



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

**SPECIAL PROVISIONS
PROPOSAL
CONTRACT AND BOND**

FOR

**INTERSTATE ROUTE H-1 AND H-201
DESTINATION SIGN UPGRADE / REPLACEMENT**

PHASE 3

FEDERAL-AID PROJECT NO. NH-0300(144)

DISTRICT OF HONOLULU

ISLAND OF OAHU

FY 2023

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NOTICE TO BIDDERS
(Chapter 103D, HRS)

The receiving of SEALED BIDS for INTERSTATE ROUTE H-1 AND H-201, DESTINATION SIGN UPGRADE/REPLACEMENT, PHASE 3, Federal-Aid Project No. NH-0300(144), DISTRICT OF HONOLULU, ISLAND OF OAHU, will begin as advertised on December 16, 2022 in HiePRO. Bidders are to register and submit bids through HiePRO only. See the following HiePRO link for important information on registering: <https://hiepro.ehawaii.gov/welcome.html>.

Deadline to submit bids is Bid Opening Day, January 12, 2023 at 2:00 pm Hawaii Standard Time (HST). Bids received after said due date and time shall not be considered.

The following documents are made part of the Contract Documents and are included in HiePRO; Variance for Community Noise Control, Community Noise Permit, Community Noise Permit extension, Community Noise Permit amendment, and Geotechnical Engineering Exploration report dated February 3, 2022.

The scope of work for this project includes construction of overhead sign structures, sign frames, and drilled shafts; reconstruction of concrete barriers, glare screens; grading; installation of metal guardrail, destination sign panels, pavement markings; modifications to the electrical conduits and pull boxes; maintenance and removal of temporary erosion control measures; and traffic control. The five overhead sign structures to be replaced are located on various highway routes on Oahu. These are shown on the Title Sheet of the plans. The estimated cost of construction is between \$5,000,000 and \$10,000,000.

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

A 5% bid adjustment for bidders that are parties to apprenticeship agreements pursuant to Section 103-55.6, Hawaii Revised Statutes (HRS), is applicable to this project.

Compliance with Act 192, SLH 2011 and the Bipartisan Infrastructure Law, Section 25019(a), - is a requirement for this project whereby a minimum of 80% of the bidder's work force on this project must consist of Hawaii residents.

A pre-bid conference is scheduled for December 27, 2022 at 10:00 am on Microsoft Teams. All prospective bidders or their representatives (employees) are encouraged to attend, but attendance is not mandatory. Due to the impacts of COVID 19, the pre-bid meeting will be conducted virtually. Please call Microsoft Teams to join the Pre-bid meeting at (808) 829-4853, Phone Conference ID: 170 131 137#.

ALL requests for information (RFI) shall be received in writing via HIEPRO no less than 14 calendar days before bid opening. Questions received after the deadline will not be addressed. Verbal requests for information will not receive a response. Anything said at the conference is for clarification purposes and any changes to the bid documents will be made by addendum and posted in HIEPRO.

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

Campaign contributions by State and County Contractors. Contractors are hereby notified of the applicability of Section 11-355, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the term of the contract if the contractors are paid with funds appropriated by the legislative

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body. For more information, contact the Campaign Spending Commission at (808) 586-0285.

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

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

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

Bidders are directed to read and be familiar with the Disadvantaged Business Enterprise (DBE) Requirements, which establishes the program requirements pursuant to Title 49 Code of Federal Regulations Part 26 and, particularly, the requirements of certification, method of award, and evidence of good faith. All Bidders must e-mail the Engineer at james.fu@hawaii.gov, the Disadvantaged Business Enterprise (DBE) Contract Goal Verification and Good Faith Efforts (GFE) Documentation for

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Construction, Disadvantaged Business Enterprise (DBE) Confirmation and Commitment Agreement – Trucking Company and Disadvantaged Business Enterprise (DBE) Confirmation and Commitment Agreement –Subcontractor, Manufacturer, or Supplier by January 17, 2023 at 4:30 pm. Failure to provide these documents shall be cause for bid/proposal rejection.

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

For additional information, contact James Fu, Project Manager, by phone at (808) 692-7611, by fax at (808) 692-7617 or email at james.fu@hawaii.gov.

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



EDWIN H. SNIFFEN
Director of Transportation

Posted:

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.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL
EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

1. The Bidder's attention is called to the "Equal Opportunity" and the "Specific Equal Employment Opportunity Responsibilities" set forth in the "Required Federal Aid Construction Contract Provisions."

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work on this project are as follows:

CATEGORY	TIMETABLE	GOAL
Female participation in each trade	Indefinite	6.9%
Minority participation in each	None	69.1% (Oahu)
Trade (female included)	None	70.4% (Hawaii, Maui, Kauai)

These goals are applicable to all the Contractor's aggregate on-site construction workforce whether or not part of that workforce is performing work on a Federal or Federally assisted construction contract or subcontract.

The Contractor's compliance with the Executive Order shall be based on its implementation of the Equal Opportunity Clause, and its efforts to meet the goals established for the contract resulting from this solicitation. The hours of female and minority employment and training must be substantially uniform throughout the length of the contract, and in trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract and Executive Order. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Area Director, Hawaii Area Office, Office of Federal Contract Compliance Programs, U.S. Department of Labor, 300 Ala Moana Blvd., P.O. Box 50149, Honolulu, Hawaii 96850, within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; and estimated starting and completion dates of the subcontract. The Contractor shall indicate which are minority group subcontractors and the ethnic identity and sex of the owner(s) and policy-making official(s).

DISADVANTAGED BUSINESS ENTERPRISE REQUIREMENTS

I. GENERAL

This project is subject to Title 49, Code of Federal Regulations, 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. The following shall be incorporated as part of the contract documents for compliance. If any requirements herein are in 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

It is the policy of the U.S. Department of Transportation ("USDOT") and the State of Hawaii, Department of Transportation and its political subdivisions ("Department") that Disadvantaged Business Enterprises ("DBE"), as defined in the DBE Regulations, have an equal opportunity to receive and participate in federally assisted contracts.

III. DBE ASSURANCES

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 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

All bidders/offerors are required to register with the Department's OCR, DBE Section, using the Bidder Registration Form, which can be downloaded from the Department's website at <http://hidot.hawaii.gov/administration/ocr/dbe/dbe-program-forms/>. Certified DBEs are considered registered with the Department and are not required to submit a

Bidder Registration Form. All other bidders/offerors are required to complete this form which may be faxed to (808) 831-7944, e-mailed to HDOT-DBE@hawaii.gov, or mailed to the HDOT DBE Section at 200 Rodgers Boulevard, Honolulu, Hawaii, 96819. Registered bidders/offerors are posted on the website listed above.

Bidders/offerors, subcontractors, manufacturers, vendors or suppliers, and trucking companies shall fully inform themselves with respect to the requirements of the DBE Regulations. Particular attention is directed to the following matters:

- A. Bidders/offerors shall take all necessary steps to ensure that DBEs have an opportunity to participate in this contract.
- B. DBEs may participate as a consultant, prime contractor, subcontractor, trucking company, or vendor of materials or supplies. DBEs may also team with other DBEs or non-DBE firms as part of a joint venture or partnership.
- C. Agreements between a bidder/offeror and a DBE in which an DBE promises not to provide subcontracting quotations to other bidders/offerors are strictly prohibited.
- D. A DBE shall be certified by the Department under the appropriate North American Industry Classification System (NAICS) code and work in their registered field of work in order for credit to be allowed.
- E. Information regarding the current certification status of DBEs is available on the internet at <https://hdot.dbesystem.com/>.
- F. Commercially Useful Function (“CUF”). An DBE must perform a CUF. This means that an DBE must be responsible for the execution of a distinct element of the work, must carry out its responsibility by actually performing, managing, and supervising at least 30% of the work involved by using its own employees and equipment, must negotiate price, determine quality and quantity, order and install material (when applicable), and must pay for the material itself.¹

To determine whether an DBE is performing a CUF, the Department must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing, the DBE credit claimed for performance of the work, and other relevant factors. The prime contractor is responsible to ensure that the DBE performs a CUF.

V. PROPOSAL REQUIREMENTS

- A. DBEs must be certified by the bid opening date.

¹ The use of joint checks payable to an DBE subcontractor and supplier may be allowed to purchase materials and supplies under limited circumstances. See VII USE OF JOINT CHECKS UNDER THE DBE PROGRAM

- B. DBE subcontractors, manufacturers, suppliers, trucking companies, and any second tier subcontractors shall be listed on the respective DBE forms as specified below in order to receive credit.
- C. The following forms are due to the Department's Project Manager or designee **by the close of business, 4:30 P.M. Hawaii Standard Time (HST), five (5) days after bid opening:**²
1. DBE Confirmation and Commitment Agreement. This form must be signed by the bidder/offeror and each DBE subcontractor, manufacturer, supplier, or trucking company. Information to be provided on the form shall include, among other things, the project number, the DBE's NAICS codes, description of work, bid items with corresponding price information, prime contractor name and contact information DBE name and contact information and subcontractor name and contact information if the DBE is a second tier subcontractor.
 2. DBE Contract Goal Verification and Good Faith Efforts (GFE) Documentation for Construction. List the dollar amount of all subcontractors, manufacturers, suppliers, and trucking companies (both DBE and non-DBE firms). Bidder/offeror must also list the DBE project goal on this form (See paragraph D below regarding goal calculation). The bidder/offeror must submit documentation demonstrating how the DBE goal was met or how the bidder/offeror attempted to meet the goal if the goal was not met. This documentation shall include quotations for both DBE and non-DBE subcontractors when a non-DBE is selected over a DBE for the project. **Documentation of good faith efforts is required irrespective of whether the bidder/offeror met the DBE project goal.**
- The above forms must be complete and provide the necessary information to properly evaluate bids/proposals. Failure to provide any of the above shall be cause for bid/proposal rejection.**
- D. Calculation of the DBE contract goal for this project is the proportionate contract dollar value of work performed, materials, and goods to be supplied by DBEs. DBE credit shall not be given for mobilization, force account items and allowance items. This DBE contract goal is applicable to all the contract work performed for this project and is calculated as follows:
1. DBE contract goal percentage = Contract Dollar Value of the work to be performed by DBE subcontractors and manufacturers, plus 60% of the contract dollar value of DBE suppliers, divided by the sum of all contract items (sum of all contract items is the total amount for comparison of bids less mobilization, force account items, and allowance items).

² In computing calendar days, the day from which the period begins to run is not counted, and when the last day of the period is a Saturday, Sunday, or Federal or State holiday, the period extends to the next day that is not a Saturday, Sunday, or holiday.

2. The Department shall adjust the bidder's/offeror's DBE contract goal to the amount of the project goal if it finds that the bidder/offeror met the goal but erroneously calculated a lower percentage. If the amount the bidder/offeror submits as its contract goal exceeds the project goal, the bidder/offeror shall be held to the higher goal.

VI. COUNTING DBE PARTICIPATION TOWARDS CONTRACT GOAL

- A. Count the entire amount of the portion of a contract (or other contract not covered by paragraph B below) that is performed by the DBE's own forces. Include the cost of supplies and materials obtained by the DBE for the work on the contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate).
- B. Count the entire amount of fees or commissions charged by an DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a USDOT-assisted contract, toward DBE goals, provided the Department determines the fee to be reasonable and not excessive as compared with fees customarily allowed for similar services.
- C. When an DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE's subcontractor is itself an DBE. Work that an DBE subcontracts to a non-DBE firm does not count toward DBE goals.
- D. When an DBE performs as a participant in a joint venture, count a portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work of the contract that the DBE performs with its own forces toward DBE goals.
- E. Count expenditures to an DBE contractor toward DBE goals only if the DBE is performing a CUF on that contract.
- F. The following is a list of appropriate DBE credit to be allowed for work to be performed by an DBE subcontractor. Count expenditures with DBEs for materials or supplies toward DBE goals as provided in the following:
 1. If the materials or supplies are obtained from an DBE manufacturer, count 100 percent of the cost of the materials or supplies toward DBE goals;
 2. For purposes of determining DBE goal credit, a manufacturer is a firm that operates or maintains a factory or establishment that produces (on the premises) the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications;

3. If the materials or supplies are purchased from an DBE regular dealer, count 60 percent of the cost of the materials or supplies toward DBE goals;
4. For purposes of determining DBE goal credit, a regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business;
5. To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question;
6. A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business as provided in the DBE Regulations, if the person both owns and operates distribution equipment for the products. Any supplementing of a regular dealers' own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis;
7. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers;
8. With respect to materials or supplies purchased from an DBE, which is neither a manufacturer nor a regular dealer, count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, toward DBE goals, provided that the Department determines the fees to be reasonable and not excessive as compared with fees customarily allowed for similar services. Do not count any portion of the cost of the materials and supplies themselves toward DBE goals; however,
9. If a firm is not currently certified as an DBE in accordance with standards of this part at the time of the execution of the contract, do not count the firm's participation toward any DBE goals, except as provided for in §26.87(i);
10. Do not count the dollar value of work performed under a contract with a firm after it has ceased to be certified toward the Department's overall goal; and
11. Do not count the participation of an DBE subcontractor toward a contractor's final compliance with its DBE obligations on a contract until the amount being counted has actually been paid to the DBE.

G. The following factors are used in counting DBE participation for trucking companies:

1. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular

contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals;

2. The DBE must itself own and operate at least one (1) fully licensed, insured, and operational truck used on the contract;
3. The DBE receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs;
4. The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as an DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract;
5. The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE that leases trucks equipped with drivers from a non-DBE is entitled to credit for the total value of transportation services provided by non-DBE leased trucks equipped with drivers not to exceed the value of transportation services on the contract provided by DBE-owned trucks or leased trucks with DBE employee drivers. Additional participation by non-DBE owned trucks equipped with drivers receives credit only for the fee or commission it receives as a result of the lease arrangement. If a recipient chooses this approach, it must obtain written consent from the appropriate Department operating administration.
EXAMPLE: DBE firm X uses two (2) of its own trucks on a contract, leases two (2) trucks from DBE Firm Y and six (6) trucks from non-DBE Firm Z. DBE credit would be awarded for the total value of transportation services provided by Firm X and Firm Y, and may also be awarded for the total value of transportation services provided by four (4) of the six (6) trucks provided by Firm Z. In all, full credit would be allowed for the participation of eight (8) trucks. With respect to the other two (2) trucks provided by Firm Z, DBE credit could be awarded only for the fees or commissions pertaining to those trucks Firm X receives as a result of the lease with Firm Z;
6. The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE truck leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.
EXAMPLE: DBE Firm X uses two (2) of its own trucks on a contract. It leases two (2) additional trucks from non-DBE Firm Z. Firm X uses its own employees to drive the trucks leased from Firm Z. DBE credit would be awarded for the total value of the transportation services provided by all four (4) trucks; and
7. For purposes of determining whether a trucking firm performs a CUF, a lease must indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.

- H. The bidder/offeror may be a joint venture or partnership that has a certified DBE as a partner. A “Joint Venture” means an association between an DBE firm and one (1) or more other firms to carry out a single, for-profit, business enterprise for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract, and whose share in the capital contribution, control, management, risks and profits are commensurate with its ownership interest.
- I. Effects of a Summary Suspension of an DBE. When an DBE’s certification is suspended, the DBE may not be considered to meet a contract goal on a new contract and any work it does on a contract received during the suspension shall not be counted towards the overall goal. The DBE may continue to perform work under an existing contract executed before the DBE received a Notice of Suspension and may be counted towards the contract goal during the period of suspension as long as the DBE is performing a CUF under the existing contract.
- J. Effects of Decertification of an DBE. Should an DBE become decertified during the term of the subcontract for reasons beyond the control of and with no fault or negligence on the part of the contractor, the work remaining under the subcontract may be credited towards the contract goal, but are not included in the overall accomplishments.

Should the DBE be decertified after contract award and before notice to proceed, the contractor must still meet the DBE goal by either: a) withdrawing the subcontract from the DBE and expending good faith efforts to replace it with an DBE that is currently certified for that same work; or b) continuing with the subcontract with the decertified firm and expending good faith efforts to find other work not already subcontracted out to DBEs in an amount to meet the DBE goal either by; 1) increasing the participation of other DBEs on the project; 2) documenting good faith efforts; or 3) by a combination of the above.

VII. USE OF JOINT CHECKS UNDER THE DBE PROGRAM

- A. The following guidelines apply to the use of joint checks:
1. The second party (typically the prime contractor) acts solely as a guarantor;
 2. The DBE must release the check to the supplier;
 3. The use of joint checks is a commonly recognized business practice;
 4. The Department must approve the use of joint checks prior to use by contractors and/or DBEs. As part of this approval process the Department will analyze industry practice to confirm that the use of joint checks is commonly employed outside of the DBE program for non-DBE subcontractors on both federal and state funded contracts. Using joint checks shall not be approved if it conflicts with other aspects of the DBE Regulations regarding CUF; and
 5. The Department will monitor the use of joint checks closely to avoid abuse.

- B. Contractors and DBEs should review the following general guidelines when determining whether to use joint checks closely to avoid abuse:
1. That standard industry practice applies to all contractors (federal and state contracts);
 2. Use of joint checks must be available to all subcontractors;
 3. Material industry sets the standard industry practice, not prime contractors;
 4. Short term, not to exceed reasonable time (i.e., one (1) year, two (2) years) to establish/increase a credit line with the material supplier;
 5. No exclusive arrangement between one (1) prime and one (1) DBE in the use of joint checks that might bring the independence of the DBE into question;
 6. Non-proportionate ratio of DBE's normal capacity to size of contract and quantity of material to be provided under the contract;
 7. The DBE is normally responsible to install and furnish the work item; and
 8. The DBE must be more than an extra participant in releasing the check to the material supplier.
- C. The Department shall allow the use of joint checks if the following general conditions are met:
1. DBE submits request to the Department for action;
 2. There is a formalized agreement between all parties that specify the conditions under which the arrangement shall be permitted;
 3. There is a full and prompt disclosure of the expected use of joint checks;
 4. The Department will provide prior approval;
 5. DBE remains responsible for all other elements of 49 CFR 26.55(c)(1);
 6. The agreement states clearly and determines that independence is not threatened because the DBE retains final decision making responsibility;
 7. The Department will determine that the request is not an attempt to artificially inflate DBE participation;
 8. Standard industry practice is only one (1) factor;
 9. The Department will monitor and maintain oversight of the arrangement by reviewing cancelled checks and/or certification statement of payment; and
 10. The Department will verify there is no requirement by prime contractor that the DBE is to use a specific supplier nor the prime contractor's negotiated unit price.

VIII. DEMONSTRATION OF GOOD FAITH EFFORTS FOR CONTRACT AWARD

- A. When a project goal is not met, the Department shall conduct the initial review of GFE submitted by the bidder/offeror and shall determine whether the bidder/offeror has performed the quality, quantity, and intensity of efforts that demonstrate a reasonably active and aggressive attempt to meet the contract goal in accordance with 49 CFR Part 26, Appendix A.

- B. The bidder/offeror bears the responsibility of demonstrating that it met the contract goal, or if the contract goal was not met, by documenting the GFE it made in an attempt to meet the goal. It is the sole responsibility of the bidder/offeror to submit any and all documents, logs, correspondence, and any other records or information to the Department that will demonstrate that the bidder/offeror made good faith efforts to meet the DBE goal.
- C. In its good faith evaluation, the Department shall perform the following as part of its evaluation: a) compare the bidder's/offeror's bid against the bids/offers of other bidders/offerors, and compare the DBEs and DBE work areas utilized by the bidder/offeror with the DBEs listed in other bids/offers submitted for this contract (If other bidders obtained DBEs in a particular work area in which the low bidder did not, the Department shall take this into consideration in its evaluation); b) verify contacts by bidders/offerors with DBEs; and c) compare the DBE and the categories of DBE work targeted by the bidder/offeror for participation in the contract, with the total pool of available DBEs ready, willing and able to perform work on each particular subcontract targeted by the bidder/offeror.
- D. Actions on the part of the bidder/offeror that will be considered demonstrative of good faith efforts include, but are not limited to, the following:
1. Whether the bidder/offeror submitted the required information (i.e., DBE name, address, NAICS code, description of work, project name, and number), and dollar amounts for all subcontractors, within five (5) days of bid opening;
 2. Whether the bidder/offeror solicited through all reasonable and available means (e.g., attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform part or all of the work to be included under the contract. The Department will also consider whether the bidder/offeror solicited the participation of potential DBEs as early in the procurement process as practicable, and allowed sufficient time for the DBEs to properly inquire about the project and respond to the solicitation. The Department will also review whether the bidder/offeror took appropriate steps to follow up with interested DBEs in a timely manner to facilitate participation by DBEs in this project;
 3. Whether the bidder/offeror identified and broke up portions of work that can be performed by DBEs in order to increase the likelihood that an DBE will be able to participate, and that the DBE goal could be achieved (e.g., breaking out contract items into economically feasible units to facilitate DBE participation even when the bidder/offeror might otherwise prefer to self-perform these work items with its own forces);
 4. Whether the bidder/offeror made available or provided interested DBEs with adequate information about the plans, specifications, and requirements of the project in a timely manner, and assisted them in responding to the bidder's/offeror's solicitation;

5. Whether the bidder/offeror negotiated in good faith with interested DBEs. Evidence of such negotiations includes documenting: a) the names, addresses and telephone numbers of DBEs that were contacted; b) a description of the information that was provided to DBEs regarding the plans and specifications; and c) detailed explanation for not utilizing individual DBEs on the project;
6. Whether the bidder/offeror solely relied on price in determining whether to use an DBE. The fact that there may be additional or higher costs associated with finding and utilizing DBEs are not, by itself, sufficient reasons for a bidder's/offeror's refusal to utilize an DBE, or the failure to meet the DBE goal, provided that such additional costs are not unreasonable. Also, the ability or desire of a bidder/offeror to perform a portion of the work with its own forces, that could have been undertaken by an available DBE, does not relieve the bidder/offeror of the responsibility to make good faith efforts to meet the DBE goal, and to make available and solicit DBE participation in other areas of the project to meet the DBE goal;
7. Whether the bidder/offeror rejected DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The DBEs standing within the industry, membership in specific groups, organizations or associations, and political or social affiliation are not legitimate basis for the rejection or non-solicitation of bids from particular DBEs;
8. Whether the bidder/offeror made efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance;
9. Whether the bidder/offeror made efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services;
10. Whether the bidder/offeror effectively used the services of available minority/women community organizations, minority/women business groups, contractors' groups, and local, state and federal minority/women business assistance offices or other organizations to provide assistance in recruitment and placement of DBEs;
11. Whether the bidder/offeror, who selects a non-DBE over an DBE subcontractor, has quotes of each DBE and non-DBE subcontractor submitted to the bidder for work on the contract; and for each DBE that was contacted but not utilized by the bidder/offeror for a contract, the bidder/offeror has a detailed written explanation for each DBE detailing the reasons for the bidder's/offeror's failure or inability to utilize, or to allow the DBE to participate in the contract; and
12. Whether other bidders/offerors met the goal and whether the apparent successful bidder/offeror could have met the goal with additional efforts. The Department may determine that an apparent successful bidder/offeror who fell short of meeting the goal, made good faith efforts when it met or exceeded the average DBE participation obtained by other bidders/offerors.

IX. ADMINISTRATIVE RECONSIDERATION.

If it is determined by the Department that the apparent successful bidder/offeror has failed to meet the provisions of 49 CFR Section 26.53(a), the bidder/offeror may submit a request for administrative reconsideration. If under the provisions of 49 CFR, Section 26.53(d), it is determined by the Department that the apparent successful bidder/offeror has failed to meet the provisions of this subsection, the bidder/offeror may submit a written request for administrative reconsideration.

- A. Within five (5) working days of being informed in writing by the Department that the bidder/offeror has not documented sufficient GFE, a bidder/offeror may request administrative reconsideration. Bidders/offerors should make this request in writing to the following official:

Director of Transportation
Hawaii Department of Transportation
869 Punchbowl Street, Room 509
Honolulu, Hawaii 96813

- B. The reconsideration official, or his or her designee (referred to as “reconsideration official”), shall not have played any role in the original determination that the bidder/offeror failed to meet the goal or make adequate good faith efforts to do so.
- C. As part of this reconsideration, the bidder/offeror will have the opportunity to provide written documentation or argument concerning the issue of whether it met the goal or made adequate GFE to do so. The bidder/offeror will have the opportunity to meet in person with the reconsideration official to discuss the issue of whether it met the goal or made adequate GFE to do so.
- D. In an administrative reconsideration, the reconsideration official will review all previously submitted documents, oral and written arguments, and other evidence presented in the reconsideration, in making the decision.
- E. The Department shall inform the bidder/offeror of the decision within thirty (30) days of the proceeding. The decision will state the Department’s findings, and explain the basis of those findings, with respect to whether or not the bidder/offeror met the contract goal, or whether or not the bidder/offeror made adequate GFE to achieve the contract goal.
- F. The reconsideration decision is not administratively appealable to USDOT but is appealable under HRS 103D-709.

X. AWARD OF CONTRACT

- A. In a sealed bid procurement, the Department reserves the right to reject any or all bids. The award of contract, if it is awarded, will be to the lowest responsive and responsible bidder who meets or exceeds the DBE project goal, or who makes

good faith efforts to meet or exceed the DBE project goal, as determined by the Department.

- B. If the lowest responsible bidder does not meet the DBE project goal and does not demonstrate to the satisfaction of the Department that it made good faith efforts to meet the DBE project goal, such bid shall be rejected as non-responsive. The Department will then consider the next lowest responsive and responsible bidder for award in accordance with paragraph A above.

XI. REPLACEMENT OF AN DBE ON A PROJECT WITH A CONTRACT GOAL

Under this contract, the prime contractor shall utilize the specific DBE listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Department to replace an DBE. If the Department's consent is not provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE. The Department reserves the right to request copies of all DBE subcontracts.

The Department will require a contractor to make good faith efforts to replace an DBE that is terminated or has otherwise failed to complete its work on a contract with another certified DBE, to the extent needed to meet the contract goal. A prime contractor's inability to find a replacement DBE at the original price is not sufficient to demonstrate that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

The Department will require the prime contractor to promptly provide written notice to the project manager of the DBE's inability or unwillingness to perform and provide reasonable documentation.

The written notice by the contractor must include the following:

1. The date the contractor determined the certified DBE to be unwilling, unable or ineligible to perform work on the contract;
2. The projected date that the contractor shall require a substitution or replacement DBE to commence work if consent is granted by the Department;
3. Documentation of facts that describe and cite specific actions or inactions on the part of the affected DBE that led to the contractor's conclusion that the DBE is unwilling, unable, or ineligible to perform work on the contract;
4. A brief statement of the affected DBE's capacity and ability or inability to perform the work as determined by the contractor;
5. Documentation of contractor's good faith efforts to enable affected DBE to perform the work;
6. The current percentage of work completed on each bid item by the affected DBE;

7. The total dollar amount currently paid per bid item for work performed by the affected DBE;
8. The total dollar amount per bid item remaining to be paid to the DBE for work completed but for which the DBE has not received payment, and with which the contractor has no dispute; and
9. The total dollar amount per bid item remaining to be paid to the DBE for work completed, for which the DBE has not received payment, and with which the contractor and DBE have a dispute.

The prime contractor shall send a copy of the written notice to replace a certified DBE on a contract to the affected DBE. The affected DBE may submit a written response within five (5) calendar days to the Department to explain its position on its performance on the committed work. The Department shall consider both the prime contractor's request and DBE's stated position before approving the termination or substitution request, or determining if any action shall be taken against the contractor.

There shall be no substitution or termination of an DBE subcontractor at any time without the prior written consent of the Department. The Department will provide written consent only if the contractor has good cause, as determined by the Department, to terminate the DBE. Good cause may include, but is not limited to the following circumstances:

1. The DBE subcontractor fails or refuses to execute a written contract;
2. The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards;
3. The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements;
4. The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
5. The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to 2 CFR Parts 180, 215 and 1200 or applicable state law;
6. The Department has determined that the listed DBE subcontractor is not a responsible contractor;
7. The listed DBE subcontractor voluntarily withdraws from the project and provides to the Department written notice of its withdrawal;
8. The listed DBE is ineligible to receive DBE credit for the type of work required; and
9. An DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract.

Upon approval from the Department to replace an DBE, the contractor's good faith efforts shall be documented and submitted to the Department within seven (7) calendar days. This time period may be extended for another seven (7) calendar days upon request by the prime contractor.

If an DBE subcontractor is unable to perform work under the contract, and is to be

replaced, the contractor's failure to obtain a substitute certified DBE or to make good faith efforts to obtain such a substitute DBE subcontractor to perform said work, may constitute a breach of this contract for which the Department may terminate the contract or pursue such remedy as deemed appropriate by the Department.

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 Certification and Contract Compliance Management System (hereafter referred to as "online tracking system"). The prime contractor shall report the date payment was made by the Department 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. The Department 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. The Department will not withhold any amount from any payment to the contractor, including retainage.
- B. The contractor shall pay all subcontractors within ten (10) calendar days after receipt of any progress payments from the Department. This clause applies to both DBE and non-DBE subcontractors, and all tiers of subcontracts.
- C. The contractor will verify that payment or retainage has been released to the subcontractors or its suppliers within the specified time through entries in the Department'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 the Department's satisfaction, will be reported by the Contractor or the subcontractor.

- D. 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 ten (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 the Department. The contractor must obtain the prior written approval from the Department before it can continue to withhold retainage from any subcontractor who has completed its portion of the work. This clause applies to both DBE and non-DBE subcontractors, and all tiers of subcontracts.

XIV. RECORDS

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

1. The names, race/ethnicity, gender, address, phone number, and contact person of all DBE and non-DBE consultants, subcontractors, manufacturers, suppliers, truckers and vendors identified as DBEs;
2. The nature of work of each DBE and non-DBE consultant, subcontractor, manufacturer, supplier, trucker and vendor;
3. The dollar amount contracted with each DBE and non-DBE consultant, subcontractor, manufacturer, supplier, trucker and vendor; and
4. Cumulative dollar amount of all change orders to the subcontract.

XV. FAILURE TO COMPLY WITH DBE 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 and suppliers are hereby advised that failure to carry out all DBE 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 the Department 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.

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

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

ATTACHMENTS

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

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements 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 shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The 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, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

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. 23 CFR 633.102(d).

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 (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 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; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 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; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. 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. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 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 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 are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. 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. All laborers and mechanics employed or working upon the site of the work, 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 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.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. 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 shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). 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 classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall 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.(1) The contracting officer shall 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 shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore 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 utilized 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) 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 shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. 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.

(3) 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 shall 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.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall 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.

c. 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 shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. 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, 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.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics,

including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, 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.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, 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 section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) 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 section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall 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. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed 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;

(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 of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) 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. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, 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 may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed 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 Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State

Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall 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 the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall 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, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. 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 IV. 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 journeymen 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 shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 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 (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) 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 section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. 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 watchmen 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. 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 watchmen 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. 29 CFR 5.5.

* \$27 as of January 23, 2019 (See 84 FR 213-01, 218) 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.

The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or 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, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. 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 Section VI 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 Section VI 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).

VII. 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).

VIII. 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."

IX. 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 200.326.

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 200.326.

X. 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 contractor). "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).

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.

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

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

(a) 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;

(b) 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

(c) 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)

2. 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.

XI. 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.

XII. 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 (23 CFR 633, Subpart B, Appendix B)**

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 23 CFR 633.207(e) 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".

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

3
 4 **“DIVISION 100 - GENERAL PROVISIONS**

5
 6
 7 **SECTION 101 - TERMS, ABBREVIATIONS, AND DEFINITIONS**

8
 9 **101.01 Meaning of Terms.** The specifications are generally written in the
 10 imperative mood. In sentences using the imperative mood, the subject, “the
 11 Contractor shall”, is implied. In the material specifications, the subject may also
 12 be the supplier, fabricator, or manufacturer supplying material, products, or
 13 equipment for use on the project. The word “will” generally pertains to decisions
 14 or actions of the State. “Must” and “Shall” when used in a directive to or describing
 15 the use of an action needed to be done by the Contractor are considered a
 16 mandatory contractual duty of the Contractor.

17
 18 When a publication is specified, it refers to the most recent date of issue,
 19 including interim publications, before the bid opening date for the project, unless a
 20 specific date or year of issue is provided.

21
 22 **101.02 Abbreviations.** Meanings of abbreviations used in the specifications,
 23 on the plans, or in other contract documents are as follows:

24		
25	AAN	American Association of Nurserymen
26		
27	AASHTO	American Association of State Highway and Transportation Officials
28		
29		
30	ACI	American Concrete Institute
31		
32	ADA	Americans with Disabilities Act
33		
34	ADAAG	Americans with Disabilities Act Accessibility Guidelines
35		
36	AGC	Associated General Contractors of America
37		
38	AIA	American Institute of Architects
39		
40	AISC	American Institute of Steel Construction
41		
42	AISI	American Iron and Steel Institute
43		
44	ANSI	American National Standards Institute
45		

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

91	HDOT	Department of Transportation, State of Hawaii
92		
93	HIOSH	Occupational Safety and Health, Department of Labor and
94		Industrial Relations, State of Hawaii
95		
96	HMA	Hot Mix Asphalt
97		
98	HRS	Hawaii Revised Statutes
99		
100	ICEA	Insulated Cable Engineers Association (formerly IPCEA)
101		
102	IMSA	International Municipal Signal Association
103		
104	IRS	Internal Revenue Service
105		
106	ITE	Institute of Transportation Engineers
107		
108	MASH	AASHTO's Manual for Assessing Safety Hardware
109		
110	MTRB	State of Hawaii, Department of Transportation Material and
111		Testing Branch
112		
113	MUTCD	Manual on Uniform Traffic Control Devices for Streets and
114		Highways, FHWA, U.S. Department of Transportation
115		
116	NCHRP	National Cooperative Highway Research Program
117		
118	NEC	National Electric Code
119		
120	NEMA	National Electrical Manufacturers Association
121		
122	NFPA	National Forest Products Association
123		
124	NPDES	National Pollutant Discharge Elimination System
125		
126	OSHA	Occupational Safety and Health Administration/Act,
127		U.S. Department of Labor
128		
129	SAE	Society of Automotive Engineers
130		
131	SI	International Systems of Units
132		
133	UFAS	Uniform Federal Accessibility Standards
134		
135	UL	Underwriter's Laboratory
136		

137 USGS U.S. Geological Survey
138
139 VECP Value Engineering Cost Proposal
140

141 **101.03 Definitions.** Whenever the following words, terms, or pronouns are
142 used in the contract documents, unless otherwise prescribed therein and without
143 regards to the use or omission of uppercase letters, the intent and meaning shall
144 be interpreted as follows:

145
146 **Addendum (plural - Addenda)** - A written or graphic document, including
147 drawings and specifications, issued by the Director during the bidding period. This
148 document modifies or interprets the bidding documents by additions, deletions,
149 clarifications or corrections.

150
151 **Addition** (to the contract sum) - Amount added to the contract sum by change
152 order.

153
154 **Advertisement** - A public announcement inviting bids for work to be performed or
155 materials to be furnished.

156
157 **Amendment** - A written document issued to amend the existing contract between
158 the State and Contractor and properly executed by the Contractor and Director.

159
160 **Award** - Written notification to the bidder that the bidder has been awarded a
161 contract.

162
163 **Bad Weather Day (or Unworkable Day)** - A day when weather or other conditions
164 prevent a minimum of four hours of work with the Contractor's normal work force
165 on critical path activities at the site.

166
167 **Bag** - 94 pounds of cement.

168
169 **Barrel** - 376 pounds of cement.

170
171 **Base Course** - The layer or layers of specified material or selected material of a
172 designed thickness placed on a subbase or subgrade to support a surface course.

173
174 **Basement Material** - The material in excavation or embankments underlying the
175 lowest layer of subbase, base, pavement, surfacing or other specified layer.

176
177 **Bid** - See Proposal.

178
179 **Bidder** - An individual, partnership, corporation, joint venture or other legal entity
180 submitting, directly or through a duly authorized representative or agent, a
181 proposal for the work or construction contemplated.

182

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

186

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

191

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

195

196 **Calendar Day** - See Day.

197

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

207

208 **Completion** - See Substantial Completion and Final Completion.

209

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

212

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

215

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

221

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

224

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

227

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

235

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

238

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

241

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

244

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

251

252 **Contracting Officer** - See Engineer.

253

254 **Contractor** - Any individual, partnership, firm, corporation, joint venture, or other
255 legal entity undertaking the execution of the work under the terms of the contract
256 with the State.

257

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

260

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

264

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

267

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

270

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

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

276
277 **Equipment** - All machinery, tools, and apparatus needed to complete the contract.
278

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

285
286 **Final Acceptance** - The Status of the project when the Engineer finds that the
287 Contractor has satisfactorily completed all contract work in compliance with the
288 contract including all plant establishment requirements, and all the materials have
289 been accepted by the State.

290
291 **Final Completion** - The date set by the Director that all work required by the
292 contract has been completed in full compliance with the contract documents.

293
294 **Final Inspection** - Inspection where all contract items (with the exception of
295 Planting Period and Plant Establishment Period) are accepted by the Engineer.
296 Substantial Completion will be issued by the Engineer based on the satisfactory
297 results of the Final Inspection.

298
299 **Float** - The amount of time between when an activity can start and when an activity
300 must start, i.e., the time available to complete non-critical activities required for the
301 performance of the work without affecting the critical path.

302
303 **Guarantee** - Legally enforceable assurance of the duration of satisfactory
304 performance of quality of a product or work.

305
306 **Hawaii Administrative Rules** - Rules adopted by the State in accordance with
307 Chapter 91 of the Hawaii Revised Statutes, as amended.

308
309 **Highway (Street, Road, or Roadway)** - A public way within a right-of-way
310 designed, intended, and set aside for use by vehicles, bicyclists, or pedestrians.

311
312 **Highways Division** - The Highways Division of the Hawaii Department of
313 Transportation constituted under the laws of Hawaii for the administration of
314 highway work.

315
316 **Holidays** - The days of each year which are set apart and established as State
317 holidays pursuant to Chapter 8 of the Hawaii Revised Statutes, as amended.

318
319 **Inspector** - The Engineer's authorized representative assigned to make detailed
320 inspections of contract performance, prescribed work, and materials supplied.

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

323

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

326

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

329

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

334

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

337

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

340

341 **Notice to Bidders** - The advertisement for proposals for all work or materials on
342 which bids are required. Such advertisement will indicate the location of the work
343 to be done or the character of the material to be furnished and the time and place
344 for the opening of proposals.

345

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

350

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

353

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

357

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

361

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

370

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

376

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

379

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

382

383 **Proposal (Bid)** - The executed document submitted by a Bidder in response to a
384 solicitation request, to perform the work required by the proposed contract
385 documents, for the price quoted and within the time allotted.

386

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

388

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

391

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

394

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

398

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

401

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

404

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

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

410
411 **Shop Drawings** - All drawings, diagrams, illustrations, schedules and other data
412 or information which are specifically prepared or assembled by or for the
413 Contractor and submitted by the Contractor to illustrate some portion of the work.

414
415 **Shoulder** - The portion of the roadway next to the traveled way for:
416 accommodation of stopped vehicles, placement of underground facilities,
417 emergency use, and lateral support of base and surface courses.

418
419 **Sidewalk** - That portion of the roadway primarily constructed for use by
420 pedestrians.

421
422 **Solicitation** - An invitation to bid or request for proposals or any other document
423 issued by the Department to solicit bids or offers to perform a contract. The
424 solicitation may indicate the time and place to receive the bids or offers and the
425 location, nature and character of the work, construction or materials to be provided.

426
427 **Specifications** - Compilation of provisions and requirements to perform
428 prescribed work.

429
430 **(A) Standard Specifications.** Specifications by the State intended for
431 general application and repetitive use, i.e., State of Hawaii Standard
432 Specifications for Road and Bridge Construction”

433
434
435 **(B) Special Provisions.** Revisions and additions to the standard
436 specifications applicable to an individual project.

437
438 **Standard Plans** - Drawings provided by the State for specific items of work
439 approved for repetitive use.

440
441 **State** - The State of Hawaii, its Departments and agencies, acting through its
442 authorized representative(s).

443
444 **State Waters** – All waters, fresh, brackish, or salt, around and within the State,
445 including, but not limited to, coastal waters, streams, rivers, drainage ditches,
446 ponds, reservoirs, canals, ground waters, and lakes; provided that drainage
447 ditches, ponds, and reservoirs required as a part of a water pollution control system
448 are excluded.

449
450 **Start Work Date** - Date on which Contractor begins physical work on the contract.
451 This date shall also be the beginning of Contract Time.

452

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

456
457 **Subbase** - A layer of specified material of specified thickness between the
458 subgrade and a base.

459
460 **Subcontract** - Any written agreement between the Contractor and its
461 subcontractors which contains the conditions under which the subcontractor is to
462 perform a portion of the work for the Contractor.

463
464 **Subcontractor** - An individual, partnership, firm, corporation, joint venture or other
465 legal entity, as licensed or required to be licensed under Chapter 444, Hawaii
466 Revised Statutes, as amended, which enters into an agreement with the
467 Contractor to perform a portion of the work.

468
469 **Subgrade** - The top surface of completed earthwork on which subbase, base,
470 surfacing, pavement, or a course of other material is to be placed.

471
472 **Informational Submittal** – A submittal, e.g., additional-advance-direct submittal
473 by e-mail by the contractor to the Material Testing and Research Branch, of such
474 things as but not limited to: a final copy of fully executed contract change order
475 with attachments, contractor QC test results or schedules, or other documents that
476 are designated as an Informational Submittal. It is a process to inform the receiver
477 of a task that has been performed or will soon be performed. Submitted for
478 workload scheduling purposes; it does not require a response or action from the
479 designated receiver, and in general, is not used for payment purposes unless the
480 Engineer or MTRB designated it as such. Nor does it count as one of the other
481 required submittals in number.

482
483 **Substantial Completion** - The Status of the project when the Contractor has
484 completed the work, except for the planting period and plant establishment period,
485 and each of the following requirements are met:

486
487 (1) All traffic lanes (including shoulders, ramps, sidewalks and bike
488 paths) are in their final configuration as designed and the final
489 wearing surface has been installed;

490
491 (2) All operational and safety devices have been installed in accordance
492 with the contract documents including guardrails, end treatments,
493 traffic barriers, required signs and pavement markings, drainage,
494 parapet, and bridge and pavement structures;

495
496 (3) All required illumination and lighting for normal and safe use and
497 operation is installed and functional in accordance with the contract
498 documents;

499

- 500 (4) All utilities and services are connected and working;
 501
 502 (5) The need for temporary traffic controls or lane closures at any time
 503 has ceased, except for lane closures required for routine
 504 maintenance;
 505
 506 (6) The building, structure, improvement or facility can be used for its
 507 intended purpose.
 508

509 **Substantial Completion Date** - The date the Substantial Completion is granted
 510 by the Engineer in Writing and Contract Time stops.
 511

512 **Superintendent** - The employee of the Contractor who is responsible for all the
 513 work and is a Contractor's agent for communications to and from the State.
 514

515 **Surety** - The qualified individual, firm or corporation other than the Contractor,
 516 which executes a bond with and for the Contractor to insure its acceptable
 517 performance of the contract.
 518

519 **Surfacing** - The uppermost layer of material placed on the traveled way or
 520 shoulders. This term is used interchangeably with pavement.
 521

522 **Traveled Way** - The portion of the roadway for the movement of vehicles,
 523 exclusive of shoulders.
 524

525 **Unsuitable Material** - Materials that contain organic matter, muck, humus, peat,
 526 sticks, debris, chemicals, toxic matter, or other deleterious materials not suitable
 527 for use in earthwork.
 528

529 **Utility** - A line, facility, or system for producing, transmitting, or distributing
 530 communications, power, electricity, heat, gas, oil, water, steam, waste, or storm
 531 water.
 532

533 **Utility Owner** - The entity, whether private or owned by a State, Federal, or County
 534 governmental body, that has the power and responsibility to grant approval for, or
 535 undertake construction work involving a particular utility.
 536

537 **Water Pollutant** - Dredged spoil, solid refuse, incinerator residue, sewage,
 538 garbage, sewage sludge, munitions, chemical waste, biological materials,
 539 radioactive materials, heat, wrecked or discarded equipment, rock, sand, soil,
 540 sediment, cellar dirt and industrial, municipal, and agricultural waste.
 541
 542
 543
 544

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

556

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

560

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

563

564 **(1)** Saturdays, Sundays, and recognized legal State holidays and such
565 other days specified by the contract documents as non-working days,

566

567 **(2)** Day in which the Engineer suspends work for four or more hours
568 through no fault of the Contractor.”

569

570

571

572

573

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

31
32 **102.02 Contents of Proposal Forms.** The Department will furnish
33 prospective 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

47 Papers bound with or attached to the proposal form are part of the
48 proposal. The bidder shall not detach or alter the papers bound with or attached
49 to the proposal when the bidder submits its proposal through HlePRO.
50

51 Also, the bidder shall consider other documents including the plans and
52 specifications a part of the proposal form whether attached or not.
53

54 **102.03 (Unassigned).**
55

56 **102.04 Estimated Quantities.** The quantities shown in the contract are
57 approximate and are for the comparison of bids only. The actual quantity of
58 work may not correspond with the quantities shown in the contract. The
59 Department will make payment to the Contractor for unit price items in
60 accordance with the contract for only the following:
61

62 (1) Actual quantities of work done and accepted, not the estimated
63 quantities; or
64

65 (2) Actual quantities of materials furnished, not the estimated
66 quantities.
67

68 The Department may increase, decrease, or omit each scheduled
69 quantities of work to be done and materials to be furnished. When the
70 Department increases or decreases the estimated quantity of a contract item by
71 more than 15% the Department will make payment for such items in accordance
72 with Subsection 104.06 - Methods of Price Adjustment.
73

74 **102.05 Examination of Contract and Site of Work.** The bidder shall
75 examine carefully the site of the proposed work and contract before submitting a
76 proposal.
77

78 By the act of submitting a bid for the proposed contract, the bidder
79 warrants that:
80

81 (1) The bidder and its Subcontractors have reviewed the contract
82 documents and found them free from ambiguities and sufficient for the
83 purpose intended;
84

85 (2) The bidder and its workers, employees and subcontractors have
86 the skills and experience in the type of work required by the contract
87 documents bid upon;
88

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

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

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

- 98
99 (1) The nature and location of the work;
100
101 (2) The character, quality, and quantity of materials;
102
103 (3) The difficulties to be encountered; and
104
105 (4) The kind and amount of equipment and other facilities needed;
106

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

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

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

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

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

137

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

141
142 The bidder shall sign the proposal properly in ink. A duly authorized
143 representatives of the bidder or by an agent of the bidder legally qualified and
144 acceptable to the Department shall sign, including one or more partners of the
145 bidder and one or more representatives of each entity comprising a joint venture.

146
147 When an agent, other than the officer(s) of a corporation authorized to
148 sign contracts for the corporation or a partner of a partnership, signs the
149 proposals, a 'Power of Attorney' shall be on file with the Department or submitted
150 with the proposal. Otherwise, the Department will reject the proposal as irregular
151 and unauthorized.

152
153 The bidder shall submit acceptable evidence of the authority of the
154 partner, member(s) or officer(s) to sign for the partnership, joint venture, or
155 corporation respectively with the proposal. Otherwise, the Department will reject
156 the proposal as irregular and unauthorized.

157
158 **102.07 Irregular Proposals.** The Department may consider proposals
159 irregular and may reject the proposals for the following reasons:

160
161 (1) The proposal is a form not furnished by the Department, altered, or
162 detached;

163
164 (2) The proposal contains unauthorized additions, conditions, or
165 alternates. Also, the proposal contains irregularities that may tend to
166 make the proposal incomplete, indefinite, or ambiguous to its meaning;

167
168 (3) The bidder adds provisions reserving the right to accept or reject an
169 award. Also, the bidder adds provisions into a contract before an award;

170
171 (4) The proposal does not contain a unit price for each pay item listed
172 except authorized optional pay items; and

173
174 (5) Prices for some items are out of proportion to the prices for other
175 items.

176
177 (6) If in the opinion of the Director, the bidder and its listed
178 subcontractors do not have the Contractor's licenses or combination of
179 Contractor's licenses necessary to complete the work.

180

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

186
187 **102.08 Proposal Guaranty.** The Department will not consider a proposal of
188 \$25,000 or more unless accompanied by:

189
190 (1) A deposit of legal tender; or

191
192 (2) A valid surety bid bond, underwritten by a company licensed to
193 issue bonds in the State of Hawaii, in the form and composed,
194 substantially, with the same language as provided herewith and signed by
195 both parties; or

196
197 (3) A certificate of deposit, share certificate, cashier's check,
198 treasurer's check, teller's check, or official check drawn by, or a certified
199 check accepted by and payable on demand to the State by a bank,
200 savings institution, or credit union insured by the Federal Deposit
201 Insurance Corporation (FDIC) or the National Credit Union Administration
202 (NCUA).

203
204 (a) The bidder may use these instruments only to a maximum of
205 \$100,000.

206
207 (b) If the required security or bond amount totals over \$100,000
208 more than one instrument not exceeding \$100,000 each and
209 issued by different financial institutions shall be acceptable.

210
211 (c) The instrument shall be made payable at sight to the
212 Department.

213
214 (d) Proposal Guaranty listed in (1) and (3) shall be in its original
215 form, and shall be received at the Contracts Office, Department of
216 Transportation, 869 Punchbowl Street, Honolulu, Hawaii 96813
217 before the bid deadline.

218
219 In accordance with HRS Chapter 103D-323, the above shall be in a sum
220 not less than 5% of the amount bid.

221
222 **102.09 Delivery of Proposal.** The bidder shall submit the proposal in
223 HlePRO. Bids received after said due date and time shall not be considered.
224 Original bid documents do not have to be submitted. Award will be made based
225 on proposals submitted in HlePRO.
226

227 **102.10 Withdrawal or Revision of Proposals.** A bidder may withdraw or
228 revise a proposal after the bidder submits the proposal in HlePRO. Withdrawal
229 or revision of proposal must be completed before the time set for the receiving of
230 bids.

231

232 **102.11 Public Opening of Proposals.** Not applicable.

233

234 **102.12 Disqualification of Bidders.** The Department may disqualify a bidder
235 and reject its proposal for the following reasons:

236

237 (1) Submittal of more than one proposal whether under the same or
238 different name.

239

240 (2) Evidence of collusion among bidders. The Department will not
241 recognize participants in collusion as bidders for any future work of the
242 Department until such participants are reinstated as qualified bidders.

243

244 (3) Lack of proposal guaranty.

245

246 (4) Submittal of an unsigned or improperly signed proposal.

247

248 (5) Submittal of a proposal without a listing of subcontractors or
249 containing only a partial or incomplete listing of subcontractors.

250

251 (6) Submittal of an irregular proposal in accordance with Subsection
252 102.07 - Irregular Proposals.

253

254 (7) Evidence of assistance from a person who has been an employee
255 of the agency within the preceding two years and who participated while in
256 State office or employment in the matter with which the contract is directly
257 concerned, pursuant to HRS Chapter 84-15.

258

259 (8) Suspended or debarred in accordance with HRS Chapter 104-25.

260

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

262

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

264

265 **102.13 Material Guaranty.** The successful bidder may be required to furnish
266 a statement of the composition, origin, manufacture of materials, and samples.

267

268 **102.14 Substitution of Materials and Equipment Before Bid Opening.** See
269 Subsection 106.13 for Substitution Of Materials and Equipment After Bid
270 Opening.

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(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. Qualification of such proposed alternate brands shall be submitted via email to the Contact person listed in HlePRO for the solicitation and also post a question in HlePRO under the question/answer tab referencing the email with the request. The request must be posted in HlePRO no later than 14 calendar days before the bid opening date, not including the bid opening date.

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 Bid Adjustment.

(A) Preferences for Apprenticeship Programs. In accordance with ACT 17, SLH 2009 – Apprenticeship Program and the Bipartisan Infrastructure Law Section 25019(a), a 5% bid adjustment for bidders that are parties to apprenticeship agreements pursuant to Hawaii Revised Statutes (HRS) Section 103-55.6 may be applied to the bidder's price for evaluation purposes. These procedures apply to public works projects with an estimated cost of \$250,000 or more and entered into under the provisions of HRS Chapter 103.

The following provisions apply to this Apprenticeship Program.

(1) Definitions.

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(a) “Apprenticeable trade”, HRS Section 103-55.6 (c), shall have the same meaning as ‘apprenticeable occupation’ pursuant to Hawaii Administrative Rules (HAR) Section 30-1-5.

(b) “Department” means the department of labor and industrial relations.

(c) “Director” means the director of labor and industrial relations.

(d) “Employ” means the employment of a person in an employer-employee relations.

(e) “Governmental body” means as defined in HRS Section 103D-104.

(f) “Party to an apprenticeship agreement” means party to a registered apprenticeship program with the department of labor and industrial relations.

(g) “Preference” means the 5% by which the qualified bidder's offer amount would be decreased for evaluation purposes.

(h) “Public work” shall be as defined in HRS Section 104-2 and HAR Section 12-22-1.

(i) “Registered apprenticeship program” means a construction trade program approved by the department pursuant to HAR Section 12-30-1 and Section 12-30-4.

(j) “Sponsor” means an operator of an apprenticeship program and in whose name the program is approved and registered with the department of labor and industrial relations pursuant to HAR Section 12-30-1.

(k) Offeror – Entity/bidder submitting a proposal to undertake a project.

(l) Procurement Officer – Director of Transportation or his authorized representative.

(2) Qualification Procedures.

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(a) Any bidder seeking the preference must be a party to an apprenticeship agreement registered with the department at the time the offer is made for each apprenticeable trade the bidder will employ to construct the public works projects for which the offer is being made.

1. The apprenticeship agreement shall be registered and conform to the requirements of HRS Chapter 372.

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

3. The bidder is not required to have apprentices in its employ at the time of submittal of an offer to qualify for the preference.

(b) The department shall:

1. Develop and maintain a list of construction trades in registered apprenticeship programs which conform to HRS Chapter 372; and

2. Electronically post the list; including any amendments, on the department website (<http://labor.hawaii.gov>).

(c) Bidder is responsible to comply with all submission requirements for registration of its apprenticeship program before requesting a preference.

(d) Bidder shall provide a certification by the sponsor of the respective registered apprenticeship programs covering the relevant trade(s) for the public works project.

(e) *Certification Form 1* issued by the department shall include:

1. Contractor information;

2. Solicitation reference;

3. Trade(s);

4. Date and name of apprenticeship program;

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5. Signature of authorized training coordinator or training trust fund administrator certifying that the contractor is a participant in the program, and that the program is registered with the department;

6. Contract information for sponsor's authorized representative signing the form;

7. Number of apprentices enrolled in the program, number who successfully completed the apprenticeship program in the past 12 months, including whether the contractor is signatory to a collective bargaining agreement for that trade, or if not, provide for attachment of a copy of the agreement between the contractor and the program.

(3) Solicitation Procedures.

(a) If the NTB indicates that this project is covered by this preference, and the offer is less than \$250,000 this preference will still be applicable in determining the lowest bidder.

(b) A claim for this preference must include the following:

1. Allow bidder seeking to claim the preference to state the trades the bidder will employ to perform the work;

2. For each trade to be employed to perform the work, the bidder shall submit a completed signed original *Certification Form 1* verifying participation in an apprenticeship program registered with the department.

3. The *Certification Form 1* shall be authorized by an apprenticeship sponsor of the department's list of registered apprenticeship programs. The authorization shall be an original signature by an authorized official of the apprenticeship sponsor; and

4. The completed *Certification Form 1* for each trade must be submitted by the bidder with the offer. Previous certifications shall not apply unless allowed by the solicitation.

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(c) Upon receiving *Certification Form 1*, the procurement officer will verify with the department that the apprenticeship program is on the list of apprenticeship programs registered with the department. If the programs are not confirmed by the department, the bidder will not qualify for the preference.

(4) Evaluation and Contract Award.

(a) If the bidder certifies participation in an apprenticeship program for each trade which will be employed by the bidder for the project, the procurement officer shall apply the preference and decrease the bidder's total bid amount by five per cent (5%) for evaluation purposes.

(b) Should the bidder qualify for other statutory preferences (for example, Hawaii products), all applicable preferences shall be applied to the bidder's price.

(c) The contract amount shall be the original offer amount, exclusive of any preference; the preference is only for evaluation purposes.

(d) Any claims challenging a bidder's representation that the bidder is a participant in an apprenticeship program(s) as claimed, shall be submitted to the procurement officer. The procurement officer will refer the challenge to the department of labor and industrial relations who shall investigate any such claims and shall make a determination.

(5) Contract Administration.

(a) For the duration of a contract awarded utilizing the apprenticeship preference, the contractor shall certify each month that work is being conducted on the project, that it continues to be a participant in the relevant apprenticeship program for each trade it employs.

(b) Monthly certification shall be made on *Monthly Certification Form 2* prepared and made available by the department, be a signed original by the respective apprenticeship program sponsors' authorized official, and submitted by the contractor with its monthly payment requests.

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(c) Should the contractor fail or refuse to submit its monthly certification forms, or at any time during the construction of the project, cease to be a part to a registered apprenticeship agreement for each apprenticeable trades the contractor employs, or will employ, the contractor will be subject to the following sanctions:

1. Withholding of the requested payment until the required form(s) are submitted;
2. Temporary or permanent cessation of work on the project , without recourse to breach of contract claims by the contractor; provided the agency shall be entitled to restitution for nonperformance or liquidated damages claims; or
3. Proceed to debar or suspend pursuant to HRS Section 103D-702.

(d) If events such as “acts of God,” acts of a public enemy, acts of the State or any other governmental body in its sovereign or contractual capacity, fires, floods, epidemics, freight embargoes, unusually severe weather, or strikes or other labor disputes prevent the contractor from submitting the certification forms, the contractor shall not be penalized as provided herein, provided the contractor completely and expeditiously complies with the certification process when the event is over.

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

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

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 bid meets all the requirements and criteria set forth
24 in the invitation for bids. (Through HlePRO). The successful bidder will be notified
25 by letter mailed to the address shown in its proposal, that its proposal has been
26 accepted, and that it has been awarded the contract.
27

28 **(1) Requirement for Award.** To be eligible for award, the
29 apparent low bidder will be contacted to submit copies of the
30 documents listed below to demonstrate compliance with HRS
31 Section 103D-310(c). The documents shall be submitted to the
32 Department within 14 days after bid opening unless otherwise
33 specified in the invitation for bids or an extension is granted in writing
34 by the Department. If a valid certificate/clearance is not submitted
35 on a timely basis for award of a contract, a bidder otherwise
36 responsive and responsible may not receive the award. See also
37 Subsection 108.03 – Preconstruction Data Submittal.
38

39 The Department may request the bidders to allow the
40 Department to consider the bids for the issuance of an award beyond
41 the 60 calendar day period. Agreement to such an extension must
42 be made by a bidder in writing. Only bidders who have agreed to
43 such an extension will be eligible for the award.
44

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

53
54 FORM A6, TAX CLEARANCE CERTIFICATE, is available at the
55 following website:

56
57 <https://tax.hawaii.gov/>

58
59 To receive DOTAX Forms by fax or mail, phone
60 (808) 587-7572 or 1-800-222-7572.

61
62 The application for the Tax Clearance Certificate is the responsibility
63 of the bidder and must be submitted directly to the DOTAX or IRS. The
64 approved certificate may then be submitted to the Department.

65
66 **(B) DLIR Certificate of Compliance.** Pursuant to HRS Section 103D-
67 310(c), the successful bidder shall be required to submit a copy (faxed
68 copies are acceptable) of its approved certificate of compliance issued by
69 the Hawaii State Department of Labor and Industrial Relations (DLIR) to
70 demonstrate its compliance with unemployment insurance (HRS Chapter
71 383), workers' compensation (HRS Chapter 386), temporary disability
72 insurance (HRS Chapter 392), and prepaid health care (HRS Chapter 393).
73 The certificate is valid for six (6) months from the most recent approval
74 stamp date on the certificate and must be valid on the bid's first legal
75 advertisement date or any date thereafter up to the bid opening date. For
76 certificates which receive a "pending" approval stamp, a DLIR approval
77 stamp is required prior to the issuance of the Notice to Proceed.

78
79 FORM LIR#27, APPLICATION FOR CERTIFICATE OF
80 COMPLIANCE WITH SECTION 3-122-112, HAR, is available at the
81 following website:

82
83 <http://labor.hawaii.gov/>

84
85 More information is available by calling the DLIR Unemployment Insurance
86 Division at (808) 586-8926.

87
88 Inquiries regarding the status of a LIR#27 Form may be made by
89 calling the DLIR Disability Compensation Division at (808) 586-9200.

91 The application for the Certificate of Compliance is the responsibility
92 of the bidder and must be submitted directly to the DLIR. The approved
93 certificate may then be submitted to the Department.
94

95 **(C) DCCA Certificate of Good Standing.** Pursuant to HRS Section
96 103D-310(c), the successful bidder shall be required to submit a copy
97 (faxed copies are acceptable) of its approved Certificate of Good Standing
98 issued by the Hawaii State Department of Commerce and Consumer Affairs
99 (DCCA), Business Registration Division (BREG) to demonstrate that it is
100 either:

101
102 **(1)** Incorporated or organized under the laws of the State; or

103
104 **(2)** Registered to do business in the State as a separate branch
105 or division that is capable of fully performing under the contract.
106

107 The Certificate of Good Standing is valid for six (6) months
108 from the approval date on the certificate and must be valid on the
109 bid's first legal advertisement date or any date thereafter up to the
110 bid opening date. A Hawaii business that is a sole proprietorship,
111 however, is not required to register with the BREG, and therefore not
112 required to submit a Certificate of Good Standing. Bidders are
113 advised that there are costs associated with registering and
114 obtaining a Certificate of Good Standing from the DCCA.
115

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

118
119 <http://cca.hawaii.gov/>
120

121 The application for the Certificate of Good Standing is the
122 responsibility of the bidder and must be submitted directly to the DCCA.
123 The approved certificate may then be submitted to the Department.
124

125 **(D) Hawaii Compliance Express (HCE).** In lieu of the certificates
126 referenced above, the bidder may make available proof of compliance
127 through the Hawaii Compliance Express or any other designated
128 certification process. Bidders may apply and register at the "Hawaii
129 Compliance Express" website:

130
131 <https://vendors.ehawaii.gov/hce/>
132

133 **103.03 Cancellation of Award.** The Department reserves the right to cancel
134 the award of contracts before the execution of said contract by the parties. There
135 will be no liability to the awardee and to other bidders.

136 **103.04 Return of Proposal Guaranty.** The Department will return the proposal
137 guaranties, except those of the three lowest bidders, after the Department checks
138 the proposals. The Department will return the proposal guaranties of the remaining
139 two lowest bidders, not awarded the contract, within five working days following
140 the execution of the contract. The Department will return the successful bidder's
141 proposal guaranty after the successful bidder furnishes a bond and executes the
142 contract.

143
144 **103.05 Requirement of Contract Bond.** At the time of execution of the
145 contract, the successful bidder shall file a good and sufficient performance bond
146 and a payment bond on the forms furnished by the Department conditioned for the
147 full and faithful performance of the contract in accordance with the terms and intent
148 thereof and for the prompt payment to all others for all labor and material furnished
149 by them to the bidder and used in the prosecution of the work provided for in the
150 contract. The bonds shall be of an amount equal to 100 percent of the amount of
151 the contract price and include 5 percent of the contract amount estimated to be
152 required for extra work. The bidder shall limit the acceptable performance and
153 payment bonds to the following:

- 154
155 (a) Legal tender;
156
157 (b) Surety bond underwritten by a company licensed to issue bonds in
158 the State of Hawaii; or
159
160 (c) A certificate of deposit; share certificate; cashier's check; treasurer's
161 check, teller's check drawn by or a certified check accepted by and payable
162 on demand to the State by a bank savings institution or credit union insured
163 by the Federal Deposit Insurance Corporation (FDIC) or the National Credit
164 Union Administration (NCUA).
165
166 1. The bidder may use these instruments only to a maximum of
167 \$100,000.
168
169 2. If the required security or bond amount totals over \$100,000
170 more than one instrument not exceeding \$100,000 each and issued
171 by different financial institutions shall be acceptable.

172
173 Such bonds shall also by the terms insure to the benefit of any and all
174 persons entitled to file claims for labor done or material furnished in the work so as
175 to give them a right of action as contemplated by HRS Section 103D-324.
176

177 **103.06 Execution of the Contract.** The contract bond and HRS Chapter 104
178 - Compliance Certificate, similar to a copy of the same annexed hereto, shall be
179 executed by the successful bidder and returned within ten days after the award
180 of the contract or within such further time as the Director may allow after the
181 bidder has received the contract for execution.

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

185

186 **103.07 Failure to Execute Contract.** Failure to execute the contract and file
187 acceptable bonds shall be cause for the cancellation of the award in accordance
188 with Subsection 103.06 - Execution of the Contract. Also, the Contractor forfeits
189 the proposal guaranty which becomes the property of the Department. This is not
190 a penalty, but liquidated damages sustained by the State. The Department may
191 then make award to the next lowest responsible and responsive bidder or the
192 Department may readvertise and construct the work under contract.”

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END OF SECTION 103

1 **SECTION 104 – SCOPE OF WORK**

2
3 Make the following amendment to said Section:

4
5 **(I) Amend Section 104.11(B) Contractor’s Duty to Locate and Protect**
6 **Utility** by adding the following after line 291:

7
8 “(4) The Contractor shall contact the Hawaii One Call Center at 811 prior
9 to any execution in a public right of way or on private property.”

10
11 **(II) Amend Section 104.06 Methods of Price Adjustment** as follows:

12
13 **“104.06 Methods of Price Adjustment.** Any adjustment in the contract price
14 pursuant to a change or claim shall be made in one or more of the following
15 ways:

16
17 **(1)** By written agreement on a fixed price adjustment before
18 commencement of the pertinent performance.

19
20 **(2)** By unit prices or other price adjustments specified in the contract or
21 subsequently agreed upon before commencement of the pertinent
22 performance.

23
24 **(3)** The Engineer may base the adjustment for a lump sum item on a
25 calculated proportionate unit price. The Engineer will calculate the
26 proportionate unit price by dividing the original contract lump sum price by
27 the actual or original estimated quantity established by the contract
28 documents.

29
30 **(4)** In any other lawful manner as the parties may mutually agree upon
31 before commencement of the pertinent performance.

32
33 **(5)** At the sole option of the Engineer, work may be paid for on a force
34 account basis in accordance with Subsection 109.06 - Force Account
35 Provisions and Compensation.

36
37 **(6)** By the cost variations attributable to the events or situations with
38 adjustment of profit and fee, all as specified in the contract or
39 subsequently agreed upon before commencement of the pertinent
40 performance.

41
42 **(7)** In the absence of agreement by the parties:

43
44 **(A)** For change orders with value not exceeding \$50,000 by
45 documented actual costs of the work, allowing for overhead and
46 profit as set forth in Section 109.05 - Allowances for Overhead and
47 Profit. A change order shall be issued within fifteen days of

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

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

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

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
13 arise 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
30 Engineer to a specific person or persons. Such delegation of authority
31 shall be established in writing and shall become effective upon delivery to
32 the Contractor.
33

34 **(B) Authority of the Inspectors.** Inspectors, as a representative of
35 the 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
41 the 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.**
48 The State may engage consultants and construction managements to
49 perform duties in connection with the work. Unless otherwise specified in
50 writing to the Contractor, such retained consultants and construction
51 managements 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
57 that 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
60 them to the Engineer. The submittal shall indicate the contract items and
61 specifications subsections for which the submittal is provided. The submittal
62 shall be legible and clearly indicate what portion of the submittal is being
63 submitted for review. The Contractor shall provide six copies of the required
64 submissions at the earliest 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
71 plans.” The Contractor shall have and maintain at least one set of plans
72 and 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
80 and access to and from such site, within the sole discretion of the
81 Engineer, does not create a public or traffic hazard or an impediment to
82 the movement 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

	Section No.	Description
89		
90		
91		
92	401	Contract Item No. 401.1000 under Section 401 – Hot Mix Asphalt Pavement
93		
94		
95	606	All Contract Items under Section 606 - Guardrail
96		
97	629	All Contract Items under Section 629 - Pavement Markings
98		
99	630	All Contract Items under Section 630 - Traffic Control Guide Signs
100		
101		
102	632	All Contract Items under Section 632 - Markers
103		
104	645	All Contract Items under Section 645 – Work Zone Traffic Control”
105		
106		

(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 **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.

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

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

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

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

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

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

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

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

- 111
- 112 **(a)** Products - Completed/Operations Aggregate,
- 113
- 114 **(b)** Personal & Advertising Injury, and
- 115
- 116 **(c)** Bodily Injury & Property Damage
- 117

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

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

135
136 **(II)** Amend **107.03 – Working Hours; Night Work** by adding the following
137 after line 142.

139 "The State has applied for a Community Noise Permit for this project
140 through the Department of Health according to 'Hawaii Administrative Rules Title
141 11, Chapter 11-46'.

142
143 The Community Noise Permit is granted from November 1, 2022 to
144 October 31, 2026 and allows work during the following hours:

145
146 Monday through Friday, 7:00 am to 6:00 pm; and
147 Saturday, 9:00 am to 6:00 pm; Except Holidays

148
149 subject to the following conditions:

- 150
151
- 152 (1) The community noise permit shall be posted at the location of the
153 activity at all times.
 - 154
155 (2) Use of concrete saw, jackhammer, hoeram, pavement scarifier,
156 impact drivers, impact wrenches, rivetbusters, and chipping guns
157 shall be limited to 9:00 am to 6:00 pm, Monday through ~~Friday~~
158 Saturday.
 - 159
160 (3) The Contractor shall notify the surrounding properties prior to the
161 start of hoeram activities.
 - 162
163 (4) Should the duration of the project continue beyond the expiration
164 date, the Contractor shall submit a request for extension to the
165 Engineer along with an updated work at least one (1) month prior to
166 October 31, 2026."
 - 167

168 The State has applied for a Noise Variance for this project through the
169 Department of Health according to 'Hawaii Administrative Rules Title 11, Chapter
170 11-46-8' for the night work. Should the Department of Health modify, suspend or
171 revoke the Noise Variance, the County will have the right to have part or all of the
172 contract work done during the day. The Engineer and the Contractor will
173 negotiate compensation for doing such work during the day.

174
175 The Noise Variance is granted until October 31, 2026 and allows work
176 during the following hours:

177
178 Monday through Friday Midnight to 7:00 a.m. and 6:00 p.m. to Midnight
179 Saturday Midnight to 9:00 a.m. and 6:00 p.m. to Midnight
180 Sundays and Holidays All day (Midnight to Midnight)

181
182 subject to the following conditions during the variance hours:

183

- 184 (1) Use of mounted impact hammer (hoe-ram) shall be limited to 6:00
185 p.m. to 10:00 p.m. on Saturdays and 9:00 a.m. to 10:00 p.m. on
186 Sundays.
187
- 188 (2) Use of auger drill rig, jackhammer, rock drill, rivet buster / chipping
189 gun, concrete saw, and pavement scarifier shall be prohibited after
190 midnight within 500 feet of residences.
191
- 192 (3) The Contractor shall make every effort to minimize the noise
193 emanating from the project.
194
- 195 (4) The use of reverse signal alarms shall be prohibited between 8:00
196 p.m. and 7:00 a.m. Alternative methods such as utilizing a ground
197 guide for signaling shall be employed. The operation of white noise
198 back-up alarms will be granted during the days and times allowed
199 by the variance.
200
- 201 (5) Traffic noise from heavy vehicles traveling to and from the
202 construction site shall be minimized near residences.
203
- 204 (6) The Contractor shall have its supervisory personnel to whom
205 complaints can be forwarded for prompt response and who shall
206 have the general responsibility of monitoring quiet work procedures
207 and immediately mitigating noise complaints.
208
- 209 (7) The Contractor shall give sufficient notice regarding the project to
210 any residents and businesses that may be impacted by the
211 nighttime activity. The notification for the planned nighttime activity
212 shall also contain the name and telephone number of the job-site
213 inspector. In addition, a copy of any notifications, as well as
214 progress reports, shall be sent to the Indoor and Radiological
215 Health Branch.
216
- 217 (8) If noise level is such that the numerous complaints are received by
218 the Department, the Contractor shall cease operations upon receipt
219 of an order and complete the project during hours on weekdays and
220 weekends as directed.
221
- 222 (9) The Contractor shall notify the Indoor and Radiological Health
223 Branch, State Department of Health, as to the date and time of any
224 variance hour activity as soon as the dates are confirmed and also
225 when the project is completed.
226
- 227 (10) Should the duration of the project continue beyond the expiration
228 date, the Contractor shall submit a request for extension to the
229 Engineer along with an updated work schedule at least one (1)
230 month prior to October 31, 2026.
231

232 (11) Pursuant to H.R.S., Chapter 342F, Section 342F-5(d)(3), the
233 Contractor shall perform noise sampling during the variance hours
234 and report the results of such sampling to the Indoor and
235 Radiological Health Branch.”

236
237 **(III) Amend 107.06 – Contractor Duty Regarding Public Convenience to**
238 read as follows,

239
240 **“107.06 Contractor Duty Regarding Public Convenience.** The Contractor
241 shall at all times conduct the work in such a manner that appropriate methods
242 and devices (e.g., detours, signs, flashers, labor, equipment, high load warnings,
243 other types of warnings devices, barricades, barriers, debris catchment systems,
244 etc.) comply with the Contract Documents. The aforementioned must always
245 ensure the safety of the traveling public.

246
247 The work shall be conducted in a manner and in a sequence that ensures
248 the least possible interference, along with the maximum possible safety to the
249 traveling public (e.g., pedestrians, bicycles, motorcycles, mopeds, vehicles, and
250 those using them), including the roadway, and roadside.”

251
252 **(IV) Amend 107.12(B) – Safety Precautions and Programs to read as**
253 follows,

254
255 **“(B) Safety Precautions and Programs.** Notify owners of adjacent properties
256 and all utilities when performing work that may affect the owners. Also, notify the
257 owners when the work may be in or adjacent to the area of the properties,
258 including utilities. Provide protection acceptable to the owners and Engineer.
259 Cooperate with the owners and Engineer. Receive their acceptance of the
260 protection, removal, repair, or replacement of their property or utility, before,
261 during, and after the work.

262
263 The Contractor shall not permit any load to be placed on the work, any
264 structure, roadway, or any other location that may endanger the safety of any
265 person or may cause damage to any property or facility.”

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267
268

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.

90 **108.04 Character and Proficiency of Workers.** The Contractor shall at all
91 times provide adequate supervision and sufficient labor and equipment for
92 prosecuting the work to full completion in the manner and within the time required
93 by the contract. The superintendent and all other representatives of the
94 Contractor shall act in a civil and honest manner in all dealings with the Engineer,
95 all other State officials and representatives, and the public, in connection with the
96 work.

97
98 All workers shall possess the proper license, certification, job classification,
99 skill, training, and experience necessary to properly perform the work assigned to
100 them.

101
102 The Engineer may direct the removal of any worker(s) who does not carry
103 out the assigned work in a proper and skillful manner or who is disrespectful,
104 intemperate, violent, or disorderly. The worker shall be removed forthwith by the
105 Contractor and will not work again without the written permission of the Engineer.

106
107 **108.05 Contract Time.**

108
109 **(A) Calculation of Contract Time.** When the contract time is on a
110 working day basis, the total contract time allowed for the performance of
111 the work will be the number of working days shown in the contract plus any
112 additional working days authorized in writing as provided hereinafter. The
113 count of elapsed working days to be charged against contract time, will
114 begin from the Start Work Date and will continue consecutively to the date
115 of Substantial Completion. When multiple shifts are used to perform the
116 work, the State will not consider the hours worked over the normal eight
117 working hours per day or night as an additional working day.

118
119 When the contract is on a calendar day basis, the total contract time
120 allowed for the performance of the work will be the number of days shown
121 in the contract plus any additional days authorized in writing as provided
122 hereinafter. The count of elapsed days to be charged against contract time
123 will begin from the Start Work Date and will continue consecutively to the
124 date of Substantial Completion. The Engineer will exclude days elapsing
125 between the orders of the Engineer to suspend work and resume work for
126 suspensions not the fault of the Contractor.

127
128 **(B) Modifications of Contract Time.** Whenever the Contractor
129 believes that an extension of contract time is justified, the Contractor shall
130 serve written notice on the Engineer not more than five working days after
131 the occurrence of the event that causes a delay or justifies a contract time
132 extension. Contract time may be adjusted for the following reasons or
133 events, but only if and to the extent the critical path has been affected:
134

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:
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1. State specifically the reason or reasons for the delay and fully explain in a detailed chronology how the delay affects the critical path.
2. Include copies of pertinent documentation to support the time extension request.
3. Cite the anticipated period of delay and the time extension requested.
4. State either that the above circumstances have been cleared and normal working conditions restored as of a certain day or that the above circumstances will continue to prevent completion of the project.

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

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

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

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

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

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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.

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(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:

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(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.

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(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.

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

408
409 (j) Incorporate all physical access and availability
410 restraints.

411
412 **(B) Inspection and Testing.** All schedules shall provide reasonable
413 time and opportunity for the Engineer to inspect and test each work activity.
414

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

437
438 **(D) Initial Progress Schedule.** The Contractor shall submit an initial
439 progress schedule. The initial progress schedule shall consist of the
440 following:

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442 (1) Four sets of the TSLD schedule.

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444 (2) All the software files and data to re-create the TSLD in a
445 computerized software format as specified by the Engineer.
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(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 has one or more of the following:

- (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.

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(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.

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(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.

(I) 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.

584 **108.07 Weekly Meeting.** In addition to the bi-weekly schedule meetings, the
585 Contractor shall be available to meet once a week with the Engineer at the time
586 and place as determined by the Engineer to discuss the work and its progress
587 including but not limited to, the progress of the project, potential problems,
588 coordination of work, submittals, erosion control reports, etc. The Contractor's
589 personnel attending shall have the authority to make decisions and answer
590 questions. The Contractor shall bring to weekly meetings a detailed work
591 schedule showing the next three weeks' work. Directly submit an informational
592 copy of the three-week schedule to the Material Testing Research Branch (MTRB)
593 on the same day as the weekly meeting is held or was to be held. An
594 informational copy is for informational use only and requires no response or further
595 action from the MTRB. Number of copies of the detailed work schedule to be
596 submitted will be determined by the Engineer. The three-week schedule is in
597 addition to the TSLD and shall in no way be considered as a substitute for the
598 TSLD or vice versa. The three-week schedule shall show:

599
600 (a) All construction events, traffic control and BMP related activities in
601 such detail that the Engineer will be able to determine at what location and
602 type of work will be done for any day for the next three weeks. This is for
603 the State to use to plan its manpower requirements for that time period.

604 (b) The duration of all events and delays.

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

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

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

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615
616 Two days prior to each weekly meeting, the Contractor shall submit
617 a list of outstanding submittals, RFIs and issues that require discussion.

618
619 **108.08 Liquidated Damages for Failure to Complete the Work or Portions**
620 **of the Work on Time.** The actual amount of damages resulting from the
621 Contractor's failure to complete the contract in a timely manner is difficult to
622 accurately determine. Therefore, the amount of such damages shall be liquidated
623 damages as set forth herein and in the special provisions. The State may, at its
624 discretion, deduct the amount from monies due or that may become due under the
625 contract.

629 When the Contractor fails to reach substantial completion of the work for
630 which liquidated damages are specified, within the time or times fixed in the
631 contract or any extension thereof, in addition to all other remedies for breach that
632 may be available to the State, the Contractor shall pay liquidated damages to the
633 State, in the amount of \$7,500.00 per working day.
634

635 **(A) Liquidated Damages Upon Termination.** If the State terminates
636 on account of Contractor's default, liquidated damages may be charged
637 against the defaulting Contractor and its surety until final completion of
638 work.
639

640 **(B) Liquidated Damages for Failure to Complete the Punchlist.** The
641 Contractor shall complete the work on any punchlist created after the pre-
642 final inspection, within the contract time or any extension thereof.
643

644 When the Contractor fails to complete the work on such punchlist
645 within the contract time or any extension thereof, the Contractor shall pay
646 liquidated damages to the State of 20 percent of the amount of liquidated
647 damages established for failure to substantially complete the work within
648 contract time. Liquidated damages shall not be assessed for the period
649 between:
650

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

653 **(2)** The date of the completion of punchlist as determined by the
654 Engineer and the date of the successful final inspection, and
655

656 **(3)** The date of the Final Inspection that results in Substantial
657 Completion and the receipt by the Contractor of the written notice of
658 Substantial Completion.
659

660 **(C) Actual Damages Recoverable If Liquidated Damages Deemed**
661 **Unenforceable.** In the event a court of competent jurisdiction holds that
662 any liquidated damages assessed pursuant to this contract are
663 unenforceable, the State will be entitled to recover its actual damages for
664 Contractor's failure to complete the work, or any designated portion of the
665 work within the time set by the contract.
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674 **108.09 Rental Fees for Unauthorized Lane Closure or Occupancy.** In
675 addition to all other remedies available to the State for Contractor's breach of the
676 terms of the contract, the Engineer will assess the rental fees in the amount as
677 follows:

- 678
- 679 a. \$5,000 for every one-to-fifteen-minute increment within the first hour
- 680 b. \$10,000 for every one-to-fifteen-minute increment within the second hour
- 681 c. \$15,000 for every one-to-fifteen-minute increment after the first two hours
- 682

683 for each roadway lane or portion thereof, for each location, for each roadway lane
684 closed to public use or encroached upon beyond the time periods authorized in the
685 contract or by the Engineer. The State may, at its discretion, deduct the amount
686 from monies due or that may become due under the contract. The rental fee may
687 be waived in whole or part if the Engineer determines that the unauthorized period
688 of lane closure or occupancy was due to factors beyond the control of the
689 Contractor. Equipment breakdown is not a cause to waive lane rental fees.

690
691 **108.10 Suspension of Work.**

692
693 **(A) Suspension of Work.** The Engineer may, by written order, suspend
694 the performance of the work, either in whole or in part, for such periods as
695 the Engineer may deem necessary, for any cause, including but not limited
696 to:

- 697
- 698 **(1)** Weather or soil conditions considered unsuitable for
699 prosecution of the work.
- 700
- 701 **(2)** Whenever a redesign that may affect the work is deemed
702 necessary by the Engineer.
- 703
- 704 **(3)** Unacceptable noise or dust arising from the construction even
705 if it does not violate any law or regulation.
- 706
- 707 **(4)** Failure on the part of the Contractor to:
 - 708
 - 709 **(a)** Correct conditions unsafe for the general public or for
710 the workers.
 - 711
 - 712 **(b)** Carry out orders given by the Engineer.

713 (c) Perform the work in strict compliance with the
714 provisions of the contract.

715
716 (d) Provide adequate supervision on the jobsite.

717
718 (5) The convenience of the State.

719
720 **(B) Partial and Total Suspension.** Suspension of work on some but
721 not all items of work shall be considered a “partial suspension”.
722 Suspension of work on all items shall be considered “total suspension”.
723 The period of suspension shall be computed from the date set out in the
724 written order for work to cease until the date of the order for work to
725 resume.

726
727 **(C) Reimbursement to Contractor.** In the event that the Contractor is
728 ordered by the Engineer in writing as provided herein to suspend all work
729 under the contract for the reasons specified in Subsections 108.10(A)(2),
730 108.10(A)(3), or 108.10(A)(5) of the “Suspension of Work” paragraph, the
731 Contractor may be reimbursed for actual direct costs incurred on work at
732 the jobsite, as authorized in writing by the Engineer, including costs
733 expended for the protection of the work. An allowance of 5 percent for
734 indirect categories of delay costs will be paid on any reimbursed direct
735 costs, including extended branch and home-office overhead and delay
736 impact costs. No allowance will be made for anticipated profits. Payment
737 for equipment which is ordered to standby during such suspension of work
738 shall be made as described in Subsection 109.06(H) - Idle and Standby
739 Equipment.

740
741 **(D) Cost Adjustment.** If the performance of all or part of the work is
742 suspended for reasons beyond the control of the Contractor except an
743 adjustment shall be made for any increase in cost of performance of this
744 contract (excluding profit) necessarily caused by such suspension, and the
745 contract modified in writing accordingly.

746
747 However, no adjustment to the contract price shall be made for any
748 suspension, delay, or interruption:

749
750 (1) For weather related conditions.

751
752 (2) To the extent that performance would have been so
753 suspended, delayed, or interrupted by any other cause, including the
754 fault or negligence of the Contractor.

755
756 (3) Or, for which an adjustment is provided for or excluded under
757 any other provision of this Contract.

758

759 **(E) Claims for Adjustment.** Any adjustment in contract price made
760 shall be determined in accordance with Subsections 104.02 – Changes and
761 104.06 – Methods of Price Adjustment.
762

763 Any claims for such compensation shall be filed in writing with the
764 Engineer within 30 days after the date of the order to resume work or the
765 claim will not be considered. The claim shall conform to the requirements
766 of Subsection 107.15(D) – Making of a Claim. The Engineer will take the
767 claim under consideration, may make such investigations as are deemed
768 necessary and will be the sole judge as to the equitability of the claim. The
769 Engineer’s decision will be final.
770

771 **(F) No Adjustment.** No provision of this clause shall entitle the
772 Contractor to any adjustments for delays due to failure of its surety, the
773 cancellation or expiration of any insurance coverage required by the
774 contract documents, for suspensions made at the request of the Contractor,
775 for any delay required under the contract, for suspensions, either partial or
776 whole, made by the Engineer under Subsection 108.10(A)(4) of the
777 “Suspension of work” paragraph.
778

779 **108.11 Termination of Contract for Cause.**
780

781 **(A) Default.** If the Contractor refuses or fails to perform the work, or any
782 separable part thereof, with such diligence as will assure its completion
783 within the time specified in this contract, or any extension thereof, or
784 commits any other material breach of this contract, and further fails within
785 seven days after receipt of written notice from the Engineer to commence
786 and continue correction of the refusal or failure with diligence and
787 promptness, the Engineer may, by written notice to the Contractor, declare
788 the Contractor in breach and terminate the Contractor’s right to proceed
789 with the work or the part of the work as to which there has been delay or
790 other breach of contract. In such event, the State may take over the work,
791 perform the same to completion, by contract or otherwise, and may take
792 possession of, and utilize in completing the work, the materials, appliances,
793 and plants as may be on the site of the work and necessary therefore.
794 Whether or not the Contractor’s right to proceed with the work is terminated,
795 the Contractor and the Contractor’s sureties shall be liable for any damage
796 to the State resulting from the Contractor’s refusal or failure to complete the
797 work within the specified time.
798

799 **(B) Additional Rights and Remedies.** The rights and remedies of the
800 State provided in this contract are in addition to any other rights and
801 remedies provided by law.
802
803

804 **(C) Costs and Charges.** All costs and charges incurred by the State,
805 together with the cost of completing the work under contract, will be
806 deducted from any monies due or which would or might have become due
807 to the Contractor had it been allowed to complete the work under the
808 contract. If such expense exceeds the sum which would have been
809 payable under the contract, then the Contractor and the surety shall be
810 liable and shall pay the State the amount of the excess.

811
812 In case of termination, the Engineer will limit any payment to the
813 Contractor to the part of the contract satisfactorily completed at the time of
814 termination. Payment will not be made until the work has satisfactorily been
815 completed and all required documents, including the tax clearance required
816 by Subsection 109.11 – Final Payment are submitted by the Contractor.
817 Termination shall not relieve the Contractor or Surety from liability for
818 liquidated damages.

819
820 **(D) Erroneous Termination for Cause.** If, after notice of termination of
821 the Contractor's right to proceed under this section, it is determined for any
822 reason that good cause did not exist to allow the State to terminate as
823 provided herein, the rights and obligations of the parties shall be the same
824 as, and the relief afforded the Contractor shall be limited to, the provisions
825 contained in Subsection 108.12 – Termination for Convenience.

826
827 **108.12 Termination For Convenience.**

828
829 **(A) Terminations.** The Director may, when the interests of the State so
830 require, terminate this contract in whole or in part, for the convenience of
831 the State. The Director will give written notice of the termination to the
832 Contractor specifying the part of the contract terminated and when
833 termination becomes effective.

834
835 **(B) Contractor's Obligations.** The Contractor shall incur no further
836 obligations in connection with the terminated work and on the date set in
837 the notice of termination the Contractor shall stop work to the extent
838 specified. The Contractor shall also terminate outstanding orders and
839 subcontracts as they relate to the terminated work. The Contractor shall
840 settle the liabilities and claims arising out of the termination of subcontracts
841 and orders connected with the terminated work subject to the State's
842 approval. The Engineer may direct the Contractor to assign the
843 Contractor's right, title, and interest under terminated orders or subcontracts
844 to the State. The Contractor must still complete the work not terminated by
845 the notice of termination and may incur obligations as necessary to do so.

846
847 **(C) Right to Construction and Goods.** The Engineer may require the
848 Contractor to transfer title and to deliver to the State in the manner and to
849 the extent directed by the Engineer, the following:

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(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.

894 (3) Absent complete agreement, the Engineer will pay the
895 Contractor the following amounts less any payments previously
896 made under the contract:

897
898 (a) The cost of all contract work performed prior to the
899 effective date of the notice of termination work plus a 5
900 percent markup on the actual direct costs, including amounts
901 paid to subcontractor, less amounts paid or to be paid for
902 completed portions of such work; provided, however, that if it
903 appears that the Contractor would have sustained a loss if the
904 entire contract would have been completed, no markup shall
905 be allowed or included and the amount of compensation shall
906 be reduced to reflect the anticipated rate of loss. No
907 anticipated profit or consequential damage will be due or paid.

908
909 (b) Subcontractors shall be paid a markup of 10 percent on
910 their direct job costs incurred to the date of termination. No
911 anticipated profit or consequential damage will be due or paid
912 to any subcontractor. These costs must not include payments
913 made to the Contractor for subcontract work during the
914 contract period.

915
916 (c) The total sum to be paid the Contractor shall not
917 exceed the total contract price reduced by the amount of any
918 sales of construction supplies, and construction materials.

919
920 (4) Cost claimed, agreed to, or established by the State shall be
921 in accordance with HAR Chapter 3-123.

922
923 **108.13 Pre-Final and Final Inspections.**

924
925 (A) **Inspection Requirements.** Before the Engineer undertakes a final
926 inspection of any work, a pre-final inspection must first be conducted. The
927 Contractor shall notify the Engineer that the work has reached substantial
928 completion and is ready for pre-final inspection.

929
930 (B) **Pre-Final Inspection.** Before notifying the Engineer that the work
931 has reached substantial completion, the Contractor shall inspect the project
932 and test all installed items with all of its subcontractors as appropriate. The
933 Contractor shall also submit the following documents as applicable to the
934 work:

935
936 (1) All written guarantees required by the contract.

937
938 (2) Two accepted final field-posted drawings as specified in
939 Section 648 – Field-Posted Drawings;

- 940
941 **(3)** Complete weekly certified payroll records for the Contractor
942 and Subcontractors.
943
944 **(4)** Certificate of Plumbing and Electrical Inspection.
945
946 **(5)** Certificate of building occupancy as required.
947
948 **(6)** Certificate of Soil and Wood Treatments.
949
950 **(7)** Certificate of Water System Chlorination.
951
952 **(8)** Certificate of Elevator Inspection, Boiler and Pressure Pipe
953 Inspection.
954
955 **(9)** Maintenance Service Contract and two copies of a list of all
956 equipment installed.
957
958 **(10)** Current Tax clearance. The contractor will be required to
959 submit an additional tax clearance certificate when the final payment
960 is made.
961
962 **(11)** And any other final items and submittals required by the
963 contract documents.
964

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

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

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

984

985 After the Engineer is satisfied that the project appears substantially
986 complete a final inspection shall be scheduled within ten working days after
987 receipt of the Contractor's latest letter of notification that the project is ready
988 for final inspection.

989
990 If, as a result of the pre-final inspection, the Engineer determines the
991 work is not substantially complete, the Engineer will inform the Contractor in
992 writing as to specific deficiencies which must be corrected before the work
993 will be ready for another pre-final inspection. If the Engineer finds the work
994 is substantially complete but finds deficiencies that must be corrected
995 before the work is ready for final inspection, the Engineer will prepare in
996 writing and deliver to the Contractor a punchlist describing such
997 deficiencies.

998
999 At any time before final acceptance, the Engineer may revoke the
1000 determination of substantial completion if the Engineer finds that it was not
1001 warranted and will notify the Contractor in writing the reasons therefore
1002 together with a description of the deficiencies negating the declaration.

1003
1004 When the date of substantial completion has been determined by the
1005 State, liquidated damages for the failure to complete the punchlist, if due to
1006 the State will be assessed in pursuant to Subsection 108.08(B) - Liquidated
1007 Damages for Failure to Complete the Punchlist.

1008
1009 **(D) Punchlist; Clean Up and Final Inspection.** Upon receiving a
1010 punchlist after pre-final inspection, the Contractor shall promptly devote all
1011 required time, labor, equipment, materials and incidentals to correct and
1012 remedy all punchlist deficiencies. The Engineer may add to or otherwise
1013 modify this punchlist until substantial completion of the project.

1014
1015 Before final inspection of the work, the Contractor shall clean all
1016 ground occupied by the Contractor in connection with the work of all
1017 rubbish, excess materials temporary structures and equipment, shall
1018 remove all graffiti and defacement of the work and all parts of the work and
1019 the worksite must be left in a neat and presentable condition to the
1020 satisfaction of the Engineer.

1021
1022 Final inspection will occur within ten working days after the
1023 Contractor notifies the Engineer in writing that all punchlist deficiencies
1024 remaining after the pre-final inspection have been completed and the
1025 Engineer concurs. If the Engineer determines that deficiencies still remain
1026 at the final inspection, the work will not be accepted and the Engineer will
1027 notify the Contractor, in writing, of the deficiencies which shall be corrected
1028 and the steps above repeated.

1030 If the Contractor fails to correct the deficiencies and complete the
1031 work by the established or agreed date, the State may correct the
1032 deficiencies by whatever method it deems appropriate and deduct the cost
1033 from any payments due the Contractor.
1034

1035 **108.14 Substantial Completion and Final Acceptance.**
1036

1037 **(A) Substantial Completion.** When the Engineer finds that the
1038 Contractor has satisfactorily completed all work for the project in
1039 compliance with the contract, with the exception of the planting period and
1040 the plant establishment period, the Engineer will notify the Contractor, in
1041 writing, of the project's substantial completion, effective as of the date of the
1042 final inspection. The substantial completion date shall determine end of
1043 contract time and relieve contractor of any additional accumulation of
1044 liquidated damages for failure to complete the punchlist.
1045

1046 **(B) Final Acceptance.** When the Engineer finds that the Contractor has
1047 satisfactorily completed all contract work in compliance with the contract
1048 including all plant establishment requirements, and all the materials have
1049 been accepted by the State, the Engineer will issue a Final Acceptance
1050 Letter. The Final Acceptance date shall determine the commencement of
1051 all guaranty periods subject to Subsection 108.16 – Contractor's
1052 Responsibility for Work; Risk of Loss or Damage.
1053

1054 **108.15 Use of Structure or Improvement.** The State has the right to use the
1055 structure, equipment, improvement, or any part thereof, at any time after it is
1056 considered by the Engineer as available. In the event that the structure,
1057 equipment or any part thereof is used by the State before final acceptance, the
1058 Contractor is not relieved of its responsibility to protect and preserve all the work
1059 until final acceptance.
1060

1061 **108.16 Contractor's Responsibility for Work; Risk of Loss or Damage.**
1062 Until the written notice of final acceptance has been received, the Contractor shall
1063 take every precaution against loss or damage to any part of the work by the action
1064 of the elements or from any other cause whatsoever, whether arising from the
1065 performance or from the non-performance of the work. The Contractor shall
1066 rebuild, repair, restore and make good all loss or damage to any portion of the
1067 work resulting from any cause before its receipt of the written notice of final
1068 acceptance and shall bear the risk and expense thereof.
1069

1070 The risk of loss or damage to the work from any hazard or occurrence that
1071 may or may not be covered by a builder's risk policy is that of the Contractor and
1072 Surety, unless such risk of loss is placed elsewhere by express language in the
1073 contract documents.
1074
1075

1076 **108.17 Guarantee of Work.**

1077

1078 **(1)** Regardless of, and in addition to, any manufacturers' warranties, all
1079 work and equipment shall be guaranteed by the Contractor against defects
1080 in materials, equipment or workmanship for one year from the date of final
1081 acceptance or as otherwise specified in the contract documents.

1082

1083 **(2)** When the Engineer determines that repairs or replacements of any
1084 guaranteed work and equipment is necessary due to materials, equipment,
1085 or workmanship which are inferior, defective, or not in accordance with the
1086 terms of the contract, the Contractor shall, at no increase in contract price
1087 or contract time, and within five working days of receipt of written notice
1088 from the State, commence to all of the following:

1089

1090 **(a)** Correct all noted defects and make replacements, as directed
1091 by the Engineer, in the equipment and work.

1092

1093 **(b)** Repair or replace to new or pre-existing condition any
1094 damages resulting from such defective materials, equipment or
1095 installation thereof.

1096

1097 **(3)** The State will be entitled to the benefit of all manufacturers and
1098 installers warranties that extend beyond the terms of the Contractor's
1099 guaranty regardless of whether or not such extended warranty is required
1100 by the contract documents. The Contractor shall prepare and submit all
1101 documents required by the providers of such warranties to make them
1102 effective, and submit copies of such documents to the Engineer. If an
1103 available extended warranty cannot be transferred or assigned to the State
1104 as the ultimate user, the Contractor shall notify the Engineer who may direct
1105 that the warranted items be acquired in the name of the State as purchaser.

1106

1107 **(4)** If a defect is discovered during a guarantee period, all repairs and
1108 corrections to the defective items when corrected shall be guaranteed for a
1109 new duration equal to the original full guarantee period. The running of the
1110 guarantee period shall be suspended for all other work affected by any
1111 defect. The guarantee period for all other work affected by any such defect
1112 shall restart for its remaining duration upon confirmation by the Engineer
1113 that the deficiencies have been repaired or remedied.

1114

1115 **(5)** Nothing in this section is intended to limit or affect the State's rights
1116 and remedies arising from the discovery of latent defects in the work after
1117 the expiration of any guarantee period.

1118

1119

1120 **108.18 No Waiver of Legal Rights.** The following will not operate or be
1121 considered as a waiver of any portion of the contract, or any power herein
1122 reserved, or any right to damages provided herein or by law:

- 1123
- 1124 (1) Any payment for, or acceptance of, the whole or any part of the work.
- 1125
- 1126 (2) Any extension of time.
- 1127
- 1128 (3) Any possession taken by the Engineer.
- 1129

1130 A waiver of any notice requirement or of any noncompliance with the
1131 contract will not be held to be a waiver of any other notice requirement or any
1132 other noncompliance with the contract.

1133

1134 **108.19 Final Settlement of Contract.**

1135

1136 **(A) Closing Requirements.** The contract will be considered settled
1137 after the project acceptance date and when the following items have been
1138 satisfactorily submitted, where applicable:

- 1139
- 1140 (1) All written guarantees required by the contract.
- 1141
- 1142 (2) Complete and certified weekly payrolls for the Contractor and
1143 its subcontractor's.
- 1144
- 1145 (3) Certificate of plumbing and electrical inspection.
- 1146
- 1147 (4) Certificate of building occupancy.
- 1148
- 1149 (5) Certificate for soil treatment and wood treatment.
- 1150
- 1151 (6) Certificate of water system chlorination.
- 1152
- 1153 (7) Certificate of elevator inspection, boiler and pressure pipe
1154 installation.
- 1155
- 1156 (8) Tax clearance.
- 1157
- 1158 (9) All other documents required by the Contract or by law.
- 1159

1160 **(B) Failure to Meet Closing Requirements.** The Contractor shall meet
1161 the applicable closing requirements within 60 days from the date of Project
1162 Acceptance or the agreed to Punchlist complete date. Should the
1163 Contractor fail to comply with these requirements, the Engineer may
1164 terminate the contract for cause.”

1165
1166

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
44 non-compliance status will result in final payment being
45 withheld until compliance is attained.
46

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Sums necessary to meet the claims of any governmental agencies may be withheld from the sums due the Contractor until said claims have been fully and completely discharged or otherwise satisfied.”

END OF SECTION 109

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

24
25 When roadway excavation quantities by average end area method cannot
26 be computed due to the nature of a particular operation or changed conditions,
27 the Engineer will determine and use computation method that will produce an
28 accurate quantity estimate.”

29
30 **(III)** Amend **203.05 – Payment** by revising lines 368 to 457 to read as follows:

31
32 **“203.05 Payment.** The Engineer will pay for the accepted pay items listed
33 below at the contract price per pay unit, as shown in the proposal schedule.
34 Payment will be full compensation for the work prescribed in this section and the
35 contract documents.

36
37 The Engineer will pay for each of the following pay items when included in
38 the proposal schedule:

39

Pay Item	Pay Unit
Roadway Excavation	Cubic Yard

40
41
42
43
44 The Engineer will pay for:

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(1) 15 percent of the contract bid price upon completion of
obliterating old roadways and hauling.

(2) 30 percent of the contract bid price upon completion of
preparing subgrade.

(3) 40 percent of the contract bid price upon completion of placing
selected material in final position, rounding of slopes, and using water
for compaction.

(4) 15 percent of the contract bid price upon completion of
disposing of surplus excavation material.

The Engineer will not pay for overhaul separately and will consider the
cost as included in the unit prices for the various excavation contract pay items.
The cost is for work prescribed in this section and the contract documents.

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

END OF SECTION 203

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
81 **(A) Preconstruction Requirements.**

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

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- 12. Concrete waste control.
- 13. Fueling and maintenance of vehicles and other equipment.
- 14. Tracking of sediment offsite from project entries and exits.
- 15. Litter management.
- 16. Toilet facilities.
- 17. Other factors that may cause water pollution, dust and erosion control.

(b) Provide plans indicating location of water pollution, dust and erosion control devices; provide plans and details of BMPs to be installed or utilized; show areas of soil disturbance in cut and fill, indicate areas used for construction staging and storage including items (1) through (17) above, storage of aggregate (indicate type of aggregate), asphalt cold mix, soil or solid waste, equipment and vehicle parking, and show areas where vegetative practices are to be implemented. Indicate intended drainage pattern on plans. Include flow arrows. Include separate drawing for each phase of construction that alters drainage patterns. Indicate approximate date when device will be installed and removed.

(c) Construction schedule.

(d) Name(s) of specific individual(s) designated responsible for water pollution, dust, and erosion controls on the project site. Include home, cellular, and business telephone numbers, fax numbers, and e-mail addresses.

(e) Description of fill material to be used.

(f) For projects with an NPDES Permit for Construction Activities, submit information to address all sections in the Storm Water Pollution Prevention Plan (SWPPP).

(g) For projects with an NPDES Permit, information required for compliance with the conditions of the Notice of General Permit Coverage (NGPC)/NPDES Permit.

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

225 If necessary, furnish and install rain gage in a secure location prior to
226 field work including installation of site-specific BMP. Provide rain gage with
227 a tolerance of at least 0.05 inches of rainfall. Install rain gage on project site
228 in an area that will not deter rainfall from entering the gate opening. Do not
229 install in a location where rain water may splash into rain gage. The rain
230 gage installation shall be stable and plumbed. Maintain rain gage and
231 replace rain gage that is stolen, does not function properly or accurately, is
232 worn out, or needs to be relocated. Do not begin field work until rain gage is
233 installed and Site-Specific BMPs are in place. Rain gage data logs shall be
234 readily available. Submit rain gage data logs weekly to the Engineer.
235

236 Address all comments received from the Engineer.
237

238 Modify and resubmit plans and construction schedules to correct
239 conditions that develop during construction which were unforeseen during
240 the design and pre-construction stages.
241

242 Coordinate temporary control provisions with permanent control
243 features throughout the construction and post-construction period.
244

245 Limit maximum surface area of earth material exposed at any time to
246 300,000 square feet. Do not expose or disturb surface area of earth material
247 (including clearing and grubbing) until BMP measures are installed and
248 accepted in writing by the Engineer. Protect temporarily or permanently
249 disturbed soil surface from rainfall impact, runoff and wind before end of the
250 work day.
251

252 Immediately initiate stabilizing exposed soil areas upon completion of
253 earth disturbing activities for areas permanently or temporarily ceased on any
254 portion of the site. Earth-disturbing activities have permanently ceased when
255 clearing and excavation within any area of the construction site that will not
256 include permanent structures has been completed. Earth-disturbing
257 activities have temporarily ceased when clearing, grading, and excavation
258 within any area of the site that will not include permanent structures will not
259 resume for a period of 14 or more calendar days, but such activities will
260 resume in the future. The term "immediately" is used in this section to define
261 the deadline for initiating stabilization measures. "Immediately" means as
262 soon as practicable, but no later than the end of the next work day, following
263 the day when the earth-disturbing activities have temporarily or permanently
264 ceased.
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266 For projects with an NPDES Permit for Construction activities:
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(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:

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

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

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

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

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

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

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

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

BMP measures shall be in place and operational at the end of work day or as required by Section 209.03(B) Construction Requirements.

358 Install and maintain either or both stabilized construction entrances
359 and wheel washes to minimize tracking of dirt and mud onto roadways.
360 Restrict traffic to stabilized construction areas only. Clean dirt, mud, or other
361 material tracked onto the road, sidewalk, or other paved area by the end of
362 the same day in which the track-out occurs. Modify stabilized construction
363 entrances to prevent mud from being tracked onto road. Stabilize entire
364 access roads if necessary.

365
366 Chemicals may be used as soil stabilizers for either or both erosion
367 and dust control if acceptable to the Engineer.

368
369 Provide temporary slope drains of rigid or flexible conduits to carry
370 runoff from cuts and embankments. Provide portable flume at the entrance.
371 Shorten or extend temporary slope drains to ensure proper function.

372
373 Protect ditches, channels, and other drainageways leading away from
374 cuts and fills at all times by either:

- 375
376 (1) Hydro-mulching the lower region of embankments in the
377 immediate area.
378
379 (2) Installing check dams and siltation control devices.
380
381 (3) Other methods acceptable to the Engineer.

382
383 Provide for controlled discharge of waters impounded, directed, or
384 controlled by project activities or erosion control measures.

385
386 Cover exposed surface of materials completely with tarpaulin or
387 similar device when transporting aggregate, soil, excavated material or
388 material that may be source of fugitive dust.

389
390 Cleanup and remove any pollutant that can be attributed to the
391 Contractor.

392
393 Install or modify Site-Specific BMP measures due to change in the
394 Contractor's means and methods, or for omitted condition that should have
395 been allowed for in the accepted Site-Specific BMP or a Site-Specific BMP
396 that replaces an accepted Site-Specific BMP that is not satisfactorily
397 performing. Modifications to Site-Specific BMP measures shall be accepted
398 in writing by the Engineer prior to implementation.

399
400 Properly maintain all Site-Specific BMP measures.

401
402 For projects with an NPDES Permit for Construction Activities:
403

404 (1) For construction areas discharging into nutrient or sediment
405 impaired waters, inspect, prepare a written report, and make repairs
406 to BMP measures at the following intervals:

- 407
- 408 (a) Weekly.
 - 409
 - 410 (b) Within 24 hours of any rainfall of 0.25 inch or greater
411 which occurs in a 24-hour period.
 - 412
 - 413 (c) When existing erosion control measures are damaged
414 or not operating properly as required by Site-Specific BMP.
 - 415

416 (2) For construction areas discharging to waters not impaired for
417 nutrients or sediments, inspect, prepare a written report, and make
418 repairs to BMP measures at the following intervals:

- 419
- 420 (a) Weekly.
 - 421
 - 422 (b) When existing erosion control measures are damaged
423 or not operating properly as required by Site-Specific BMP.
 - 424

425 For projects without an NPDES Permit for Construction activities,
426 inspect, prepare a written report, and make repairs to BMP measures at the
427 following intervals:

- 428
- 429 (a) Weekly.
 - 430
 - 431 (b) When existing erosion control measures are damaged
432 or not operating properly as required by Site-Specific BMP.
 - 433

434 Temporarily remove, replace or relocate any Site-Specific BMP that
435 must be removed, replaced or relocated due to potential or actual flooding,
436 or potential danger or damage to project or public.

437

438 Maintain records of inspections of Site-Specific BMP work. Keep
439 continuous records for duration of the project. Submit copy of Inspection
440 Report to the Engineer within 24 hours after each inspection.

441

442 The Contractor's designated representative specified in Subsection
443 209.03(A)(2)(d) shall address any Site-Specific BMP deficiencies brought up
444 by the Engineer immediately, including weekends and holidays, and
445 complete work to fix the deficiencies by the close of the next work day if the
446 problem does not require significant repair or replacement, or if the problem
447 can be corrected through routine maintenance. Address any Site-Specific
448 BMP deficiencies brought up by the State's Third-Party Inspector in the
449 timeframe above or as specified in the Consent Decree or MS4 NPDES

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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.

496 **(E) Discharges Associated with Dewatering Activities.** If dewatering
497 activities require effluent discharge into State waters or drainage systems, an
498 NPDES Dewatering Permit (CWB-NOI Form G) or Individual Permit
499 authorizing discharges associated with dewatering from DOH-CWB is
500 required from the DOH-CWB.
501

502 Do not begin dewatering activities until the DOH-CWB has issued an
503 Individual NPDES Permit or Notice of General Permit Coverage (NGPC).
504 Conduct dewatering operations in accordance with the conditions of the
505 permit or NGPC.
506

507 **(F) Solid Waste.** Submit the Solid Waste Disclosure Form for
508 Construction Sites to the Engineer within 21 calendar days of date of award.
509 Provide a copy of all the disposal receipts from the facility permitted by the
510 Department of Health to receive solid waste to the Engineer monthly. This
511 should also include documentation from any intermediary facility where solid
512 waste is handled or processed, or as directed by the Engineer.
513

514 **(G) Construction BMP Training.** The Contractor's representative
515 responsible for development of the Site-Specific BMP Plan and
516 implementation of Site-Specific BMPs in the field shall attend the State's
517 Construction Best Management Practices Training. The Contractor shall
518 keep training logs updated and readily available.
519

520 **209.04 Measurement.**
521

522 **(A)** Installation, maintenance, monitoring, and removal of BMP will be paid
523 on a lump sum basis. Measurement for payment will not apply.
524

525 **(B)** The Engineer will only measure additional water pollution, dust and
526 erosion control required and requested by the Engineer on a force account
527 basis in accordance with Subsection 109.06 – Force Account Provisions and
528 Compensation.
529

530 **209.05 Payment.** The Engineer will pay for accepted pay items listed below at
531 contract price per pay unit, as shown in the proposal schedule. Payment will be full
532 compensation for work prescribed in this section and contract documents.
533

534 The Engineer will pay for each of the following pay items when included in
535 proposal schedule:
536

537 Pay Item	538 Pay Unit
539 Installation, Maintenance, Monitoring, and Removal of BMP	Lump Sum
540 Additional Water Pollution, Dust, and Erosion Control	Force Account

541
542

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

562 **Appendix A**

563

564 The following list identifies potential pollutant sources and corresponding
565 BMPs used to mitigate the pollutants. Each BMP is referenced to the corresponding
566 section of the current HDOT Construction Best Management Practices Field Manual
567 or appropriate Supplemental Sheets. The Manual may be obtained from the HDOT
568 Statewide Stormwater Management Program Website at
569 <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/> under
570 Construction Best Management Practices Field Manual. Supplemental BMP sheets
571 are located at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp/> under Concrete Curing
572 and Irrigation Water.
573
574

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<p>Construction debris, green waste, general litter</p>	<ul style="list-style-type: none"> • <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> 	<p>See Solid Waste Management Section SM-6. Storm Drain Inlet Protection SC-1, and Perimeter Sediment Controls where applicable.</p>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<p><i>Materials associated with the operation and maintenance of equipment, such as oil, fuel, and hydraulic fluid leakage</i></p>	<ul style="list-style-type: none"> • <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> 	<p><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></p>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
Soil erosion from the disturbed areas	<ul style="list-style-type: none"> • 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. 	<p>Soil Stabilization</p> <ol style="list-style-type: none"> 1. SM-22 Topsoil Management 2. EC-12 Seeding and Planting 3. EC-14 Mulching 4. EC-11 Geotextiles and Mats <p>Slope Protection</p> <ol style="list-style-type: none"> 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 <p>SC-1 Storm Drain Inlet Protection</p>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
		<p><i>Perimeter Controls and Sediment Barriers</i></p> <ol style="list-style-type: none"> 1. <i>SC-7 Silt Fence or Filter Fabric Fence</i> 2. <i>SC-2 Vegetated Filter Strips and Buffers</i> 3. <i>SC-6 Compost Filter Berm/Sock</i> 4. <i>SC-8 Sandbag Barrier</i> 5. <i>SC-9 Brush or Rock Filter</i> <p><i>Sediment Basins and Detention Ponds</i></p> <ol style="list-style-type: none"> 1. <i>SC-4 Sediment Trap</i> 2. <i>SC-5 Sediment Basin</i> <p><i>SC-3 Check Dams</i></p> <p><i>EC-6 Level Spreader</i> <i>SM-20 Paving Operations</i> <i>SC-10 Construction Roads and Parking Area Stabilization</i></p>

579

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
		<p><i>Controlling Storm Water Flowing onto and Through the Project</i></p> <ol style="list-style-type: none"> 1. <i>EC-3 Run-On Diversion</i> 2. <i>EC-5 Earth Dike, Swales and Ditches</i> <p><i>Post Construction BMPs</i></p> <ol style="list-style-type: none"> 1. <i>EC-2 Flared Culvert End Sections</i> 2. <i>EC-10 Rip-Rap and Gabion Inflow Protection</i> 3. <i>EC-8 Outlet Protection and Velocity Dissipation Devices</i> 4. <i>SM-22 Topsoil Management</i> <p><i>Non-Structural BMPs</i></p> <ol style="list-style-type: none"> 1. <i>SM-1 Construction BMP Training</i> 2. <i>SM-14 Scheduling</i> 3. <i>SM-15 Location of Potential Sources of Sediment</i> 4. <i>SM-17 Preservation of Existing Vegetation</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
Sediment from soil stockpiles	<ul style="list-style-type: none"> • 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. • Place bagged materials on pallets and under cover. • Provide physical diversion to protect stockpiles from concentrated runoff. • Cover stockpiles with plastic or comparable material when practicable. • Place silt fence, fiber filtration tubes, or straw wattles around stockpiles. • 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. • Unless infeasible, contain and securely protect stockpiles from the wind. • Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable. See Stockpile Management Section SM-3 for additional requirements. 	See Stockpile Management Section SM-3. Storm Drain Inlet Protection SC-1, and Perimeter Sediment Controls where applicable.
Emulsified asphalt or prime/tack coat	<ul style="list-style-type: none"> • Provide training for employees and contractors on proper material delivery and storage practices and procedures. • Restrict paving operations during wet weather to prevent paving materials from being discharged. • Use asphalt emulsions such as prime coat when possible. • Protect drain inlet structures and manholes during application of tack coat, seal coat, slurry seal, and fog seal. • Keep ample supplies of drip pans and absorbent materials on site. • Inspect inlet protection devices. • See Material Storage and Handling Section SM-2 and Paving Operations Section SM-20 for additional requirements. • Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable. 	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.

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<p><i>Materials associated with painting, such as paint and paint wash solvent</i></p>	<ul style="list-style-type: none"> • <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> <p><i>Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.</i></p>	<p><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></p>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<p><i>Industrial chemicals, fertilizers, and/or pesticides</i></p>	<ul style="list-style-type: none"> • <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> 	<p><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></p>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
	<ul style="list-style-type: none"> • <i>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.</i> • <i>See Material Storage and Handling Use SM-2, and Hazardous Materials and Waste Management Section SM-9 for additional requirements.</i> 	
<p><i>Hazardous waste (Batteries, Solvents, Treated Lumber, etc.)</i></p>	<ul style="list-style-type: none"> • <i>Do not dispose of toxic materials in dumpsters allocated for construction debris.</i> • <i>Ensure collection, removal, and disposal of hazardous waste complies with regulations.</i> • <i>Hazardous waste that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler.</i> • <i>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.</i> • <i>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.</i> • <i>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.</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> 	<p><i>See Hazardous Materials and Waste Management Section SM-9 and Vehicle and Equipment Maintenance SM-12</i></p>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
	<ul style="list-style-type: none"> • <i>Ensure collection, removal, and disposal of hazardous waste complies with manufacturer's recommendations and is in compliance with federal, state, and local requirements.</i> • <i>See Hazardous Materials and Waste Management Section SM-9 and Vehicle and Equipment Management, Vehicle and Equipment Maintenance SM-12 for additional requirements.</i> 	
<i>Metals and Building Materials</i>	<ul style="list-style-type: none"> • <i>Inspect construction waste and recycling areas regularly.</i> • <i>Schedule solid waste collection regularly.</i> • <i>If building materials or metals are stored on site (such as rebar or galvanized poles) store under cover under tarps or in containers.</i> • <i>Minimize the amount of material stored on site.</i> • <i>Do not stockpile uncovered metals or other building materials in close proximity to discharge points.</i> • <i>See Solid Waste Management Section SM-6 for additional requirements.</i> 	<i>See Solid Waste Management Section SM-6</i>
<i>Contaminated Soil</i>	<ul style="list-style-type: none"> • <i>See Waste Management, Contaminated Soil Management Section SM-8 and/or Hazardous Materials and Waste Management Section SM-9 for additional requirements.</i> • <i>At minimum contain contaminated material soil by surrounding with impermeable lined berms or cover exposed contaminated material with plastic sheets.</i> 	<i>See Waste Management, Contaminated Soil Management Section SM-8 and/or Hazardous Materials and Waste Management Section SM-9</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Fugitive Dust Control and Dust Control Water</i>	<ul style="list-style-type: none"> • <i>Do not over spray water for dust control purposes which will result in runoff from the area.</i> • <i>Apply water as conditions require.</i> • <i>Washing down of debris or dirt into drainage, sewage systems, or State waters is not allowed.</i> • <i>Minimize exposed areas through the schedule of construction activities.</i> • <i>Utilize vegetation, mulching, sprinkling, and stone/gravel layering to quickly stabilize exposed soil.</i> • <i>Direct construction vehicle traffic to stabilized roadways.</i> • <i>Cover dump trucks hauling material from the site with a tarpaulin.</i> <p><i>See Dust Control Section SM-19 for additional requirements.</i></p>	<i>See Dust Control Section SM-19</i>
<i>Concrete Truck Wash Water</i>	<ul style="list-style-type: none"> • <i>Disposal of concrete truck wash water via percolation is prohibited.</i> • <i>Wash concrete-coated vehicles or equipment off-site or in the designated wash area.</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>Runoff from the on-site concrete wash area shall be contained in a temporary pit or level bermed area where the concrete can set.</i> • <i>Design the area so that no overflow can occur due to inadequate wash area sizing or precipitation.</i> • <i>The temporary pit shall be lined with plastic to prevent seepage of wash water into the ground.</i> • <i>Allow wash water to evaporate or collect wash water and all concrete debris in a concrete washout system bin.</i> • <i>Do not dump liquid wastes into storm drainage system.</i> • <i>Dispose of liquid and solid concrete wastes in compliance with federal, state, and local standards.</i> • <i>See Waste Management, Concrete Wash and Waste Management Section SM-4 for additional requirements.</i> 	<i>See Waste Management, Concrete Wash and Waste Management Section SM-4</i>

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
<i>Sediment Track-Out</i>	<ul style="list-style-type: none"> • <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> <p><i>See Stabilized Construction Entrance/Exit Section SC-11 for additional requirements.</i></p>	<i>See Stabilized Construction Entrance/Exit Section SC-11</i>
<i>Irrigation Water</i>	<ul style="list-style-type: none"> • <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> <p><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></p>	<i>See Seeding and Planting Section EC-12 and California Stormwater BMP Handbook SD-12 Efficient Irrigation</i>
<i>Hydrotesting Effluent</i>	<ul style="list-style-type: none"> • <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>	<ul style="list-style-type: none"> • <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. 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>	<ul style="list-style-type: none"> • <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. 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
Plaster Waste Water	<ul style="list-style-type: none"> • 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. • 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. • 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. • 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. 	See Material, Storage and Handling Use Section SM-2, Stockpile Management Use Section SM-3, and Hazardous Materials and Waste Management Section SM-9
Water-Jet Wash Water	<ul style="list-style-type: none"> • For Water-Jet Wash Water used to clean vehicles, use off site wash racks or commercial washing facilities when practical. • See Vehicle and Equipment Cleaning Section SM-11 for additional information. • For Water-Jet Wash Water used to clean impervious surfaces, the runoff shall not be allowed to flow into drainage structures or State Waters. 	See Vehicle and Equipment Cleaning Section SM-11
Sanitary/Septic Waste	<ul style="list-style-type: none"> • Locate Sanitary facilities in a convenient place away from drainage facilities. • Position sanitary facilities so they are secure and will not be tipped over or knocked down. • Wastewater shall not be discharged to the ground or buried. • A licensed service provider shall maintain sanitary/septic facilities in good working order. • Schedule regular waste collection by a licensed transporter. • See Sanitary Waste Section SM-7 for additional requirements. 	See Sanitary Waste Section SM-7.

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“

END OF SECTION 209

**NH-0300-(144)
209-28a**

1/14/22

1 **SECTION 301 – HOT MIX ASPHALT BASE COURSE**

2
3 Make the following amendments to said Sections:

4
5 **(I)** Amend **Section 301.03(B) Compaction** by revising the second
6 paragraph from lines 84 to 87 to read as follows:

7
8 “Compact mixture immediately upon completion of spreading
9 operations to density of not less than 92.0 percent of maximum theoretical
10 specific gravity in accordance with AASHTO T 209, modified by deletion of
11 Supplemental Procedure for Mixtures Containing Porous Aggregate.”

12
13 **(II)** Amend **Section 301.04 Measurement** from lines 98 to 100 to read as
14 follows:

15
16 **“301.04 Measurement.** The Engineer will measure HMAB course per
17 ton in accordance with contract documents.”

18
19 **(III)** Amend **Section 301.05 Payment,** from lines 102 to 111 to read as
20 follows:

21
22 **“301.05 Payment.** The Engineer will pay for the accepted pay items
23 listed below at the contract price per pay unit, as shown in the proposal schedule.
24 Payment will be full compensation for the work prescribed in this section and the
25 contract documents.

26
27 The Engineer will pay for one of the following pay items when included in
28 the proposal schedule:

Pay Item	Pay Unit
Hot Mix Asphalt Base Course	Ton

29
30
31
32
33
34 **(1)** 80% of the contract unit price upon completion of submitting a job-
35 mix formula acceptable to the Engineer; preparing the surface, spreading,
36 and finishing the mixture; and compacting the mixture by rolling;

37
38 **(2)** 20% of the contract unit price upon completion of cutting samples
39 from the compacted pavement for testing; placing and compacting the
40 sampled area with new material conforming to the surrounding area;
41 protecting the pavement; and final analysis.

42
43 The Engineer may, in lieu of requiring removal and replacement, use the
44 sliding scale factor to accept HMAB compacted below 92.0 percent. The
45 Engineer will make payment for the material in that production day at a reduced

46 price arrived at by multiplying the contract unit price by the pay factor shown in
47 Table 301.05-1.
48

Table 301.05-1 – Sliding Scale Pay Factor	
Percent Compaction	Percent Payment
92.0 or greater	100
90.0 to less than 92.0	80
<90.0	Removal

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52

END OF SECTION 301

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 Use for all surface mixes, except for on Lanai and Molokai, and unless otherwise
15 specified in the project documents.

16
17 Emulsified Asphalt 702.04

18
19 Warm Mix Asphalt Additive 702.06

20
21 Aggregate for Hot Mix Asphalt Pavement 703.09

22
23 Filler 703.15

24
25 Hydrated Lime or a liquid anti-strip approved by the engineer 712.03

26
27 **(A) General.** HMA pavement shall be plant mixed and shall include
28 mixture of aggregate and asphalt binder and may include reclaimed asphalt
29 pavement (RAP) or filler, or both.

30
31 The manufacture of HMA may include warm mix asphalt (WMA)
32 processes in accordance with these specifications. WMA processes include
33 combinations of organic additives, chemical additives, and foaming.

34
35 HMA pavement shall include surface course and may include one or
36 more binder courses, depending on HMA pavement thickness indicated in
37 the contract documents.

38
39 RAP is defined as removed or reprocessed pavement materials
40 containing asphalt and aggregates. Process RAP by crushing until 100
41 percent of RAP passes 3/4-inch sieve. Size, grade uniformly, and combine
42 materials such that blend of RAP and aggregate material conforms to grading
43 requirements of Subsection 703.09 - Aggregate for Hot Mix Asphalt
44 Pavement.

45
46 In surface and binder courses, aggregate for HMA may include RAP

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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

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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.

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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.	

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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					

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(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.

- 93 (5) Source of aggregate.
- 94
- 95 (6) Grade of asphalt binder.
- 96
- 97 (7) Test data used to develop job-mix formula.
- 98

99 Except for item (4) in this subsection, if design requirements are
 100 modified after the Engineer accepts job-mix formula, submit new job-mix
 101 formula before using HMA produced from modified mix design. Submit any
 102 changes to the design temperature of mixture at point of discharge for
 103 acceptance by the Engineer.

104
 105 Submit a certificate of compliance for the asphalt binder, accompanied
 106 by substantiating test data from a certified testing laboratory.

107
 108 **(D) Range of Tolerances for HMA.** Provide HMA within allowable
 109 tolerances of accepted job mix formula as specified in Table 401.02-4 -
 110 Range of Tolerances HMA. These tolerances are not to be used for the
 111 design of the job mix, they are solely to be used during the testing of the
 112 production field sample of the HMA mix.

113

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

114
 115 The tolerances shown are the allowable variance between the physical
 116 characteristics of laboratory job mix submitted mix design and the production
 117 or operational mix, i.e., field samples.

118

119 **401.03 Construction.**

120

121 **(A) Weather Limitations.** Placement of HMA shall not be allowed under
 122 the following conditions:

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- 124 (1) On wet surfaces, e.g., surface with ponding or running water,
 125 surface that has aggregate or surface that appears beyond surface
 126 saturated dry, as determined by the Engineer.

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(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.

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2. Stockpiling Procedures. Separate aggregate for Mix II, Mix III and Mix IV into at least three stockpiles with different gradations as follows: coarse, intermediate, and fine. Separate aggregates for Mix V into at least two stockpiles. Stockpile RAP separately from virgin aggregates.

3. Checking Aggregate Stockpile. Check condition of the aggregate stockpile often enough to ensure that the aggregate is in optimal condition.

(c) Batch and Continuous Mix Plants.

1. Hot Aggregate Bin. Provide bin with three or more separate compartments for storage of screened aggregate fractions to be combined for mix. Make partitions between compartments tight and of sufficient height to prevent spillage of aggregate from one compartment into another.

2. Load Cells. Calibrated load cells may be used in batch plants instead of scales.

(2) Hauling Equipment. Use trucks that have tight, clean, smooth metal beds for hauling HMA.

Thinly coat truck beds with a minimum quantity of non-stripping release agent to prevent mixture from adhering to beds. Diesel or petroleum-based liquid release agents, except for paraffin oil, shall not be used. Drain excess release agent from truck bed before loading with HMA.

Provide a designated clean up area for the haul trucks.

Equip each truck with a tarpaulin conforming to the following:

(a) In good condition, without tears and holes.

(b) Large enough to be stretched tightly over truck bed, completely covering mix. The tarpaulin shall be secured in such a manner that it remains stretched tightly over truck bed and HMA mix until the bed is about to be raised up in preparation for discharge.

(3) Asphalt Pavers. Use asphalt pavers that are:

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- (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.

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3. Barber-Green/Caterpillar Bituminous Pavers. Barber-Green/Caterpillar bituminous pavers shall be equipped with deflector plates as identified in the December 2000 Service Magazine entitled “New Asphalt Deflector Kit {6630, 6631, 6640}”.

Bituminous pavers not listed above shall have similar attachments or designs that shall make them equivalent to the bituminous pavers listed above. The Engineer will solely decide if it is equal to or better than the setups described for the equipment listed above.

Submit for review and acceptance, prior to the start of using the paver for the placing of plant mix, a full description in writing of the means and methods that will be used to prevent the bituminous paver from having both aggregate and temperature segregation. Use of any paver that has not been accepted is prohibited until acceptance of the paver is received from the Engineer. Any pavement placed with an unaccepted paver will be regarded as not compliant work and may not be paid for and may require removal.

Supply a Certificate of Compliance that verifies that the manufacturer’s approved means and methods used to prevent bituminous paver from having both aggregate and temperature segregation have been implemented on all pavers used on the project and are working in accordance with the manufacturer’s requirements and Contract Documents.

(4) Rollers. Rollers shall be self-propelled, steel-tired tandem, pneumatic-tired, or vibratory-type rollers capable of reversing without shoving or tearing the just placed HMA mixture. Provide sufficient number, sequencing, type, and rollers of sufficient weight to compact the mixture to required density while mixture is still in workable condition. Equipment shall not excessively crush aggregate. Operate rollers in accordance with manufacturer's recommendations and Contract Documents. The use of intelligent compaction is encouraged and may be required elsewhere in the Contract Documents.

(a) Steel-Tired Tandem Rollers. Steel-tired tandem rollers used for initial breakdown or intermediate roller passes shall have minimum gross weight of 12 tons and shall provide minimum 250-pound weight per linear inch of width on drive wheel.

Steel-tired tandem rollers used for finish roller passes

303 shall have minimum total gross weight of 3 tons.

304
305 Do not use roller with grooved or pitted rolling drum or
306 worn scrapers or wetting pads. Replace excessively worn
307 scrapers and wetting pads before use.

308
309 **(b) Pneumatic-Tired Rollers.** Pneumatic-tired rollers shall
310 be oscillating-type, equipped with smooth-tread pneumatic tires
311 of equal size and diameter. Maintain tire pressure within 5
312 pounds per square inch of designated operational pressure
313 when hot. Space tires so that gaps between adjacent tires are
314 covered by following set of tires.

315
316 Pneumatic-tired rollers used for breakdown or
317 intermediate roller passes shall have a ballast capable of
318 establishing an operating weight per tire of not less than 3,000
319 pounds. Equip rollers with tires having minimum 20-inch wheel
320 diameter with tires inflated to 70 to 75 pounds per square inch
321 pressure when cold and 90 pounds per square inch when hot.
322 Equip rollers with skirt-type devices to maintain temperature of
323 tires during rolling operations.

324
325 Pneumatic-tired rollers used for kneading finished
326 asphalt surfaces shall have a ballast capable of establishing an
327 operating weight per tire of not less than 1,500 pounds. Equip
328 rollers with tires having minimum 15-inch wheel diameter with
329 tires inflated to 50 to 60 pounds per square inch pressure. If
330 required, equip rollers with skirt-type devices to maintain
331 temperature of tires during rolling operations.

332
333 **(c) Vibratory Rollers.** Vibratory rollers shall be steel-tired
334 tandem rollers having minimum total weight of 3 tons. Equip
335 vibratory rollers with amplitude and frequency controls and
336 speedometer. Operate vibratory roller in accordance with
337 manufacturer's recommendations. For very thin lifts, 1 inch or
338 less in thickness, vibratory rollers shall not be used in the
339 vibratory mode. Instead, operate the unit in the static mode.

340
341 **(5) Hand Tools.** Keep hand tools used in production, hauling, and
342 placement of HMA clean and free of contaminants. Diesel or mineral
343 spirits or other cleaning material that is potentially deleterious to HMA
344 may be used to clean hand tools providing:

345
346 **(a)** It does not contaminate HMA with cleaning material.

347
348 **(b)** Clean hand tools over catch pan with capacity to hold all

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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

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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

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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.

484 c. No other vehicle or equipment will be
485 allowed on bridge.

486
487 d. The MTV shall not attempt to cross a
488 bridge where the posted load limit is less than or
489 equal to the weight of the MTV empty.
490 Permission to cross the bridge shall be obtained
491 from the Engineer and HWY-DB in writing.
492

493 **(C) Preparation of Surface.** Clean existing pavement in accordance with
494 Section 310 - Brooming Off. Apply tack coat in accordance with Section 407
495 - Tack Coat. Tack coat shall not be applied to surfaces to receive an
496 application of joint adhesive.
497

498 Where indicated in the Contract Documents, bring irregular surfaces
499 to uniform grade and cross section by furnishing and placing one or more
500 leveling courses of HMA Mix V. Spread leveling course in variable
501 thicknesses to eliminate irregularities in existing surface. Place leveling
502 course such that maximum depth of each course, when thoroughly
503 compacted, does not exceed 3 inches.
504

505 In multiple-lift leveling course construction, spread subsequent lifts
506 beyond edges of previously spread lifts in accordance with procedures
507 contained in current edition of the Asphalt Institute's *Construction of Hot Mix*
508 *Asphalt Pavements*, Manual Series No. 22 (MS-22) for leveling wedges.
509

510 Notify the Engineer of existing surfaces that may not be in a condition
511 that will have enough strength to be a good bonding surface or foundation
512 and should be removed or have remedial repairs done before new pavement
513 placement.
514

515 **(D) Plant Operation.**
516

517 **(1) Preparation of Asphalt Binder.** Uniformly heat asphalt binder
518 and provide continuous supply of heated asphalt cement from storage
519 to mixer. Do not heat asphalt binder above the recommendation of
520 the supplier for modified binders or above 350 degrees F for neat
521 binders.
522

523 **(2) Preparation of Aggregate.** Dry and heat aggregate material
524 at temperature sufficient to produce design temperature of job-mix
525 formula. Do not exceed 350 degrees F. Adjust heat source used for
526 drying and heating to avoid damage to and contamination of
527 aggregate. When dry, aggregate shall not contain more than 1
528 percent moisture by weight.

529 For batch plants, screen aggregates immediately after heating

530 and drying into three or more fractions. Convey aggregates into
531 separate compartments ready for batching and mixing with asphalt
532 binder.

533
534 **(3) Mixing.** Measure aggregate and asphalt; or aggregate, RAP,
535 and asphalt into mixer in accordance with an accepted job-mix
536 formula. Mix until components are completely mixed and adequately
537 coated with asphalt binder in accordance with AASHTO M 156.
538 Percent of coated particles shall be 95 percent when tested in
539 accordance with AASHTO T 195.

540
541 **(4) Plant Inspection.** For control and acceptance testing during
542 periods of production, provide a testing laboratory that meets the
543 requirements of AASHTO M 156. Provide space, utilities, and
544 equipment required for performing specified tests.

545
546 **(E) Spreading and Finishing.** Prior to each day's paving operation,
547 check screed or strike-off assembly surface with straight edge to ensure
548 straight alignment and there is no damage or wear to the machine that will
549 affect performance. Provide screed or strike-off assembly that produces
550 finished surface without tearing, shoving, and gouging HMA. Discontinue
551 using spreading equipment that leaves ridges, indentations, or other marks,
552 or combination thereof in surface that cannot be eliminated by rolling or
553 affects the final smoothness of the pavement or be prevented by adjustment
554 in operation.

555
556 Maintain HMA at minimum 250 degrees F temperature at discharge to
557 paver. The Engineer shall observe the contractor measuring the temperature
558 of mix in hauling vehicle just before depositing into spreader or paver or MTV.

559
560 Deposit HMA in a manner that minimizes segregation. Raise truck
561 beds with tailgates closed before discharging HMA.

562
563 Lay, spread, and strike off HMA upon prepared surface. Where
564 practical, use asphalt pavers to distribute mixture.

565
566 Where practical, control horizontal alignment using automatic grade
567 and slope controls from reference line, slope control device. Existing
568 pavements or features shall not be used for grade control alone.

569
570 Obtain sensor grade reference, horizontal alignment by using
571 established grade and slope controls. For subsequent passes, substitution
572 of one ski with joint-matching shoe riding on finished adjacent pavement is
573 acceptable. Use of a comparable non-contact mobile reference system and
574 joint matching shoe is acceptable.

575 Avoid stop-and-go operation. Maintain a constant forward speed of

576 paver during paving operation and minimize other methods that impact
577 smoothness.

578
579 Offset longitudinal joint in successive lifts by approximately 6 inches.
580 Incorporate into paving method an overlap of material of 1-inch +/- 0.5 inches
581 at the longitudinal joint. The HMA overlap material shall be left alone when
582 initially placed and shall not be bumped back or pushed back with a lute or
583 any other hand-held device. If the overlap exceeds the maximum amount,
584 remove the excess with a flat shovel, allowing recommended amount of
585 overlap HMA material to remain in place to be compacted. Do not throw the
586 removed excess HMA material on to the paving mat. The longitudinal joint
587 in a surface course when total roadway width is comprised of two lanes shall
588 be near the centerline of pavement or near lane lines when roadway is more
589 than two lanes in width. The longitudinal joint shall not be constructed in the
590 wheel path or under the longitudinal lane lines. Make a paving plan drawing
591 showing how the longitudinal joint will not be located in these areas.

592
593 Control the horizontal alignment of the longitudinal edge of the HMA
594 mat being installed so that the edge is parallel to the centerline or has a
595 uniform alignment, e.g., the edge of the mat is straight line or uniform curve,
596 no wavy edge, etc. to have a consistent amount of HMA material at the joint.

597
598 Check the compaction of the longitudinal joint during paving often
599 enough to ensure that it will meet the compaction requirements.

600
601 If nuclear gauges and ground penetrating radar are used as the
602 contractor's quality control method, they shall be properly calibrated and
603 periodically checked by comparison to cores taken from the pavement. The
604 use of sand as an aid in properly seating the gauge may also be considered
605 for improving the accuracy of the gauge.

606
607 In areas where irregularities or unavoidable obstacles make use of
608 mechanical spreading and finishing equipment impracticable, spread, rake,
609 and lute mixture by hand tools. For such areas, deposit, spread evenly, and
610 screed mixture to required compacted thickness.

611
612 Demonstrate competence of personnel operating grade and crown
613 control device before placing surface courses. If automatic control system
614 becomes inoperative during the day's work, the Engineer will permit the
615 Contractor to finish day's work using manual controls. The Engineer may
616 also allow additional HMA to be ordered and placed using manual controls if
617 it will provide a safer work site for the public to travel through. Do not resume
618 work until automatic control system is made operative. The Engineer may
619 waive requirement for electronic screed control device when paving gores,
620 shoulders, transitions, and miscellaneous reconstruction areas where the
621 use of the devices is not practical.

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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

668 small quantities of detergent. Use of excess liquid, diesel, and petroleum-
669 based liquids will not be allowed on rollers.

670
671 Along forms, curbs, headers, walls and other places not accessible to
672 rollers, compact mixture with hot hand tampers, smoothing irons, or
673 mechanical tampers. On depressed areas, trench roller or cleated
674 compression strips under roller may be used to transmit compression.

675
676 Before the start of compaction or during compaction or both remove
677 pavement that is loose, broken, or contaminated, or combination thereof;
678 pavement that shows an excess or deficiency in asphalt binder content; and
679 pavement that is defective in any way. Replace with fresh HMA pavement of
680 same type, and compact. Remove and replace defective pavement and
681 compact at no increase in contract price or contract time.

682
683 Operate rollers at slow and uniform speed with no sudden stops. The
684 drive wheels shall be nearest to the paver. Continue rolling to attain specified
685 density and until roller marks are eliminated.

686 Rollers shall not be parked on the pavement placed that day or shift.

687
688 **(1) HMA Pavement Courses One and a Half Inches Thick or**
689 **Greater.** Where HMA pavement compacted thickness indicated in the
690 Contract Documents is 1-1/2 inches or greater, compact to not less
691 than 93.0 percent nor greater than 97.0 percent of the maximum
692 specific gravity determined in accordance with AASHTO T 209,
693 modified by deletion of Supplemental Procedure for Mixtures
694 Containing Porous Aggregate.

695
696 Place HMA pavement in individual lifts that are within minimum
697 and maximum allowable compacted thickness for various types of
698 mixture as specified in Table 401.02-1 - Limits of Compacted Lift
699 Thickness and Asphalt Content.

700
701 **(2) HMA Pavement Courses Less Than One and a Half Inches**
702 **Thick.** Where HMA pavement compacted thickness indicated in the
703 contract documents is less than 1-1/2 inches, compaction to a
704 specified density will not be required.

705
706 Use only non-vibratory, steel-tired, tandem roller. Roll entire
707 surface with minimum of two roller passes. A roller pass is defined as
708 one trip of the roller in one direction over any one spot.

709
710 For intermediate rolling, roll entire surface with minimum of four
711 passes of roller.

714 Finish rolling using steel-tired, tandem roller. Continue rolling
715 until entire surface has been compacted with minimum of three passes
716 of roller, and roller marks have been eliminated.

717
718 Do not use rollers that will excessively crush aggregate.
719

720 **(3) HMA Pavement Courses One and a Half Inches Thick or**
721 **Greater In Special Areas Not Designated For Vehicular Traffic.**

722 For areas such as bikeways that are not part of roadway and other
723 areas not subjected to vehicular traffic, compact to not less than 90.0
724 percent of maximum specific gravity determined in accordance with
725 AASHTO T 209, modified by deletion of Supplemental Procedure for
726 Mixtures Containing Porous Aggregate. Increase asphalt content by
727 at least 0.5 percent above that used for HMA pavements designed for
728 vehicular traffic. Paved shoulders shall be compacted in the same
729 manner as pavements designed for vehicular traffic.
730

731 **(G) Joints, Trimming Edges and Utility Marking.** At HMA pavement
732 connections to existing pavements, make joints vertical to depth of new
733 pavement. Saw cut existing pavement and cold plane in accordance with
734 Section 415 - Cold Planing of Existing Pavement to depth equal to thickness
735 of surface course or as indicated in the Contract Documents.
736

737 At HMA connections to previously placed lifts, form transverse joints
738 by cutting back on previous run to expose full depth of course. Dispose of
739 material trimmed from edges. Protect end of freshly laid mixture from rollers.
740

741 Before and after paving, identify and mark location of existing utility
742 manholes, valves, and handholes on finished surface. Adjust existing frames
743 and covers and valve boxes to final pavement finish grade in accordance with
744 Section 604 - Manholes, Inlets and Catch Basins and Section 626 - Manholes
745 and Valve Boxes for Water and Sewer Systems.
746

747 **(1) Longitudinal joints.** Submit for review the means and methods
748 that will be used to install longitudinal joints at the required compaction
749 and density. Compact longitudinal joints to be not less than 91.0
750 percent of the maximum specific gravity determined in accordance
751 with AASHTO T 209, modified by deletion of Supplemental Procedure
752 for Mixtures Containing Porous Aggregate. Verify the compaction of
753 the longitudinal joints meets requirements by using non-destructive
754 testing methods during paving and submit the results on the daily
755 quality control test reports.
756

757 Test for compaction and density regardless of layer thickness.
758 Compaction and density of the longitudinal joint shall be determined by using
759 six-inch diameter cores. For longitudinal joints made using butt joints cores

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shall be taken over the joint with half of the core being on each side of the joint. For longitudinal joints using butt 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 of every 250 tons of 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 butt 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.

Compaction results for longitudinal joints until January 1, 2023 will not be included in any Sliding Scale Pay Factor for Compaction payment calculation. After, January 1, 2023 it will be included.

805 **(H) HMA Pavement Samples.** Obtain test samples from compacted
806 HMA pavement within 72 hours of lay down. Provide minimum 4-inch
807 diameter cores consisting of undisturbed, full-depth portion of compacted
808 mixture taken at locations designated by the Engineer in accordance with the
809 “Sampling and Testing Guide for Acceptance and Verification” in Hawaii DOT
810 Highways Division, *Quality Assurance Manual for Materials*, Appendix 3.
811 Cores shall be taken in the presence of the Engineer. Turn cores over to
812 Engineer immediately after cores have been taken.

813
814 For pavement samples for longitudinal joints provide 6-inch diameter
815 cores minimum. For pavement samples for other than longitudinal joints
816 4-inch diameter cores minimum shall be taken. All cores shall consist of
817 undisturbed, full-depth of the lift of the compacted mixture taken at locations
818 designated by the Engineer in accordance with the “Sampling and Testing
819 Guide for Acceptance and Verification” in Hawaii DOT Highways Division,
820 *Quality Assurance Manual for Materials*, appendix 3. Coring of longitudinal
821 joints shall use a modified HDOT Sampling and Testing Guide as required
822 by the Contract Documents.

823
824 Cores that separate shall indicate to the Engineer that there is
825 insufficient bonding of layers. Modify the previously used paving means and
826 methods to prevent future debonding of layers. Debonding of a core sample
827 after adjustment of the Contractor’s methods will be an indication of
828 continued non-conforming work and the Engineer may direct removal of the
829 layer at no additional cost or contract time.

830
831 Restore HMA pavement immediately after obtaining samples. Clean core
832 hole and walls of all deleterious material that will prevent the complete filling
833 of the core hole and the bonding of the new HMA to the existing. Apply tack
834 coat to vertical faces of sample holes. Fill sampled area with new HMA
835 pavement of same type as that removed. If hand compaction is used; fill in
836 layers not exceeding the minimum thickness stated in Table 401.02-1 - Limits
837 of Compacted Lift Thickness And Asphalt Content. Compact each layer to
838 compaction requirements. If Mechanical Compaction methods are used, then
839 layers may be the maximum layer thickness stated in Table 401.02-1 - Limits
840 of Compacted Lift Thickness And Asphalt Content. Using tires or hand
841 tamping to compact the HMA material to restore the pavement shall not be
842 considered as mechanical compaction.

843
844 Only sample and test leveling course if 1-1/2 inches or greater. No
845 compaction requirements for less than 1-1/2 inches.

846
847 **(I) HMA Pavement Thickness Tolerances.**

848
849 The Engineer will measure thickness of pavement by cores obtained
850 by the Contractor in accordance with HDOT TM 09-19 Field Sampling

851 Bituminous Material after Compaction (Obtaining Cores). The Engineer will
852 measure cores in accordance with HDOT TM 09-19, except that
853 measurement will be taken to nearest one thousandth of an inch; and
854 average of such measurements will be taken to nearest one hundredth of an
855 inch.

856
857 Thickness of finished HMA pavement shall be within 0.25 inch of
858 thickness indicated in the Contract Documents. Pavement not meeting the
859 thickness requirements of the Contract Documents may be required by the
860 Engineer to be removed and replaced.

861
862 Corrective methods taken on pavement exceeding specified
863 tolerances, e.g., insufficient thickness by methods accepted by the Engineer,
864 including removal and replacement, shall be at no increase in contract price
865 or contract time.

866
867 The checking of pavement thickness shall be done after all remedial
868 repairs, e.g., smoothness compliance repairs, compaction, have been
869 completed, reviewed, and accepted by the Engineer.

870
871 **(J) Quality Control Using New Technology.** The Engineer and MTRB
872 reserves the right to utilize new technology and methods to improve the
873 detection of noncompliant work on the project. The technology or method
874 may be used to locate defects in the work, e.g., ground penetrating radar to
875 locate delaminations, moisture damage, thin sections, voids, non-compliant
876 compaction, other non-destructive testing to locate flaws. The defect will be
877 verified by the methods stated in the Contract Documents or by other
878 established conventional means. If the technology or method has already
879 been accepted elsewhere or has standardized testing procedures the results
880 may be judged acceptable by the Engineer and no further testing will be
881 required. These new technologies and methods may be used for the
882 selection of sampling locations.

883
884 **(K) Protection of HMA Pavement.** Except for construction equipment
885 directly connected with paving operations, keep traffic off HMA pavement.

886
887 Protect HMA pavement from damage until it has cooled and set.

888
889 Do not refuel equipment or clean equipment or hand tools over paved
890 surfaces unless catch pan or device that will contain spilled fuel and other
891 products is provided. After completion of refueling or cleaning, remove catch
892 pan or device without spilling any of the collected content.

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894 Do not park roller or other paving equipment on HMA pavement paved
895 within 24 hours of laydown.

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(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

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(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

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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:

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(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.
3. When pavement abuts bridge approaches or pavement not under this Contract, ensure that the longitudinal slope deviations of the finished pavement comply with Contract Document's requirements.
4. Short pavement sections up to 600 feet long, including both mainline and non-mainline sections on tangent sections and on horizontal curves with a centerline radius of curve less than 1,000 feet.
5. Within a superelevation transition on horizontal curves having centerline curve radius less than 1,000 feet, e.g., curves, turn lanes, ramps, tapers, and other non-mainline pavements.
6. Within 15 feet of transverse joint that separates pavement from existing pavement not constructed under the contract, or from bridge deck or approach slab for longitudinal profiling.
7. At miscellaneous areas of improvement where width is less than 11 feet, such as medians, gore areas, and shoulders.
8. As otherwise directed by the Engineer. The Engineer may confine the checking of through traffic lanes with the straightedge to joints and obvious irregularities or choose to use it at locations not specifically stated in this Section.

1060 **(b) High-Speed Inertial Profiler**

1061
1062 There shall be a minimum 3 profile runs per lane, for each wheel path
1063 (left and right) which is approximately three feet from edge lane line. The
1064 segment length shall be 0.1 mi. The final segments in a lane that are less
1065 than 0.1 mi shall be evaluated as an independent segment and pay
1066 adjustments will be prorated for length. The profiles shall be taken in the
1067 direction of traffic only.

1068
1069 The latest version of FHWA ProVAL software shall be used to conduct
1070 profile analysis to determine IRI and areas of localized roughness. The IRI
1071 values shall be reported in units of in/mi.

1072
1073 Areas of localized roughness will be identified by using ProVAL's
1074 "Smoothness Assurance" analysis, calculating IRI with a continuous short
1075 interval of 25 feet and the 250-mm filter applied.

1076
1077 Additional runs may be required by the Engineer if the data indicate a
1078 lack of repeatability of results. A 92% agreement is required for repeatability
1079 and IRI values shall have at minimum a 95% confidence level.

1080 **(N) Required Pavement Smoothness**

1081
1082 The IRI for the left and right wheel paths in an individual lane will be
1083 computed and then averaged to determine the Mean Roughness Index (MRI)
1084 values. The MRI will be used to determine acceptance and pay adjustment.
1085 Each lane shall be tested and evaluated separately.

1086
1087 There are three (3) categories of target MRI values:

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1089

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

1090
1091 An opportunity for improving ride is considered as one (1) lift of asphalt
1092 pavement, including but not limited to HMAB, HMA, and SMA.

1093
1094 For the location where a 10-foot manual straightedge is required, the
1095 surface shall not vary more than 3/16 inch from the lower edge of a
1096 straightedge.

1098 No pre-final inspection, final inspection, and substantial completion
1099 granted will be made until the pavement meets smoothness requirement and
1100 all required profile reports are submitted to the Engineer and MTRB and are
1101 accepted.

1102
1103 **(O) Request for Profile Testing by the Department.**

1104
1105 For Type C, prior to pavement activities, the Engineer will measure the
1106 smoothness of the existing pavement.

1107
1108 The Contractor shall submit a written request to the Engineer to
1109 perform all required profile tests.

1110
1111 The request shall be made at least 30 days before desired testing date
1112 and shall include an approximate acceptance profile testing date, a plan view
1113 drawing of the area to be tested with the limits of the test area highlighted.

1114 The Contractor shall reimburse HDOT for any incurred cost related to
1115 any Contractor-caused cancellation or a deduction to the monthly payment
1116 will be made.

1117
1118 **(P) Department Requirements for Profile Testing.** When a request for
1119 testing is made, the requested area to be tested shall be 100% of the total
1120 area indicated to be paved in the Contract Documents unless the requirement
1121 is waived by the Engineer and MTRB.

1122
1123 Department acceptance surface tests will not be performed earlier
1124 than 14 days after HMA placement.

1125
1126 Clean debris and clear obstructions from area to be tested, as well as
1127 a minimum of 100 feet before and beyond the area to be tested before testing
1128 starts for use as staging areas. Provide traffic control for all profile testing.

1129
1130 The Engineer or MTRB or both may cancel the profile testing if the test
1131 area is not sufficiently clean, traffic control is unsatisfactory, or the area is not
1132 a safe work environment or test area does not meet Contract Document
1133 requirements. This canceled profile test will count as one profile test.

1134
1135 **(Q) Cost of Acceptance Profile Testing by The Department.** The
1136 Engineer, MTRB, or State's Third-Party Consultant will perform one initial
1137 profile test, at no cost to the Contractor for each area to be tested.

1138
1139 The Department's High-Speed Inertial Profiler pavement profile will be
1140 used to determine if the pavement's profile, i.e., smoothness is acceptable.

1141
1142

1143 If the profile of the pavement does not meet the requirements of the
1144 Contract Documents, the Contractor shall perform remedial work, i.e.
1145 corrective work then retest the area to ensure that the area has the required
1146 MRI, i.e., smoothness, before requesting another profile test by the Engineer.
1147

1148 **(1) Additional testing.** Additional testing, by the Department
1149 beyond the initial test will be performed at cost to the Contractor as
1150 follows:
1151

1152 **(a)** \$2,500 per test will be required when Department
1153 personnel or State's Third-Party Consultant is used.
1154

1155 **(R) Remedial Work for Pavements.**
1156

1157 **(1)** Corrective work shall be required for any 25 ft interval with a
1158 localized roughness in excess of 160 in/ mi. The Engineer may waive
1159 localized roughness requirements for deficiencies resulting from
1160 manholes or other similar appurtenances. Adjust manholes or other
1161 similar appurtenances so that using a 10-ft. straightedge the area
1162 around that manhole or other similar appurtenance shall not have
1163 more than 3/16-in. variation between any 2 contacts on the
1164 straightedge.
1165

1166 If corrective action is not successful, the Engineer may require
1167 continued corrective action, or apply a payment adjustment of \$250
1168 per occurrence.
1169

1170 **(2)** Corrective work shall also be required for any 0.1 mile interval
1171 with an average MRI above 95.0 in/mi for Types A and B. For Type A,
1172 correct the deficient section to an MRI of 60 in/mi or less. For Type B,
1173 correct the deficient section to an MRI of 70 in/mi or less. For Type C,
1174 corrective work may be required by the Engineer for 0.1 mile intervals
1175 that have an average MRI above the threshold shown in Table 401.03-
1176 4 – Smoothness Pay Disincentives with MRI and Table 401.03-5 –
1177 Smoothness Pay Disincentives for Percent Improvement as
1178 applicable.
1179

1180 If corrective action does not produce the required improvement, the
1181 Engineer may require continued corrective action, or apply payment
1182 adjustment as shown in Table 401.03-4 – Smoothness Pay
1183 Disincentives with MRI and Table 401.03-5 – Smoothness Pay
1184 Disincentives for Percent Improvement.
1185

1186 **(3)** The Contractor shall notify the Engineer at least 24 hours prior
1187 to commencement of the corrective work. The Contractor shall not

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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.

(9) Remedial repairs shall not leave any drainage structures' inlets higher than the surrounding pavement or alter the Contract Document's drainage pattern.

(10) For items in the pavement other than drainage structures, e.g., manhole frame and covers, survey monuments, expansion joints etc., the finish pavement, ground or not, shall not be more than 1/4 inch in elevation difference. Submit to the Engineer remedial repair method to correct these conditions for acceptance.

(11) Pick up immediately grinding operation residue by using a vacuum attached to grinding machine or other method acceptable to the Engineer.

(a) Any remaining residue shall be picked up before the end of shift or before the area is open to traffic, whichever is earlier.

(b) Prevent residue from flowing across pavement or from being left on pavement surface or both.

(c) Residue shall not be allowed to enter the drainage system.

(d) The residue shall not be allowed to dry or remain on the pavement.

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(e) Dispose of all material that is the result of the remedial repair operation, e.g., HMA residue, wastewater, and dust at a legal facility.

(12) Complete corrective work before determining pavement thickness for HMA pavements in accordance with Subsection 401.03(I) – HMA Pavement Thickness Tolerances.

(13) All HMA wearing surface areas that have been ground shall receive a coating, e.g., a coating material that will restore any lost impermeability of the HMA due to the grinding of the surface. The coating used shall not be picked up or tracked by passing vehicles or be degraded after a short period of time has passed, i.e., it shall have a service life equal to or greater than the HMA pavement. The coating shall not decrease the pavement's friction value. The coating's limits shall be the full width of the lane regardless how small. If the remedial repair area extends into the next lane, then the repair area will be full lane width also. Extend the length of coating areas in order for the coating area to look like the rest of the road and does not have patches 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) Recompact 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

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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 – Smoothness Pay Incentives, 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 – Smoothness Pay Disincentives with MRI.
- 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 – Smoothness Pay Disincentives with MRI.
 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 – Smoothness Pay Disincentives for Percent Improvement, 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

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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.

The Engineer will measure HMA pavement per ton in accordance with the Contract Documents.

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) Engineer will pay or deduct for the following pay items when included in proposal schedule:

1394	Pay Item	Pay Unit
1395		
1396	_____ HMA Pavement, Mix No. _____	Ton
1397		
1398	(1) 70% of the contract unit price or the theoretical calculated unit	
1399	price upon completion of submitting a job-mix formula acceptable to	
1400	the Engineer; preparing the surface, spreading, and finishing the	
1401	mixture; and compacting the mixture.	
1402		
1403	(2) 20% of the contract unit price or the theoretical calculated unit	
1404	price upon completion of cutting samples from the compacted	
1405	pavement for testing; placing and compacting the sampled area with	
1406	new material conforming to the surrounding area; protecting the	
1407	pavement; and compaction acceptance. Maintain temporary	
1408	pavement markings and other temporary work zone items, maintain a	
1409	clean work site.	
1410		
1411	(3) 10% of the contract unit price or calculate the unit price when	
1412	the final configuration of the pavement markings is in place.	
1413		
1414	The Engineer will pay for adjusting existing frames and covers and valve	
1415	boxes in accordance with and under Section 604 – Manholes, Inlets and Catch	
1416	Basins. Adjustments for existing street survey monument frames and covers will be	
1417	paid for as if each were a valve box frame and cover.	
1418		
1419	The Engineer may, at his sole discretion, in lieu of requiring removal and	
1420	replacement, use the sliding scale factor to accept HMA pavements compacted	
1421	below 93.0 percent and above 97.0 percent. The Engineer will make payment for	
1422	the material in that production day, if the Engineer decides to use a sliding scale	
1423	factor, at a reduced price arrived at by multiplying the contract unit price by the pay	
1424	factor. The Engineer is not obligated to allow non-compliant work to remain in place	
1425	and may at any time chose not to use a sliding scale factor method of payment and	
1426	instead require removal of the noncompliant pavement that is greater than 97.0 or	
1427	less than 93.0.	
1428		
1429	In compliance with Subsection 105.12 Removal of Non-Conforming and	
1430	Unauthorized Work remove and replace HMA compacted below 90.0 percent.	
1431		
1432	The Engineer will solely decide if the noncompliant work would be acceptable	
1433	if a reduced payment for the noncompliant work is made. The Engineer is not	
1434	obligated to allow noncompliant work to remain in place and may at any time choose	
1435	not to use a sliding scale factor method of payment as a method of resolution.	
1436	Instead, utilize the remedy allowed in Subsection 105.12 Removal of Non-	
1437	Conforming and Unauthorized Work, requiring removal of the noncompliant	
1438	pavement, shall be used.	
1439		

1440 Such a reduced payment, if made and accepted by the Contractor, shall be
 1441 a mutually agreeable resolution to the noncompliant work being addressed. If it is
 1442 not mutually acceptable, the noncompliant work shall be removed. If the reduced
 1443 payment is acceptable; the Engineer will make the reduced payments for the
 1444 noncompliant work in accordance with Table 401.05-2 - Sliding Scale Pay Factor
 1445 for Compaction. The amount of tonnage to be reduced will be determined by the
 1446 Engineer by using the initial cores taken on the mat. No additional cores shall be
 1447 taken to determine the limits of the non-compliant area unless requested by the
 1448 Engineer.

1449
 1450 The Engineer, for determining the reduced tonnage for noncompliant work,
 1451 will assume the level of compaction is linear and will proportion the compaction level
 1452 from the last core that indicated an acceptable compaction level to the nearest core
 1453 indicating a noncompliant compaction level to determine the calculated limit of
 1454 acceptable compaction. The length will be the linear distance between the cores
 1455 measured along the baseline. If there is no core that was taken for the shift's or
 1456 day's work that were compliant then the limit will be the end or start of the day's or
 1457 shift's work. The width will be the nominal paving width. Use the day's specific
 1458 gravity of the mix to determine tonnage. The thickness will be the nominal paving
 1459 thickness.

1460
 1461 The total reduced noncompliant tonnage to be paid will be determined by
 1462 multiplying the applicable percent of reduction by the computed tonnage of the
 1463 noncompliant work. Percent of Quantity Paid shall be the percentage shown in
 1464 Table 401.05-2 - Sliding Scale Pay Factor for Compaction. The reduced tonnage
 1465 shall be used as the payment quantity for the noncompliant work. The reduced
 1466 quantity paid that is used for the monthly payment will be arrived at by multiplying
 1467 the contract unit price by the reduced tonnage.
 1468

Table 401.05-2 – 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

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END OF SECTION 401”

1 **SECTION 415 – COLD PLANING OF EXISTING PAVEMENT**

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3 Make the following amendments to said Sections:

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5 **(I)** Amend **Section 415.04 Measurement**, from line 67 to 68 to read as
6 follows:

7
8 **“415.04 Measurement.** The Engineer will not measure cold planing for
9 payment.”

10
11 **(II)** Amend **Section 415.05 Payment**, from line 70 to 79 to read as follows:

12
13 **“415.05 Payment.** The Engineer will not pay for cold planing separately
14 and will consider the cost for cold planing as included in the contract price for the
15 various paving items. The cost is for the work prescribed in this section and the
16 contract documents.”

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18
19 **END OF SECTION 415**

47 grade. Discontinue concrete placement when settlements deviate more than ±
48 3/8 inch from those indicated on falsework drawings. In such affected areas,
49 provide corrective measures prior to initial set of concrete. Remove
50 unacceptable concrete.”

51

52 **(VI)** Amend **503.03(C)(1) Construction** by revising the first paragraph
53 between lines 169 and 172 as follows:

54

55 **(1) Construction.** “Use wood or metal forms that are impervious to
56 moisture, non-staining to concrete, mortar tight and sufficiently rigid to prevent
57 distortion due to pressure of concrete and other loads, including vibration,
58 incidental to construction. Construct and maintain forms to prevent joints from
59 opening. Formwork joints shall be filled with approved material that is impervious
60 to moisture, will not stain concrete, and produces tight joints.”

61

62 **(VII)** Amend **503.03(C)(1) Construction** by revising the second paragraph
63 between lines 174 and 176 to read as follows:

64

65 “Unless otherwise indicated in the contract documents, place minimum ¾
66 inch by ¾ inch chamfer at sharp edges of exposed concrete surfaces. Give
67 girder and coping forms bevels or drafts to ensure easy removal.”

68

69 **(VIII)** Amend **503.03(C)(1) Construction** by adding the following sentence to
70 the ninth paragraph at line 209:

71

72 “The Engineer will stop the use of the forms or forming systems which
73 produce a concrete surface with excessive undulations until the Contractor
74 makes modification acceptable to the Engineer.”

75

76 **(IX)** Amend **503.03(C)(2) Form Lumber** by adding the following sentence to
77 the first paragraph after line 223:

78

79 “When requested by the Engineer, submit certificates verifying grade and
80 species of any piece of lumber which does not have a grade or species stamp.”

81

82 **(X)** Amend **503.03(D) Removal of Falsework and Forms** by revising Table
83 503.03-1 – Removal of Falsework and Forms at line 297 to read as follows:

84

“TABLE 503.03-1 – REMOVAL OF FALSEWORK AND FORMS
Railing and Barriers – 12 Hours Removal Time
Beams, Arches, and Other Members – 14 days Removal Time

Slabs With Maximum Thickness of (Inches)	9		12		More Than 12	
Removal Time (Days)	7		10		14	
Walls, Columns, and Vertical Sides of Beams With Maximum Height of (Feet)	2	5	10	20	30	40 or More
Removal Time (Days)	0.5	1	2	3	5	7
Note: Where forms also support vertical or horizontal loads imposed on slab or beam soffits, use 14 days for removal time.”						

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(XI) Amend **503.03(D) Removal of Falsework and Forms** by deleting the last paragraph between lines 329 and 334.

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(XII) Amend **503.03(E) Loading** by deleting the words, “except abutment walls and wing walls” in line 337.

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(XIII) Amend **503.03(F)(1) General** by adding the following paragraphs after line 419:

94

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“At the time of placement, the concrete temperature shall not exceed 90 degrees Fahrenheit.

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The rate of evaporation shall be measured by using the nomograph: ACI 308R Figure 4.1 Nomograph for Estimating the Maximum Potential Rate of Evaporation of the Environment Assuming a Water-Covered Surface in Which the Water Temperature Is Equal to the Concrete Temperature or by using an evaporation rate calculator e.g., Kestrel 5200 that has been reviewed and accepted by the Engineer. Use procedures as stated in ACI 308R Chapter 4 – Monitoring Curing and Curing Effectiveness. Approximately 30 minutes prior to the scheduled start of concrete placement measure the ambient air temperature, relative humidity and wind velocity with industrial grade weather monitoring instruments or with an evaporation rate calculator to determine the on-site evaporation rate. When the rate of evaporation is equal to or exceeds 0.05 lb/sq ft/h fogging shall begin. During the placement of the concrete recalculate evaporation rate every 15 minutes using new real-time data including actual temperature of concrete being placed. The concrete shall be fogged before, during and after finishing. Fogging shall start at the point the bleed water starts to evaporate. Fogging may stop when the curing compound application is complete. Fogging shall be accomplished by self-powered atomized mister, e.g. BossTek DustBoss, that creates a mist of water droplets above the concrete surface that will float in the air. The droplets should float in the air, not fall on the concrete. The goal is to humidify the air, not wet the concrete. Let the water evaporate

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119 before finishing. If the concrete is fogger before floating, brooming or trowelling,
120 do not finish the accumulated surface water into the concrete surface or it will
121 weaken it. Do not allow water to run off the concrete surface. Adjust foggers or
122 pause its operation. Foggers shall not drip water on the poured concrete surface.
123 Point foggers into the air above the concrete pour not at it and not in the direction
124 of the incoming wind. It shall not be acceptable to use a water hose to spray
125 water into the air as a substitute. This will be considered adding additional water
126 to the deck surface. If plastic shrinkage cracks appear during the finishing, the
127 cracks shall be closed by striking each side of the crack with a float and
128 refinishing the concrete.”

129

130 **(XIV) Amend 503.03(F)(3) Box Girder Spans** by revising the title Box Girder
131 Spans at line 431 to read Sequence.

132

133 **(XV) Amend 503.03(F)(7) Hot Weather Concreting** by adding the word
134 “ambient” in front of the word “temperature” at line 560.

135

136 **(XVI) Amend 503.03(F) Placing Concrete** by adding the following Subsection
137 after line 565:

138

139 **“(8) Certified Concrete Flatwork Finisher Requirement.** Perform
140 the placement, and finishing operations of concrete flatwork with a
141 minimum ratio of one certified ACI Concrete Flatwork Finisher and
142 Technician with 4,500 hours of acceptable work experience (certified
143 craftsman) per three concrete finishers (concrete finishers without ACI
144 Concrete Flatwork Finisher and Technician certification and 4,500 hours of
145 acceptable work experience) at each location having flatwork done. The
146 concrete flatwork shall be under the direct supervision of a certified
147 craftsman. Designate the certified craftsman who will be supervising and
148 responsible for determining the quality of the finish of the concrete flatwork
149 being performed. No flatwork shall be performed without the required
150 amount of certified craftsman present.

151

152 **(a)** Flatwork concrete is defined as any concrete work that
153 requires tools or machines to be used during the placement and
154 finishing operations of concrete. Concrete flatwork includes
155 concrete work that requires a specified finishing, smoothness or
156 rigid surface tolerances such as sidewalks, walkways, Portland
157 cement concrete pavement, concrete white-topping, girder seats,
158 pier caps, bridge decks, on-grade concrete slabs, approach slabs,
159 concrete overlays, and concrete repairs which exceed one square
160 foot per day.

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162 **(b)** Areas that are not considered flatwork concrete are the top
163 of foundations or structures that will have backfill material placed
164 directly on the concrete surface.

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(c) Submit copies of the craftsman’s current ACI certification 30 days before concrete flatwork begins for the Engineer’s review and acceptance. The Engineer has the right to require the removal, replacement, retraining and re-certification of a certified craftsman if that person does not, in the opinion of the Engineer, demonstrate the ability to place and finish concrete in accordance with the practices recommended in the ACI Concrete Flatwork Finisher Certification Program and to meet the finishing standards required by the contract documents.

(d) Any cost or impact to the contractor in providing, training, certification, retraining, replacement or re-certification is incidental to the contract items that require concrete flatwork.”

(XVII) Amend **503.03(G) Joints** by adding the following sentence after line 566:

“Prior to backfilling with earth or other materials against the joints, all construction, expansion, contraction, and control joints shall be waterproofed with flashing compound waterproofing as detailed in the Standard Plans.”

(XVIII) Amend **503.03(G)(1) Construction Joints** by revising the second paragraph between lines 572 and 579 to read as follows:

“Before placing concrete on substrate concrete at construction joint, the following work shall be performed:

(a) Remove laitance, loose particles, dust, dirt, impervious membrane curing compound, and any other material foreign to the construction joint and projecting reinforcement.

(b) Roughen horizontal construction joint by abrasive blast cleaning or other approved methods to full amplitude of approximately ¼ inch.”

(XIX) Amend **503.03(G)(3) Contraction Joints** by revising the first paragraph from lines 661 to 665 to read as follows:

“(3) Contraction Joints. Contraction joints in walls and in other structures shall be spaced at not more than 20 feet on centers and shall be spaced, at abrupt changes in height or thickness and at obtuse corners unless otherwise directed by the Engineer.”

(XX) Amend **503.03(I)(3) Flashing Compound for Joints** between lines 755 and 757 by deleting this subsection.

211 **(XXI) Amend 503.03(L) Curing Methods** by adding the following paragraph
212 after line 794:

213
214 “The Contractor shall have the option to use curing compound SINAK
215 WCE or SINAK LITHIUM for bridge structures when approved by the Engineer.
216 Six copies of the manufacturer’s brochure and certificates of test results shall be
217 submitted. All work shall conform with the manufacturer’s recommendations.”

218
219 **(XXII) Amend 503.03(L)(2) Impervious Membrane Curing** by revising the third
220 sentence of the first paragraph from lines 818 to 819, to read as follows:

221
222 “Use ratio of at least one gallon for each 100 square feet of concrete
223 surface.”

224
225 **(XXIII) Amend 503.03(L)(2) Impervious Membrane Curing** by adding the
226 following sentences to the first paragraph after line 819:

227
228 “The curing compound shall be applied to the concrete following the
229 surface finishing operation, immediately before the moisture sheen disappears
230 from the surface, but before any drying shrinkage or craze cracks begin to
231 appear. In the event of any drying or cracking of the surface, application of water
232 with an atomizing nozzle (fog spray) as specified in Section 503.03(L)(1), “Water
233 Curing”, shall be started immediately and shall be continued until application of
234 the compound is resumed or started; however, the compound shall not be
235 applied over any resulting freestanding water. Should the film of compound be
236 damaged from any cause before the expiration of 7 days after the concrete is
237 placed in the case of structures and 72 hours in the case of pavement, the
238 damaged portion shall be repaired immediately with additional compound.”

239
240 **(XXIV) Amend 503.03(L)(2) Impervious Membrane Curing** by revising the last
241 sentence of the second paragraph between lines 822 and 825 as follows:

242
243 “Do not apply membrane curing compound on surfaces to which concrete
244 is to be bonded or to which waterproofing or epoxy is to be applied.”

245
246 **(XXV) Amend 503.03(M) Finishing Concrete Surfaces** by adding the following
247 sentences at line 841:

248
249 “No additional water shall be added to the concrete surfaces in an effort to
250 aid the finishing operation as the application of water to aid the finishing
251 operation will result in the rejection of the concrete pour. Finishing aids or
252 evaporation retarders may be used only with written authorization by the
253 Engineer. Only finishing aids shall be used to finish the concrete surface and
254 only evaporation retarders used to minimize the evaporation rate of the plastic
255 concrete. These solutions shall not be used interchangeably.”

256

257 **(XXVI)** Amend **503.03 Construction** by adding subsection 503.03(0) beginning
258 at line 1200 as follows:

259
260 **“(0) Tolerance for Concrete Construction and Materials.** Conform to
261 the stricter of tolerances specified in the specifications, ACI 117 Standard
262 Specifications for Tolerance for Concrete Construction and Materials, PCI
263 Tolerance for Precast and Prestressed Concrete, and PCI MNL-116 Manual for
264 Quality Control of Plants and Production of Structural Precast Concrete
265 Products.”

266
267 **(XXVII)** Amend **503.04 Measurement** by revising lines 1201 to 1205 to read as
268 follows:

269
270 **“503.04 Measurement.** Concrete will be paid per cubic yard.”

271
272 **(XXVIII)** Amend **503.05 Payment** by revising lines 1206 to 1223 to read
273 as follows:

274
275 **“503.05 Payment.** The Engineer will pay for the accepted quantities of
276 concrete complete in place per cubic yard for the pay items listed below and
277 contained in the proposal.

278
279 Payment will be full compensation for placing, curing and finishing; for
280 furnishing materials including admixtures and cement; for furnishing and installing
281 premolded joint fillers, joint seals, waterproofing at construction joints,
282 waterstops; for furnishing and installing anchor bolts, expansion joints and other
283 similar items; for forms, form lining and falsework or centering, structural steel
284 bearing plates; and for equipment, tools, labor, materials and incidentals
285 necessary to complete the work.

286
287
288 The Engineer will pay for the following pay item when included in the
289 proposal schedule:

290	291	292	293	294	295	296	297
	Pay Item						Pay Unit
	Concrete for _____						Cubic Yard
	(Class _____ if applicable)”						

END OF SECTION 503

1 Amend **Section 511 - Drilled Shafts** to read as follows:
2
3

4 **“SECTION 511 - DRILLED SHAFTS**
5
6

7 **511.01 Description.** This section is for installing, drilling, reinforcing, concreting
8 and crosshole sonic logging of drilled shafts in the locations shown on the plans.
9

10 **511.02 Materials.** Materials shall conform to the following:
11

12 **(A) Portland Cement Concrete.** Concrete shall conform to Section 601 -
13 Structural Concrete and Section 511 – Drilled Shafts.
14

15 The in-place concrete shall have minimum 28-day compressive strength
16 $f'_c = 4500$ pounds per square inch and maximum water to cement ratio of 0.45.
17

18 Proportion the concrete mix designs to get properties of high workability,
19 compaction under self-weight, resistance to segregation, and resistance to
20 excessive bleeding. The maximum nominal aggregate size shall be 3/4 inch.
21 The slump range shall be 7.0 inches \pm 1.0 inch for concrete poured into a water
22 free borehole and 8.0 inches \pm 1.0 inch for concrete placed under water or under
23 drilling slurry. Slump for the concrete shall be a minimum of four inches after
24 four hours from initial mixing or after the completion of the concrete placement,
25 whichever occurs later.
26

27 The Engineer will permit superplasticizers.
28

29 At the time of placement, the concrete temperature shall not exceed 90°F.
30

31 The final concrete mix design shall be based on field trial batches to
32 determine the most suitable materials and proportions that will provide a
33 concrete mixture having the least amount of segregation and bleeding, and at
34 the same time provide the necessary workability to meet placing requirements.
35

36 “All concrete must comply with the CO2 footprint reduction requirements
37 of Section 601 – Structural Concrete.”
38

39 **(B) Reinforcing Steel.** Reinforcing steel shall conform to Section 602 -
40 Reinforcing Steel.
41

42 **(C) Casings.** Casings shall have inside diameters not less than the
43 required diameter of the shafts and wall thicknesses specified or adequate to
44 withstand construction loads and stresses.
45

46 **(D) Cement Grout.** Cement grout used for setting the expandable load
47 cells and for filling the access tubes after completion of crosshole sonic logging
48 tests and cored holes, shall be prepackaged, non-shrink, and non-metallic grout
49 with the same strength as the drilled shaft concrete. The grout shall contain 10

50 grams of water-based migrating amine carboxylate corrosion inhibitor per 0.5
51 cubic feet. Cement grout used to fill cored holes shall be extended with 3/8 inch
52 pea gravel per manufacturer's recommendations.
53

54 **(E) Crosshole Sonic Logging (CSL) Test Access Tube.** Access tube
55 shall be at least 2-inch inside diameter, Standard steel pipe conforming to ASTM
56 A53, Grade B, Type E.
57

58 Access tube shall have round, regular inside diameter, free of defects and
59 obstructions, including all pipe joints, in order to permit free unobstructed
60 passage of 1.375-inch maximum diameter source and receiver probes used for
61 crosshole sonic logging testing. Access tube shall be watertight, free from
62 corrosion, with clean internal and external faces to ensure good bonding
63 between the drilled shaft concrete and access tubes. Fit access tubes with
64 watertight caps on bottom and top. Both ends of the access tube shall be
65 capped at all times except when being connected to another access tube. The
66 end of the tubes shall be undamaged and suitably prepared for the end caps and
67 coupling system adopted. Access tube coupling shall be used when extension of
68 the access tubes is necessary. The access tube coupling shall be watertight.
69

70 When crosshole sonic logging testing is indicated in the contract
71 documents, submit manufacturer's certificate of compliance for the acceptance
72 of the access tube.
73

74 **511.03 Construction Requirements**

75
76 **(A) Qualifications of Drilled Shaft Contractor.** Be capable of installing
77 drilled shafts, conducting load tests and other related work as specified in the
78 contract and shall have the following minimum experience requirements below.
79

80 **(1) Drilled Shaft Experience.** Because of the expertise required to
81 successfully complete the drilled shafts according to the contract, a
82 qualified drilled shaft Contractor shall install the drilled shaft. The drilled
83 shaft Contractor shall have at least three projects completed in the last
84 three years on which the Contractor has installed a minimum of five drilled
85 shafts per project of a diameter and length similar to those shown in the
86 contract.
87

88 **(B) Preconstruction Requirements.**
89

90 **(1) Experience Information.** Submit the following information to the
91 Engineer within 30 days after award of contract for acceptance by the
92 Engineer:
93

94 **(a)** List of drilled shaft projects completed in the past 10 years.
95 The list of projects shall contain the names and phone numbers of
96 owner's representatives who can verify participation on that project.
97 The drilled shaft Contractor shall have installed at least three
98 projects completed in the last three years on which the Contractor

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has installed a minimum of five drilled shafts per project of a diameter and length similar to those shown in the contract.

(b) Name and experience record of the drilled shaft superintendent who will be in charge of drilled shaft operations for this project. Drilled shaft superintendent shall have minimum three years' experience within the last 10 years in drilled shaft construction similar to type proposed. Drilled shaft superintendent shall remain on the project for the duration of the drilled shaft work. Drilled shaft superintendent who leaves the project shall be replaced with personnel with equal or better experience. Submit proposed superintendent's name and experience record for acceptance.

(2) Protection of Existing Structures. Prevent damage to existing structures and utilities. Preventive measures shall include:

(a) Selecting construction methods and procedures that will prevent caving of the shaft excavation and

(b) Monitoring and controlling the vibrations from construction activities such as the driving of casing or sheeting or drilling of the shaft

(3) 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:

(a) List of proposed equipment such as cranes, drills, augers, bailing buckets, final cleaning equipment, concrete pumps, and casing,

(b) Details of construction operation sequence and the sequence of shaft construction in bents or groups,

(c) 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,

(d) If the Contractor plans to use slurry, details of the methods to mix, circulate and desand slurry,

(e) Details of methods to clean the shaft excavation,

(f) Details of reinforcement placement including lifting, support, and centralization methods,

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(g) Details of concrete placement including proposed operational procedures for pumping method,

(h) Details of attaching the crosshole sonic logging test access tubes to the reinforcing cage, details of testing access tubes for leakage after cage installation and prior to shaft concrete placement, and details for grout placement in the crosshole sonic logging test access tubes after testing is completed,

(i) Details of required load tests, including equipment, procedures, and recent calibrations for jacks or load cells supplied by the Contractor,

(j) Proposed concrete mix design, including expected strengths at 3, 7, 14 and 28 days. Concrete mix design shall minimize segregation and bleed. Submit test results of both a trial mix and a slump loss test, conducted by State-accepted 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), and

(k) Test results from laboratory measurements of the ultrasonic pulse velocity, performed in accordance with ASTM C 597, on 3-day, 7-day, and 28-day concrete trial mix samples described in Subsection 511.03(B)(3)(j).

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.

(C) Construction Sequence. Complete the excavation to footing elevations before shaft construction begins. Repair the disturbances caused by shaft installation to the footing area before pouring the footing.

When installing drilled shafts with embankment placement, construct drilled shafts after the placement of fills.

Do not cap the drilled shafts before placing the fills as near to final grade as possible. Only leave room for construction of the caps.

197 **(D) Construction Methods.** Excavate for shafts to the dimensions and
198 elevations shown in the contract. Its methods and equipment shall be suitable
199 for the intended purpose and materials met. Use the permanent casing method
200 only when required by the contract or authorized by the Engineer. Blasting shall
201 not be permitted.

202
203 **(1) Dry Construction Method.** The dry method includes drilling the
204 shaft excavation, removing accumulated water and loose material from
205 the excavation, and placing the reinforcing cage and shaft concrete in a
206 dry excavation. Use this method only at sites where the groundwater
207 table and soil conditions are suitable to permit construction of the shaft in
208 a dry excavation. The Engineer will inspect the sides and bottom of the
209 shaft visually before placing the concrete. Dry excavation is defined as an
210 excavation where maximum depth of water does not exceed 3 inches.

211
212 **(2) Wet Construction Method.** This method includes using water,
213 mineral, or polymer slurry to maintain stability of the hole perimeter while
214 advancing the excavation to final depth, placing the reinforcing cage, and
215 concreting the shaft. Use this method at sites where a dry excavation for
216 placement of the shaft concrete cannot be maintained

217
218 Reuse drilling water only if permitted by the Engineer and
219 contingent upon control of unit weight to no more than 62.5 pounds per
220 cubic foot and Marsh funnel viscosity to not more than 27 seconds per
221 quart, at the time drilling water is introduced into the borehole.

222
223 When locating drilled shafts in open water areas, extend the
224 exterior casings from above the water elevation into the ground. Install
225 the exterior casing to produce a positive seal at the bottom of the casing
226 so that no intrusion or extrusion of water or other materials occurs into or
227 from the shaft excavation.

228
229 **(3) Casing Construction Method.** The casing method may be used
230 when shown in the contract or at sites where the dry or wet construction
231 methods are inadequate. The casing may be placed either in a predrilled
232 hole or advanced through the ground by twisting, driving, before cleaning
233 the casing.

234
235 **(E) Excavation.**

236
237 **(1) General.** Make the shaft excavations at locations, and to shaft
238 geometry and dimensions shown in the contract. After acceptance by the
239 Engineer, adjust drilled shaft tip elevations when the material met during
240 excavation is unsuitable and/or differs from that anticipated in the design
241 of the drilled shaft.

242
243 Maintain a construction method log during shaft excavation. Submit
244 method log within 24 hours of shaft drilling completion. The log shall
245 contain information such as:

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- (a)** Excavation diameters;
- (b)** Equipment used;
- (c)** Type of material excavated with the elevations of the material;
- (d)** Rate of excavation 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

Drilling of shafts within a horizontal distance of 3.0 times the shaft diameter to the hole being drilled 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.

On projects with cofferdams, provide a qualified diver to inspect the cofferdam conditions when the contract requires a seal for construction. Before placing the concrete seal, the diver shall inspect the cofferdam interior periphery. The cofferdam interior periphery inspection includes each sheeting indentation and around each drilled shaft.

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.

Dispose the excavated material according to Section 203 - Excavation and Embankment.

Furnish drilled shaft concrete required to fill excavations for shafts dimensioned in the contract documents.

Do not permit workers to enter the shaft excavation unless:

- (a)** A suitable casing is in place.
- (b)** The water level is lowered and stabilized below the level the workers will occupy, and

295 (c) Adequate safety equipment and procedures are provided,
296 performed and in place.

297
298 **(2) Excavation and Drilling Equipment.** The excavation and
299 drilling equipment shall have adequate capacity including power, torque,
300 and down thrust to excavate a hole to the maximum diameter and to a
301 depth of ten feet or 20% beyond the depths shown in the contract,
302 whichever is greater.

303
304 The use of special drilling equipment and/or procedures will be
305 necessary to drill through the cobbles and boulders. The Contractor shall
306 anticipate an abundance of boulders or various sizes in deposits classified
307 as "fill" and "older alluvium" on the boring logs and shall make allowance
308 for difficult drilling in his bid. In addition, the Contractor shall make
309 allowance for difficult drilling in his bid within the basalt rock formation.

310
311 The excavation and overreaming tools shall be of adequate design,
312 size, and strength to do the work shown in the contract.

313
314 **(a) Special Drilling Equipment.** When conventional earth
315 augers and/or underreaming tools cannot be used for drilling,
316 provide special drilling equipment including rock core barrels, rock
317 tools, air tools and other equipment as necessary to construct the
318 shaft excavation to the size and depth required. The use of special
319 drilling equipment and/or procedures will be necessary to drill
320 through the cobbles and boulders, and cost shall be incidental to
321 unclassified shaft excavation.

322
323 **(b) Sidewall Overreaming.** When the sidewall of the hole
324 has softened, swelled, or degraded, sidewall overreaming will be
325 required by the Engineer. Overreaming thickness shall be a
326 minimum of 0.5 inch and a maximum of 3.0 inches. The Contractor
327 may overream with a grooving tool or overreaming bucket. The
328 thickness and elevation of sidewall overreaming shall be according
329 to the contract or as directed by the Engineer. Overream sidewall
330 and place additional shaft concrete at no cost to the State.

331
332 **(3) Unclassified Excavation.** All excavation for the production
333 drilled shafts shall be designated as unclassified. The Contractor shall
334 anticipate the presence of cobbles and boulders within the depths of the
335 drilled shafts. The Contractor shall provide the necessary equipment to
336 remove and dispose of materials met in forming the drilled shaft
337 excavation, including installation of temporary casing and/or use of slurry,
338 as necessary. The Engineer will not make separate payment for
339 excavation of materials of different densities and character (hardness) or
340 employment of special tools and procedures necessary to excavate. The
341 Engineer will pay for obstruction removal separately.

342

343 **(4) Obstructions Removal.** Remove obstructions at drilled shafts
344 locations when authorized by the Engineer. Obstructions shall include
345 man-made materials such as but not limited to old concrete foundations
346 not shown on the Plans.
347

348 The Contractor shall employ special procedures and/or tools after
349 the Contractor cannot advance the hole using conventional augers fitted
350 with soil or rock teeth, drilling buckets, core barrels and/or underreaming
351 tools. Such special procedures/tools may include: chisels, boulder
352 breakers, air tools, hand excavation, temporary casing, and increasing the
353 hole diameter.
354

355 Drilling tools and any other equipment, lost in excavation, are not
356 considered obstructions. Remove the drilling tools and any other
357 equipment promptly. The cost due to tools lost in the excavation shall be
358 at no additional cost to the State including costs associated with hole
359 degradation (requiring overreaming or other methods) due to removal
360 operations or the time the hole remains open or any other remedial
361 actions needed to be performed to correct the situation caused by the tool
362 lost.
363

364 Natural materials used as fill materials such as cobbles and
365 boulders shall be anticipated at the site during excavation and shall not be
366 considered an obstruction regardless of the size and hardness of the
367 boulder. These natural materials used as fill materials shall not be
368 considered an obstruction under this section.
369

370 **(F) Casings.**

371
372 **(1) General.** Casings shall be steel conforming to ASTM A252,
373 Grade 3, smooth, watertight, and of ample strength to withstand both
374 handling and driving stresses and the pressure of concrete and the
375 surrounding earth materials. The inside diameter of the casing shall not
376 be less than the specified size of the shaft. The Engineer will not allow
377 extra compensation for concrete required to fill the oversized casing or
378 oversized excavation. Remove casings from shaft excavations except
379 when the casing is permanent. If the Contractor elects to pre-drill for the
380 permanent casing, the pre-drilled hole diameter shall be no larger than the
381 outside diameter of the permanent casing. The Contractor shall take
382 proper measures and shall be responsible for maintaining the tip elevation
383 of the permanent casing at the specified elevations.
384

385 When the shaft extends above ground or through a body of water,
386 the shaft may be formed with removable casing except when the casing is
387 permanent. Remove the casing carefully, where specified, so that the
388 casing will not damage the cured concrete. When the casing needs to be
389 removed after the concrete hardens in open water, design and submit the
390 special system for acceptance by the Engineer. The Contractor may

391 remove the casings only when the concrete attains sufficient strength
392 provided:
393
394 (a) The curing of the concrete continues for the full 72 hour
395 period,
396
397 (b) The shaft concrete is not exposed to salt water or moving
398 water for a minimum of 7 days after placement, and
399
400 (c) The concrete reaches a compressive strength of at least
401 2,500 pounds per square inch.
402
403 (2) **Temporary Casing.** The Engineer will consider subsurface
404 casing temporary unless shown in the contract as permanent casing.
405 Remove the temporary casing before completing the placing of concrete
406 in the drilled shaft. The Contractor may require telescoping, predrilling
407 with slurry, and/or overreaming to beyond the outside diameter of the
408 casing to install casing.
409
410 When choosing to remove a casing and substituting a longer or
411 larger diameter casing through caving soils, stabilize the excavation with
412 slurry or backfill before installing the new casing.
413
414 Before withdrawing the casing, the level of fresh concrete in the
415 casing shall be the higher of the following:
416
417 (a) Minimum of five feet above the hydrostatic water level, or
418
419 (b) Level of drilling fluid, outside the casing.
420
421 While withdrawing the casing, maintain an adequate level of
422 concrete within the casing to:
423
424 (a) Displace the fluid trapped behind the casing upward and
425
426 (b) Discharge the fluid at the ground surface without
427 contaminating or displacing the shaft concrete.
428
429 When temporary casings become bound or fouled during shaft
430 construction and cannot be removed, the Engineer will consider the drill
431 shaft defective. Improve such defective shafts according to the contract
432 or submit remedial repair for acceptance by the Engineer. Such
433 improvement may consist of removing the shaft concrete and extending
434 the shaft deeper, providing straddle shafts to compensate for capacity
435 loss, or providing a replacement shaft. Do corrective measures including
436 redesign of footings caused by defective shafts according to the contract
437 at no cost to the State or extension of the contract time. Any redesign of
438 the footing shall be submitted to the Engineer for acceptance. The
439 redesign shall be performed by a structural engineer and a civil engineer

440 specializing in the geotechnical practice both licensed in the State of
441 Hawaii. All remedial repairs shall have drawings and calculations signed
442 and stamped by both of the above licensed engineers. The Engineer will
443 not pay for the casing remaining in place as well as any redesign or
444 remedial repair.

445
446 **(G) Slurry.** If required, use only polymer slurry in the drilling process. The
447 polymer slurry shall have sufficient viscosity and gel characteristics to transport
448 excavated material to suitable screening system. The percentage and specific
449 gravity shall be sufficient to maintain the stability of the excavation and to allow
450 proper concrete placement.

451
452 During construction, maintain the level of the slurry at a height sufficient to
453 prevent caving of the hole. When a sudden significant loss of slurry occurs,
454 delay the construction of that foundation until an alternate construction
455 procedure is submitted for acceptance by the Engineer.

456
457 Premix the polymer slurry thoroughly with clean fresh water in slurry tanks
458 and adequate time (as prescribed by the manufacturer) allotted for dehydration
459 before introducing the slurry by pumping into the shaft excavation. The slurry
460 tanks shall have capacity for adequate slurry circulation, storage, and treatment.
461 Excavated slurry pits in lieu of slurry tanks will not be allowed without the written
462 permission of the Engineer.

463
464 Use desanding equipment to control slurry sand content to less than 0.5%
465 by volume in the borehole for polymer slurry. The Engineer will not require
466 desanding equipment for setting temporary casing, sign post, or lighting mast
467 foundations.

468
469 Prevent the slurry from "setting up" in the shaft, such as: agitation,
470 circulation and/or adjusting the properties of the slurry. Dispose of slurry in
471 suitable areas off from the project site.

472
473 The Contractor shall have the representative from the manufacturer of the
474 slurry product on site providing the technical support for the slurry preparation,
475 placement, testing and other quality control. Carry out the control tests using
476 suitable apparatus on the polymer or mineral slurry to resolve the density,
477 viscosity, pH, and sand content. Acceptable range of values for those physical
478 properties for two types of polymer slurries is in Tables 511-1 - Shore Pac GCV
479 (CETCO Drilling Products Group) IN FRESH WATER and 511-2 - SLURRYPRO
480 CDP (KB Technologies Ltd.) IN FRESH WATER.

481
482 Test the density, viscosity, and pH value during the shafts excavation to
483 establish a consistent working pattern. Make a minimum of four sets of tests
484 during the first 8 hours of slurry use. When the results show consistent behavior,
485 decrease the testing frequency to one set every four hours of slurry use.

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TABLE 511-1 - Shore Pac GCV (CETCO Drilling Products Group) IN FRESH WATER			
Property	Range of Values *		Test Method
	Time of Slurry Introduction	In Hole At Time Of Concreting	
Density (pcf)	Less than or equal to 64.0**	Less than or equal to 64.0**	Density Balance
Viscosity (sec/qt)	33 - 74	Less than or equal to 57	Marsh Cone
PH	8.0 – 11.0	8.0 – 11.0	pH paper pH meter

* At 20^o C
 ** Increase by two pounds per cubic foot in salt water

Notes: a. When the Contractor does not need to control the bottom hole conditions or when tests show that other criteria are appropriate, the Engineer may modify the values.

b. When the contract requires desanding, the sand content shall not exceed 0.5% percent (by volume) in the bore hole as resolved by the American Petroleum Institute sand content test.

c. Submit changes for acceptance in writing by the Engineer.

d. Increases in the viscosity of polymer slurry beyond the above acceptable ranges during drilling may be allowed by the Engineer. However, increases in the viscosity of the polymer slurry beyond the above acceptable ranges during concrete placement will not be allowed. Use of other polymer materials that increase the cohesion of the soil material, or other construction methods to reduce the slurry viscosity just prior to concrete placement may be considered in-lieu of increasing the viscosity of the slurry.

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TABLE 511-2 - SLURRYPRO CDP (KB Technologies Ltd.) IN FRESH WATER			
Property	Range of Values *		Test Method
	Time of Slurry Introduction	In Hole At Time Of Concreting	
Density (pcf)	Less than or equal to 67.0**	Less than or equal to 64.0**	Density Balance
Viscosity (sec/qt)	50 - 120	Less than or equal to 70	Marsh Cone
PH	6.0 – 11.5	6.0 – 11.5	pH paper pH meter

* At 20^o C
** Increase by two pounds per cubic foot in salt water

Notes: a. When the Contractor does not need to control the bottom hole conditions or when tests show that other criteria are appropriate, the Engineer may modify the values.

b. When the contract requires desanding, the sand content shall not exceed 0.5% percent (by volume) in the bore hole as resolved by the American Petroleum Institute sand content test.

c. Submit changes for acceptance in writing by the Engineer.

d. Increases in the viscosity of polymer slurry beyond the above acceptable ranges during drilling may be allowed by the Engineer. However, increases in the viscosity of the polymer slurry beyond the above acceptable ranges during concrete placement will not be allowed. Use of other polymer materials that increase the cohesion of the soil material, or other construction methods to reduce the slurry viscosity just prior to concrete placement may be considered in-lieu of increasing the viscosity of the slurry.

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Before placing concrete in the shaft excavation, take slurry samples from the base of the shaft using a sampling tool. Extract slurry samples from the base of the shaft and at intervals not exceeding 10 feet up the shaft. Extract samples until two consecutive samples produce acceptable values for density, viscosity, pH, and sand content (within the values shown on Tables 511-1 - Shore Pac GCV (CETCO Drilling Products Group) IN FRESH WATER and 511-2 - SLURRYPRO CDP (KB Technologies Ltd.) IN FRESH WATER).

506 Ensure that the bottom of the shaft does not accumulate heavily
507 contaminated slurry suspension. The heavily contaminated slurry suspension
508 could impair the free flow of concrete. When finding unacceptable slurry
509 samples, take actions necessary to bring the slurry as specified in the contract.
510 Do not pour the concrete until re-sampling and testing results produce
511 acceptable values.

512
513 Furnish the reports of tests required above to the Engineer on completion
514 of each drilled shaft. An authorized person of the Contractor shall sign the
515 reports.

516
517 During construction, maintain at the level of slurry not less than five feet
518 above the highest piezometric water pressure along the depth of a shaft.
519 When the slurry construction method fails, stop this method and propose an
520 alternate method for acceptance by the Engineer

521
522 The Contractor shall use and dispose of slurry in accordance with
523 applicable Federal, State, and County requirements.

524
525 **(H) Excavation Inspection.** Provide equipment for checking the
526 dimensions and alignment of each permanent shaft excavation. Determine the
527 dimensions and alignment according to the contract. Measure the final shaft
528 depths with a suitable weighted tape after final cleaning.

529
530 A minimum of 50% of the base of each shaft shall have less than 0.5 inch
531 of sediment at the time the concrete is placed. The maximum depth of sediment
532 or debris on the base of the shaft shall not exceed 1.5 inches. The Contractor
533 will measure the shaft cleanliness in the presence of the Engineer by methods
534 deemed appropriate to the Engineer.

535
536 Also, for dry excavations the maximum depth of water shall not exceed 3
537 inches before pouring the concrete.

538
539 **(I) Reinforcing Steel Cage Construction and Placement.** Assemble and
540 place the reinforcing steel cage immediately after the Engineer inspects and
541 accepts the shaft excavation before pouring the concrete. To prevent
542 deformation of the cage while lifting, brace the reinforcing steel cage until the
543 cage is set in it's final position. The reinforcing steel cage includes longitudinal
544 bars, ties, cage stiffener bars, spacers, centralizers, and other necessary
545 appurtenances to acceptably complete and place the cage.

546
547 Tie and support the reinforcing steel in the shaft so that the reinforcing
548 steel will remain within allowable tolerances given in Subsection 511.03(L) –
549 Construction Tolerances. Use the concrete spacers or other approved non-
550 corrosive spacing devices at sufficient intervals (near the bottom and at intervals
551 not exceeding 10 feet up the shaft) to ensure concentric spacing for the entire
552 cage length. Use minimum of four spacers, equally spaced around
553 circumference, at each vertical interval. The spacers shall be constructed of
554 accepted material equal in quality and durability to concrete specified for the

555 shaft, and shall be of adequate dimension to insure a minimum of four inches
556 annular space between the outer portion of the reinforcing steel cage and the
557 side of the excavated hole. Provide accepted cylindrical concrete bottom
558 supports to maintain the proper distance between bottom of the cage and base
559 of the shaft excavation.
560

561 Check the elevation of the top of the steel reinforcing cage and center of
562 cage location before, during and after pouring the concrete. When not
563 maintaining the rebar within the specified tolerances, make the corrections
564 needed to bring to within tolerances of the contract. Do not construct additional
565 shafts until after modifying the reinforcing steel cage support according to the
566 contract.
567

568 When the excavation at the bottom of the constructed shaft elevation is
569 lower than shown in the contract, extend at least half of the longitudinal bars
570 required in the upper portion of the shaft the additional length. Continue the tie
571 bars for the extra depth, spaced two-foot on center measured along the
572 circumference of the reinforcing steel cage. Extend the stiffener bars to the final
573 depth. These bars may be lap spliced or unspliced bars of the proper length.
574 The Engineer will not permit welding to the reinforcing steel. Unless the extra
575 depth of the drilled shaft is required due to modifications by the Engineer, the
576 additional reinforcing bars shall be at no additional cost to the State.
577

578 **(J) Crosshole Sonic Logging (CSL) Test Access Tubes.** Installation of
579 access tubes shall be in accordance with ASTM Standard Test Method for
580 Integrity Testing of Concrete Deep Foundations by Ultrasonic Crosshole Testing
581 Designation D 6760, except as modified herein. Install access tubes in all drilled
582 shafts to allow performance of CSL tests. Attach CSL access tubes securely to
583 the interior of the reinforcement cage as near to parallel as possible to the
584 vertical center axis of the drilled shaft in each drilled shaft and in the pattern
585 shown on the plans. Extend the access tubes from the bottom of the
586 reinforcement cage to at least 3.5 feet above the top of the shaft. The bottom of
587 the access tube shall be capped permanently. Joints required to achieve full
588 length of access tubes shall be watertight. Contractor shall take extra care to
589 prevent damaging the access tubes during reinforcement cage installation. Fill
590 the tubes with potable water to the top of the tubes as soon as the reinforcing
591 steel cage is installed. Check for leakage, misalignment, and damage before
592 placing concrete in the drilled shaft. Stop all leaks if present and repair any
593 damages or misalignment before placement of concrete starts. Check water
594 level as soon as possible after concrete placement (within 4 hours after concrete
595 placement) and fill with potable water if needed. Check water level in tubes
596 every day until CSL testing is completed. Top off tubes with potable water if
597 needed to prevent the debonding of the CSL tubes from the drilled shaft
598 concrete and thereby make any testing invalid. Keep the water level of the CSL
599 tubes at the top and under no circumstances shall the water level in the CSL
600 tube go below the concrete level. If leakage is detected after the pouring of the
601 drilled shaft concrete, monitor and top off the CSL tubes as often as needed to
602 keep the water level in the tubes at the required level 24/7. Always reinstall the

603 top watertight caps. Installation of CSL access tubes shall be incidental to the
604 construction of the drilled shaft and shall be at no additional cost to the State.
605

606 The completed drilled shaft foundations will be tested by crosshole sonic
607 logging (CSL) after at least five days of curing time, but no later than 20 days
608 after concreting. The CSL test will be performed by the Engineer. The
609 Contractor shall assist in the testing by making all the shafts in the project
610 accessible to the Engineer; provide electricity, lights and other needs whenever
611 requested by the Engineer. Assistance by the Contractor shall be incidental to
612 the construction of the drilled shaft and shall be at no additional cost to the State.
613 The Contractor shall provide accurate data on the dates and time of concrete
614 placement for each drilled shaft and the surveyed location of each tube. Also,
615 provide the elevation of the concrete at the top of the drilled shaft. The Engineer
616 will require a minimum of 20-working days after testing of any drilled shaft to
617 accept or reject that shaft.
618

619 The results of the CSL tests will be based on the percentage decrease in
620 velocity as correlated to the following Concrete Condition Rating Criteria
621 (CCRC), as shown in Table 511-3 - Concrete Condition Rating Criteria.
622 Deviations from the following values shall be used for determining the Concrete
623 Condition Rating.
624

Table 511-3 Concrete Condition Rating Criteria			
Concrete Condition Rating	Rating Symbol	Velocity Reduction	Indicative Results
Good	G	0 – 10%	Acceptable concrete
Questionable	Q	10% - 25%	Minor concrete contamination or intrusion. Questionable quality concrete.
Poor	P/D	> 25%	Defects exist, possible water slurry contamination, soil intrusion, and or poor quality concrete.
Water	W	V=4760 – 5005 feet/sec	Water intrusion or water filled gravel intrusion with few or no fines present.
No Signal	NS	No signal received	Soil intrusion or other severe defect absorbed the signal, tube debonding if near top.

625 Shafts with test results other than “Good” will be tested in accordance with
626 Subsection 511.03(N) - Integrity Testing.
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After completion of the crosshole sonic logging tests and final acceptance of the drilled shaft, all the access tubes shall be completely filled using a tremie method of placement. Access tubes shall be free of debris and water before filling with grout. Use non-shrink, non-metallic, grout of the same strength as the drilled shaft concrete. Cement grout used to fill cored holes shall be extended with 3/8 inch pea gravel per manufacturer's recommendations. Filling the access tubes shall be at no additional cost to the State.

(K) Concrete Placement.

(1) General. Place the concrete through a concrete pump 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 load test 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. To ensure that the drilled shaft concrete is sound below the top of shaft cutoff elevation, the production drilled shafts shall be poured three feet above the cutoff elevation and until good quality concrete is evident three feet above top of shaft cutoff elevation. For the production drilled shafts, the drilled shaft concrete three feet above the cutoff elevation shall be removed no sooner than final set and 48 hours after the completion of the production drilled shafts concrete pour. Final set shall be when the concrete has reached a compressive strength of 1000 psi. Prior to removing the concrete above the cutoff elevation, a circumferential diamond blade sawcut 2 ½ inches deep shall be made at the cutoff elevation. Then the portion of the drilled shaft more than one foot above the cutoff elevation shall be removed with equipment no larger than a 90 pound pavement breaker. Thereafter the remaining one foot of the drilled shaft above the cutoff elevation shall be removed using jack hammers no heavier than 30 pounds for the upper nine inches and 15 pound maximum for the lowest three inches. Pouring above the shaft cutoff elevation and removing concrete shall not be required for traffic signals, light standards, and sign structures.

The elapsed time from the beginning of concrete placement in the shaft to the completion of the placement shall not exceed four hours. Adjust admixtures accepted by the Engineer so that concrete remains in a workable plastic state throughout 4-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 4-hour limit without obtaining prior acceptance by the Engineer, the Contractor may be required to core the drilled shaft. These

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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.

Drilled shaft mix design shall minimize segregation and bleeding. 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

726 and pump lines that will come in contact with concrete shall not contain
727 aluminum parts. Discharge line shall have a minimum diameter of 4
728 inches and watertight joints. Concrete placement shall not begin until the
729 pump line discharge orifice is at the shaft base elevation.
730

731 For wet excavations, use a plug to separate the concrete from the
732 fluid in the hole until pumping begins. Remove the plug from the
733 excavation or use plugs, made from a material accepted by the Engineer
734 that will not cause a defect, if not removed.
735

736 The discharge orifice shall remain at least five feet below the
737 surface of the fluid concrete. When lifting the pump line during concreting,
738 reduce the line pressure temporarily until the orifice at a higher level in the
739 excavation has been repositioned.
740

741 Upon removal of the pumpline orifice from the fluid concrete
742 column and/or discharging concrete above the rising concrete level during
743 the concrete pour, the Engineer will consider the shaft defective. In such a
744 case, remove the reinforcing cage and concrete, the necessary sidewall
745 removal specified by the Engineer, and repour the shaft. Costs of
746 replacement of defective shafts shall be at no costs to the State and no
747 additional time will be granted.
748

749 **(L) Construction Tolerances.** The following construction tolerances apply
750 to drilled shafts:
751

752 **(1)** The center of the drilled shaft concrete and reinforcing bars shall
753 be within 1/12 of the shaft diameter or 3 inches, whichever is less, in the
754 horizontal plane at the plan elevation for the top of the shaft.
755

756 **(2)** The vertical alignment of the shaft excavation shall not vary from
757 the plan alignment by more than 0.25 inch per foot of depth. The
758 alignment of a battered shaft excavation shall not vary by more than 0.5
759 inch per foot of depth from the prescribed batter.
760

761 **(3)** After placing the concrete, the top of the reinforcing steel cage shall
762 be no more than 6.0 inches above and no more than 3.0 inches below
763 plan position.
764

765 **(4)** The cutoff (top) elevation of the shaft shall have a tolerance of \pm
766 0.5 inch from the plan top of shaft elevation.
767

768 **(5)** The dimensions of casing are subject to American Pipe Institute
769 tolerances applicable to regular steel pipe.
770

771 **(6)** Design the excavation equipment and methods so that the
772 completed shaft excavation will have a flat bottom. The cutting edges of
773 excavation equipment shall be normal to the vertical axis of the equipment
774 within a tolerance of \pm 3/8 inch per foot of diameter.

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(7) Casing diameters shown in the contract documents to outside diameter (OD) dimensions. When accepted by the Engineer, a casing larger in diameter than shown in the contract documents may be provided to facilitate meeting this requirement. When using a series of telescoping casings, size casing to maintain shaft diameters.

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.

(M) As-Built Drilled Shaft Location. The Contractor shall provide survey ties to all as-built location of all drilled shafts.

The Contractor shall notify the Engineer prior to performing the survey work and the Contractor shall survey the drilled shafts under the supervision of the Engineer or the Engineer's representative. A copy of the survey notes and the scaled plan locating all the completed drilled shafts in a given footing shall be submitted to the Engineer for review and approval. Submit accepted copy of the survey notes and the scaled plan as an electronic file, the Engineer will determine the acceptable format and media.

No form work for any footing shall proceed until the drilled shafts are found acceptable by the Engineer.

824 **(N) Integrity Testing.** Drilled shafts shall be visually inspected and tested
825 for density, strength and soundness. Integrity testing will be performed on drilled
826 shafts as determined by the Engineer. Integrity testing shall consist of partial or
827 full depth concrete coring at drilled shafts determined by the Engineer. Coring
828 shall be performed by the Contractor at the locations designated by the Engineer
829 in the presence of the Engineer. The Engineer will solely determine if the cored
830 shaft is acceptable or defective. Defective shafts shall be replaced and drawings
831 and computations by a Hawaii Licensed Professional Engineer in the Structural
832 Branch and Civil Branch (specializing in the Geotechnical field) stamped and
833 signed shall be submitted for acceptance by the Engineer. The Contractor shall
834 core vertical holes at locations and depths determined by the Engineer. The
835 number of core holes to be done shall be determined by the Engineer. The core
836 hole shall be accepted by the Engineer. The recovered core samples shall have
837 a minimum diameter of 3.75 inches or 3 times the nominal maximum aggregate
838 size of the concrete mix, use whichever is larger
839

840 The measured unit weight of the air dry core samples shall not be less
841 than two pounds per cubic foot of the air dry unit weight test cylinders.
842

843 Provide concrete cores properly marked in a core box with labels of the
844 drilled depth at each interval of core recovery to the Engineer for evaluation and
845 testing. The Engineer will be allowed a minimum of 7 working days for
846 evaluation and testing of the core samples. The cored holes shall be filled with
847 prepackaged, non-shrink, non-metallic, grout of the same minimum strength as
848 the drilled shaft. Cement grout used to fill cored holes shall be extended with 3/8
849 inch pea gravel per manufacturer's recommendations.
850

851 Cost of coring performed on acceptable production drilled shafts with no
852 defects will be borne by the State. Cost of full depth coring of trial shaft shall be
853 borne by the Contractor. Cost of coring performed on any drilled shaft that has
854 defects shall be borne by the Contractor. If the drilled shaft in question is on the
855 critical path, a time extension and the linear foot payment for coring will be the
856 sole remedy given if the drilled shaft has no defects. The delay will be calculated
857 from the end of the 20 working days review period of the cores to when the last
858 core was taken. Contractor shall submit a corrective methods plan for the
859 defective shafts to the Engineer for review and approval prior to their use. The
860 corrective methods plan shall restore the defective drilled shaft to a condition
861 equal or better that of a drilled shaft that had no defects. Do not begin repair
862 operations until receiving the Engineer's acceptance of the corrective methods
863 plan for that defective drilled shaft.
864

865 **511.04 Measurement.** The Engineer will not measure furnishing drilled shaft drilling
866 equipment for payment.
867

868 **(A)** Furnishing drilled shaft drilling equipment and furnishing instrumentation
869 and collecting data will be paid on a lump sum basis. Measurement for payment
870 will not apply.
871

872 **(B)** The Engineer will measure obstruction per hour in accordance with the
873 contract documents. Once the Engineer authorizes compensation for

874 obstruction removal, duration of obstruction removal, including time required for
875 obstruction disposal, will be measured for payment. Depth of obstruction
876 removed will be subtracted from total depth measured for payment under other
877 applicable drilled shaft excavation pay items.
878

879 **(C)** The Engineer will measure unclassified shaft excavation per linear foot,
880 along shaft centerline, including bells. The Engineer will compute length
881 between plan top of shaft elevation to plan estimated tip elevation.
882

883 **(D)** The Engineer will measure drilled shaft per linear foot. The Engineer will
884 compute length between plan top of shaft elevation and to plan estimated tip
885 elevation.
886

887 **(E)** The Engineer will measure coring for integrity testing per linear foot. The
888 Engineer will compute length between the bottom of coring elevation and the top
889 of the shaft concrete elevation.
890

891 **511.05 Payment.** The Engineer will pay for the accepted pay items listed below at
892 the contract price per pay unit, as shown in the proposal schedule. Payment will be full
893 compensation for the work prescribed in this section and the contract documents.
894

895 The Engineer will pay for each of the following pay items when included in the
896 proposal schedule.
897

Pay Item	Pay Unit
Furnishing Drilled Shaft Drilling Equipment	Lump Sum

900 The Engineer will pay for:
901
902 **(A)** 60 percent of the contract bid price when drilling equipment is on job site,
903 assembled, and ready to drill foundation shafts.
904
905
906

907 **(B)** 40 percent of the contract bid price upon completion of drilling shafts, and
908 placing shaft concrete up to top of shafts.
909

Obstructions	Hour
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910 The Engineer will pay for:
911
912 **(A)** 80 percent of the contract bid price upon completion of removing the
913 obstruction.
914
915
916

917 **(B)** 20 percent of the contract bid price upon removing and disposing of the
918 obstruction.
919

920 The maximum payment per designated obstruction shall not exceed 20
921 times the unit cost for unclassified excavation.
922

923 Unclassified Shaft Excavation (_____) Linear Foot

924

925 The Engineer will pay for:

926

927 **(A)** 60 percent of the contract bid price upon completion of using drilling
928 equipment, using special tools and drilling equipment to excavated shaft.

929

930 **(B)** 20 percent of the contract bid price upon completion of furnishing and
931 installing temporary casing.

932

933 **(C)** 20 percent of the contract bid price upon completion of removing and
934 disposing of excavated material.

935

936 Drilled Shaft (_____) Linear Foot

937

938 The Engineer will pay for:

939

940 **(A)** 60 percent of the contract bid price upon completion of drilling.

941

942 **(B)** 15 percent of the contract bid price upon completion of furnishing,
943 assembling, and placing steel cage.

944

945 **(C)** 15 percent of the contract bid price upon completion of furnishing and
946 placing concrete.

947

948 **(D)** 10 percent of the contract bid price upon completion of removing and
949 disposing of excavated material.

950

951 Coring for Integrity Testing for acceptable drilled shaft. Linear Foot

952

953 The Engineer will pay for:

954

955 **(A)** 70 percent of the contract bid price upon completion of concrete coring.

956

957 **(B)** 20 percent of the contract bid price upon completion of filling cored holes
958 with non-shrink grout of the same minimum strength as drilled shaft.

959

960 **(C)** 10 percent of the contract bid price upon completion of packaging the
961 core samples and delivering them to the Engineer.”

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964

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. To reduce the embodied carbon
12 footprint of concrete, concrete design on the island of Oahu shall include the use of
13 carbon dioxide mineralization or equivalent technology. Other methods to reduce the
14 cement content such as use of supplementary cementitious materials (SCMs) or
15 admixtures such as C-S-H nanoparticle-based strength-enhancing admixture (CSH-
16 SEA) or equivalent may also be used to reduce the embodied carbon footprint
17 including the combination thereof the previously mentioned methods.

18
19 **601.02 Materials.**

20		
21	Portland Cement	701.01
22		
23	Fine Aggregate for Concrete	703.01
24		
25	Coarse Aggregate for Portland Cement Concrete	703.02
26		
27	Admixtures	711.03
28		
29	Water	712.01

30
31 Use coarse aggregate for lightweight concrete conforming to ASTM C330
32 except Sections 5, 7 and 9.

33
34 **601.03 Construction.**

35
36 **(A) Quality Control.** Portland Cement concrete production requires
37 Contractor responsibility for quality control of materials during handling,
38 blending, mixing, curing, and placement operations.

39
40 Sample, test, and inspect concrete to ensure quality control of
41 component materials and concrete. Sampling and testing for quality control in
42 accordance with standard methods shall be performed by certified ACI
43 Concrete Field Technician Grade I. Perform quality control tests for slump, air
44 content, temperature, and unit weight during production of structural concrete
45 other than concrete for incidental construction. Submit quality control test
46 results.

47 **(B) Design and Designation of Concrete.** Design concrete mixture for
48 concrete work specified. Submit mix design using State Highways Division
49 form DOT 4-151 or an Engineer accepted equivalent form. Do not start work
50 until the Engineer accepts mix design. The Engineer will accept concrete mix
51 design using information given in Table 601.03-1 - Design of Concrete, and
52 other pertinent requirements.
53

54 Whenever 28-day compressive strength, f'_c , is 4,000 psi or greater,
55 designate concrete by required minimum 28-day compressive strength.
56

57 The 28-day compressive strength, f'_c , less than 4,000 psi listed in Table
58 601.03-1 – Design of Concrete, is for design information and designation of
59 class only.
60

61 Proportion concrete designated by compressive strength such that
62 concrete conforms to required strength.
63

64 Design concrete placed in bridge decks and pavements exposed to
65 traffic wear, with air content of 3 percent, including entrapped and entrained
66 air. Maintain air content for plastic concrete within tolerance of 1 percent air
67 content, plus or minus, during the work.
68

69 Use concrete Type SBD where specified in the plans with special
70 requirements as listed below:
71

72 **(a)** A shrinkage reducing admixture (SRA), Master Life SRA35 by
73 BASF or Eclipse by W.R. Grace & Co., or approved equal shall be
74 added to the concrete. The minimum dosage requirement shall be 128
75 ounces per cubic yard of concrete.
76

77 **(b)** A migrating, corrosion-inhibiting, amine-carboxylate, water-
78 based admixture shall be added to the concrete. The minimum dosage
79 shall be 24 ounces per cubic yards of concrete.
80

81 **(c)** The concrete shall have a maximum water to cement ratio of
82 0.40. The weight of the SRA shall be included in the total water when
83 computing the water to cement ratio. The maximum amount of water
84 shall be 268 pounds per cubic yard.
85

86 **(d)** The 28 day compressive strength of the concrete shall be not
87 less than 6,000 psi.
88

89 **(e)** The concrete shall contain 15 pounds of alkali resistant
90 structural glass fiber such as CEMFIL ANTI-CRAK HP67/36 or
91 approved equal per cubic yard.
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(f) The concrete shall have a maximum shrinkage strain of .00006 at 28 days and .000145 at 56 days according to ASTM C512.

(g) The final concrete mix design shall be based on field trial batches to determine the most suitable materials and proportions that will provide a concrete mixture having the least amount of segregation and bleeding, and at the same time provide the necessary workability to meet placing requirements

Type SBD concrete shall utilize CO₂ Mineralization technology, Supplementary cementitious materials (SCMs), CSH-SEA, or equivalent as stated in this section.

Class A concrete shall be used when type of concrete is not indicated in the contract documents.

Design concrete as specified in Table 601.03-1 – Design of Concrete.

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
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					

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Concrete Design – Projects on Oahu will utilize CO₂ Mineralization technology or equivalent. Supplementary cementitious materials (SCMs), CSH-SEA or equivalent or combination thereof the previously mentioned methods may also be used. Concrete design shall allow a reduction of portland cement content while maintaining the concrete design strength, durability and other requirements. See Table 601.03-1 Design of Concrete specified limits for adjusted minimum cement content and water cement ratio

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when using CO₂ mineralization. Material certifications for the above shall include a list of at least 3 projects that used the technology, SCMs, admixtures or combination thereof.

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

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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

184 content of concrete when using air entraining agent; age at time of testing; and
185 strength of concrete cylinders tested.

186
187 Show that concrete strength tests equal or exceed minimum average
188 strength in trial test reports. Test is average 28-day test results of five
189 consecutive concrete cylinders or concrete beams taken from single batch.
190 No cylinder or beam shall have strength less than 85 percent of minimum
191 average strength.

192
193 Submit test data and trial test reports signed by official of firm that
194 performed tests.

195
196 The Engineer reserves the right to stop work when a series of low
197 strength tests occur. Do not continue concrete work until cause is established
198 and the Engineer is informed of and accepts, necessary corrective action to be
199 taken.

200
201 **(C) Batching.** Measure and batch materials in accordance with the
202 following provisions:

203
204 **(1) Portland Cement.** Either sacked or bulk cement may be used.
205 Do not use fraction of sack of cement in concrete batch unless cement
206 is weighed.

207
208 Weigh bulk cement on weighing device accepted by the Engineer.
209 Seal and vent bulk cement-weighing hopper properly to preclude
210 dusting during operation. Do not suspend discharge chute from
211 weighing hopper. Arrange discharge chute so that cement will not
212 lodge in hopper or leak from hopper.

213
214 Batching accuracy shall be within 1 percent, plus or minus, of
215 required weight.

216
217 **(2) Water.** Measure water by volume or by weight. Use readily
218 adjustable device for measurement of water, with accuracy within 1
219 percent, plus or minus, of quantity of water required for batch. Arrange
220 device so that variable pressure in water supply line does not affect
221 measurements. Equip measuring tanks with outside taps and valves or
222 other accepted means to allow for checking calibration.

223
224 **(3) Aggregates.** When storing and stockpiling aggregates, avoid
225 separation of coarse and fine particles within each size, and do not
226 intermix various sizes before proportioning. Protect stored or
227 stockpiled aggregates from dust or other foreign matter. Do not
228 stockpile together, aggregates from different sources and of different
229 gradations.

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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. All admixtures shall be compatible with each other. Admixtures which significantly increase the drying shrinkage or creep in the concrete may be rejected by the Engineer. 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

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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

322 ASTM C94 and Subsection 601.03(C) - Batching.
323

324 When concrete is completely mixed in stationary paving
325 or continuous mixers, weigh mineral admixture in separate
326 weigh hopper. Introduce mineral admixture and cement
327 simultaneously into mixer, proportionately with aggregate.
328

329 When interlocks are required for cement-charging
330 mechanisms, and cement and mineral admixtures are weighed
331 cumulatively, interlock their charging mechanisms to prevent
332 introduction of mineral admixture until mass of cement in weigh
333 hopper is within tolerances specified in Subsection 601.03(C)(1)
334 - Portland Cement.
335

336 In determining maximum quantity of free water that may
337 be used in concrete, consider mineral admixture and
338 supplementary cementitious materials (SCMs) to be cement.
339

340 **(5) Bins and Scales.** At batching plant, use individual bins,
341 hoppers, and scale for each aggregate size. Include separate bin,
342 hopper, and scale for bulk cement and fly ash.
343

344 Except when proportioning bulk cement for pavement or
345 structures, cement weigh hopper may be attached to separate scale for
346 individual weighing or to aggregate scale for cumulative weighing. If
347 cement is weighed cumulatively, weigh cement before other
348 ingredients.
349

350 When proportioning for pavement or structures, keep bulk
351 cement scale and weigh hopper separate and distinct from aggregate
352 weighing equipment.
353

354 Use springless-dial or beam-type batching scales. When using
355 beam-type scales, make provisions to show operator that required load
356 in weighing hopper is approaching. Use devices that show condition
357 within last 200 pounds of load and within 50 pounds of overload.
358

359 Maintain scale accuracy to 0.5 percent throughout range of use.
360 Design poises to lock to prevent unauthorized change of position. Use
361 scales inspected by the State Measurement Standards Branch of the
362 Department of Agriculture to ensure their continued accuracy. Provide
363 not less than ten 50-pound weights for testing scales.
364

365 Batching plants may be equipped to proportion aggregates and
366 bulk cement by automatic weighing devices.
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(6) Batching and Hauling. When mixing is to be performed at work site, transport aggregates from batching plant to mixer in batch boxes, vehicle bodies, or other containers of adequate capacity and construction. Use partitions to separate batches and prevent spilling from one compartment to another while in transit or during dumping.

Transport bulk cement to mixer in tight compartments carrying full quantity of cement required for batch. Once cement is placed in contact with aggregates, batches shall be mixed and placed within 1-1/2 hours of contact. Cement in original shipping packages may be transported on top of aggregates. Ensure that each batch contains number of sacks required by job mix.

Deliver batches to mixer intact. Charge each batch into mixer without loss of cement. When carrying more than one batch on truck, charge batch into mixer without spilling material from one batch compartment into another.

(D) Mixing. Mix concrete in mechanically operated mixers.

Use stationary or truck mixers that distribute materials thoroughly and produce concrete uniform in color and appearance. When there is variation in mixed concrete attributable to worn pickup or throw-over blades, the Engineer will inspect mixer. If inspection reveals that blades are worn more than one inch below original height of manufacturer's design, repair or replace blades. Upon request, make copy of manufacturer's design, showing dimensions and arrangement of blades.

Charge batches into central or truck mixers so that portion of mixing water enters ahead of cement and aggregates. Deliver uniform flow of water. Place entire amount of batch water in mixer by end of first quarter of mixing period. When mixers with multiple compartment drums are used, time required to transfer material between compartments will be included as mixing time. Use drum rotation speed as designated by manufacturer. If mixing does not produce concrete of uniform and smooth texture, provide additional revolutions at same speed until thorough mixing of each concrete batch is attained. Begin measuring mixing time from time cement, aggregates, and 60 percent of water are in drum. Do not exceed manufacturer's rated capacity for volume of concrete mixed in each batch.

408 Equip central or truck mixers with attachment for automatically timing
409 mixing of each concrete batch. Timing device shall include automatic feature
410 for locking discharge chute and device for warning operator when required
411 mixing duration has been met. If timing or locking device fails to operate,
412 immediately furnish clock or watch that indicates seconds, to mixer operator.
413 If timing device is not repaired within three days after becoming inoperative,
414 shut down batching operation until timing device is repaired.
415

416 For stationary mixers, use mixing time between 50 seconds and 5
417 minutes. Select mixing time, as necessary, to produce concrete that meets
418 uniformity criteria when tested in accordance with Section 11.3.3 of ASTM
419 C94. The Contractor may designate mixing time for which uniformity tests are
420 to be performed, provided mixing time is not less than 50 seconds or more
421 than 5 minutes. Before using concrete for pavements or structures, mix
422 concrete to meet specified uniformity requirements. The Contractor shall
423 furnish labor, sampling equipment, and materials required for conducting
424 uniformity tests of concrete mixture. The Engineer will furnish required testing
425 equipment, including scales, cubic measure, and air meter; and will perform
426 tests. The Engineer will not pay separately for labor, equipment, materials, or
427 testing, but will consider the costs incidental to concrete. After batching and
428 mixing operational procedures are established, the Engineer will not allow
429 changes in procedures without the Contractor re-establishing procedures by
430 conducting uniformity tests. Repeat mixer performance tests whenever
431 appearance of concrete or coarse aggregate content of samples is not
432 conforming to requirements of ASTM C94. For truck mixers, add four seconds
433 to specified mixing time if timing starts as soon as skip reaches its maximum
434 raised position.
435

436 Unless otherwise indicated in the contract documents or accepted by
437 the Engineer, concrete shall be mixed at proportioning plant. Operate mixer at
438 agitating speed while in transit. Concrete may be truck-mixed only when
439 cement or cement and mixing water are added at point of delivery. Begin
440 mixing truck-mixed concrete immediately after introduction of mixing water to
441 cement and aggregates, or introduction of cement to aggregates.
442

443 Inclined-axis, revolving drum truck mixers shall conform to Truck Mixer,
444 Agitator and Front Discharge Concrete Carrier Standards TMMB 100-01, 15th
445 Revision, published by Truck Mixer Manufacturers Bureau. Truck mixers shall
446 produce thoroughly mixed and uniform mass of concrete and shall discharge
447 concrete without segregation.
448

449 Manufacturer's standard metal rating plate shall be attached to each
450 truck mixer, stating maximum rating capacity in terms of volume of mixed
451 concrete for various uses and maximum and minimum mixing speeds. When
452 using truck mixers for mixing, adhere to maximum capacity shown on metal
453 rating plate for volume of concrete in each batch.

454 Operate truck mixers at mixing speed designated by manufacturer, but
455 at not less than 6 or more than 18 revolutions per minute. Mix truck-mixed
456 concrete initially between 70 and 100 revolutions at manufacturer-designated
457 mixing speed, after ingredients, including water, are in mixer. Water may be
458 added to mixture not more than two times after initial mixing is completed.
459 Each time that water is added, turn drum an additional 30 revolutions or more
460 at mixing speed until concrete is mixed uniformly.

462 When furnishing shrink-mixed concrete, transfer partially mixed
463 concrete at central plant to truck mixer. Apply requirements for truck-mixed
464 concrete. The Engineer will not credit number of revolutions at mixing speed
465 for partial mixing in central plant.

467 When accepted by the Engineer, hand mixing may be allowed. The
468 entire concrete placement at one location shall not exceed 1/3 cubic yard.
469 It shall be hand mixed on a watertight, level platform. Use no aluminum to
470 construct platform. Measure proper amount of coarse aggregate in
471 measuring boxes and spread on platform. Spread fine aggregate on that
472 coarse aggregate layer. Limit coarse and fine aggregate layers to total
473 depth of one foot. Spread dry cement on this mixture. Turn whole mass
474 not less than two times dry. Add sufficient clean water, distributed evenly.
475 Turn whole mass again, not less than three times, not including placing in
476 carriers or forms.

477
478 **(E) Transporting Mixed Concrete.** Transport central-mixed concrete to
479 delivery point in truck agitators or truck mixers operating at speed designated
480 by equipment manufacturer as agitating speed; or in non-agitating hauling
481 equipment, provided consistency and workability of mixed concrete upon
482 discharge at delivery point is suitable for placement and consolidation in place;
483 and provided mixed concrete after hauling to delivery point conforms to
484 uniformity criteria when tested as specified in ASTM C94.

485
486 For revolving drum truck mixers transporting central-mixed concrete,
487 limit concrete volume to manufacturer's rated capacity for agitator operation.
488 Maintain agitating speed for both revolving drum mixers and revolving blade
489 type agitators as designated on manufacturer's data plate. Equip truck mixers
490 or truck agitators with electrically or mechanically actuated counters. Actuate
491 counters after introducing cement to aggregates.

492
493 Bodies of non-agitating hauling equipment shall be smooth, watertight,
494 metal containers equipped with gates to permit control of concrete discharge.
495 Protect open-topped haul vehicle against weather with cover accepted by the
496 Engineer.

497
498 When hauling concrete in non-agitating trucks, complete discharge
499 within 30 minutes after introducing mixing water to cement and aggregates.
500

501 When truck mixer or agitator is used for transporting central-mixed
502 concrete to delivery point, complete discharge within 1-1/2 hours, or before
503 250 revolutions of drum or blades, whichever comes first after introduction of
504 mixing water to cement and aggregates, or cement to aggregates. For truck-
505 mixed concrete, complete concrete discharge within 1-1/2 hours, or before
506 300 revolutions of drum or blades, whichever comes first. These limitations
507 are permitted to waived if concrete is of such slump after the 1-1/2 hour time
508 or 300-revolution limit has been reached, that it can be placed, without
509 addition of water to the batch.

510
511 Submit delivery tickets from manufacturers of truck-mixed concrete and
512 central-mixed concrete with each truckload of concrete before unloading at
513 jobsite. Printed, stamped, or written delivery ticket shall include the following
514 information:

- 515
516 (1) Name of concrete plants.
- 517
518 (2) Serial number of ticket.
- 519
520 (3) Date and truck number.
- 521
522 (4) Name of Contractor.
- 523
524 (5) Specific project, route, or designation of job (name and location),
525 and truck overweight permit number when required.
- 526
527 (6) Specific class or designation of concrete in accordance with
528 contract documents.
- 529
530 (7) Quantity of concrete in cubic yards.
- 531
532 (8) Time of loading batch or mixing of cement and aggregates.
- 533
534 (9) Water added by receiver of concrete and receiver's initials.
- 535
536 (10) Information necessary to calculate total mixing water added by
537 producer. Total mixing water includes free water on aggregates, water,
538 and water added by truck operator from mixer tank.
- 539
540 (11) Readings of non-resettable revolution counters of truck mixers
541 after introduction of cement to aggregates, or introduction of mixing
542 water to cement aggregates.
- 543
544 (12) Supplier's mix number or code.
- 545

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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	4 – 6	7

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If the slump of the ready mix concrete upon delivery is below the design slump, water may be added provided:

- (1)** Water shall not be added to the concrete if more than ¼ cubic of concrete has been discharged from the mixer.
- (2)** Water may be added only up to 30 minutes after the average travel time to the jobsite.
- (3)** The maximum slump, the maximum water/cement ratio, and the maximum water per cubic yard shall not be exceeded.

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(4) Not more than 1 ½ gallons of water per cubic yard shall be added to the concrete, but not more than the amount of “held-back” water.

(5) The amount of “held-back” water from the approved mix design shall be shown on the delivery ticket.

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.

(J) Curing Concrete. Cure concrete in accordance with applicable sections.

601.04 Measurement. The Engineer will measure concrete in accordance with the applicable sections.

601.05 Payment. The Engineer will pay for the accepted concrete under the applicable sections.

END OF SECTION 601

50 **(VIII)** Amend **Section 602.05 Payment** by revising lines 810 to 830 to read as
51 follows:

52

53 “602.05 Payment. The Engineer will not pay for the accepted reinforcing steel
54 separately. The Engineer shall consider the cost for the accepted reinforcing
55 steel as included in the contract price of the various contract items. The cost is
56 for the work prescribed in this section including all splices, rust primer, headed
57 reinforcing steel, equipment, tools, labor, materials, and incidentals necessary to
58 complete the work in accordance with the contract documents.”

59

60

END OF SECTION 602

1 **SECTION 607 – CHAIN LINK FENCES AND GATES**

2
3 Make the following amendment to said Section:

4
5 **(I)** Amend **607.04 - Measurement** by replacing lines 105 to 106 to read:

6
7 **“607.04 Measurement.** The Engineer will measure fence by the linear foot.
8 Measurement will be along the top of the fence from outside to outside of end
9 post for each continuous run of fence.”

10
11 **(II)** Amend **607.05 – Payment** by revising lines 108 to 115 to read as follows:

12
13 **“607.05 Payment.** The Engineer will pay for the accepted quantities of
14 fence at the contract unit price per linear foot of the types and sizes specified in
15 the proposal, complete in place.

16
17 The Engineer will pay for following pay items when included in proposal
18 schedule:

19

Pay Item	Pay Unit
_____ - Feet, Chain Link Fence for _____	Linear Foot”

20
21
22
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26

END OF SECTION 607

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 with glass spheres may be used for temporary markings in areas where final paving is not complete.”	

16 **(III) Amend 209.03(D) – Removal of Existing Pavement Markings** by
17 inserting the following after line 290.

18
19 “Areas where pavement markings have been removed shall match
20 existing pavements markings, have a matte finish, be free of depressions, and
21 shall not look like a pavement marking when wet or when the sun is low in the
22 sky. The removal area shall have the approximate appearance and friction of
23 the existing surrounding pavement.”

24
25 **(IV) Amend 629.04 – Measurement** by revising lines 292 to 294 to read as
26 follows:

27
28 **“629.04 Measurement.**

29
30 **(A)** The Engineer will measure thermoplastic and preformed pavement
31 marking tape per linear foot in accordance with the contract documents.
32 The longitudinal pavement markings will be measured per linear foot as a
33 single stripe for the width specified in the contract and in the proposal.
34 The Engineer will include the longitudinal gaps for skip striping, up to thirty
35 (30) feet long, in the measurement.

36
37 The Engineer will not measure temporary pavement markings
38 including flexible delineator posts with reflector markers or Type I
39 Barricades and temporary signs installed for the longitudinal guidance of
40 public traffic over reconstructed areas, cold planed surfaces, newly paved
41 surfaces or other unmarked or scarified areas for payment.

42
43 The Contractor shall consider the work required for the removal of
44 pavement markings incidental to the various contract items, except as
45 provided in the proposal or elsewhere in the contract.

46
47 **(B)** The Engineer will measure the pavement markers per each for the
48 types shown in the proposal.”

49
50 **(V) Amend 629.05 – Payment** by revising lines 296 to 330 to read as follows:

51
52 **“629.05 Payment.**

53
54 **(A)** The Engineer will pay for thermoplastic and preformed pavement
55 marking tape at the contract price per linear foot according to the contract,
56 complete in place, including primers.

57
58 The contract unit price paid shall be full compensation for
59 furnishing labors, materials, tools, equipment and incidentals and for
60 doing the work involved in furnishing and installing pavement markings
61 complete in place according to the contract.

63 The Engineer will not pay for the temporary pavement markings
64 including flexible delineator posts with reflector markers or Type I
65 Barricades and temporary signs installed for the longitudinal guidance of
66 public traffic over reconstructed areas, cold planed surfaces, newly paved
67 surfaces or other unmarked or scarified areas for payment if not shown in
68 the proposal separately. The Engineer will consider them incidental to the
69 various contract items.
70

71 **(B)** The Engineer will pay for the various types of pavement markers at
72 the contract price per each according to the contract, complete in place,
73 including adhesives.
74

75 The Engineer will pay for the following pay items when included in the
76 proposal schedule:
77

78 Pay Item	79 Pay Unit
80 _____ - Inch Pavement Striping (Thermoplastic Extrusion)	Linear Foot
81 _____ - Inch Pavement Striping (Profiled Thermoplastic)	Linear Foot
82 _____ - Inch Pavement Striping (Profiled Thermoplastic)	Linear Foot
83 _____ - Inch Pavement Striping (Profiled Thermoplastic)	Linear Foot
84 Type _____ Pavement Marker	Each”

85
86
87
88

END OF SECTION 629

47 (III) Amend **630.05 – Payment** by revising lines 223 to 303 to read as follows:

48

49 **“630.05 Payment.** The Engineer will pay for destination, expressway,
50 directional and exit number sign panels at the contract price per square foot for
51 the type specified complete in place. Payment will be full compensation for the
52 work prescribed in this section and the contract documents.

53

54 The Engineer will pay for overhead mounted expressway sign (“E”
55 designation) post and arm at the contract price per each type as specified
56 complete in place. Payment will be full compensation for the work prescribed in
57 this section and the contract documents.

58

59 The Engineer will pay for the following pay items when included in the
60 proposal schedule:

61

Pay Item	Pay Unit
Panel for _____	Square Foot
Type _____ Post and Arms for _____	Each

67

68 The Engineer will pay for Drilled Shafts in accordance with and under
69 Section 511 – Drilled Shafts.

70

71 The Engineer will pay for Concrete in accordance with and under Section
72 503 – Concrete Structures.

73

74 When the Engineer accepts an alternate design, the total amount paid
75 shall be full compensation for furnishing and installing materials and furnishing
76 equipment, tools, labors, and incidentals necessary to complete the work. The
77 Engineer will not make payment for additional materials, equipment, tools, labor
78 and other incidentals that might become necessary to complete the installation
79 due to the alternate design.”

80

81

82

83

END OF SECTION 630

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 Project in
7 a “paperless” manner, using electronic tools for all submittals, communications, quantity
8 tracking, testing, and sampling, scheduling, quality control, and performance monitoring.
9

10 **636.02 General Requirements.** The Contractor shall implement the use of the E-
11 Construction platform, as provided by the HDOT and directed by the Engineer, for use
12 throughout the project. Paper-based or hard copy submittals will not be accepted.
13

14 This Special Provision shall take precedence over all other Specification sections
15 with respect to providing and receiving paper copy communications, submittals, and any
16 project records. Where conflicts exist, and a decision between a hard-copy item and a
17 corresponding electronic version is needed, the electronic version shall be selected,
18 unless otherwise directed by the Engineer.
19

20 **636.03 Construction**
21

22 **(A) Plans and Specifications.** Project drawings will not be provided to the
23 Contractor in hard copy format. An electronic version will be provided in the E-
24 Construction platform for use during the project.
25

26 The Contractor shall note all changes to the work, including all
27 subcontractor’s work, in electronic format using the E-Construction platform Red
28 annotations shall be used to note changes. Blue annotations shall be used for any
29 additional notes that will be helpful for the State in interpreting the field posted
30 drawings. Other drafting standards may be implemented by the Engineer and shall
31 be adhered to by the Contractor. Changes shall be input by the Contractor and
32 reviewed by the Engineer monthly. The Contractor shall make any changes that
33 the Engineer requires.
34

35 **(B) Submittals.** The Contractor shall provide all required submittals, as listed
36 within the contract documents, via the E-Construction platform.—All review,
37 approval, and resubmittal regarding submittals shall also be documented within
38 the E-Construction platform
39

40 **(C) Correspondence.** Electronic mail (email) shall be the preferred method of
41 electronic communication. All communications that affect project scope, schedule,
42 cost, or quality, including changes and requests for information, shall be submitted
43 as directed by the Engineer.
44

45 **(D) Prosecution and Progress.** The Contractor shall provide all
46 administrative, management, and project support documents required by various
47 specification sections, using the E-Construction platform. These elements include,
48 but are not limited to:

- 49 (1) Preconstruction Submittals (Section 108.03)
- 50 (2) Correspondence regarding Contract Time and Delays (Section
51 108.05)
- 52 (3) Progress Schedules (Section 108.06)
- 53 (4) Weekly Meeting preparatory materials (Section 108.07)
- 54 (5) Samples, certifications, material data, installation instructions, and
55 shop drawings (Sections 105 and 106)
- 56 (6) Field-posted Drawings (Section 648)
- 57 (7) Pre-Final Inspection submittals (Section 108.13)
- 58 (8) Warranty documentation (Section 108.17)
- 59 (9) Project Closing Documents (Section 108.19)
- 60
- 61

62 In addition to the foregoing, the Contractor shall provide any other
63 materials, correspondence, and submittals using the E-Construction
64 platform as directed by the Engineer.
65

66 **(E) Resources.** The Contractor shall provide a comprehensive list of
67 Contractor labor and equipment, including all subcontractor labor and equipment,
68 that will be deployed on the project, using spreadsheet-based templates provided
69 in the E-Construction platform. All template fields shall be completed. The
70 submitted information shall comply with the requirements of Specification Section
71 108 – Prosecution and Progress (identification of labor and equipment resources)
72 and Specification Section 109 - Measurement and Payment (cost data) and
73 represent all individual personnel with labor categories and rates, and all
74 equipment owned or rented, with associated rates, on this project. Updates for
75 additional personnel or equipment shall be accomplished by the Contractor at will
76 and shall be completed when directed by the Engineer.
77

78 **636.04 Measurement.** The Engineer will measure additional E-Construction
79 programs, additional licenses, or additional equipment, if ordered by the Engineer, on a
80 force account basis in accordance with Subsection 109.06 – Force Account Provisions
81 and Compensation.

82
83 **636.05 Payment.** The Engineer will pay for the additional E-Construction programs,
84 additional licenses, or additional equipment, on a force account basis in accordance with
85 Subsection 109.06 – Force Account Provisions and Compensation.

86
87 The Engineer may withhold progress payment until the Contractor is in compliance
88 with all E-Construction requirements.

89

Pay Item	Pay Unit
Additional E-Construction Programs, additional licenses or additional equipment	Force Account

90
91
92
93
94

95 An estimated amount for force account may be allocated in the proposal schedule
96 under “Additional E-Construction Programs, additional licenses or additional equipment.”
97 The actual amount to be paid will be the sum shown on accepted force account records.”

98
99

100
101
102

END SECTION 636

1 **SECTION 645 – WORK ZONE TRAFFIC CONTROL**

2
3 Make the following amendments to said Section:

4
5 **(I)** Amend **645.02 – Materials** from lines 39 to 48 to read as follows:

6
7 “At least 30 working days before work starts, submit 10 sets of FHWA
8 approval letters certifying compliance with AASHTO Manual for Assessing Safety
9 Hardware (MASH) for signs, sign supports, barricades, delineators, cones,
10 vertical panels, concrete barriers, steel barriers, end treatments, and other traffic
11 control devices.

12
13 Furnish to the Engineer at least 30 working days before work starts, 10
14 sets of self-certified MASH complaint letters from the vendor for each type of
15 Category 1 traffic control device, as defined in MASH, including but not limited to
16 a single-piece traffic cone, single-piece drum, tubular marker, and delineator.

17
18 Use of signs, sign supports, barricades, delineators, cones, vertical
19 panels, and other traffic control devices that are not certified to be MASH
20 compliant shall not be used unless a request for a waiver is submitted in writing
21 and a written waiver is given by the Engineer.”

22
23 **(II)** Amend **645.03(F) – Lane Closures** from lines 248 to 252 to read as
24 follows:

25
26 **“(F) Lane Closures.** Lane closures will be allowed during the hours
27 listed in the contract documents for each phase specified. Exceptions to lane
28 closure hours specified require written acceptance by the Engineer. No increase
29 in contract price or contract time will be given for lane closure restrictions
30 specified.

31 Full roadway closures shall not be combined with any other lane closures.”

32
33
34 **(III)** Amend **645.03(F) – Lane Closures** by inserting the following after line
35 279:

36
37 “See Subsection 107.03 – Working Hours; Night Work for description of
38 Noise Variance hours, noise control conditions, and restrictions during weekend
39 and night work.

40
41 The Engineer may also suspend work at any time due to unforeseen
42 circumstances that occur within the immediate vicinity that may disrupt the traffic
43 on the roadway and/or alternate routes or in times of emergencies. The
44 Contractor will be compensated for work performed up to the time of the
45 suspension and the Contract Time will be adjusted accordingly.”

47 **(VI)** Amend **645.04(B)** by revising lines 400 to 403 to read as follows:

48

49 **(B)** The Engineer will measure the following when ordered by the
50 Engineer:

51

52 **(1)** Additional police officers, additional traffic control devices
53 that are beyond the required amount to allow the public to
54 safely pass through the project and are not required by the
55 Contract Documents, or a standard, guidance, or option by
56 the Contract Documents or the MUTCD or both.

57

58 **(2)** The cost of placing the required advertisement in the
59 accepted media, but not the cost to create the
60 advertisement.

61

62 **(3)** Additional items of work if ordered by the Engineer.

63

64 Measurement shall be on a force account basis in accordance with
65 Subsection 109.06 - Force Account Provisions and Compensation.”

66

67 **(V)** Amend **645.05 Payment** by revising line 415 to read as follows:

68

69 “Traffic Control - _____ Lump Sum”

70

71

72

END OF SECTION 645

1 **SECTION 656 – DRILLING HOLES AND INSTALLING**
2 **DOWEL REINFORCING BARS**
3
4

5 Make the following amendments to said Section:
6

7 **(I)** Amend **Section 656.04 Measurement** by revising lines 34 to 35 to read
8 as follows:
9

10
11 **“656.04 Measurement.** The Engineer will not measure drilling holes and
12 installing dowel reinforcing bars for payment.”
13

14 **(II)** Amend **Section 656.05 Payment** by revising lines 37 to 47 to read as
15 follows:
16

17 **“656.05 Payment.** The Engineer will not pay for the accepted drilling holes and
18 installing dowel reinforcing bars separately. The Engineer shall consider the cost
19 for the accepted drilling holes and installing dowel reinforcing bars as included in
20 the contract price of the various contract items. The cost is for the work
21 prescribed in this section including equipment, tools, labor, materials, and
22 incidentals necessary to complete the work in accordance with the contract
23 documents.”
24
25

END OF SECTION 656

1 Make the following section a part of the Standard Specifications:
2

3 **“SECTION 670 – POSITIVE PROTECTION BARRIER**
4

5 **670.01 Description.** This work shall consist of furnishing, hauling, installing,
6 maintaining, relocating, and subsequently removing positive protection barriers as
7 temporary barriers during construction of the project in accordance with the
8 requirements of the contract.
9

10 **670.02 Materials.** Materials shall meet the requirements specified in the
11 following Section.

12		
13	Movable Steel Barrier	671
14		
15	Portable Concrete Barrier	672
16		

17
18 **670.03 Construction.**

19
20 **(A) Movable Steel Barriers.** Movable steel barriers shall conform to
21 Specification Section 671 – Movable Steel Barrier.
22

23 **(B) Portable Concrete Barriers.** Portable concrete barriers shall conform
24 to Specification Section 672 – Portable Concrete Barrier.
25

26 **670.04 Measurement.** Positive protection barriers, accessories, and end
27 treatments will be paid under Section 645 – Work Zone Traffic Control on a contract
28 lump sum basis. Measurement for payment will not apply
29

30 **670.05 Payment.** The Engineer will pay for the accepted positive protection
31 barrier on a contract lump sum basis under Section 645 – Work Zone Traffic Control.
32 Payment will be full compensation for work prescribed in this Section and the
33 contract documents.”
34
35
36

END OF SECTION 670

1 Make the following section a part of the Standard Specifications:
2

3 **“SECTION 671 – MOVEABLE STEEL BARRIER**
4

5 **671.01 Description.** This work shall consist of furnishing, hauling, installing,
6 maintaining, relocating, and subsequently removing steel barriers as temporary
7 barriers during construction of the project in accordance with the requirements of the
8 contract.
9

10 **671.02 Materials.** Materials shall meet the requirements specified in the
11 following subsections of Division 700 - Materials.
12

13	Structural Steel	713.01
14		
15	Standard Fasteners	718.01
16		
17	Reflector Marker	750.07
18		
19	Preformed Pavement Marking Tape	755.04
20		

21 **671.03 Construction.**
22

23 **(A) Fabrication.** Positive protection barriers shall be moveable steel
24 barriers.
25

26 **(B) Barrier Design.** The positive protection barrier system shall only use
27 safety hardware evaluated using the 2016 edition of MASH criteria and has
28 been accepted as satisfactorily meeting the requirements of the MASH
29 criteria. Provide a copy of FHWA’s acceptance letter.
30

31 **(C) Accessories.** Furnish and install one (1) RM-2 reflector marker
32 mounted on top of the moveable barrier, a longitudinal 4-inch permanent
33 preformed pavement marking tape on the sloped side of the barrier facing
34 traffic (Tape, Type I, color to match appropriate roadway pavement stripe),
35 and one (1) steady burn amber lamp on each barrier unit.
36

37 **(D) Installation.** Assemble and install the moveable steel barrier system
38 in accordance with the manufacturer’s recommendation. Erect all units as
39 shown on the plans or as specified by the Engineer. Set the units in a vertical
40 position, closely following the roadway grade.
41

42 Minimum deployment lengths (e.g., anchored and unanchored
43 installations) of the moveable steel barrier system shall be in accordance with
44 manufacturer’s recommendations.
45

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Contractor shall furnish end treatments which comply with MASH Test Level 3 criteria at a minimum for each leading edge. Damaged end treatments shall be replaced within 24-hours at no cost to the State.

Relocate any unit not in use as order by the Engineer to a location specified by the Engineer.

Contractor shall be responsible for maintaining moveable steel barriers and shall promptly replace any damaged barrier unit as directed by the Engineer at no additional cost to the State.

(E) Ownership. Upon completion of the project, the moveable steel barriers shall become the property of the Contractor.

671.04 Measurement. Engineer will measure movable steel barriers and end treatments under Section 645 – Work Zone Traffic Control on a contract lump sum basis. Measurement for payment will not apply.

671.05 Payment. The Engineer will pay for the accepted moveable steel barriers on a contract lump sum basis under Section 645 – Work Zone Traffic Control. Payment will be full compensation for work prescribed in this Section and the contract documents.”

END OF SECTION 671

1 Make the following Section a part of the Standard Specifications:
2

3 **"SECTION 672 - PORTABLE CONCRETE BARRIER**
4

5 **672.01 Description.** This work shall consist of furnishing, hauling,
6 installing, maintaining, relocating, and subsequently removing portable concrete
7 barrier as temporary barriers during the construction of the project in accordance
8 with the requirements of the contract and are a MASH crash tested and
9 accepted design.

10
11 **672.02 Materials.**

12 Structural Concrete	601
13	
14 Reinforcing Steel	709.01
15	
16 Reflector Marker	750.07
17	
18 Preformed Pavement Marking Tape	755.04
19	
20 Structural Steel	713.01
21	
22 Steel Fasteners	718
23	

24
25 "All concrete must comply with the CO2 footprint reduction requirements of
26 Section 601."
27

28 **672.03 Construction.**

29
30 **(A) General.** Prior to fabrication of the portable concrete barrier, the
31 Contractor shall submit detailed shop drawings to the Engineer for
32 acceptance.
33

34 **(B) Forms.** Forms shall be in accordance with the applicable
35 provisions of Section 503 - Concrete Structures.
36

37 **(C) Placing Concrete.** The form shall be thoroughly moistened
38 immediately prior to the placing of the concrete. Concrete shall be placed
39 in accordance with the applicable provisions of Section 503 - Concrete
40 Structures.
41

42 **(D) Curing.** The portable concrete barriers shall be steam or water
43 cured in accordance with the applicable provisions of Section 503 –
44 Concrete Structures.
45

46 **(E) Handling.** The portable concrete barriers shall not be handled until
47 the concrete has attained a compressive strength of not less than 3,000
48 psi.

49
50 The lifting holes shall be used to hoist the portable concrete barrier
51 unless other methods of lifting are approved by the Engineer.

52
53 Units damaged by improper handling shall be repaired or replaced
54 by the Contractor at no cost to the County.

55
56 Stacking of precast units will be permitted with prior approval by the
57 Engineer of the method to be employed by the Contractor.

58
59 **(F) Accessories.** Furnish and install one (1) RM-2 reflector marker on
60 top of the concrete barrier, one (1) steady burn amber lamp, and a
61 longitudinal 4-inch x 20 feet permanent preformed pavement marking
62 tape, Type I (color to match appropriate roadway pavement stripe) on the
63 side of the barrier facing traffic for each barrier section.

64
65 **(G) Installation.** Contractor shall furnish end treatments which comply
66 with MASH Test Level 3 criteria at a minimum for each leading edge.
67 Damaged end treatments shall be replaced within 24-hours at no cost to
68 the State.

69
70 Relocate any unit not in use as order by the Engineer to a location
71 specified by the Engineer.

72
73 Contractor shall be responsible for maintaining concrete barriers
74 and shall promptly replace any damaged barrier unit as directed by the
75 Engineer at no additional cost to the State.

76
77 **(H) Ownership.** Upon completion of the project, the portable concrete
78 barrier shall become the Contractor's property.

79
80 **672.04 Measurement.** Engineer will measure portable concrete barriers
81 under Section 645 – Work Zone Traffic Control on a contract lump sum basis.
82 Measurement for payment will not apply.

83
84 **672.05 Payment.** The Engineer will pay for the accepted portable
85 concrete barriers on a contract lump sum basis under Section 645 – Work Zone
86 Traffic Control. Payment will be full compensation for work prescribed in this
87 Section and the contract documents.”

88
89
90 **END OF SECTION 672**

1 Make the following Section a part of the Standard Specifications:

2
3 **“SECTION 675 – PREPARATION AND COATING OF GALVANIZED BRIDGE**
4 **COMPONENTS**

5
6 **675.01 Description of Work.** This specification defines the material and
7 execution requirements for the preparation and coating of hot dip galvanized
8 (HDG) bridge signage components for over the road structures for the Island of
9 Oahu.

10
11 This specification is to supplement the specification Section 697 - Clean and
12 Paint New Steel. It is limited in scope to cleaning, surface preparation and
13 coating of galvanized steel substrates. The galvanized pieces will be prepared
14 as described herein, and coated with a 2 coat epoxy and fluoropolymer system,
15 including stripe coating of edges.

16
17 **REFERENCE STANDARDS**

18
19 **American Society for Testing Materials (ASTM)**

20
21 ASTM D-4285 “Standard Test Method for Indicating Oil and Water in
22 Compressed Air”

23
24 ASTM D-4940 “Standard Test Method for Conductimetric Analysis of Blasting
25 Media.

26
27 ASTM D-6386 “Standard Practice for Preparation of Zinc (Hot-Dip Galvanized)
28 Coated Iron and Steel Product and Hardware Surfaces for Painting”

29
30 ASTM D-4417C “Standard Test Method for Field Measurement of Surface Profile
31 of Blast Cleaned Steel

32
33 **Society of Protective Coatings (SSPC), now AMPP**

34
35 SSPC Volume 1 “Good Painting Practices”

36
37 SSPC-SP-1 “Solvent Cleaning

38
39 SSPC – SP-2 “Hand Tool Cleaning”

40
41 SSPC-SP-3 “Power Tool Cleaning”

42
43 SSPC-PA-2 “Measurement of Dry Coating Thickness with Magnetic Gages”

44
45 SSPC-QP-3, “Quality Procedure for Shop Painting Accreditation Program.”

46 SSPC-SP-16 “Brush off Blast Cleaning of Uncoated and Coated Galvanized
47 Steel”
48

49 **Other Standards**

50
51 American Galvanizers Assn. (AGA) publication “Suggested Specification for
52 Preparing Hot-Dip Galvanized Surfaces for Painting”, February 2002
53

54 Federal Standard 595B, Federal Standard Colors, FED-STD-595B
55

56 **675.02 Material Requirements.**

57
58 **(A) General.** Coating material requirements in this section supersede
59 coating material listed in the base specification Section 697 – Clean and
60 Paint New Steel.
61

62 For the galvanized components: A duplex system, consisting of an epoxy
63 intermediate and a fluoro-urethane topcoat will be applied over the HDG
64 system. The intermediate, stripe, and topcoat shall all be supplied by the
65 same manufacturer.
66

67 (1) Primer - An industrial grade epoxy polyamide intermediate
68 manufactured by the following companies are authorized for use in
69 this application: Sherwin Williams, and Tnemec Company, Inc.
70

71 (2) Stripe coat - The stripe coat shall be the same product as the
72 intermediate coat and supplied in a contrasting color.
73

74 (3) Topcoat- The topcoat shall be of Fluoropolymer FEVE
75 technology and selected from the following manufacturers: Sherwin
76 Williams (Fluorekem 100HS), and Tnemec Company, Inc.(Fluoronar
77 Series 1070).
78

79 (4) Topcoat color - The formulated color of the topcoat shall
80 conform to Federal Standard 595B color 14062 Dark Green,
81 possessing a minimum 80° gloss finish.
82

83 **(B) Thinners and Additives.** Thinners or additives shall be those
84 recommended by the coating manufacturer. Thinner shall be primarily used
85 for cleaning of equipment. Thinner may not be added in amounts exceeding
86 the limits set forth in the manufacturer’s product data sheet (PDS)

87 **675.03 Construction Requirements.** The work of this section shall
88 compliment ASTM D-6386 and AGA Suggested Specification listed in the Other
89 Standards section. Surface preparation method will be chosen based on the

90 condition of the new HDG steel, per ASTM D6386 and the AGA Suggested
91 Specification.

92
93 All coating work shall be performed in an enclosed shop facility holding a current
94 SSPC-QP-3 accreditation.

95
96 **(A) Inspection.** Inspect surfaces to verify suitability of the surfaces to
97 receive paints prior to the commencement of surface preparation and paint
98 application. Establish an initial average applied DFT of the galvanizing using
99 equipment described in SSPC-PA-2. Report, in writing, to the Engineer or his
100 designated representative any condition that may affect proper application or
101 overall performance.

102
103 **(1) Surface Smoothing.** Zinc high spots, such as a metal drip
104 line, shall be removed by cleaning with hand tools or power
105 tools as described in SSPC Surface Preparation Specification
106 SSPC-SP-2 or SSPC-SP3. The zinc shall be removed until it is
107 level with the surrounding area, taking care that the base
108 galvanized layer is not damaged.

109
110 **(B) Surface Preparation.**

111
112 **(1) Solvent Cleaning:** Visible grease and oil shall be
113 removed prior to the surface preparation. This shall be
114 accomplished in accordance with SSPC-SP-1 (Solvent
115 Cleaning) or power washing (low pressure water cleaning
116 under 5000psi). Water break test may be performed to insure
117 removal of contaminants prior to surface preparation and
118 coating.

119
120 **(2) Ambient Conditions:** Final surface preparation which
121 exposes bare steel shall not be performed under damp
122 environmental conditions or when the surface temperature is
123 less than 5°F above the dew point temperature of the
124 surrounding air.

125
126 **(3) Compressed Air Cleanliness:** The supply air used for
127 cleaning, blow down, or paint application using conventional
128 and airless paint equipment shall be free from moisture and oil
129 contamination. The air cleanliness shall be verified daily using
130 the ASTM D 4285 method.

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NOTE: Items (4) through (10) apply to abrasive brush-off blasting. Abrasive blasting per SSPC-SP-16 of the galvanized pieces may be required by the guidelines set forth in ASTM D6386, the AGA publication referenced herein, or any on-site agent authorized by the Engineer.

(4) Abrasives/ Profile: Abrasives used for sweep blasting shall be clean and uniformly graded, free of oil, soluble salts and other similar substances. Sweep blast abrasives shall have hardness less than 5 on the Mohs scale and a particle size in the 200-500 micron range. All abrasives shall be tested per ASTM D-4940 prior to use.

(5) Abrasive Brush-Off blasting of galvanized surfaces shall be accomplished according to SSPC-SP-16, to achieve a general, uniform roughened texture of no more than 0.75 mils.

(6) Abrasive size and nozzle pressure should be adequate to achieve the desired profile.

(7) After SSPC-SP-16 has been accomplished, blow down all surfaces with clean-dry compressed air to ensure all dust is removed prior to painting.

(8) Subsequent to brush-off blasting, visually examine all surfaces to ensure completeness of surface preparation.

(9) Random profile measurements shall be made according to ASTM-D4417C to ensure proper technique. Baseline DFT measurements shall be taken over brush-off blasted galvanizing to ensure preservation of the original galvanized thickness and to establish a baseline thickness to be used to evaluate final coating system thickness.

(10) Any areas of galvanizing that have been blasted to bare steel or damaged during mechanical tool cleaning shall be touched up with an organic zinc rich epoxy (from the selected

170 NEPCOAT List B in referred to in Subsection 697.02B) prior to
171 subsequent coating application.

172

173

(C) Coating Application.

174

175

(1) Surface Condition: The surface shall exhibit the degree of preparation specified immediately prior to painting. Coating of the prepared pieces shall be accomplished within 24 hours of completion of surface preparation.

176

177

178

179

180

(2) Surface Cleanliness:

181

182

(a) Prior to coating, thoroughly clean all surfaces to be coated and remove spent abrasive, dirt, dust, or other contaminants.

183

184

185

(b) Follow these cleaning steps on the initial cleaning and between coats of a multi-coat system and during curing process.

186

187

188

(c) Adequate dust collection, containment and/or dust removal is required for the project. Proper ventilation shall be maintained during surface preparation, coating application and cure.

189

190

191

192

(d) No dust is allowed to remain on the substrate or allowed to fall on the freshly applied coating during the coating application and/or during curing process.

193

194

195

196

(e) Embedded abrasive or dust on the substrate or in the coating film must be removed prior to any coating application.

197

198

199

(3) Grease / Oil. Remove any oil and grease that may have been deposited on the prepared surface prior to application of the specified coating system by solvent cleaning (SP-1).

200

201

202

203

(4) Ambient Conditions: Apply coatings within the environmental condition ranges specified in the individual Product Data Sheets (PDS). As a general rule, the following conditions apply:

204

205

206

207

208

(a) Surface and Air Temperature: Maintain between 50°F and 95°F.

209

- 210 (b) Relative Humidity: 85% or less.
- 211 (c) Dew Point: Surface temperatures of the substrate
212 shall be at least 5°F greater than the dew point
213 temperature of the surrounding air.
- 214 (d) Atmosphere: Do not paint when the air adjacent
215 to the surface contains a fog, mist, dust, or other
216 particulate matter. Do not perform coating operations
217 during winds in excess of 15 mph.

218 **(D) Coating Coverage and Continuity.**

- 219
- 220 (1) Stripe Coat: Apply a stripe coat of the un-thinned
221 intermediate coat by brush to, crevices, bolt heads, welds, and
222 pits or other surface continuities prior to the application of the
223 intermediate coat.
- 224 (2) Coverage: Apply coatings via conventional spray or
225 airless spray to all surfaces with special attention to hard-to-
226 reach areas such as underneath support brackets, back to
227 back angles, skip welding or deep pits.
- 228 (3) Continuity: All coats shall have a smooth surface and be
229 free from dryspray, overspray, and orange peel. Pinholes,
230 bubbles, and misses are not acceptable. Brush out runs and
231 sags while material is still wet.
- 232 (4) Observe all applicable recoat windows as specified in
233 the respective coating Product Data Sheet (PDS). If no recoat
234 window is specified, a minimum of 12 hours and maximum of
235 24 hours shall be observed as the applicable recoat window.
- 236
- 237 (5) Dry Film Thickness
- 238
- 239 (a) Apply each coat to the thickness range specified
240 in the PDS. Contractor shall be required to record DFT
241 readings.
- 242
- 243 (b) Dry Film Deficiencies: Apply additional coat(s) to
244 all surfaces having less dry film thickness specified, at
245 no additional cost to the owner.
- 246

247 (c) Average baseline galvanized steel thickness shall
248 be subtracted from average DFT readings of each coat
249 to calculate true coating thickness.
250

251 **(E) Repair of Damaged or Deficient Coating on the Substrate.** Repair
252 all damaged or deficient coatings prior to the project completion.
253

254 (1) Preparation of Localized Damages: Power tool clean the
255 damaged area in accordance with the appropriate power tool
256 cleaning specification, SSPC-SP-3 "Power Tool Cleaning".
257 After preparation, the area shall be needle-gunned to re-
258 establish a profile if any grinding was performed. Follow ASTM
259 D 6386 for galvanized substrate repairs.

260 (2) Preparation of Extensive Damage: Repair in accordance
261 with the original specification.

262 (3) Coating Application: When the base of the substrate is
263 exposed, re-apply all coats of the coating system. When the
264 damage area does not extend to the base substrate, re-apply
265 only the affected coats. Exercise special care to maintain the
266 specified thickness of the system in the overlapped area onto
267 the existing intact coat.

268 **(G) Holdpoints.** All Hold Points for Quality Control listed in Section 697 –
269 Clean and Paint New Steel, shall be accomplished, in addition to the
270 following:
271

272 (1) Masking of slip critical bolted areas
273

274 (2) Calculation of baseline DFT of galvanizing
275

276 (3) Surface smoothing of galvanizing defects
277

278 (4) Surface cleanliness (water break test) prior to surface
279 preparation by brush-off blasting
280

281 (5) Blast air quality, blast grit cleanliness
282

283 (6) Visual examination for dust after blasting and prior to
284 striping of bolted connections and crevices
285

286 (7) Visual cleanliness examination prior to intermediate coat
287 and topcoat application
288

- 289 (8) Profile of brush-off blasted surface
290
291 (9) Repair of defects
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293 (10) Final DFT and workmanship
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295 **675.04 Measurement.** The Engineer will not measure Preparation and
296 Coating of Galvanized Bridge Components for payment.
297

298 **675.05 Payment.** The Engineer will not pay for accepted Preparation and
299 Coating of Galvanized Bridge Components separately. The Engineer shall consider
300 the cost for the accepted Preparation and Coating of Galvanized Bridge
301 Components as included in the contract price of the various contract items. The cost
302 is for the work prescribed in this section and the contract documents.”
303

304 **END OF SECTION 675**

1 Make the following Section a part of the Standard Specifications:
2

3 **"SECTION 695 - REMOVAL AND DISPOSAL OF LEAD-BASED PAINT**
4

5 **695.01 Description.** This work includes testing for, removing, and disposing
6 of lead-based paint present on the existing sign structures.
7

8 The Contractor shall take the necessary precautions to ensure full compliance
9 with all the current and applicable regulations regarding the testing, removal and
10 disposal of lead based paint present on the existing sign structures.
11

12 Existing sign structures H1EBR-253, 78EBR-830, and H1WB-511 are believed to
13 contain lead-based paint in excess of 5000 PPM as defined by the U.S.
14 Environmental Protection Agency (EPA). Sign structures H1EB-305 and
15 H1WB-505 are believed to contain lead-containing paint below the 5000 PPM
16 concentration threshold.
17

18 **695.02 Materials.**
19

20 **(A) Paint Removal Products.** The Contractor shall submit the paint
21 removal materials and applicable safety data sheets for acceptance by the
22 Engineer.
23

24 **695.03 Construction Requirements.**
25

26 **(A) Reference.**
27

28 **(1)** 29 CFR 1926.62 OSHA Lead Construction Standard
29

30 **(2)** ASTM D3335
31

32 **(3)** EPA Method PB92-114172
33

34 **(B) General.**
35

36 **(1) Changes in Legal Requirements for Lead-Based Paint**
37 **Removal.** The legal requirements described here-in, are for
38 reference only, the Contractor shall be responsible for utilizing
39 methods and procedures current at the time of the work operations.
40

41 **(C) Quality Assurance and Control of Work.**
42

43 **(1) Hazardous Waste Management.** The Contractor shall
44 submit a Hazardous Waste Management Plan within forty-five (45)
45 calendar days after award of contract, for acceptance. The
46 Hazardous Waste Management Plan shall follow current,
47

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47 applicable, requirements of Federal, State and local hazardous
48 waste control regulations and shall address:

49
50 **(a) Baseline Testing.** The Contractor shall determine,
51 before the start of operations, the existing lead levels for the
52 sign structures.

53
54 **(b) Removal Methods.**

55
56 **(c) Storage on Site.**

57
58 **(d) Transport.**

59
60 **(e) Disposal.**

61
62 **(f) Site Clean-up.**

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64
65 **(2) Pre-Construction Meeting.** The Contractor shall meet
66 with the Engineer to discuss in detail the lead-based paint
67 removal plan, including work procedures and precautions for the
68 work.

69
70 **(3) Safety and Health Compliance.** The Contractor shall
71 follow the current laws, ordinances, rules, and regulations of
72 Federal, State, and local agencies on removing, handling, storing,
73 transporting, and disposing of lead waste materials, and the
74 applicable requirements of the current issue of DOSH standards.
75 The Contractor shall submit interpretation of standards to the
76 Engineer for resolution before starting work. Where specification
77 requirements and the referenced documents vary, the more
78 stringent requirements shall apply.

79
80 **(4) Project Planning and Review.** The Contractor shall
81 provide the Engineer with the following information for acceptance
82 before beginning site operations.

83
84 **(a) Identification of Hazardous Wastes Associated with the**
85 **Work.** Method used to determine lead content of paint to be
86 removed shall be according to ASTM D3335, or EPA's
87 proposed Method PB92-114172;

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89 **(b) Estimated quantities of waste to be generated and**
90 **disposed of;**

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(c) Names and qualifications of each worker that will be generating, transporting, storing, treating and disposing of the wastes. Included shall be the facility location and a 24-hour point of contact. The Contractor shall submit two (2) copies of EPA hazardous waste permits to the Engineer;

(d) Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes;

(e) List of waste handling equipment to be used in performing the work, to include cleaning, volume reduction, and transport of equipment;

(f) Spill prevention, containment, and cleanup contingency measures to be implemented;

(g) Work plan and schedule for waste containment, removal and disposal. The Contractor shall clean up and containerize wastes daily.

(h) Cost and procedures for hazardous waste disposal according to the accepted plan.

(5) Hazard Communication Program. The Contractor shall set up and carry out a Hazard Communication Program as required by applicable DOSH standards.

(D) Submittals. The Contractor shall submit to the Engineer information, documentation, and materials required for acceptance, before the start of sign structure removal work.

(1) Manufacturer's Catalog Data. The Contractor shall submit manufacturer's catalog data for all items related to the removal and disposal of the hazardous material

(a) Manifest. The Contractor shall submit to the Engineer a completed and signed Hazardous Waste Receipt Manifest from the accepting treatment or disposal facility.

(b) EPA Acceptance. The Contractor shall submit documents indicating that the EPA has accepted the hazardous waste treatment disposal facility for lead disposal.

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(2) Testing and Monitoring.

(a) Testing Laboratory. The Contractor shall submit the name, address, and telephone number of the testing laboratory selected to do the testing for lead. The Contractor shall provide documentation that the laboratory doing the analysis has been judged proficient by successful participation, within the last year, in the National Institute for Occupational Safety and Health's (NIOSH) Proficiency Analytical Testing (PAT) Program. The AIHA shall accredit the laboratory. The Contractor shall provide AIHA documentation along with the date of accreditation and/or reaccreditation.

(b) Test Results. The Contractor shall submit test results to the Engineer:

1. within five (5) working days, or as approved;
2. signed by the testing laboratory employee doing the air monitoring and;
3. the name of the employee that analyzed the sample.

(E) Work Procedures.

(1) General. The Contractor shall do removal of lead-based paint according to the accepted lead-based paint removal plan. The Contractor shall use procedures and equipment required to limit occupational and environmental exposure to lead when lead-based paint is removed according to DOSH standards except as specified. Disposal of removed paint chips and associated waste shall conform to Environmental Protection Agency (EPA), Federal, State, and local requirements;

(2) Protection of the Environment. The Contractor shall follow all applicable provisions of the CFR (i.e.: Clean Water Act, the Clean Air Act, etc...);

(3) Cleanup and Disposal.

(a) Disposal. Lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing, which may produce air borne concentrations of lead particles, shall be collected by the Contractor. The

185 Contractor shall make provisions for the disposal of
186 lead-contaminated waste material at an EPA approved
187 hazardous waste treatment, storage, or disposal facility.
188

189 The Contractor shall store waste materials in U.S.
190 Department of Transportation (49 CFR 178) approved 55
191 gallon drums. The Contractor shall label each drum to
192 identify the type of waste (49 CFR 172), and the date
193 lead-contaminated wastes were first put in the drum. The
194 Engineer will assign an area for interim storage of waste
195 containing drums.
196

197 The Engineer will not permit storage of hazardous waste
198 drums in interim storage longer than ninety (90) calendar
199 days from the date on which the hazardous waste was
200 initially placed in each drum. The Contractor shall handle,
201 store, transport, and dispose of lead or lead-contaminated
202 waste according, but not limited to: 40 CFR 260, 40 CFR
203 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, and 40 CFR
204 265.
205

206 **(b) Disposal Documentation.** The Contractor shall
207 submit written evidence that the hazardous waste treatment,
208 storage, or disposal (TSD) facility is approved for lead
209 disposal by the EPA and state, or local regulatory agencies.
210 The Contractor shall submit to the Engineer one (1) copy of
211 the completed manifest, signed and dated by the initial
212 transporter according to 40 CFR 262.
213

214 **695.04 Method of Measurement.** The Engineer will measure removal and
215 disposal of lead-based paint, if ordered by the Engineer, on a force account
216 basis, in accordance with Subsection 109.06 – Force Account Provisions and
217 Compensation.
218

219 **695.05 Basis of Payment.** The Engineer will pay for removal and disposal of
220 lead-based paint at the contract price per pay unit, as shown in the proposal
221 schedule. The price includes quality assurance and control of the work;
222 submittals; equipment; work procedures; furnishing labors, materials, equipment,
223 tools and incidentals necessary to complete the work.
224

225 The Engineer will pay for the following items when included in the proposal
226 schedule:
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228 Pay Item	229 Pay Unit
230 Removal and Disposal of Lead Based Paint	Force Account"

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END OF SECTION 695

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1 Make the following Section a part of the Standard Specifications:

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3 **“SECTION 697– CLEAN AND PAINT NEW STEEL**

4
5 **697.01 Description of Work.** This work includes power washing, near
6 white metal blast finishing, and painting all new structural steel for overhead sign
7 structures. Painting includes application of primer, stripe coat to all edges,
8 corner and bolted connections (see exclusions), intermediate coat and topcoat.
9 Bolted connections (faying surfaces) are to be masked as detailed in this
10 specification. Field touch up is to be accomplished after erection and will include
11 application of intermediate and topcoat to the bolted connections.

12
13 This specification is to be used as a “base specification” for more detailed work,
14 such as painting of Hot Dip Galvanized (HDG) steel, supplemented in Section
15 675 – Preparation and Coating of Galvanized Bridge Components.

16
17 The Contractor awarded the work will be required to attend a pre-job conference to
18 discuss the pertinent issues of the work, discuss schedule, and to address the
19 specification. A walk-through of the location where the painting is to take place and
20 additional walk-throughs at each work site must be part of the pre-job conference.
21 The field work site walk-through must have an explanation of how the steel structure
22 is to be offloaded, erected, and repair touch-up painting to be done. At a minimum
23 the Contractor’s field foreman and QC representative shall be present. The pre-job
24 conference will be required for shop painting of new steel, galvanized steel, as well
25 as field touch-up after erection.

26
27 **697.02 Material Requirements.**

28
29 **(A) General.** In this section, the terms: coat; paint; coating and painting
30 are interchangeable. The term “system”, when referencing coat or paint, means the
31 final product of several different, compatible coatings of paint.

32
33 **(1)** The coating system for all steel surfaces to be painted on this
34 project shall incorporate a system from the NEPCOAT Qualified
35 Products List B (Protective Coatings for NEW and 100% BARE
36 EXISTING Steel for Bridges), found at www.NEPCOAT.org. This
37 consists of an Organic Zinc Rich Primer, Epoxy or Urethane
38 Intermediate, and an Aliphatic Urethane topcoat. Include a separate
39 brush applied coat over all edges, corners, bolts, rivet heads, and
40 weld seams (stripe coat).

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42 **(2) Do not mix manufacturers.** The same manufacturer shall
43 furnish the primer, intermediate, stripe, and topcoat.
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(3) Color. Final colors shall be as determined by the Engineer or other referenced State Specifications. Paint sheen and specific color scheme shall be determined by Engineer.

Colors shall be according to Federal Standard 595B 'Federal Standard Colors'. The Contractor shall submit color selection to the Engineer for review and final selection before ordering paint system products. Each coat of paint, in its wet and cured conditions, shall have distinctly contrasting shades between subsequent coats applied to aid in application and inspection of the coating.

(4) The Manufacturer shall submit a Certificate of Compliance for the protective coatings stating that the Contractor can apply each coating between temperatures of 50-95F, and at relative humidity no greater than 85%.

(5) The manufacturer shall prepare the paint at the factory, ready for application. The Engineer will not permit the addition of a thinner or other material to the paint after shipping the paint.

(6) The Contractor shall furnish paint manufacturer's certification that the paint complies with paint system requirements as specified herein.

(7) Tinting. The Manufacturer shall add the tinting materials required to the paint at the factory. The Engineer shall not allow field tinting.

(8) Labeling. Labels on containers shall show the exact title of the paint. The title must indicate which layer it must be used for, the manufacturer's name, date of manufacture, date of expiration, the manufacturer's batch number, product code and the lot number if appropriate. Package the paint in new approved containers. Precautions concerning the handling and application of paint shall be shown on the label of all paint and solvent containers.

(B) Coatings Specified. Unless otherwise specified in accompanying specifications, coatings used shall be in accordance with the NEPCOAT Qualified Products List B, An example of a system from QPL list B is as follows:

89	Primer:	International Paint Interzinc 315B (organic zinc rich primer) @ 2-6 mils DFT
90		
91		
92	Stripe Coat:	International Paint Intergard 475HS (high build epoxy based) @ 4-8 mils DFT
93		
94		
95	Intermediate:	International Paint Intergard 475HS (high build epoxy based) @ 4-8 mils DFT
96		
97		
98	Topcoat:	International Paint Interthane 870UHS (acrylic aliphatic polyurethane) @ 3-5 mils DFT
99		

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(C) Paint System Requirements.

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(1) In the event the supplier cannot provide the aforementioned coatings, the coating shop shall submit for approval an alternate NEPCOAT approved coating system from List B. The submittal shall include documentation that the currently specified system cannot be obtained, and the product data sheets of the alternate system detailing percent volume solids, pigment content by weight, recommended thickness, and VOC. This literature shall include a reference list of equivalent structural projects where the proposed paint system was used and the coating shops who applied them.

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(2) When the proposed Paint System manufacturer's literature requires a higher degree of surface preparation or a greater film thickness than specified herein, that degree of surface preparation and film thickness shall be applied, at no additional cost to the State.

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(3) The proposed paint system shall have a minimum of two years' field exposure on similar structures.

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(4) The Contractor shall submit any proposed equivalent paint system for review and approval after award of contract.

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697.03 Construction Requirements.

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126

(A) General.

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(1) The coating Contractor shall comply with the current, State, Federal and local laws and regulations pertaining to the protection of the environment in the performance of this type of work. These include but are not limited to regulations required by the State Department of Health (DOH), Federal Environmental Protection Agency (EPA), rules and regulations.

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(2) The coating Contractor shall comply with the current Federal Occupational Safety and Health Administration (OSHA) and Hawaii Occupational Safety and Health (HIOSH) requirements for worker protection and safety equipment during all work on this project.

(3) The shop facility performing the blasting and painting (prior to shipment to the construction site) shall be certified to SSPC-QP-3, Shop Painting Certification Program.

(4) The field touch-up contractor shall be certified to SSPC-QP-1, Field Application to Complex Marine and Industrial Structures.

(5) All surface preparation and painting operations, whether in the shop or field, shall be inspected by a NACE CIP Level 2 certified coating inspector.

(B) Site Preparations.

(1) The Contractor's work shall, at all times, be made accessible to the Engineer. Contractor shall provide all safety, fall protection, access and scaffolding needs for the Engineer. The Contractor shall make ground level or superstructure access to all bents using man-lifts, ladders and/or scaffolding or stairs.

(C) Containment of Work and Protection of the Environment

(1) SHOP: This specification requires all fabricated steel be cleaned via pressure washing with fresh-water to remove construction debris and any other surface contaminants. Solvent cleaning will be necessary to remove any fabrication grease, oils and markings.

(2) FIELD: In order to protect the surrounding natural environment and work environment, the Contractor will be required to contain each work area so that there is no escape of water-wash effluent to the surrounding area. In addition, care should be taken to contain any overspray to escape into the surrounding environment, above and under the structure.

(3) Wash water effluent shall be removed on an ongoing basis throughout the project as to not interfere with ongoing operations. Containment of the work area shall remain in place until the final coat of paint has been cured, inspected, and accepted by the Engineer.

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(D) Surface Cleaning and Preparation. The coating shop shall prepare the steel as specified below:

(1) Before any surface preparation, remove all visible and non-visible contaminants described herein by methods specified in SSPC-SP1 Solvent Cleaning. General cleaning shall be accomplished using Low Pressure Water Cleaning (as defined in SSPC WJ-2/NACE WJ-2) at minimum working pressures of 1000 psi, not to exceed 3000 psi using fresh water. For the purposes of this specification, fresh water shall be defined as local potable water quality.

(2) (NOTE: For field touch-up, after arrival at the erection site, if the existing steel member coatings have any surface contaminants such as sea salts, dirt, construction debris, grease, oils, bird droppings, and other contamination not listed herein they shall be cleaned according to Subsection 697.03(D)(1).

(3) Vacuum or air blow-down (using clean, dry and oil-free air) shall be used to remove any standing water and to aid in drying surfaces prior to mechanical methods of surface preparation.

(4) Surface preparation of all new steel shall be in accordance with Society of Protective Coatings standard SSPC-SP-10 Near White Metal Blasting. Blast profile shall be an anchor tooth profile of 2.0 – 3.5 mils, and shall be accomplished with a proper steel shot/grit mix. Brush-off blasting of hot dip galvanized components shall be in accordance with SSPC-SP-16, and State Specification 16 675.

NOTE ON QC CHECKPOINTS - Coating Contractor shall inform Engineer at least one working day prior to QC Checkpoint operations. In the event the Engineer is not present at the requested time, the Contractor may proceed to the next evolution, provided that Contractor documents QC data on the required data sheets.

QC Checkpoint - Cleanliness

All surfaces to be prepared shall meet the requirements of SSPC-SP-1 Solvent Cleaning. Surfaces shall be cleaned so that chloride measurements taken on the washed steel measure under 10 µg/cm² chlorides as measured with any method detailed in SSPC TU-4, Shop Methods for Retrieval and Analysis of Soluble Salts on Substrates. A minimum of 1 measurement shall be made for each 1000 ft² of surface washed.

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(E) Surface Preparation and Coating Application for Touch-up areas.
(Applicable to both shop and field painting.) A touch-up area is any area on the steel which includes a surface defect such as a gouge, scrape, or any area that has been damaged during the handling, transportation, ongoing construction, or erection of the structure. Areas burned by torch cutting and welding are also included as touch-up.

(1) Prepare damaged area(s) to sound coating or steel using methods described in SSPC-SP-2 Hand Tool Cleaning, SSPC-SP-3 Power Tool Cleaning, and SSPC-SP-11 Power tool cleaning to Bare Metal. If damaged area is to bare steel, ensure that the exposed steel has a surface profile of 1.0 – 3.5 mils profile, using methods described in ASTM D4417. Note that rotary disc sanding will destroy existing profile on the steel, so establishment of a profile by mechanical impact tooling such as needle guns, Bristle Blasters™, or roto-peens will be necessary.

(2) Ensure that the surrounding area to intact coating is feathered smooth to eliminate rough edges.

(3) Any single repair area under 4 in² may be repaired with SP-2/SP-3 methods when accepted by the Engineer. Any repair area over 4 in² or that has bare rusting steel shall be prepared in accordance with SP-11.

(4) Remove any dust, residue and debris prior to paint touch-up according to SP-1.

(5) Apply touch-up coats of the entire NEPCOAT approved List B organic zinc primer, high build epoxy intermediate, and aliphatic urethane by brush to specified thicknesses, in accordance with manufacturer's Product Data Sheet (PDS)

(6) Follow Subsection 697.03(G) Application Requirements (Primer, Intermediate and Topcoat)" for application of coats.

QC Preparation and Application for Touch-Up areas - All areas prepared and touched-up shall be verified for completeness by the Engineer prior to application of stripe coat.

(F) Application of Stripe Coat

(1) Prior to strip coating, verify all surfaces are clean and contaminant free according to SSPC SP-1.

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- (2) All stripe coating shall be accomplished by brush. Striping shall be applied to all edges, crevices, nuts, bolts, weld seams and tight metal-to-metal joints, with the selected epoxy intermediate coating. Splice connections that have been bolted up will receive a brush stripe coat of intermediate, followed up by application of topcoat, as described in this specification, or supplemental referenced State Specification.. Stripe coat shall be of distinctly contrasting color of intermediate and topcoat to aid in determining coverage. During application, immediately brush out any runs, drips, sags or puddles. Stripe coating shall cover all edges of the structure, extending approximately 1/2" on either side of the edge, where applicable.
- (3) Galvanized nuts and bolts shall be wire brushed, solvent wiped and striped and painted as described herein.

QC Checkpoint – Stripe Coat

Verify stripe coat is applied to all applicable surfaces with no visible holidays and in accordance with good painting practice as detailed in SSPC PA-1.

(G) Application Requirements (Prime Coat, Intermediate, and Topcoat).

- (1) The Contractor shall paint the repair areas according to the best practices of the trade, in conformance with the recommendations of the coating manufacturer as delineated in the Product Data Sheets, observing all recommended environmental conditions, recoat windows, wet and dry film thicknesses, and in conformance with applicable portions of the Steel Structures Painting Council Specification SSPC-PA 1, except where superseded by these specifications.
- (2) Coating applicators shall use wet film thickness (WFT) gages periodically to ensure proper application thicknesses. Periodic WFT measurements shall be made during paint application utilizing an approved wet film thickness gage. After sufficient cure time, dry film thickness readings shall be taken with a calibrated electronic gage, of each coat in accordance with SSPC- PA-2. DFT measurements shall not be made in areas of stripe coat, as these will be higher than specified ranges. Where thickness measurements fall below the specified minimum, make additional application of paint as necessary to meet the thickness required, at no additional cost to the State.

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QC Checkpoints- Intermediate and Topcoat

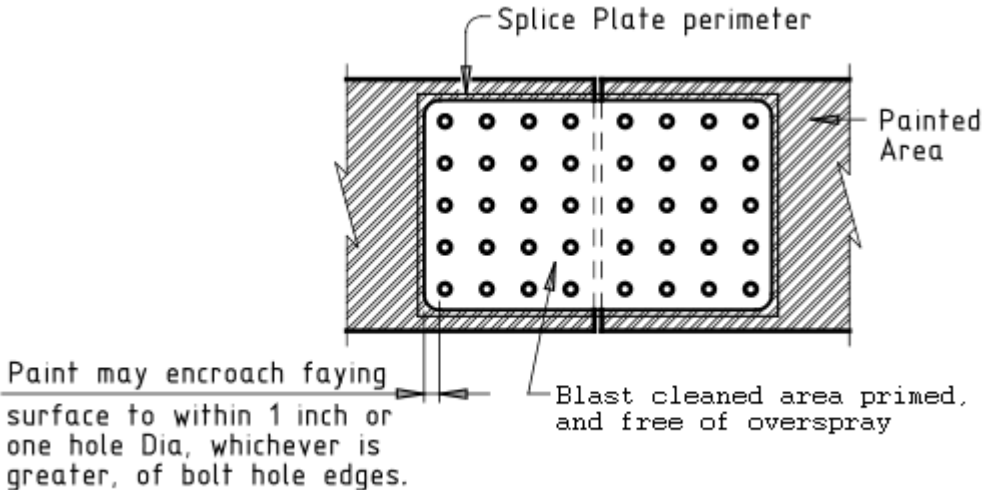
Verify substrate cleanliness immediately prior to prime coat application. Clean in accordance with SSPC SP-1 if not clean prior to application of prime coat.

After cure of prime coat, accomplish a visual holiday inspection and rectify any discrepancies according to the Engineer.

Verify substrate cleanliness immediately prior to intermediate application. Clean in accordance with SSPC SP-1 if not clean prior to application of intermediate coat.

NOTE for MASKING:

Masking will apply to all slip-critical connections which include splice plate connection and cross-bracing connection faying surfaces. After sufficient cure of primer (or Hot Dip Galvanizing, if the structure is galvanized steel), slip critical splice connection surfaces shall be masked according to the detail below using suitable means that will not damage the underlying primer or surrounding area. Masking shall be removed from all connection areas within 48 hours of topcoat application.



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Slip critical splice plates, shall only be blasted and primed according to this specification. After erection, the primed splice plates and bolts shall be touched up with intermediate and topcoat according to this specification.

NOTE: See plan sheets for additional paint masking details.

346 After cure of intermediate coat, accomplish a visual holiday inspection
347 and rectify any discrepancies according to the Engineer.

348
349 Verify substrate cleanliness immediately prior to topcoat application.
350 Clean in accordance with SSPC SP-1 if not clean prior to application
351 of topcoat.

352
353 After cure of topcoat, accomplish a visual holiday inspection and
354 rectify any discrepancies according to the Engineer.

355
356 Verify DFT readings of prime, intermediate and topcoats in
357 accordance with SSPC PA-2, according to the DFT schedule listed for
358 the selected coating system from NEPCOAT List B.

359
360 **(3)** Sufficient time shall elapse between successive coats to permit
361 them to dry properly for recoating. Consult specific Product Data
362 Sheet (PDS) for proper cure times. If any appreciable time elapses
363 between painting operations, as judged by the Engineer, the coating
364 manufacturer or Contractor shall re-clean surfaces before restarting
365 painting operations.

366
367 **(4)** Apply coatings via airless spray utilizing approved equipment
368 standard to the industry according to the instruction of the paint
369 manufacturer. (All stripe coating shall be applied by brush.)

370

371 **(H) Submittals.**

372

373 **(1) Paint Manufacturer's Product Data Sheet (PDS).** The
374 Contractor shall submit paint manufacturer's paint product data
375 sheet with their written warranty, including the conditions
376 limiting the warranty. Product Certificates of Conformance
377 (CoC's) shall accompany all material used under this
378 specification and shall be submitted. Any alternate materials,
379 as described above shall be submitted to the Engineer at least
380 30 days before the start of production work for review and
381 acceptance.

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383 **(2) Paint Manufacturer's Safety Data Sheets (SDS).** The
384 contractor shall submit the corresponding SDS for each
385 material supplied, including intermediate, stripe, and topcoats,
386 along with thinning/cleaning solvents.

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426
- (3) **Abrasive.** If applicable, type and size of abrasive, along with any pertinent documentation and Certificates of Conformance shall be submitted for the abrasive used in abrasive blasting operations.
 - (4) **Coating contractor's Quality Control (QC) reports.** The Contractor shall maintain daily surface preparation and coating inspection reports in accordance with details of the QP-3 Shop Certification, which detail the work performed, noting areas prepared/painted, environmental conditions throughout the day (to include Substrate Temperature, Ambient Temperature, Dew Point, and Relative Humidity), product applied, batch numbers, date of manufacture, acceptance criteria, QC data, notes and any problems encountered. A weekly report shall be compiled from the daily reports and submitted to the Engineer on a weekly basis. A sample blank copy of the daily inspection report to be used shall be submitted to the Engineer prior to the start of production work.
 - (5) **Coating Contractor's Work Plan.** Within two weeks of starting production work, the contractor shall submit a Coating Work Plan, detailing a timetable of significant events for the entire process. The work plan, at a minimum, will detail coating or shop facility name and location, dates of mobilization/demobilization, preparation and coating activities, specific equipment and methods used, and abrasive media (if applicable) data sheets.
 - (6) **Name and resume of proposed NACE CIP Level 2 coating inspector,** detailing past inspection activities
 - (I) **Cleanup and Disposal.** The Contractor shall clean up the entire project site of painting, cleaning debris, containment, masking material, BMP's and other debris caused by the Contractor's operations, before receiving final payment. This work shall be considered incidental to the other contract items.

427 **697.04 Measurement.**

- 428
429
430
431
432
433
- (A) The Engineer will not measure Clean and Paint New Steel Members for payment.

434 **697.05 Payment.** The Engineer will not pay for accepted Clean and Paint New
435 Steel Members separately. The Engineer shall consider the cost for the accepted
436 Clean and Paint New Steel Members as included in the contract price of the various
437 contract items. The cost is for the work prescribed in this section and the contract
438 documents.”

439
440
441

END OF SECTION 697

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 8
6 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 panels
17 ("D" and "E" designations) with ASTM D 4956 Type XI retroreflective
18 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, IV,
23 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 to
30 read:

31
32 “Aluminum sheet shall conform to ASTM B 209, alloy 5052-H38 or 6061-T6
33 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 includes
39 white or colored sheeting having smooth outer surface.

40
41 Retroreflective sheeting shall be classified in accordance with ASTM D 4956.

42
43 The coefficient of retroreflection shall meet the minimum requirements of ASTM
44 D 4956 for the type of reflective sheeting specified.

45
46 The color shall conform to the latest appropriate standard color tolerance
47 chart issued by the U.S. Department of Transportation, Federal Highway

48 Administration and to the daytime and nighttime color requirements of ASTM D
49 4956.

50
51 Test methods and procedures shall be in accordance with ASTM.

52
53 **(IV)** Amend **Subsection 750.02(C) Square Tube Posts** by replacing lines 1168
54 through 1172 to read:

55
56 **“(C) Square Tube Posts.** Square tube posts shall conform to ASTM A 653 for
57 cold-rolled, carbon steel sheet, commercial quality; or ASTM A 787 for electric-
58 resistance-welded, metallic-coated carbon steel mechanical tubing.”

59
60
61

END OF SECTION 750

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: HI20220001 10/14/2022

Superseded General Decision Number: HI20210001

State: Hawaii

Construction Types: Building, Heavy (Heavy and Dredging), Highway and Residential

Counties: Hawaii Statewide.

BUILDING CONSTRUCTION PROJECTS; RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories); HEAVY AND HIGHWAY CONSTRUCTION PROJECTS AND DREDGING

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Modification Number	Publication Date
0	01/07/2022
1	01/14/2022
2	02/18/2022
3	02/25/2022
4	03/04/2022
5	03/11/2022
6	03/18/2022
7	03/25/2022
8	04/15/2022
9	07/08/2022
10	08/19/2022
11	08/26/2022
12	09/02/2022
13	09/09/2022
14	09/30/2022
15	10/14/2022

ASBE0132-001 06/05/2022

	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.....	\$ 42.80	25.85

BOIL0627-005 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 37.25	31.25

BRHI0001-001 08/30/2021

	Rates	Fringes
BRICKLAYER Bricklayers and Stonemasons.	\$ 46.46	30.43
Pointers, Caulkers and Weatherproofers.....	\$ 46.71	30.43

BRHI0001-002 08/30/2021

	Rates	Fringes
Tile, Marble & Terrazzo Worker Terrazzo Base Grinders.....	\$ 42.59	32.57
Terrazzo Floor Grinders and Tenders.....	\$ 41.04	32.57
Tile, Marble and Terrazzo Workers.....	\$ 44.40	32.57

CARP0745-001 10/01/2021

	Rates	Fringes
Carpenters:		
Carpenters; Hardwood Floor Layers; Patent Scaffold Erectors (14 ft. and over); Piledrivers; Pneumatic Nailers; Wood Shinglers and Transit and/or Layout Man.....	\$ 51.25	24.84
Millwrights and Machine Erectors.....	\$ 51.50	24.84
Power Saw Operators (2 h.p. and over).....	\$ 51.40	24.84

CARP0745-002 10/01/2021		

	Rates	Fringes
Drywall and Acoustical Workers and Lathers.....	\$ 51.50	24.84

ELEC1186-001 08/22/2022		

	Rates	Fringes
Electricians:		
Cable Splicers.....	\$ 60.51	30.90
Electricians.....	\$ 53.55	30.69
Telecommunication worker....	\$ 34.94	13.69

ELEC1186-002 08/22/2022		

	Rates	Fringes
Line Construction:		
Cable Splicers.....	\$ 60.51	30.90
Groundmen/Truck Drivers.....	\$ 40.16	25.34
Heavy Equipment Operators...	\$ 48.20	28.43
Linemen.....	\$ 53.55	30.69
Telecommunication worker....	\$ 34.94	13.69

ELEV0126-001 01/01/2022		

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 65.33	36.885+a+b
<p>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.</p> <p>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.</p>		

ENGI0003-002 09/03/2018		

	Rates	Fringes
Diver (Aqua Lung) (Scuba)) Diver (Aqua Lung) (Scuba) (over a depth of 30 feet)...	\$ 66.00	31.26
Diver (Aqua Lung) (Scuba)		

(up to a depth of 30 feet)..	\$ 56.63	31.26
Stand-by Diver (Aqua Lung (Scuba).....	\$ 47.25	31.26
Diver (Other than Aqua Lung) Diver (Other than Aqua Lung).....	\$ 66.00	31.26
Diver Tender (Other than Aqua Lung).....	\$ 44.22	31.26
Stand-by Diver (Other than Aqua Lung).....	\$ 47.25	31.26
Helicopter Work Airborne Hoist Operator for Helicopter.....	\$ 45.80	31.26
Co-Pilot of Helicopter.....	\$ 45.98	31.26
Pilot of Helicopter.....	\$ 46.11	31.26
Power equipment operator - tunnel work		
GROUP 1.....	\$ 42.24	31.26
GROUP 2.....	\$ 42.35	31.26
GROUP 3.....	\$ 42.52	31.26
GROUP 4.....	\$ 42.79	31.26
GROUP 5.....	\$ 43.10	31.26
GROUP 6.....	\$ 43.75	31.26
GROUP 7.....	\$ 44.07	31.26
GROUP 8.....	\$ 44.18	31.26
GROUP 9.....	\$ 44.29	31.26
GROUP 9A.....	\$ 44.52	31.26
GROUP 10.....	\$ 44.58	31.26
GROUP 10A.....	\$ 44.73	31.26
GROUP 11.....	\$ 44.88	31.26
GROUP 12.....	\$ 45.24	31.26
GROUP 12A.....	\$ 45.60	31.26
Power equipment operators:		
GROUP 1.....	\$ 41.94	31.26
GROUP 2.....	\$ 42.05	31.26
GROUP 3.....	\$ 42.22	31.26
GROUP 4.....	\$ 42.49	31.26
GROUP 5.....	\$ 42.80	31.26
GROUP 6.....	\$ 43.45	31.26
GROUP 7.....	\$ 43.77	31.26
GROUP 8.....	\$ 43.88	31.26
GROUP 9.....	\$ 43.99	31.26
GROUP 9A.....	\$ 44.22	31.26
GROUP 10.....	\$ 44.28	31.26
GROUP 10A.....	\$ 44.43	31.26
GROUP 11.....	\$ 44.58	31.26
GROUP 12.....	\$ 44.94	31.26
GROUP 12A.....	\$ 45.30	31.26
GROUP 13.....	\$ 42.22	31.26
GROUP 13A.....	\$ 42.49	31.26
GROUP 13B.....	\$ 42.80	31.26
GROUP 13C.....	\$ 43.45	31.26
GROUP 13D.....	\$ 43.77	31.26
GROUP 13E.....	\$ 43.88	31.26

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Fork Lift (up to and including 10 tons); Partsman (heavy duty repair shop parts room when needed).

GROUP 2: Conveyor Operator (Handling building material); Hydraulic Monitor; Mixer Box Operator (Concrete Plant).

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.

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).

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.

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).

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).

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).

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.).

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).

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.

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).

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).

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).

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.

GROUP 13: Truck Driver (Utility, Flatbed, etc.)

GROUP 13A: Dump Truck, 8 cu.yds. and under (water level); Water Truck (up to and including 2,000 gallons).

GROUP 13B: Water Truck (over 2,000 gallons); Tandem Dump Truck, over 8 cu. yds. (water level).

GROUP 13C: Truck Driver (Semi-trailer. Rock Cans, Semi-Dump or Roll-Offs).

GROUP 13D: Truck Driver (Slip-In or Pup).

GROUP 13E: End Dumps, Unlicensed (Euclid, Mack, Caterpillar or similar); Tractor Trailer (Hauling Equipment); Tandem Trucks hooked up to Trailer (Hauling Equipment)

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

ENGI0003-004 09/04/2017

	Rates	Fringes
Dredging: (Boat Operators)		
Boat Deckhand.....	\$ 41.22	30.93
Boat Operator.....	\$ 43.43	30.93
Master Boat Operator.....	\$ 43.58	30.93
Dredging: (Clamshell or Dipper Dredging)		
GROUP 1.....	\$ 43.94	30.93
GROUP 2.....	\$ 43.28	30.93
GROUP 3.....	\$ 42.88	30.93
GROUP 4.....	\$ 41.22	30.93
Dredging: (Derricks)		
GROUP 1.....	\$ 43.94	30.93
GROUP 2.....	\$ 43.28	30.93
GROUP 3.....	\$ 42.88	30.93
GROUP 4.....	\$ 41.22	30.93
Dredging: (Hydraulic Suction Dredges)		
GROUP 1.....	\$ 43.58	30.93
GROUP 2.....	\$ 43.43	30.93
GROUP 3.....	\$ 43.28	30.93
GROUP 4.....	\$ 43.22	30.93
GROUP 5.....	\$ 37.88	26.76
Group 5.....	\$ 42.88	30.93
GROUP 6.....	\$ 37.77	26.76
Group 6.....	\$ 42.77	30.93
GROUP 7.....	\$ 36.22	26.76
Group 7.....	\$ 41.22	30.93

CLAMSHELL OR DIPPER DREDGING CLASSIFICATIONS

- GROUP 1: Clamshell or Dipper Operator.
- GROUP 2: Mechanic or Welder; Watch Engineer.
- GROUP 3: Barge Mate; Deckmate.
- GROUP 4: Bargeman; Deckhand; Fireman; Oiler.

HYDRAULIC SUCTION DREDGING CLASSIFICATIONS

- GROUP 1: Leverman.
- GROUP 2: Watch Engineer (steam or electric).
- GROUP 3: Mechanic or Welder.
- GROUP 4: Dozer Operator.
- GROUP 5: Deckmate.
- GROUP 6: Winchman (Stern Winch on Dredge)
- GROUP 7: Deckhand (can operate anchor scow under direction of Deckmate); Fireman; Leveeman; Oiler.

DERRICK CLASSIFICATIONS

- GROUP 1: Operators (Derricks, Piledrivers and Cranes).
- GROUP 2: Saurman Type Dragline (over 5 cubic yards).
- GROUP 3: Deckmate; Saurman Type Dragline (up to and including 5 yards).
- GROUP 4: Deckhand, Fireman, Oiler.

ENGI0003-044 09/03/2018

	Rates	Fringes
Power Equipment Operators (PAVING)		
Asphalt Concrete Material Transfer.....	\$ 42.92	32.08
Asphalt Plant Operator.....	\$ 43.35	32.08
Asphalt Raker.....	\$ 41.96	32.08
Asphalt Spreader Operator...\$	43.44	32.08
Cold Planer.....	\$ 43.75	32.08
Combination Loader/Backhoe (over 3/4 cu.yd.).....	\$ 41.96	32.08
Combination Loader/Backhoe (up to 3/4 cu.yd.).....	\$ 40.98	32.08
Concrete Saws and/or Grinder (self-propelled unit on streets, highways, airports and canals).....	\$ 42.92	32.08
Grader.....	\$ 43.75	32.08
Laborer, Hand Roller.....	\$ 41.46	32.08
Loader (2 1/2 cu. yds. and under).....	\$ 42.92	32.08
Loader (over 2 1/2 cu. yds. to and including 5 cu. yds.).....	\$ 43.24	32.08
Roller Operator (five tons and under).....	\$ 41.69	32.08
Roller Operator (over five tons).....	\$ 43.12	32.08
Screed Person.....	\$ 42.92	32.08
Soil Stabilizer.....	\$ 43.75	32.08

* IRON0625-001 09/01/2022

	Rates	Fringes
Ironworkers:.....	\$ 45.00	39.00
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.		

LAB00368-001 09/05/2022

	Rates	Fringes
Laborers:		
Driller.....	\$ 41.00	24.25
Final Clean Up.....	\$ 30.45	19.57
Gunite/Shotcrete Operator and High Scaler.....	\$ 40.50	24.25
Laborer I.....	\$ 40.00	24.25
Laborer II.....	\$ 37.40	24.25
Mason Tender/Hod Carrier...\$	40.50	24.25
Powderman.....	\$ 41.00	24.25
Window Washer (bosun chair).\$	39.50	24.25

LABORERS CLASSIFICATIONS

Laborer I: Air Blasting run by electric or pneumatic
compressor; Asphalt Laborer, Ironer, Raker, Luteman, and
Handroller, and all types of Asphalt Spreader Boxes;
Asphalt Shoveler; Assembly and Installation of Multiplates,

Liner Plates, Rings, Mesh, Mats; Batching Plant (portable and temporary); Boring Machine Operator (under streets and sidewalks); Buggymobile; Burning and Welding; Chainsaw, Faller, Logloader, and Bucker; Compactors (Jackson Jumping Jack and 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, and sidewalks); Concrete Core Cutter (Walls, Floors, and Ceiling); Concrete Grinding or Sanding; Concrete: Hooking on, signaling, dumping of concrete for tremie 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 and cleaning of equipment); Concrete and/or Asphalt Saw (Walking or Handtype) (cutting walls or flatwork) (scoring old or new concrete and/or asphalt) (cutting for expansion joints) (streets and ways for laying of pipe, cable or conduit for all purposes); 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 and the pouring of concrete to secure the hole; Cribbers, Shorer, Lagging, Sheeting, and Trench Jacking and Bracing, Hand-Guided Lagging Hammer Whaling Bracing; Curbing (Concrete and Asphalt); Curing of Concrete (impervious membrane and form oiler) mortar and other materials by any mode or method; Cut Granite Curb Setter (setting, leveling and grouting of all precast concrete or stone curbs); Cutting and Burning Torch (demolition); Dri Pak-It Machine; Environmental Abatement: removal of asbestos, lead, and bio hazardous materials (EPA and/or OSHA certified); Falling, bucking, yarding, loading or burning of all trees or timber on construction site; Forklift (9 ft. and under); Gas, Pneumatic, and Electric tools; Grating and Grill work for drains or other purposes; Green Cutter of concrete or aggregate in any form, by hand, mechanical means, grindstone or air and/or water; Grout: Spreading for any purpose; Guinea Chaser (Grade Checker) for general utility trenches, sitework, and excavation; Headerboard Man (Asphalt or Concrete); Heat Welder of Plastic (Laborers' AGC certified workers) (when work involves waterproofing for waterponds, artificial lakes and reservoir) heat welding for sewer pipes and fusion of HDPE pipes; Heavy Highway Laborer (Rigging, signaling, handling, and installation of pre-cast catch basins, manholes, curbs and gutters); High Pressure Nozzlemans - Hydraulic Monitor (over 100# pressure); Jackhammer Operator; Jacking of slip forms: All semi and unskilled work connected therewithin; Laying of all multi-cell conduit or multi-purpose pipe; Magnesite and Mastic Workers (Wet or Dry)(including mixer operator);Mortar Man; Mortar Mixer (Block, Brick, Masonry, and Plastering); Nozzlemans (Sandblasting and/or Water Blasting): handling, placing and operation of nozzle; Operation, Manual or Hydraulic jacking of shields and the use of such other mechanical equipment as may be necessary; Pavement Breakers; Paving, curbing and surfacing of streets, ways, courts, under and overpasses, bridges,

approaches, slope walls, and all other labor connected therewith; Pilecutters; Pipe Accessment in place, bolting and lining up of sectional metal or other pipe including corrugated pipe; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, HDPE, metallic or non-metallic, conduit, and 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 and without regard to the nature of material from which tubular material is fabricated; No-joint pipe and stripping of same, Pipewrapper, Caulker, Bander, Kettleman, and men applying asphalt, Laykold, treating Creosote and similar-type materials (6-inch) pipe and over); Piping: resurfacing and 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 and marking of the joint used for main or side sewers and storm sewers; Laying of all clay, terra cotta, ironstone, vitrified concrete, HDPE or other pipe for drainage; Placing and setting of water mains, gas mains and all pipe including removal of skids; Plaster Mortar Mixer/Pump; Pneumatic Impact Wrench; Portable Sawmill Operation: Choker setters, off bearers, and lumber handlers connected with clearing; Posthole Digger (Hand Held, Gas, Air and Electric); Powderman's Tender; Power Broom Sweepers (Small); Preparation and Compaction of roadbeds for railroad track laying, highway construction, and 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 and 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 and Signaling of building materials into high rise units; Riprap, Stonepaver, and Rock Slinger (includes placement of stacked concrete, wet or dry and loading, unloading, signaling, slinging and 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 and hanging) including maintenance thereof; Scaler; Septic Tank/Cesspool and Drain Fields Digger and Installer; Shredder/Chipper (tree branches, brush, etc.); Stripping and Setting Forms; Stripping of Forms: Other than panel forms which are to be re-used in their original form, and stripping of forms on all flat arch work; Tampers (Barko, Wacker, and similar type); Tank Scaler and Cleaners; Tarman; Tree Climbers and Trimmers; Trencher (includes hand-held, Davis T-66 and similar type); Trucks (flatbed up to and including 2 1/2 tons when used in connection with on-site Laborers' work; Trucks (Refuse and 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.

Laborer II: Asphalt Plant Laborer; Boring Machine Tender; Bridge Laborer; Burning of all debris (crates, boxes, packaging waste materials); Chainman, Rodmen, and Grade

Markers; Cleaning, clearing, grading and/or removal for streets, highways, roadways, aprons, runways, sidewalks, parking areas, airports, approaches, and other similar installations; Cleaning or reconditioning of streets, ways, sewers and waterlines, all maintenance work and work of an unskilled and semi-skilled nature; Concrete Bucket Tender (Groundman) hooking and unhooking of bucket; Concrete Forms; moving, cleaning, oiling and carrying to the next point of erection of all forms; Concrete Products Plant Laborers; Conveyor Tender (conveying of building materials); Crushed Stone Yards and Gravel and Sand Pit Laborers and all other similar plants; Demolition, Wrecking and Salvage Laborers: Wrecking and dismantling of buildings and all structures, with use of cutting or wrecking tools, breaking away, cleaning and 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 and filling of she-bolt holes); Fence and/or Guardrail Erector: Dismantling and/or re-installation of all fence; Finegrader; Firewatcher; Flagman (Coning, preparing, stablishing and 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 and all other labor connected therewith; Digging of trenches, ditches and manholes and the leveling, grading and other preparation prior to laying pipe or conduit for any purpose; Excavations and foundations for buildings, piers, foundations and holes, and all other construction. Preparation of street ways and bridges; General Laborer: Cleaning and Clearing of all debris and surplus material. Clean-up of right-of-way. Clearing and slashing of brush or trees by hand or mechanical cutting. General Clean up: sweeping, cleaning, wash-down, wiping of construction facility and equipment (other than "Light Clean up (Janitorial) Laborer. Garbage and Debris Handlers and Cleaners. Appliance Handling (job site) (after delivery unloading in storage area); Ground and 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 waterponds, artificial lakes and reservoirs); Limbers, Brush Loaders, and Pilers; Loading, Unloading, carrying, distributing and handling of all rods and 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 and distribution of water mains, gas mains and all pipes; Loading and unloading of all materials, fixtures, furnishings and appliances from point of delivery to stockpile to point of installation; hooking and signaling from truck, conveyance or stockpile; Material Yard Laborers; Pipelayer Tender; Pipewrapper, Caulker, Bander, Kettlemen, and men applying asphalt, Laykold, Creosote, and similar-type materials (pipe under 6 inches); Plasterer Laborer; Preparation, construction and maintenance of roadbeds and sub-grade for all paving, including excavation, dumping, and 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, and Rail Transit Maintenance and Repair; Roustabout; Rubbish Trucks in connection with

Building Construction Projects (excluding clearing, grubbing, and excavating); Salvage Yard: All work connected with cutting, cleaning, storing, stockpiling or handling of materials, all cleanup, removal of debris, burning, back-filling and landscaping of the site; Sandblasting Tender (Pot Tender): Hoses and pots or markers; Scaffolds: Erection, planking and removal of all scaffolds used for support for lathers, plasters, brick layers, masons, and other construction trades crafts; Scaffolds: (Specially designed by carpenters) laborers shall tend said carpenter on erection and dismantling thereof, preparation for foundation or mudsills, maintenance; Scraping of floors; Screeds: Handling of all screeds to be reused; handling, dismantling and conveyance of screeds; Setting, leveling and securing or bracing of metal or other road forms and expansion joints; Sheeting Piling/trench shoring (handling and placing of skip sheet or wood plank trench shoring); Ship Scalers; Shipwright Tender; Sign Erector (subdivision traffic, regulatory, and street-name signs); Sloper; Slurry Seal Crews (Mixer Operator, Applicator, Squeegee Man, Shuttle Man, Top Man); Snapping of wall ties and removal of tie rods; Soil Test operations of semi and 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 and 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 and handling concrete forms an false work.

 LAB00368-002 09/05/2022

	Rates	Fringes
Landscape & Irrigation		
Laborers		
GROUP 1.....	\$ 27.25	15.80
GROUP 2.....	\$ 28.25	15.80
GROUP 3.....	\$ 22.15	15.80

LABORERS CLASSIFICATIONS

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):.

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).

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.

LAB00368-003 09/05/2022

	Rates	Fringes
Underground Laborer		
GROUP 1.....	\$ 40.60	24.25
GROUP 2.....	\$ 42.10	24.25
GROUP 3.....	\$ 42.60	24.25
GROUP 4.....	\$ 43.60	24.25
GROUP 5.....	\$ 43.95	24.25
GROUP 6.....	\$ 44.20	24.25
GROUP 7.....	\$ 44.65	24.25

GROUP 1: Watchmen; Change House Attendant.

GROUP 2: Swamper; Brakeman; Bull Gang-Muckers, Trackmen; Dumpmen (any method); Concrete Crew (includes rodding and spreading); Grout Crew; Reboundmen

GROUP 3: Chucktenders and Cabletenders; Powderman (Prime House); Vibratorman, Pavement Breakers

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

GROUP 5: Shaft Work & Raise (below actual or excavated ground level); Diamond Driller; Gunite or Shotcrete Nozzleman; Rodman; Groundman

GROUP 6: Shifter

GROUP 7: Shifter (Shaft Work & Raiser)

PAIN1791-001 07/01/2022

	Rates	Fringes
Painters:		
Brush.....	\$ 40.00	30.59
Sandblaster; Spray.....	\$ 40.00	30.59

PAIN1889-001 07/01/2022		
	Rates	Fringes
Glaziers.....	\$ 41.50	38.37

PAIN1926-001 02/27/2022		
	Rates	Fringes
Soft Floor Layers.....	\$ 38.77	33.31

PAIN1944-001 01/02/2022		
	Rates	Fringes
Taper.....	\$ 43.85	32.65

PLAS0630-001 09/05/2022		
	Rates	Fringes
PLASTERER.....	\$ 45.00	33.58

PLAS0630-002 08/31/2020		
	Rates	Fringes
Cement Masons:		
Cement Masons.....	\$ 42.65	32.29
Trowel Machine Operators....	\$ 42.80	32.29

PLUM0675-001 07/03/2022		
	Rates	Fringes
Plumber, Pipefitter, Steamfitter & Sprinkler Fitter....	\$ 50.13	29.05

ROOF0221-001 09/05/2021		
	Rates	Fringes
Roofers (Including Built Up, Composition and Single Ply).....	\$ 42.55	20.78

SHEE0293-001 02/27/2022		
	Rates	Fringes
Sheet metal worker.....	\$ 46.22	30.64

* SUHI1997-002 09/15/1997		
	Rates	Fringes
Drapery Installer.....	\$ 13.60 **	1.20
FENCE ERECTOR (Chain Link Fence).....	\$ 9.33 **	1.65

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$15.00) or 13658 (\$11.25). Please see the Note at the top of the wage determination for more information.

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>.

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) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which 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. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of 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. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write 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 the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write 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 by 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

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISIO"

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: INTERSTATE H-1 AND H-201
DESTINATION SIGN UPGRADE/REPLACEMENT,
PHASE 3

**FEDERAL AID
PROJECT NO.:** NH-0300(144)

COMPLETION TIME: 470 Calendar days from the date indicated in the
Notice to Proceed from the Department.

DBE PROJECT GOAL: 3.9%

DESIGN PROJECT MANAGER:

NAME	James Fu
ADDRESS	601 Kamokila Boulevard, Room 511 Kapolei, HI 96707
PHONE NO.	808-692-7611
FAX NO.	808-692-7617

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.

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.

The undersigned Bidder asserts that affirmative action has been taken to seek out and consider Disadvantaged Business Enterprises (DBEs) for portions of the work which can be subcontracted, and the affirmative actions of the Bidder are fully documented in its records and are available upon request by the Department. It is also understood that it must meet or exceed the DBE contract goal listed on page P-1 or demonstrate that it made good faith efforts to meet the DBE project goal. The undersigned as Bidder, agrees to utilize each participating DBE that it submitted to meet the contract goal of _____% (percentage to be completed by Bidder) DBE participation if the contract is awarded to it, and shall maintain such DBE participation during the construction of this project.

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
201.1000	Clearing and Grubbing	150	SY	\$ _____	\$ _____
202.0100	Removal of Existing Signs and Sign Structures	LS	LS	LS	\$ _____
202.0200	Removal of Existing Barriers	LS	LS	LS	\$ _____
203.1000	Roadway Excavation	20	CY	\$ _____	\$ _____
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	LS	LS	LS	\$ _____
209.0200	Additional Water Pollution, Dust, and Erosion Control	FA	FA	FA	\$ <u>10,000.00</u>
301.1000	Hot Mix Asphalt Base Course	24	Ton	\$ _____	\$ _____
401.1000	HMA Pavement, Mix No. IV	9	Ton	\$ _____	\$ _____
503.0100	Concrete for Sign Structure Pedestal and Corbel on Bridge for H1WB-505	15	CY	\$ _____	\$ _____
503.0200	Concrete for Sign Structure Pier and Pedestal on Bridge for H1WB-511	10	CY	\$ _____	\$ _____
507.1000	Concrete Barrier Reconstruction for H1EBR-253	LS	LS	LS	\$ _____
507.2000	Concrete Barrier Reconstruction for H1EB-305	LS	LS	LS	\$ _____
507.3000	Concrete Barrier Reconstruction for H1WB-511	LS	LS	LS	\$ _____ _____ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
511.0100	Furnishing Drilled Shaft Drilling Equipment	LS	LS	LS	\$ _____
511.0200	Obstructions	20	Hour	\$ _____	\$ _____
511.0300	Unclassified Shaft Excavation (60-inch Diameter Shafts)	98	LF	\$ _____	\$ _____
511.0400	Drilled Shaft (60-inch Drilled Shafts)	98	LF	\$ _____	\$ _____
511.0500	Coring for Integrity Testing for Acceptable Drilled Shaft	30	LF	\$ _____	\$ _____
603.0400	Clean Existing Culverts	FA	FA	FA	\$ <u>25,000.00</u>
606.1100	Guardrail Type 3, Strong Post W-Beam Guardrail	100	LF	\$ _____	\$ _____
607.1000	3-Feet, Chain Link Fence for H1 EBR-253	40	LF	\$ _____	\$ _____
607.2000	6-Feet, chain Link Fence for H1-305	20	LF	\$ _____	\$ _____
629.1100	1/2-Inch Pavement Striping (Thermoplastic Extrusion)	1,100	LF	\$ _____	\$ _____
629.1200	4-Inch Pavement Striping (Profiled Thermoplastic)	3,300	LF	\$ _____	\$ _____
629.1300	6-Inch Pavement Striping (Thermoplastic Extrusion)	1,100	LF	\$ _____	\$ _____
629.2100	Type C Pavement Marker	85	Each	\$ _____	\$ _____
629.2200	Type H Pavement Marker	30	Each	\$ _____	\$ _____
630.1000	Panel for Destination Signs	2,700	SF	\$ _____	\$ _____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
630.2000	Type I Post and Arms for H1EBR-253	1	Each	\$ _____	\$ _____
630.0300	Type I Post and Arms for 78EBR-830	1	Each	\$ _____	\$ _____
630.0400	Type III Post and Arms for H1EB-305	1	Each	\$ _____	\$ _____
630.0500	Type I Post and Arms for H1WB-505	1	Each	\$ _____	\$ _____
630.0600	Type I Post and Arms for H1WB-511	1	Each	\$ _____	\$ _____
636.1000	Additional E-Construction Programs, additional licenses or additional equipment	FA	FA	FA	\$ <u>\$ 10,000.00</u>
641.1000	Hydro-mulch Seeding	LS	LS	LS	\$ _____
643.0100	Maintenance of Existing Landscape Areas	FA	FA	FA	\$ <u>\$ 25,000.00</u>
645.1101	Traffic Control - Sign H1EBR-253	LS	LS	LS	\$ _____
645.1102	Traffic Control - Sign 78EBR-830	LS	LS	LS	\$ _____
645.1103	Traffic Control - Sign H1EB-305	LS	LS	LS	\$ _____
645.1104	Traffic Control - Sign H1WB-505	LS	LS	LS	\$ _____
645.1105	Traffic Control - Sign H1WB-511	LS	LS	LS	\$ _____
645.2000	Additional Police Officers, Additional Traffic Control Devices and Advertisement	FA	FA	FA	\$ <u>200,000.00</u>

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
648.1000	FieldPosted Drawings	LS	LS	LS	\$ _____
695.1000	Removal and Disposal of Lead Based Paint	FA	FA	FA	\$ <u>300,000.00</u>
696.1000	Maintenance of Trailers	FA	FA	FA	\$ <u>50,000.00</u>
699.0100	Mobilization (Not to Exceed 6 Percent of the Sum of All Items Excluding the Bid Price of this Item)	LS	LS	LS	\$ _____

a. TOTAL AMOUNT FOR COMPARISON OF BIDS.....

Bids shall include all Federal, State, County and other applicable taxes.

The TOTAL AMOUNT FOR COMPARISON OF BIDS will be used to determine the lowest responsible bidder.

In case of a discrepancy between unit price and the total in said bid, the unit price shall prevail.

NOTE: Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.

1 **PROPOSAL SCHEDULE**

2
3 The bidder is directed to Subsection 105.16 – Subcontracts.

4
5 The bidder's attention is directed to 699 - Mobilization for the limitation of
6 the amount bidders are allowed to bid.

7
8 If the bid price for any proposal item having a maximum allowable bid
9 indicated therefore in any of the contract documents is in excess of such a
10 maximum amount, the bid price for such proposal item shall be adjusted to reflect
11 the limitation thereon. The comparison of bids to determine the successful
12 bidder and the amount of contract to be awarded shall be determined after such
13 adjustments are made, and such adjustments shall be binding upon the bidder.

14
15 The bidder is directed to Section 717 – Cullet and Cullet-Made Materials
16 regarding recycling of waste glass.

17
18

Summary of Good Faith Efforts (GFE)

As required by the specifications “*Disadvantaged Business Enterprise Requirements*,” documentation of GFE shall be submitted by the close of business, 4:30 P.M. HST five (5) days of bid opening. **The bidder/offeror shall respond to the following questions and describe efforts to obtain DBE participation whether or not the DBE project goal is met.** Responses must be sufficient to properly evaluate the bidder’s/offeror’s good faith efforts. Copies of correspondence return receipts, telephone logs, or other documentation will be required to support GFE. Attach additional sheets, if necessary. Based on responses given, HDOT shall make a determination of the bidders’ GFE. **Failure to provide required information sufficient to evaluate the bid/proposal shall be cause for bid/proposal rejection.**

1. Did you submit the required information by the close of business, 4:30 P.M. HST, five (5) days after bid opening (i.e. DBE name, address, NAICS code, description of work, project name, and number)?
2. Explain your GFE if any, to solicit through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform part or all of the work to be included under the contract.
 - a. Explain your GFE if any, to solicit the participation of potential DBEs as early in the procurement process as practicable.
 - b. Explain your GFE if any, to allow sufficient time for the DBEs to properly inquire about the project and respond to the solicitation.
 - c. Explain your GFE if any, to take appropriate steps to follow up with interested DBEs in a timely manner to facilitate participation by DBEs in this project.
3. Explain your GFE if any, to identify and break up portions of work that can be performed by DBEs in order to increase the likelihood that a DBE will be able to participate, and that the DBE goal could be achieved (e.g. breaking out contract items into economically feasible units to facilitate DBE participation even when you might otherwise prefer to self-perform these work items).
4. Explain your GFE if any, to make available or provide interested DBEs with adequate information about the plans, specifications, and requirements of the project in a timely manner, and assist them in responding to your solicitation.
5. Explain your GFE if any, to negotiate in good faith with interested DBEs. Evidence of such negotiations includes documenting:
 - a) the names, addresses and telephone numbers of DBEs that were contacted; b) a description of the information that was provided to DBEs regarding the plans and specifications; and c) detailed explanation for not utilizing individual DBEs on the project.
6. Did you solely rely on price in determining whether to use a DBE? If yes please explain. The fact that there may be additional or higher costs associated with finding and utilizing DBEs are not, by themselves, sufficient reasons for your refusal to utilize a DBE or

NAME and SIGNATURE of AUTHORIZED REPRESENTATIVE of PRIME CONTRACTOR:

DATE:

failure to meet the DBE goal, provided that such additional costs are not unreasonable. Also, the ability or desire to perform a portion of the work with your own forces, that could have been undertaken by an available DBE, does not relieve you of the responsibility to make good faith efforts to meet the DBE goal, and to make available and solicit DBE participation in other areas of the project to meet the DBE goal.

7. Did you reject DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities? If yes, please explain. The DBEs standing within the industry, membership in specific groups, organizations or associates, and political or social affiliation are not legitimate basis for the rejection or non-solicitation of bids from particular DBEs.

8. Explain your GFE to assist interested DBEs in obtaining bonding, lines of credit, or insurance.

9. Explain your GFE if any, to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services.

10. If you selected a non-DBE over a DBE subcontractor, please provide the quotes of each DBE and non-DBE subcontractor submitted to you for work on the contract; and for each DBE that was contacted but not utilized for a contract, provide a detailed written explanation for each DBE detailing the reasons for not utilizing or allowing the DBE to participate in the contract.

11. Explain your GFE if any, to effectively use the services of available minority/women community organizations, minority/women business groups, contractors' groups, and local, state and federal minority/women business assistance offices or other organizations to provide assistance in recruitment and placement of DBEs.

NAME and SIGNATURE of AUTHORIZED REPRESENTATIVE of PRIME CONTRACTOR:

DATE:



**Disadvantaged Business Enterprise (DBE)
Contract Goal Verification and Good Faith Efforts (GFE)
Documentation For Construction
INSTRUCTIONS**

Project #	Self-explanatory
County	County where project is located
DBE Project Goal	Indicate DBE goal listed in the proposal on P-1
Prime Contractor	Name of prime contractor
Name of Subcontractor, Supplier, Manufacturer, and Trucking Company	Company name of subcontractor, supplier, manufacturer, or trucking firm
DBE (Y/N)	Y for yes and N for no
Bid Item Number and Description	Pay item and description
Approx. Quantity/ Hours	Self-explanatory
Unit	Unit of measure
Unit Price/ Rate	Self-explanatory
Dollar Amount	Total dollar amount committed to subcontractor, supplier, manufacturer, or trucking firm
A. Dollar amount of the work to be performed by DBE subcontractors, manufacturers, and trucking companies, plus 60% of the dollar amount of DBE suppliers	Total amount of DBE participation
B. Sum of all work items less mobilization, force account items, allowance items	List total of work items minus mobilization, force accounts and allowances. DBE credit shall not be given for mobilization, force account items, and allowance items.
A/B = DBE contract goal	Self-explanatory
Name and Signature of Authorized Representative of Prime Contractor	Self-explanatory (Note: bidder must sign and date every page of form.)
Date	Date form is signed
Summary of Good Faith Efforts (GFE)	Complete by answering questions in detail and providing documentation to support how bidder demonstrated good faith efforts to meet the goal, irrespective of whether or not the goal was met.



Disadvantaged Business Enterprise (DBE) Confirmation and Commitment Agreement Trucking Company

This commitment is subject to the award and receipt of a signed contract from the Hawaii Department of Transportation (HDOT) for the subject project. DBEs must be certified by the bid opening date.

Project #:	County:
NAICS CODE/DESCRIPTION OF WORK:	SECONDARY NAICS CODE:

*All quantities and units should match the bid tab item whenever possible.

The prime contractor shall inform HDOT the dates when the trucking firm starts and completes all work under the subcontract.

Estimated Beginning Date (Month/Year):	Estimated Completion Date (Month/Year):
---	--

TRUCKING COMPANY:	Item No.	Item Description	Unit	Unit Price / Rate	Amount
				\$	\$
				\$	\$
				\$	\$
TOTAL COMMITMENT AMOUNT					\$

1. Number of hours contracted or quantities to be hauled: _____
2. Number of fully operational trucks to be used: _____ Tractor/trailers: _____ Dump trucks: _____
3. Number of fully operational trucks owned by DBE: _____ Dump trucks: _____ Tractors/trailers: _____
4. If Owner Operators or additional trucking companies are to be used answer the following:

Name of Trucking Company	DBE Y/N	Estimated Dollar Amount to be Contracted	Number and Type of Trucks (specify)
		\$	
		\$	

The prime contractor certifies by signature on this agreement to utilize the DBE trucking company as listed on the agreement form. If a DBE trucking company is unable to perform the work as listed on this agreement form, the prime contractor will follow the substitution/replacement approval process as outlined in the contract DBE requirements. **IMPORTANT! The signatures of the DBE, prime contractor, and subcontractor (only if the DBE will be a second tier sub) confirms that all information on this Agreement is true and correct. Parties should sign Agreement in the order in which they are listed.**

DBE NAME:	Name/Title (please print):
Address:	Signature:
Phone: Fax:	
Email:	
Prime Contractor:	Name/Title (please print):
Address:	Signature:
Phone: Fax:	
Email:	
Subcontractor (only if the DBE will be a second tier sub):	Name/Title (please print):
Address:	Signature:
Phone: Fax:	
Email:	

HDOT retains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you.



**Disadvantaged Business Enterprise (DBE)
Confirmation and Commitment Agreement
Trucking Company
INSTRUCTIONS**

The purpose of this agreement is to secure the commitment of the bidder/offeror to utilize the listed DBE trucking company, and the DBE's confirmation that it will perform work for the bidder/offeror on this project. The information on this form shall be provided by the DBE.

Project #	Self-explanatory
County	County where project is located
NAICS Code/Description of Work	Primary North American Industry Classification System code under which DBE is certified to perform and description of work to be done
Secondary NAICS Code	List other NAICS codes firm is certified to perform
Estimated Beginning Date (Month/Year)	Date DBE shall begin work on the project
Estimated Completion Date (Month/Year)	Date DBE's work will be completed
Trucking Company	Name of DBE trucking company
Item No.	List pay item number
Item Description	Description of item
Unit	Unit of measure – e.g. weight or hours
Unit Price/Rate	Cost per unit or hourly rate
Amount	Total amount per pay item
Total Commitment Amount	Sum of all pay items and total commitment of bidder/offeror to DBE
Number of hours contracted or quantities to be hauled	Approximate number of hours or tonnage to be hauled
Number of fully operational trucks to be used:	Total number of trucks to be used for the project
Tractor/Trailers	Number of tractor trailers to be used
Dump Trucks	Number of dump trucks to be used
Number of fully operational trucks owned by DBE	Number of listed DBE's trucks to be used on this project
Name of Trucking Company	If other trucking companies (DBE or non-DBE) are to be leased, list name and information about type of trucks in this section
Estimated Dollar Amount to be Contracted	Provide information about estimated cost to lease trucks
Number of Dump Trucks, Tractor/Trailer	Self-explanatory
DBE NAME	DBE Company name
Name/Title	Name and title of DBE's representative
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of DBE's representative
Date	Date agreement is signed
Prime Contractor	Company name

Name/Title	Name and title of prime contractor's representative
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of prime contractor's representative
Date	Date agreement is signed
Subcontractor (only if the DBE will be a second tier sub):	Name of subcontractor only if the listed DBE trucking company will be performing work under this subcontractor
Name/Title	Name and title of the subcontractor's representative
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of subcontractor
Date	Date agreement is signed



Disadvantaged Business Enterprise (DBE) Confirmation and Commitment Agreement Subcontractor, Manufacturer, or Supplier

This commitment is subject to the award and receipt of a signed contract from the Hawaii Department of Transportation (HDOT) for the subject project. DBEs must be certified by the bid opening date.

Project #:	County:
NAICS CODE/DESCRIPTION OF WORK:	SECONDARY NAICS CODE:

*All quantities and units should match the bid tab item whenever possible.

The prime contractor shall inform HDOT of the dates when the subcontractor starts and completes all work under the subcontract.

Estimated Beginning Date (Month/Year):	Estimated Completion Date (Month/Year):
---	--

SUBCONTRACTOR:	Item No.	Item	Approx. Quantity	Unit	Unit Price	Amount
					\$	\$
					\$	\$
					\$	\$
					\$	\$
TOTAL COMMITMENT AMOUNT						\$

MANUFACTURER:	Item No.	Item	Approx. Quantity	Unit	Unit Price	Amount
					\$	\$
					\$	\$
TOTAL COMMITMENT AMOUNT						\$

SUPPLIER:	Item No.	Item	Approx. Quantity	Unit	Unit Price	Amount
					\$	\$
					\$	\$
TOTAL COMMITMENT AMOUNT						\$

The prime contractor certifies by signature on this agreement that subcontracts will be executed between the prime contractor and the DBE subcontractors as listed on the agreement form. If a DBE subcontractor is unable to perform the work as listed on this agreement form, the prime contractor will follow the substitution/replacement approval process as outlined in the contract DBE requirements. **IMPORTANT! The signatures of the DBE, prime contractor, and subcontractor (only if the DBE will be a second tier sub) confirms that all information on this Agreement is true and correct. Parties should sign Agreement in the order in which they are listed.**

DBE NAME:	Name/Title (please print):
Address:	Signature:
Phone: Fax:	
Email:	Date:
Prime Contractor:	Name/Title (please print):
Address:	Signature:
Phone: Fax:	
Email:	Date:
Subcontractor (only if the DBE will be a second tier sub):	Name/Title (please print):
Address:	Signature:
Phone: Fax:	
Email:	Date:

HDOT retains the information collected through this form. With few exceptions, you are entitled on request to be informed about the information that we collect about you.



Disadvantaged Business Enterprise (DBE) Confirmation and Commitment Agreement Subcontractor, Manufacturer, or Supplier INSTRUCTIONS

The purpose of this agreement is to secure the commitment of the bidder/offeror to utilize the listed DBE, and the DBE's confirmation that it will perform work for the bidder/offeror on this project. The information on this form shall be provided by the DBE.

Project #	Self-explanatory
County	County where project is located
NAICS Code/Description of Work	Primary North American Industry Classification System code under which DBE is certified to perform and description of work to be done
Secondary NAICS Code	List other NAICS codes firm is certified to perform
Estimated Beginning Date (Month/Year)	Date DBE shall begin work on the project
Estimated Completion Date (Month/Year)	Date DBE's work will be completed
Subcontractor	Name of DBE subcontractor (company name)
Item No.	List pay item number
Item	Description of item
Approx. Quantity	Self-explanatory
Unit	List unit of measure
Unit Price	Cost per unit
Amount	Total amount per pay item
Total Commitment Amount	Sum of all pay items and total commitment of bidder/offeror to DBE
Manufacturer	Name of DBE manufacturer
Supplier	Name of DBE supplier (aka regular dealer)
DBE NAME	DBE Company name
Name/Title	Name and title of DBE's representative
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of DBE's representative
Date	Date agreement is signed
Prime Contractor	Company name
Name/Title	Name and title of prime contractor's representative
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of prime contractor's representative
Date	Date agreement is signed
Subcontractor (only if the DBE will be a second tier sub):	Name of subcontractor only if the listed DBE will be performing work under this subcontractor as a second tier subcontractor/supplier/manufacturer

Name/Title	Name and title of the subcontractor's representative that the listed DBE will work under as a second tier subcontractor/supplier/manufacture
Address	Self-explanatory
Phone	Self-explanatory
Fax	Self-explanatory
Email	Self-explanatory
Signature	Signature of subcontractor's representative
Date	Date agreement is signed

SURETY BID BOND

Bond No. _____

KNOW 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 _____, _____

(Seal) _____
Name of Principal (Offeror)

Signature

Title

(Seal) _____
Name of Surety

Signature

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 _____ 20_____, by and between the STATE OF HAWAII, by its Director of Transportation, hereinafter referred to as "STATE," and _____ whose business and/or post office address is _____

_____ hereafter 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

or such a part thereof as shall be required by the STATE, the total amount of which labor, material 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 _____ DOLLARS (\$ _____) as follows:

which sum shall be provided from the following fund(s):

all in accordance with the specifications, the special provisions, if any, the notice to bidders, the instructions to bidders, the proposal, and plans for _____, 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, undertaking 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 _____ DOLLARS (\$ _____) 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. In any event, extras shall not exceed _____ DOLLARS (\$ _____) in lawful money and shall be provided from the following fund(s):

Where Federal funds are involved, it is covenanted and agreed by and between the parties hereto that the sums of

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.

The CONTRACTOR further agrees to execute the attached non-gratuity affidavit form prior to payment of the final estimate by the STATE.

All words used herein in the singular number shall extend to and include the plural. All words used in the plural number 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

By _____
Director of Transportation

By _____

By _____

APPROVED AS TO FORM

Deputy Attorney General

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 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

_____ 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, 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 Oblige, in the amount of _____

_____ Dollars (\$_____), to which payment Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above-bound Principal has signed Contract with the Oblige on _____ for the following project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payment to any Claimant, as hereinafter defined, for all labor and materials supplied to the Principal for use in the performance of the Contract, then this obligation shall be void; otherwise to remain in full force and effect.

1. Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

2. A "Claimant" shall be defined herein as any person who has furnished labor or materials to the Principal for the work provided in the Contract.

Every Claimant who has not been paid amounts due for labor and materials furnished for work provided in the Contract may institute an action against the Principal and its Surety on this bond at the time and in the manner prescribed in Section 103D-324, Hawaii Revised Statutes, and have the rights and claims adjudicated in the action, and judgment rendered thereon; subject to the Obligee's priority on this bond. If the full amount of the liability of the Surety on this bond is insufficient to pay the full amount of the claims, then after paying the full amount due the Obligee, the remainder shall be distributed pro rata among the claimants.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

*

Signature

Title

(Seal)

Name of Surety

*

Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

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: <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. Report Type: <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> 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 (if individual, last name, first name, MI):		b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):
(attach Continuation Sheet(s) SF-LLL-A, if necessary)		
11. Amount of Payment (<i>check all that apply</i>): \$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned	13. Type of Payment (<i>check all that apply</i>): <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other; specify: _____	
12. Form of Payment (<i>check all that apply</i>): <input type="checkbox"/> a. cash <input type="checkbox"/> 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: <input type="checkbox"/> Yes <input type="checkbox"/> 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.

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 _____