FT. & UNDER); GAS, PNEUMATIC, & ELECTRIC TOOLS; GRATING & GRILL WORK FOR DRAINS OR OTHER PURPOSES; GREEN CUTTER OF CONCRETE OR AGGREGATE IN ANY FORM, BY HAND, MECHANICAL MEANS, GRINDSTONE OR AIR &/OR WATER; GROUT: SPREADING FOR ANY PURPOSE; GUINEA CHASER (GRADE CHECKER) FOR GENERAL UTILITY TRENCHES, SITEWORK, & EXCAVATION; HEADERBOARD MAN (ASPHALT OR CONCRETE); HEAT WELDER OF PLASTIC (LABORERS' AGC CERTIFIED WORKERS) (WHEN WORK INVOLVES WATERPROOFING FOR WATERPONDS, ARTIFICIAL LAKES & RESERVOIR) HEAT WELDING FOR SEWER PIPES & FUSION OF HDPE PIPES; HEAVY HIGHWAY LABORER (RIGGING, SIGNALING, HANDLING, & INSTALLATION OF PRE-CAST CATCH BASINS, MANHOLES, CURBS & GUTTERS); HIGH PRESSURE NOZZLEMAN - HYDRAULIC MONITOR (OVER 100# PRESSURE); JACKHAMMER OPERATOR; JACKING OF SLIP FORMS: ALL SEMI & UNSKILLED WORK CONNECTED THEREWITHIN; LAYING OF ALL MULTI-CELL CONDUIT OR MULTI-PURPOSE PIPE; MAGNESITE & MASTIC WORKERS (WET OR DRY) (INCLUDING MIXER OPERATOR); MORTAR MAN; MORTAR MIXER (BLOCK, BRICK, MASONRY, & PLASTERING); NOZZLEMAN (SANDBLASTING &/OR WATER BLASTING): HANDLING, PLACING & OPERATION OF NOZZLE; OPERATION, MANUAL OR HYDRAULIC JACKING OF SHIELDS & THE USE OF SUCH OTHER MECHANICAL EQUIPMENT AS MAY BE NECESSARY; PAVEMENT BREAKERS; PAVING, CURBING & SURFACING OF STREETS, WAYS, COURTS, UNDER & OVERPASSES, BRIDGES, APPROACHES, SLOPE WALLS, & ALL OTHER LABOR CONNECTED THEREWITH; PILECUTTERS; PIPE ACCESSMENT IN PLACE, BOLTING & LINING UP OF SECTIONAL METAL OR OTHER PIPE INCLUDING CORRUGATED PIPE; PIPELAYER PERFORMING ALL SERVICES IN THE LAYING & INSTALLATION OF PIPE FROM THE POINT OF RECEIVING PIPE IN THE DITCH UNTIL COMPLETION OF OPERATION, INCLUDING ANY & ALL FORMS OF TUBULAR MATERIAL, WHETHER PIPE, HDPE, METALLIC OR NON-METALLIC, CONDUIT, & ANY OTHER STATIONARY-TYPE OF TUBULAR DEVICE USED FOR CONVEYING OF ANY SUBSTANCE OR ELEMENT, WHETHER WATER, SEWAGE, SOLID, GAS, AIR, OR OTHER PRODUCT WHATSOEVER & WITHOUT REGARD TO THE NATURE OF MATERIAL FROM WHICH TUBULAR MATERIAL IS FABRICATED; NO-JOINT PIPE & STRIPPING OF SAME, PIPEWRAPPER, CAULKER, BANDER, KETTLEMEN, & MEN APPLYING ASPHALT, LAYKOLD, TREATING CREOSOTE & SIMILAR-TYPE MATERIALS (6-INCH) PIPE & OVER); PIPING: RESURFACING & PAVING OF ALL DITCHES IN PREPARATION FOR LAYING OF ALL PIPES; PIPE LAYING OF LATERAL SEWER PIPE FROM MAIN OR SIDE SEWER TO BUILDINGS OR STRUCTURE (EXCEPT CONTACTOR MAY DIRECT WORK BE DONE UNDER PROPER SUPERVISION); PIPE LAYING, LEVELING & MARKING OF THE JOINT USED FOR MAIN OR SIDE SEWERS & STORM SEWERS; LAYING OF ALL CLAY, TERRA COTTA, IRONSTONE, VITRIFIED CONCRETE, HDPE OR OTHER PIPE FOR DRAINAGE; PLACING & SETTING OF WATER MAINS, GAS MAINS & ALL PIPE INCLUDING REMOVAL OF SKIDS; PLASTER MORTAR MIXER/PUMP; PNEUMATIC IMPACT WRENCH; PORTABLE SAWMILL OPERATION: CHOKER SETTERS, OFF BEARERS, & LUMBER HANDLERS CONNECTED WITH CLEARING; POSTHOLE DIGGER (HAND HELD, GAS, AIR & ELECTRIC); POWDERMAN'S TENDER; POWER BROOM SWEEPERS (SMALL); PREPARATION & COMPACTION OF ROADBEDS FOR RAILROAD TRACK LAYING, HIGHWAY CONSTRUCTION, & THE PREPARATION OF TRENCHES, FOOTINGS, ETC., FOR CROSS-COUNTRY TRANSMISSION BY PIPELINES, ELECTRICAL TRANSMISSION OR UNDERGROUND LINES OR CABLES (BY MECHANICAL MEANS); RAISING OF STRUCTURE BY MANUAL OR HYDRAULIC JACKS OR OTHER METHODS & RESETTING OF STRUCTURE IN NEW LOCATIONS, INCLUDING ALL CONCRETE WORK; RAMMING OR COMPACTION; RIGGING IN CONNECTION WITH LABORERS' WORK (EXCEPT DEMOLITION), SIGNALING (INCLUDING THE USE OF WALKIE TALKIE) CHOKE SETTING, TAG LINE USAGE; TAGGING & SIGNALING OF BUILDING MATERIALS INTO HIGH RISE UNITS; RIPRAP, STONEPAVER, & ROCK SLINGER (INCLUDES PLACEMENT OF STACKED CONCRETE, WET OR DRY & LOADING, UNLOADING, SIGNALING, SLINGING & SETTING OF OTHER SIMILAR MATERIALS); ROTARY SCARIFIER (INCLUDING MULTIPLE HEAD CONCRETE CHIPPING SCARIFIER); SALAMANDER HEATER, DRYING OF PLASTER, CONCRETE MORTAR OR OTHER AGGREGATE; SCAFFOLD ERECTOR LEADMAN; SCAFFOLDS: (SWING & HANGING) INCLUDING MAINTENANCE THEREOF; SCALER; SEPTIC TANK/CESSPOOL & DRAIN FIELDS DIGGER & INSTALLER; SHREDDER/CHIPPER (TREE

BRANCHES, BRUSH, ETC.); STRIPPING & SETTING FORMS; STRIPPING OF FORMS: OTHER THAN PANEL FORMS WHICH ARE TO BE RE-USED IN THEIR ORIGINAL FORM, & STRIPPING OF FORMS ON ALL FLAT ARCH WORK; TAMPERS (BARKO, WACKER, & SIMILAR TYPE); TANK SCALER & CLEANERS; TARMAN; TREE CLIMBERS & TRIMMERS; TRENCHER (INCLUDES HAND-HELD, DAVIS T-66 & SIMILAR TYPE); TRUCKS (FLATBED UP TO & INCLUDING 2 1/2 TONS WHEN USED IN CONNECTION WITH ON-SITE LABORERS' WORK; TRUCKS (REFUSE & GARBAGE DISPOSAL) (FROM JOB SITE TO DUMP); VIBRA-SCREED (BULL FLOAT IN CONNECTION WITH LABORERS' WORK); WELL POINTS, INSTALLATION OF OR ANY OTHER DEWATERING SYSTEM.

LABORERS: LABORER II: ASPHALT PLANT LABORER; BORING MACHINE TENDER; BRIDGE LABORER; BURNING OF ALL DEBRIS (CRATES, BOXES, PACKAGING WASTE MATERIALS); CHAINMAN, RODMEN, & GRADE MARKERS; CLEANING, CLEARING, GRADING &/OR REMOVAL FOR STREETS, HIGHWAYS, ROADWAYS, APRONS, RUNWAYS, SIDEWALKS, PARKING AREAS, AIRPORTS, APPROACHES, & OTHER SIMILAR INSTALLATIONS; CLEANING OR RECONDITIONING OF STREETS, WAYS, SEWERS & WATERLINES, ALL MAINTENANCE WORK & WORK OF AN UNSKILLED & SEMI-SKILLED NATURE; CONCRETE BUCKET TENDER (GROUNDMAN) HOOKING & UNHOOKING OF BUCKET; CONCRETE FORMS; MOVING, CLEANING, OILING & CARRYING TO THE NEXT POINT OF ERECTION OF ALL FORMS; CONCRETE PRODUCTS PLANT LABORERS; CONVEYOR TENDER (CONVEYING OF BUILDING MATERIALS); CRUSHED STONE YARDS & GRAVEL & SAND PIT LABORERS & ALL OTHER SIMILAR PLANTS; DEMOLITION, WRECKING & SALVAGE LABORERS: WRECKING & DISMANTLING OF BUILDINGS & ALL STRUCTURES, WITH USE OF CUTTING OR WRECKING TOOLS, BREAKING AWAY, CLEANING & REMOVAL OF ALL FIXTURES, ALL HOOKING, UNHOOKING, SIGNALING OF MATERIALS FOR SALVAGE OR SCRAP REMOVED BY CRANE OR DERRICK; DIGGING UNDER STREETS, ROADWAYS, APRONS OR OTHER PAVED SURFACES; DRILLER'S TENDER; CHUCK TENDER, OUTSIDE

NIPPER; DRY-PACKING OF CONCRETE (PLUGGING & FILLING OF SHE-BOLT HOLES); FENCE &/OR GUARDRAIL ERECTOR: DISMANTLING &/OR RE-INSTALLATION OF ALL FENCE; FINEGRADER; FIREWATCHER; FLAGMAN (CONING, PREPARING, STABLISHING & REMOVING PORTABLE ROADWAY BARRICADE DEVICES); SIGNAL MEN ON ALL CONSTRUCTION WORK DEFINED HEREIN, INCLUDING TRAFFIC CONTROL SIGNAL MEN AT CONSTRUCTION SITE; GENERAL EXCAVATION; BACKFILLING, GRADING & ALL OTHER LABOR CONNECTED THEREWITH; DIGGING OF TRENCHES, DITCHES & MANHOLES & THE LEVELING, GRADING & OTHER PREPARATION PRIOR TO LAYING PIPE OR CONDUIT FOR ANY PURPOSE; EXCAVATIONS & FOUNDATIONS FOR BUILDINGS, PIERS, FOUNDATIONS & HOLES, & ALL OTHER CONSTRUCTION. PREPARATION OF STREET WAYS & BRIDGES; GENERAL LABORER: CLEANING & CLEARING OF ALL DEBRIS & SURPLUS MATERIAL. CLEAN-UP OF RIGHT-OF-WAY. CLEARING & SLASHING OF BRUSH OR TREES BY HAND OR MECHANICAL CUTTING. GENERAL CLEAN UP: SWEEPING, CLEANING, WASH-DOWN, WIPING OF CONSTRUCTION FACILITY & EQUIPMENT (OTHER THAN ""LIGHT CLEAN UP (JANITORIAL) LABORER. GARBAGE & DEBRIS HANDLERS & CLEANERS. APPLIANCE HANDLING (JOB SITE) (AFTER DELIVERY UNLADING IN STORAGE AREA); GROUND & SOIL TREATMENT WORK (PEST CONTROL); GUNITE/SHOTCRETE OPERATOR TENDER; JUNK YARD LABORERS (SAME AS SALVAGE YARD); LASER BEAM ""TARGET MAN"" IN CONNECTION WITH LABORERS' WORK; LAYOUT PERSON FOR PLASTIC (WHEN WORK INVOLVES WATERPROOFING FOR WATERPOND, ARTIFICIAL LAKES & RESERVOIRS); LIMBERS, BRUSH LOADERS, & PILERS; LOADING, UNLOADING, CARRYING, DISTRIBUTING & HANDLING OF ALL RODS & MATERIAL FOR USE IN REINFORCING CONCRETE CONSTRUCTION (EXCEPT WHEN A DERRICK OR OUTRIGGER OPERATED BY OTHER THAN HAND POWER IS USED); LOADING, UNLOADING, SORTING, STOCKPILING, HANDLING & DISTRIBUTION OF WATER MAINS, GAS MAINS & ALL PIPES; LOADING & UNLOADING OF ALL MATERIALS, FIXTURES, FURNISHINGS & APPLIANCES FROM POINT OF DELIVERY TO STOCKPILE TO POINT OF INSTALLATION; HOOKING & SIGNALING FROM TRUCK, CONVEYANCE OR STOCKPILE; MATERIAL YARD LABORERS; PIPELAYER TENDER; PIPEWRAPPER, CAULKER, BANDER, KETTLEMEN, & MEN APPLYING ASPHALT, LAYKOLD, CREOSOTE, & SIMILAR-TYPE MATERIALS (PIPE UNDER 6 INCHES); PLASTERER LABORER; PREPARATION, CONSTRUCTION & MAINTENANCE OF ROADBEDS & SUB-GRADE FOR ALL PAVING, INCLUDING EXCAVATION, DUMPING, & SPREADING OF SUB-GRADE MATERIAL; PRESTRESSED OR PRECAST CONCRETE SLABS, WALLS, OR SECTIONS: ALL LOADING, UNLOADING, STOCKPILING, HOOKING ON OF SUCH SLABS, WALLS OR SECTIONS; QUARRY LABORERS; RAILROAD, STREETCAR, & RAIL TRANSIT MAINTENANCE & REPAIR; ROUSTABOUT; RUBBISH TRUCKS IN CONNECTION WITH BUILDING CONSTRUCTION PROJECTS (EXCLUDING CLEARING, GRUBBING, & EXCAVATING); SALVAGE YARD: ALL WORK CONNECTED WITH CUTTING, CLEANING, STORING, STOCKPILING OR HANDLING OF MATERIALS, ALL CLEANUP, REMOVAL OF DEBRIS, BURNING, BACK-FILLING & LANDSCAPING OF THE SITE; SANDBLASTING TENDER (POT TENDER): HOSES & POTS OR MARKERS; SCAFFOLDS: ERECTION, PLANKING & REMOVAL OF ALL SCAFFOLDS USED FOR SUPPORT FOR LATHERS, PLASTERS, BRICK LAYERS, MASONS, & OTHER CONSTRUCTION TRADES CRAFTS; SCAFFOLDS: (SPECIALLY DESIGNED BY CARPENTERS) LABORERS SHALL TEND SAID CARPENTER ON ERECTION & DISMANTLING THEREOF, PREPARATION FOR FOUNDATION OR MUDSILLS, MAINTENANCE; SCRAPING OF FLOORS; SCREEDS: HANDLING OF ALL SCREEDS TO BE REUSED; HANDLING, DISMANTLING & CONVEYANCE OF SCREEDS; SETTING, LEVELING & SECURING OR BRACING OF METAL OR OTHER ROAD FORMS & EXPANSION JOINTS; SHEETING PILING/TRENCH SHORING (HANDLING & PLACING OF SKIP SHEET OR WOOD PLANK TRENCH SHORING); SHIP SCALERS; SHIPWRIGHT TENDER; SIGN ERECTOR (SUBDIVISION TRAFFIC, REGULATORY, & STREET-NAME SIGNS); SLOPER; SLURRY SEAL CREWS (MIXER OPERATOR, APPLICATOR, SQUEEGEE MAN, SHUTTLE MAN, TOP MAN); SNAPPING OF WALL TIES & REMOVAL OF TIE RODS; SOIL TEST OPERATIONS OF SEMI & UNSKILLED LABOR SUCH AS FILLING SAND

BAGS; STRIPER (ASPHALT, CONCRETE OR OTHER PAVED SURFACES); TOOL ROOM ATTENDANT (JOB SITE); TRAFFIC DELINEATING DEVICE APPLICATOR; UNDERPINNING, LAGGING, BRACING, PROPPING & SHORING, LOADING, SIGNALING, RIGHT-OF-WAY CLEARANCE ALONG THE ROUTE OF MOVEMENT, THE CLEARANCE OF NEW SITE, EXCAVATION OF FOUNDATION WHEN MOVING A HOUSE OR STRUCTURE FROM OLD SITE TO NEW SITE; UTILITIES EMPLOYEES; WATER MAN; WATERSCAPE/HARDSCAPE LABORERS; WIRE MESH PULLING (ALL CONCRETE POURING OPERATIONS); WRECKING, STRIPPING, DISMANTLING & HANDLING CONCRETE FORMS AN FALSE WORK.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than **◆SU◆**, **◆UAVG◆**, **◆SA◆**, or **◆SC◆** denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the

example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ♦SU♦ identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

♦SU♦ wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ♦SA♦ identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ♦SA♦ identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to

davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII

P R O P O S A L

6/02/98

**PROPOSAL TO THE
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION**

**PROJECT: Hilo Bayfront Highway Intersection
Improvements At Waianuenue Avenue
Vicinity of Kamehameha Avenue
District of Hilo, Island of Hawaii**

PROJECT NO.: NH-019-2(076)

COMPLETION TIME: 730 Calendar days from the Start Work Date from the Department.

DBE PROJECT GOAL: None specified.

DESIGN PROJECT MANAGER:

**NAME: Robert Sun
ADDRESS: 601 Kamokila Boulevard, Kapolei, Hawaii 96707
PHONE NO.: (808) 692-7578
FAX NO.**

ELECTRONIC SUBMITTAL: Bidders shall submit and upload the complete proposal to HlePRO prior to the bid opening date and time. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HlePRO. See SPECIAL PROVISIONS 102.09 DELIVERY OF PROPOSALS for complete details. FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HlePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.

Director of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Sir:

The undersigned Bidder declares the following:

1. It has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal.
2. It has not been assisted or represented on this matter by any individual who has, in a State capacity, been involved in the subject matter of this contract within the past two years.
3. It has not and will not, either directly or indirectly offered or given a gratuity (i.e., an entertainment or gift) to any State or County employee to obtain a contract or favorable treatment under a contract.
4. It will not maintain for its employees any segregated facilities at any of its establishments.
5. Does not and will not permit its employees to perform their services at any location under its control, where segregated facilities are maintained.

The undersigned Bidder further agrees to the following:

1. If this proposal is accepted, it shall execute a contract with the Department to provide all necessary labor, machinery, tools, equipment, apparatus and any other means of construction, to do all the work and to furnish all the materials specified in the contract in the manner and within the time therein prescribed in the contract, and that it shall accept in full payment therefore the sum of the unit and/or lump sum prices as set forth in the attached proposal schedule for the actual quantities of work performed and materials furnished and furnish satisfactory security in accordance with Section 103D-324, Hawaii Revised Statutes, within 10 days after the award of the contract or within such time as the Director of Transportation may allow after the undersigned has received the contract documents for execution, and is fully aware that non-compliance with the aforementioned terms will result in the forfeiture of the full amount of the bid guarantee required under Section 1032D-323, Hawaii Revised Statutes.
2. That the quantities given in the attached proposal schedule are approximate only and are intended principally to serve as a guide in determining and comparing the bids.

3. That the Department does not either expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work, or to omit portions of the work, as may be deemed necessary or advisable by the Director of Transportation, and that all increased or decreased quantities of work shall be performed at the unit prices set forth in the attached proposal schedule except as provided for in the specifications.
4. In case of a discrepancy between unit prices and the totals in said Proposal Schedule, the unit prices shall prevail.
5. Unless amended by Special Provision, agrees to begin work within 10 working days after the date of notification to commence with the work, which date is in the notice to proceed, and shall finish the entire project within the time prescribed.
6. The Director of Transportation reserves the right to reject any or all bids and to waive any defects when in the Director's opinion such rejections or waiver will be for the best interest of the public.
7. The undersigned Bidder further agrees to the following: Pursuant to HRS §103D-405(d), any contractor (including consultants) paid for services to develop or prepare specifications or work statements shall be precluded from submitting an offer or receiving a contract for that particular solicitation. This includes the preparation of reports relied upon by HDOT in the development of the project scope.

The Bidder acknowledges receipt of and certifies that it has completely examined the following listed items: Hawaii Standard Specifications for Road and Bridge Construction, 2005, and/or the General Provisions for Construction Projects for AIR and WATER Transportation Facilities Division dated 2016, as applicable, the Notice to Bidders, Special Provisions, Proposal, Contract, Bond Forms, and Project Plans.

In accordance with Section 103D-323, Hawaii Revised Statutes, this proposal is accompanied with a bid security in the amount of 5% of the total amount bid, in the form checked below. (Check applicable bid security submitted with bid.)

_____ Surety Bid Bond (Use standard form),

_____ Cash,

_____ Cashier's Check,

_____ Certified Check, or

_____.
(Fill in other acceptable security.)

The undersigned Bidder acknowledges receipt of any addendum issued by the Department by recording in the space below the date of receipt.

Addendum No. 1 _____ Addendum No. 3 _____

Addendum No. 2 _____ Addendum No. 4 _____

In accordance with Section 103D-302, Hawaii Revised Statutes, the undersigned as Bidder has listed the name of each person or firm who will be engaged by the Bidder on the project as Subcontractor or Joint Contractor and the nature of work to be done by each on the following page. The Bidder must adequately and unambiguously disclose the unique nature and scope of the work to be performed by each Subcontractor or Joint Contractor. For each listed firm, the Bidder declares the respective firm is a Subcontractor or Joint Contractor and is subject to evaluation as a Subcontractor or Joint Contractor. It is understood that failure to comply with the aforementioned requirements may be cause for rejection of the bid submitted.

SUBCONTRACTOR LISTING
(Attach additional sheets if necessary.)

	NAME OF FIRM	NATURE OF WORK
SUBCONTRACTOR:		
1.	_____	_____
	1a ¹ . _____	_____
2.	_____	_____
	2a. _____	_____
3.	_____	_____
	3a. _____	_____
4.	_____	_____
	4a. _____	_____
5.	_____	_____
	5a. _____	_____
6.	_____	_____
	6a. _____	_____
7.	_____	_____
	7a. _____	_____

NOTES:

The Name of Firm and Nature of Work shall be indicated for all listed firms. The Bidder must adequately and unambiguously disclose the unique nature and scope of the work to be performed by each Sub- or Joint Contractor.

For each listed firm, the Bidder declares the respective firm is a Sub- or Joint Contractor and subject to evaluation as a Sub- or Joint Contractor.

¹ Second tier subcontractors

JOINT CONTRACTOR LISTING
(Attach additional sheets if necessary.)

	NAME OF FIRM	NATURE OF WORK
JOINT CONTRACTOR:		
1.	_____	_____
	1a ¹ . _____	_____
2.	_____	_____
	2a. _____	_____
3.	_____	_____
	3a. _____	_____
4.	_____	_____
	4a. _____	_____
5.	_____	_____
	5a. _____	_____
6.	_____	_____
	6a. _____	_____
7.	_____	_____
	7a. _____	_____

NOTES:

The Name of Firm and Nature of Work shall be indicated for all listed firms. The Bidder must adequately and unambiguously disclose the unique nature and scope of the work to be performed by each Sub- or Joint Contractor.

For each listed firm, the Bidder declares the respective firm is a Sub- or Joint Contractor and subject to evaluation as a Sub- or Joint Contractor.

¹ Second tier joint contractors

The undersigned hereby certifies that the bid prices contained in the attached proposal schedule have been carefully checked and are submitted as correct and final.

This declaration is made with the understanding that the undersigned is subject to the penalty of perjury under the laws of the United States and is in violation of the Hawaii Penal Code, Section 710-1063, unsworn falsification to authorities, of the Hawaii Revised Statutes, for knowingly rendering a false declaration.

Bidder (Company Name)

Authorized Signature

Title

Business Address

Business Telephone

Email

Date

Contact Person (If different from above.)

Phone: _____ Email: _____

NOTE:

If Bidder is a CORPORATION, the legal name of the corporation shall be set forth above, the corporate seal affixed, together with the signature(s) of the officer(s) authorized to sign contracts for the corporation. Please attach to this page current (not more than six months old) evidence of the authority of the officer(s) to sign for the corporation.

If Bidder is a PARTNERSHIP, the true name of the partnership shall be set forth above, with the signature(s) of the general partner(s). Please attach to this page current (not more than six months old) evidence of the authority of the partner authorized to sign for the partnership.

If Bidder is an INDIVIDUAL, the bidder's signature shall be placed above.

If signature is by an agent, other than an officer of a corporation or a partner of a partnership, a POWER OF ATTORNEY must be on file with the Department before opening bids or submitted with the bid. Otherwise, the Department may reject the bid as irregular and unauthorized.

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
201.0100	Removal of Existing Trees	40	EA	\$ _____	\$ _____
201.0200	Clearing and Grubbing	16,590	S.F.	\$ _____	\$ _____
202.0100	Removal of Existing Fence	710	L.F.	\$ _____	\$ _____
202.0200	Removal of Existing Concrete Walkway	3,140	S.F.	\$ _____	\$ _____
202.0300	Removal of Existing Concrete Curb	2,880	L.F.	\$ _____	\$ _____
202.0400	Removal of Existing Wall	820	L.F.	\$ _____	\$ _____
202.0500	Removal of Existing Traffic Sign	50	EA	\$ _____	\$ _____
202.0600	Removal of Existing Drainage Structures	7	EA	\$ _____	\$ _____
202.0700	Removal of Existing Drain Pipe	252	L.F.	\$ _____	\$ _____
203.0100	Roadway Excavation	5,570	C.Y.	\$ _____	\$ _____
204.0100	Excavation for Seawall Repair	415	C.Y.	\$ _____	\$ _____
204.0200	Steel Plate for Seawall Repair	1,250	S.F.	\$ _____	\$ _____
206.0100	Excavation and Backfill for Drainage Facilities	763	C.Y.	\$ _____	\$ _____
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	L.S.	L.S.	L.S.	\$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
209.0200	Additional Water Pollution, Dust and Erosion Control	F.A.	F.A.	F.A.	\$ <u>290,000</u>
212.0100	Archeological Monitoring	F.A.	F.A.	F.A.	\$ <u>50,000</u>
301.0100	Hot Mix Asphalt Base Course	1,940	Ton	\$ _____	\$ _____
305.0100	Aggregate Subbase	2,360	C.Y.	\$ _____	\$ _____
314.0100	Controlled Low Strength Materials (CLSM)	460	C.Y.	\$ _____	\$ _____
401.0100	Pavement Smoothness Incentive	Allowance	Allow	Allow	\$ <u>50,000</u>
401.0200	4" PMA Pavement, Mix No. IV	1,850	Ton	\$ _____	\$ _____
411.0100	10-Inch Concrete Pavement	180	C.Y.	\$ _____	\$ _____
413.0100	10-Inch Stamped Textured Cement Concrete (Truck Apron)	690	S.Y.	\$ _____	\$ _____
413.0200	10-Inch Stamped Textured Cement Concrete (Splitter Islands)	540	S.Y.	\$ _____	\$ _____
503.1000	Concrete in Retaining Wall	L.S	L.S	L.S	\$ _____
511.0100	Unclassified Shaft Excavation (30-inch Diameter)	180	L.F.	\$ _____	\$ _____
511.0200	Drill Shaft (30-inch Diameter)	180	L.F.	\$ _____	\$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
603.0100	Bed Course Material for Culvert	159	C.Y.	\$_____	\$_____
603.0200	24-inch Reinforced Concrete Pipe, Class III	801	L.F.	\$_____	\$_____
604.0100	Type A Storm Drain Manhole, 5 feet to 10 feet	5	EA	\$_____	\$_____
604.0200	Type 1A-9P Grated Drop Inlet, 0 feet to 5 feet	2	EA	\$_____	\$_____
604.0300	Type 1A-9P Inlet, 5 feet to 10 feet	1	EA	\$_____	\$_____
604.0400	Type D Catch Basin, 0 feet to 5 feet	12	EA	\$_____	\$_____
604.0500	Type B Catch Basin, 5 feet to 10 feet	2	EA	\$_____	\$_____
604.0600	Reconstructed Type 1211214P Catch Basin, 0 feet to 5 feet	1	EA	\$_____	\$_____
604.0700	Type 1211214P Steel Grates	1	EA	\$_____	\$_____
606.0100	Guardrail Type Midwest Guardrail System (MSG)	220	L.F.	\$_____	\$_____
606.0200	Terminal Section Type MSKT	1	EA	\$_____	\$_____
606.0300	End Anchorage Type Trailing-End Anchorage System	1	EA	\$_____	\$_____
607.0100	4-feet, Chain Link Fence	400	L.F.	\$_____	\$_____
610.0100	(6-Inch) Reinforced Concrete Driveway	38	S.Y.	\$_____	\$_____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
617.0100	Soil Preparation, 18" Depth	282	C.Y.	\$ _____	\$ _____
617.0200	Imported Screened Topsoil, 4" Layer	282	C.Y.	\$ _____	\$ _____
617.0300	Imported Compost, 2" Layer	22,800	S.F.	\$ _____	\$ _____
617.0400	Soil Amendments	22,800	S.F.	\$ _____	\$ _____
619.0100	Hau (Hibiscus tiliaceus, 25 Gal, 1.5"-2" Cal, 4'-6' Brown Trunk Height)	9	EA	\$ _____	\$ _____
619.0200	Ohia Lehua (Metrosideros polymorpha, 25 Gal, 1.5"-2" Cal, 4'-6' Brown Trunk Height)	3	EA	\$ _____	\$ _____
619.0300	Naupaka Kahakai (Scaevola taccada, 6" Pots @ 24" O.C. Full and Bushy, 18" – 24" Height)	885	EA	\$ _____	\$ _____
619.0400	Pohinahina (Vitex rotundifolia, 6" Pots @12" O.C., Triangular Spacing)	670	EA	\$ _____	\$ _____
619.0500	Plastic Header	700	L.F.	\$ _____	\$ _____
619.0600	Root Control Barrier	375	L.F.	\$ _____	\$ _____
619.0700	Re-naturalized Lava	5,600	S.F.	\$ _____	\$ _____
619.0800	Mortared Renaturalized Lava	6,200	S.F.	\$ _____	\$ _____
621.0100	Inventory of Invasive Species before Construction	L.S.	L.S.	L.S.	\$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
621.0200	Invasive Species Removal Plan	F.A.	F.A.	F.A.	\$ <u>5,000</u>
621.0300	Removal of Plants and Animals Established before Physical Construction or Site Work, Post Removal Monitoring	F.A.	F.A.	F.A.	\$ <u>30,000</u>
621.0400	Monitoring of Invasive Species During and After Construction	L.S.	L.S.	L.S.	\$ _____
621.0500	Post-Construction Inventory Prior to Returning the Site to the State	L.S.	L.S.	L.S.	\$ _____
622.1001	Removal of Existing Roadway Lighting System	L.S.	L.S.	L.S.	\$ _____
622.1002	Temporary Roadway Lighting System	L.S.	L.S.	L.S.	\$ _____
622.1003	Street Light System Cabinet and Foundation	1	EA	\$ _____	\$ _____
622.1004	Street Light Luminaire, 85W, E2-HI50-ST-85W-7PD-SF LED Luminaire, 30' Aluminium Pole, Transformer Base, Dualhead, 8' Bracket Arm, Concrete Base, and Appurtenances	4	EA	\$ _____	\$ _____
622.1005	Street Light Luminaire, 85W, E2-HI50-ST-85W-7PD-SF LED Luminaire, 30' Aluminium Pole, Transformer Base, Single Head, 15' Bracket Arm, Concrete Base, and Appurtenances	8	EA	\$ _____	\$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
622.1006	Street Light Luminaire, 100W, E2-HI50-ST-100W-7PD-SF LED Luminaire, 30' Aluminium Pole, Transformer Base, Single Head, 8' Bracket Arm, Concrete Base, and Appurtenances	10	EA	\$ _____	\$ _____
622.1007	Street Light, Type A Pullbox	18	EA	\$ _____	\$ _____
622.1008	Street Light, Type C Pullbox	1	EA	\$ _____	\$ _____
622.1009	Street Light Conductors, #4 RHW	20,000	L.F.	\$ _____	\$ _____
622.1010	Ground Conductors, #6 RHW	10,000	L.F.	\$ _____	\$ _____
622.1011	Street Light Conduit, 2" PVC Sch. 40	3,000	L.F.	\$ _____	\$ _____
622.1012	Concrete Jacket, Lighting	75	C.Y.	\$ _____	\$ _____
622.1013	Removal of Existing Traffic Signal System	L.S.	L.S.	L.S.	\$ _____
624.0100	Water Systems	L.S.	L.S.	L.S.	\$ _____
626.0100	Adjusting Sewer Manhole Frame and Cover	7	EA	\$ _____	\$ _____
626.0200	Adjusting Water Standard Meter Box	8	EA	\$ _____	\$ _____
626.0300	Adjusting Water Standard Valve Box	7	EA	\$ _____	\$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
627.1001	CCTV Cabinet and Foundation, and Associated HELCO Meter Box	1	EA.	\$ _____	\$ _____
627.1002	CCTV Camera Pole with Mounting Bracket, 30' Aluminum Pole, Concrete Base, and Appurtenances	2	EA	\$ _____	\$ _____
627.1003	CCTV, Type A Pullbox	2	EA	\$ _____	\$ _____
627.1004	CCTV Conduit, 2" PVC Sch. 40	350	L.F.	\$ _____	\$ _____
627.1005	Concrete Jacket, CCTV	6	C.Y.	\$ _____	\$ _____
629.0100	4-Inch Double Yellow Pavement Striping (Thermoplastic)	1,300	L.F.	\$ _____	\$ _____
629.0200	6-Inch Yellow Pavement Striping (Thermoplastic)	1,500	L.F.	\$ _____	\$ _____
629.0300	6-Inch Double Yellow Pavement Striping (Thermoplastic)	3,010	L.F.	\$ _____	\$ _____
629.0400	8-Inch White Pavement Striping (Thermoplastic)	180	L.F.	\$ _____	\$ _____
629.0500	Crosswalk Marking (Thermoplastic)	10	EA	\$ _____	\$ _____
629.0600	White Yield Line (Thermoplastic)	5	EA	\$ _____	\$ _____
629.0700	Pavement Arrow (Thermoplastic)	29	EA	\$ _____	\$ _____
629.0800	Type C Pavement Marker	76	EA	\$ _____	\$ _____
629.0900	Type H Pavement Marker	72	EA	\$ _____	\$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.1000	Type F Pavement Marker	2	EA	\$ _____	\$ _____
630.0100	Panel for Destination Sign	24	S.F.	\$ _____	\$ _____
630.0200	Type B Post and Arms for Destination Sign	2	EA	\$ _____	\$ _____
630.0300	Type A Route Marker Assembly	1	EA	\$ _____	\$ _____
631.0100	Regulatory Sign (10 Square Feet or Less)	16	EA	\$ _____	\$ _____
631.0200	Regulatory Sign (More than 10 Square Feet)	7	EA	\$ _____	\$ _____
631.0300	Warning Sign (10 Square Feet or Less)	12	EA	\$ _____	\$ _____
631.0400	Warning Sign (More than 10 Square Feet)	11	EA	\$ _____	\$ _____
631.0500	Relocation of Existing Sign	5	EA	\$ _____	\$ _____
634.1000	Portland Cement Concrete Sidewalk	6,700	S.Y.	\$ _____	\$ _____
636.0100	Additional E-Construction Programs, additional licenses or additional equipment	F.A.	F.A.	F.A.	\$ <u>50,000</u>
638.0100	Curb, Type 2D	1,550	L.F.	\$ _____	\$ _____
638.0200	Curb and Gutter, Type 2DG	2,590	L.F.	\$ _____	\$ _____
638.0300	Curb and Gutter, Rolled Mountable	590	L.F.	\$ _____	\$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
641.0100	Hydro-Mulch With Grass Sprig	19,415	S.F.	\$ _____	\$ _____
641.0200	Additional Hydro-Mulch With Grass Sprig Applications	F.A.	F.A.	F.A.	\$ <u>116,490</u>
645.0100	Work Zone Traffic Control	L.S.	L.S.	L.S.	\$ _____
645.0200	Additional Police Officers, Traffic Control Devices, and Advertisement	F.A.	F.A.	F.A.	\$ <u>250,000</u>
647.1001	Fiber Optic Cable, 3' x 5' Handhole, Traffic Rated, Biden-Harris Initiative	5	EA	\$ _____	\$ _____
647.1002	Fiber Optic Cable Conduit, 4" PVC Sch. 40	2,500	L.F.	\$ _____	\$ _____
647.1003	Concrete Jacket, Fiber Optic Cable	65	C.Y.	\$ _____	\$ _____
647.1004	Hawaiian Telcom, 4' x 6'-6" x 6'-6" Manhole, Traffic Rated	2	EA	\$ _____	\$ _____
647.1005	Hawaiian Telcom Conduit, 5" PVC Sch. 40	1,000	L.F.	\$ _____	\$ _____
647.1006	Concrete Jacket, Hawaiian Telcom Conduit	25	C.Y.	\$ _____	\$ _____
648.0100	Field-Posted Drawings	L.S.	L.S.	L.S.	\$ _____
650.0100	Bicycle Ramp	2	E.A.	\$ _____	\$ _____
650.0200	Curb Ramp, Type A	6	E.A.	\$ _____	\$ _____
650.0300	Detectable Warning Mat	24	E.A.	\$ _____	\$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
671.1000	Protection of Endangered Species	F.A.	F.A.	F.A.	\$ <u>50,000</u>
696.0100	Field Office Trailer (Not to Exceed \$32,000.00)	L.S.	L.S.	L.S.	\$ _____
696.0200	Project Site Laboratory Trailer (Not to Exceed \$22,000.00)	L.S.	L.S.	L.S.	\$ _____
699.0100	Mobilization (Not to exceed 6 percent of the sum of all items excluding the bid price of this item)	L.S.	L.S.	L.S.	\$ _____
Total Amount for Comparison of Bids.....					\$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
NOTE: Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid. - Bids shall include all Federal, State, County and other applicable taxes and fees. - The TOTAL AMOUNT FOR COMPARISON OF BIDS shall be used to determine the lowest responsible bidder. - Bidders shall complete all unit prices and amounts. Failure to do so shall be grounds for rejection of bid. - If a discrepancy occurs between unit bid price and the bid price, the unit bid price shall govern. Bidders shall submit and <u>upload the complete proposal to HlePRO</u> prior to the bid opening date and time. Proposals received after said due date and time shall not be considered. Any additional support documents explicitly designated as <u>confidential and/or proprietary</u> shall be uploaded as a <u>separate file</u> to HlePRO. Bidders shall not include confidential and/or proprietary documents with the proposal. The record of each bidder and respective bid shall be open to public inspection. Original (wet ink, hard copy) proposal documents are not required to be submitted. Contract award shall be based on evaluation of proposals submitted and uploaded to HlePRO. <u>FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HlePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.</u> If there is a conflict between the specification document and the HlePRO solicitation, the specifications shall govern and control, unless otherwise specified.					

SURETY BID BOND

Bond No. _____

KNOW TO ALL BY THESE PRESENTS:

That we, _____

(full name or legal title of offeror)

as Offeror, hereinafter called the 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 _____, _____

Name of Principal (Offeror) (Seal)

Signature

Print Name and Title

Name of Surety (Seal)

Signature

Print Name and Title

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU, HAWAII

SAMPLE FORMS

Contract

Performance Bond (Surety)

Performance Bond

Labor and Material Payment Bond (Surety)

Labor and Material Payment Bond

Disclosure of Lobbying Activities (Standard Form - LLL and LLL-A)

Statement of Compliance (Form WH-348)

Chapter 104, HRS Compliance Certificate

C O N T R A C T

THIS AGREEMENT, made this day _____, by and between the
STATE OF HAWAII, by its Director of Transportation, hereinafter referred to as "STATE",
and «CONTRACTOR», «STATE_OF_INCORPORATON», whose business/post office
address is «ADDRESS» hereinafter referred to as "CONTRACTOR",

WITNESSETH: That for and in consideration of the payments hereinafter mentioned, the
CONTRACTOR hereby covenants and agrees with the STATE to complete in place, furnish
and pay for all labor and materials necessary for

“«PROJECT_NAME_AND_NO»”,

or such a part thereof as shall be required by the STATE, the total amount of which labor,
materials and construction shall be computed at the unit and/or lump sum prices set forth in the
attached proposal schedule and shall be the sum of «BASIC»----- DOLLARS

(\$«BASIC_NUMERIC») as follows:

TOTAL AMOUNT FOR COMPARISON OF BIDS.....\$«BASIC_NUMERIC»

which shall be provided from the following funds:

Federal Funds.....
State Funds.....
TOTAL AMOUNT.....

all in accordance with the specifications, the special provisions, if any, the notice to bidders, the instructions to bidders, the proposal and plans for «PROJECT NO ONLY», and any supplements thereto, on file in the office of the Director of Transportation. These documents, together with all alterations, amendments, and additions thereto and deductions therefrom, are attached hereto or incorporated herein by reference and made a part of this contract.

The CONTRACTOR hereby covenants and agrees to complete such construction within «WORKING DAYS», from the date indicated in the notice to proceed from the STATE, subject, however, to such extensions as may be provided for under the specifications.

For and in consideration of the covenants, undertakings and agreements of the CONTRACTOR herein set forth and upon the full and faithful performance thereof by the CONTRACTOR, the STATE hereby agrees to pay the CONTRACTOR the sum of «BASIC»-----DOLLARS (\$«BASIC NUMERIC») in lawful money, but not more than such part of the same as is actually earned according to the STATE's determination of the actual quantities of work performed and materials furnished by the CONTRACTOR at the unit or lump sum prices set forth in the attached proposal schedule. Such payment, including any extras, shall be made, subject to such additions or deductions hereto or hereafter made in the manner and at the time prescribed in the specifications and this contract.

An additional sum of «EXTRAS»-----DOLLARS (\$«EXTRA NUMERIC») is hereby provided for extra work and shall be provided from the following funds:

Federal Funds.....
 State Funds.....
 Total.....

Where Federal funds are involved, it is covenanted and agreed by and between the parties hereto that the sum of ----«FEDERAL_BASIC»----DOLLARS (\$«FEDERAL_BASIC_NUMERIC») and ----«FEDERAL_EXTRAS»----DOLLARS (\$«FEDERAL_EXTRAS_NUMERIC»), a portion of the contract price and extras, respectively, shall be paid out of the applicable Federal funds, and that this contract shall be construed to be an agreement to pay said sums to the Contractor only out of the aforesaid Federal funds if and when such Federal funds shall be received from the Federal Government, and that this contract shall not be construed to be a general agreement to pay said portions at all events out of any funds other than those which may be so received from the Federal Government; provided, that if the Federal share of the cost of the project is not immediately forthcoming from the Federal Government, the STATE may advance the CONTRACTOR the anticipated Federal reimbursement of the cost of the completed portions of the work from funds which have been appropriated by the STATE for its pro rata share.

All words used herein in the singular shall extend to and include the plural. All words used in the plural shall extend to and include the singular. The use of any gender shall extend to and include all genders.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be duly executed the day and year first above written.

STATE OF HAWAII

Director of Transportation

«CONTRACTOR»

Signature

Print name

Print Title

Date

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

PERFORMANCE BOND

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

(State/County entity)

its successors and assigns, as Obligee, hereinafter called Obligee, in the amount

(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 heir, 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 _____
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 _____
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 _____
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 _____
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, 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, 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 and sealed this _____ day of _____, _____.

(Seal) _____

Name of Contractor

Signature*

Title

*ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC

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 Obligor, 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 Obligor 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

LABOR AND MATERIAL PAYMENT BOND

KNOW 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 _____
(State/County entity)
its successors and assigns, as Obligee, hereinafter called Obligee, in the amount
_____ DOLLARS (\$ _____),
(Dollar amount of Contract)

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 heir, 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 _____
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 _____
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 _____
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 _____
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, 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, 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 may be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payments 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

DISCLOSURE OF LOBBYING ACTIVITIES
Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

Approved by
0348-0046

1. Type of Federal Action: ☐ a. contract ☐ b. grant ☐ c. cooperative agreement ☐ d. loan ☐ e. loan guarantee ☐ f. loan insurance		2. Status of Federal Action: ☐ a. bid/offer/application ☐ b. initial award ☐ c. post-award		3. Report Type: ☐ a. initial filing ☐ b. material change For Material Change Only: year _____ quarter _____ date of last report _____	
4. Name and Address of Reporting Entity: ☐ Prime ☐ Subawardee Tier _____, <i>if known</i> : Congressional District, <i>if known</i> :			5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime Congressional District, <i>if known</i> :		
6. Federal Department/Agency:			7. Federal Program Name/Destination: CFDA Number, <i>if applicable</i> :		
8. Federal Action Number, <i>if known</i>:			9. Award Amount, <i>if known</i>: \$		
10. a. Name and address of Lobbying Entity (<i>if individual, last name, first name, MI</i>):			b. Individuals Performing Services (<i>including address if different from No. 10a</i>) (<i>last name, first name, MI</i>):		
(attach Continuation Sheet(s) SF-LLL-A, if necessary)					
11. Amount of Payment (<i>check all that apply</i>): \$ _____ ☐ actual ☐ planned			13. Type of Payment (<i>check all that apply</i>): ☐ a. retainer ☐ b. one-time fee ☐ c. commission ☐ d. contingent fee ☐ e. deferred ☐ f. other; specify: _____		
12. Form of Payment (<i>check all that apply</i>): ☐ a. cash ☐ b. in-kind; specify: nature _____ value _____					
14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employees(s) or Member(s) contacted, for Payment Indicated in Item 11: (attach Continuation Sheet(s) SF-LLL-A, if necessary)					
15. Continuation Sheet(s) SF-LLL-A attached: ☐ Yes ☐ No					
16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.			Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____		
Federal Use Only:			Authorized for Local Reproduction Standard Form - LLL		

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal Agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10.
 - (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.
 - (b) Enter the full names of the individual(s) performing services, and include full address if different from 10(a). Enter Last Name, First Name, and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) or Congress that were contacted.
15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction (0348-0046), Washington, D.C. 20503.
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DISCLOSURE OF LOBBYING ACTIVITIES
CONTINUATION SHEET

Approved by
0348-0046

Reporting Entity: _____ Page _____ of _____

STATEMENT OF COMPLIANCE

Date _____

I, _____ do hereby state:

(Name of signatory party) (Title)
(1) That I pay or supervise the payment of the persons employed by _____ on
(Contractor or subcontractor)
the _____; that during the payroll period commencing on the _____ day of _____,
(Building or work)
_____ and ending the _____ day of _____, all persons employed on said project have been paid the
full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said
_____ from the full weekly wages earned by any person and that no deductions have
(Contractor or subcontractor)
been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in
Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948.63
Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 2760, and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that
the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage
determination incorporated into the contract; that the classifications set forth therein for each laborers or mechanic conform with
the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered
with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor,
or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States
Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐

In addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above -
Referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to
appropriate program for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐

Each Laborer or mechanic listed in the above referenced payroll has been paid as indicated on the payroll, an
amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe
benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION
REMARK	

NAME AND TITLE	SIGNATURE
THE WILFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.	

INSTRUCTIONS FOR PREPARATION OF STATEMENT OF COMPLIANCE

This statement of compliance meets needs resulting from the amendment of the Davis-Bacon Act to include fringe benefits provisions. Under this amended law, the contractor is required to pay fringe benefits as predetermined by the Department of Labor, in addition to payment of the minimum rates. The contractor's obligation to pay fringe benefits may be met by payment of the fringes to the various plans, funds, or programs or by making these payments to the employees as cash in lieu of fringes.

The contractor should show on the face of his payroll all monies paid to the employees whether as basic or as cash in lieu of fringes. The contractor shall represent in the statement of compliance that he is paying to others fringes required by the contract and not paid as cash in lieu of fringes. Detailed instructions follow:

Contractors who pay all required fringe benefits:

A contractor who pays fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Secretary of Labor shall continue to show on the face of his payroll the basic cash hourly rate and overtime rate paid to his employees, just as he has always done. Such a contractor shall check paragraph 4(a) of the statement to indicate that he is also paying to approved plans, funds, or programs not less than the amount predetermined as fringe benefits for each craft. Any exception shall be noted in Section 4(c).

Contractors who pay no fringe benefits:

A contractor who pays no fringe benefits shall pay to the employee and insert in the straight time hourly rate column of his payroll an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringes, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on the basic or regular rate plus the required cash in lieu of fringes at the straight time rate. To simplify computation of overtime, it is suggested that the straight time basic rate and cash in lieu of fringes be separately stated in the hourly rate column, thus \$3.25/.40. In addition, the contractor shall check paragraph 4(b) of the statement to indicate that he is paying fringe benefits in cash directly to his employees. Any exceptions shall be noted in Section 4(c).

Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination requires is obliged to pay the deficiency directly to the employees as cash in lieu of fringes. Any exceptions to Section 4(a) or 4(b), whichever the contractor may check, shall be entered in Section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid the employees as cash in lieu of fringes, and the hourly amount paid to plans, funds, or programs as fringes.

CHAPTER 104, HRS COMPLIANCE CERTIFICATE

The undersigned bidder does hereby certify to the following:

1. Individuals engaged in the performance of the contract on the job site shall be paid:

A. Not less than the wages that the director of labor and industrial relations shall have determined to be prevailing for corresponding classes of laborers and mechanics employed on public works projects; and

B. Overtime compensation at one and one-half times the basic hourly rate plus fringe benefits for hours worked on Saturday, Sunday, or a legal holiday of the State or in excess of eight hours on any other day.

2. All applicable laws of the federal and state governments relating to workers' compensation, unemployment compensation, payment of wages, and safety shall be fully complied with.

DATED at Honolulu, Hawaii, this _____ day of _____, 20____.

«CONTRACTOR»

Name of Corporation, Partnership, or Individual

Signature and Title of Signer

Notary Seal
NOTARY ACKNOWLEDGEMENT

Subscribed and sworn before me this
_____ day of _____
Notary signature _____
Notary public, State of _____
My Commission Expires: _____

Notary Seal
NOTARY CERTIFICATION

Doc. Date: _____ #Pages: _____
Notary Name: _____ Circuit
Doc. Description: _____

Notary signature _____
Date _____