

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS AND PROPOSAL

FOR

AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE

STATEWIDE

PROJECT NO. BS1424-23R

2024

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

The receiving of bids for AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE, STATEWIDE, STATE PROJECT NO. BS1424-23R, will begin as of the HIePRO Release Date. Bidders shall register and submit complete bids through HIePRO only. Refer to the following HIePRO link for important information on Vendor Registration: <https://hiepro.hawaii.gov/welcome.html>.

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

HIePRO OFFER DUE DATE & TIME is September 9, 2024, at 2:00 p.m., Hawaii Standard Time (HST). **Bidders shall submit and upload the complete proposal to HIePRO prior to the offer due date and time. Proposals received after said due date and time shall not be considered. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HIePRO. Bidders shall not include confidential and/or proprietary documents as part of their proposal. The record of each bidder and their respective proposal shall be open to public inspection. FAILURE TO UPLOAD THE PROPOSAL TO HIePRO SHALL BE GROUNDS FOR REJECTION.**

The scope of work consists of removing rubber deposits of variable thickness from asphalt and Portland cement concrete pavement, removal of existing runway designation markings within the rubber removal areas, periodic repainting of runway or taxiway centerlines and other airfield markings, traffic control, immediate reclaiming and retaining of all standing and running rubber and paint removal wash water, and the proper disposal of the rubber waste

and wash water at various airports statewide. The estimated cost of construction is between \$7,000,000.00 and \$8,000,000.00.

To be eligible for award, bidders shall possess a valid State of Hawaii General Engineering "A", license **at the time of bidding**.

The Hawaii Department of Transportation, Air and Water Transportation Facilities Division, 2016 GENERAL PROVISIONS FOR CONSTRUCTION PROJECTS, applicable to this project are available on the internet at: <http://hidot.hawaii.gov/administration/con/>.

A virtual pre-bid conference is scheduled for Friday, August 9, 2024, at 10:00 a.m., HST on Microsoft Teams. Interested bidders shall contact Mr. James Fu, State Project Manager, directly at james.fu2@hawaii.gov, no later than five working days prior to the scheduled pre-bid conference to receive the meeting invitation. All prospective bidders and/or their respective representatives are encouraged to attend, however, attendance is not mandatory. All information presented at the pre-bid conference shall be provided for clarification and information only. Any amendments to the solicitation shall be made by formal addendum and posted in HlePRO.

All Request for Information (RFI) questions and Substitution Requests shall be submitted in HlePRO **no later than Tuesday, August 20, 2024, 2:00 p.m., HST**. RFI questions received after the stated deadline shall not be addressed. Substitution Requests received after the stated deadline shall not be considered. Verbal RFI(s) shall not receive a response. All responses to RFI questions shall be provided for clarification and information only and issued by formal addendum. Any amendments to the solicitation shall be made by formal addendum and posted in HlePRO.

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

Apprenticeship Preference. A five percent bid adjustment for bidders that are party to apprenticeship agreements pursuant to HRS § 103-55.6 is applicable to this project.

Employment of State Residents on Construction Procurement Contracts. Compliance with HRS § 103B-3 is a requirement for this project whereby a minimum of 80 percent of the bidder's work force on this project shall consist of Hawaii residents.

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

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

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

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

23 CFR Part 200).

For additional information, contact Mr. James Fu, State Project Manager, by phone at (808) 838-8832, or by email at james.fu2@hawaii.gov.

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



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CURT T. OTAGURO  
Deputy Director of Transportation for Airports

HIePRO RELEASE DATE: August 2, 2024

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## INSTRUCTION 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 large 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 license 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.



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HONOLULU, HAWAII

SPECIAL PROVISIONS

## SPECIAL PROVISIONS

The following additional amendments to the General Provisions are applicable to this project:

1.3 DEFINITIONS is amended as follows:

The definition for Subcontractor is deleted in its entirety and replaced with the following:

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

The definition for Bid is deleted in its entirety and replaced with the following:

BID – The offer of a Bidder, on the prescribed HDOT form, to perform the work and to furnish the labor and materials at the prices quoted.

The following definitions shall be added:

AASHTO - The American Association of State Highway and Transportation Officials.

Access Road - The right-of-way, the roadway and all improvements constructed thereon connecting the airport to a public roadway.

Airport Improvement Program (AIP) - A grant-in-aid program, administered by the Federal Aviation Administration (FAA).

Air Operations Area (AOA) - The term air operations area (AOA) shall mean any area of the airport used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. An air operation area shall include such paved or unpaved areas that are used or intended to be used for the unobstructed movement of aircraft in addition to its associated runway, taxiway, or apron.

Apron - Area where aircraft are parked, unloaded or loaded, fueled and/or serviced.

ASTM International (ASTM) - Formerly known as the American Society for Testing and Materials (ASTM).

Building Area - An area on the airport to be used, considered, or intended to be used for airport buildings or other airport facilities or rights-of-way together with all airport buildings and facilities located thereon.

Certificate of Analysis (COA) - The COA is the manufacturer's Certificate of Compliance (COC) including all applicable test results required by the specifications.

Certificate of Compliance (COC) - The manufacturer's certification stating that materials or assemblies furnished fully comply with the requirements of the contract. The certificate shall be signed by the manufacturer's authorized representative.

Contractors Quality Control (QC) Facilities - The Contractor's QC facilities in accordance with the Contractor Quality Control Program (CQCP).

Contractor Quality Control Program (CQCP) - Details the methods and procedures that will be taken to assure that all materials and completed construction required by the contract conform to contract plans, technical specifications, and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors.

Control Strip - A demonstration by the Contractor that the materials, equipment, and construction processes results in a product meeting the requirements of the specification.

Construction Safety and Phasing Plan (CSPP) - The overall plan for safety and phasing of a construction project developed by the airport operator or developed by the airport operator's consultant and approved by the airport operator. It is included in the invitation for bids and becomes part of the project specifications.

Drainage System - The system of pipes, ditches, and structures by which surface or subsurface waters are collected and conducted from the airport area.

Extra Work - An item of work not provided for in the awarded contract as previously modified by change order or supplemental agreement, but which is found by the Owner's Engineer or Resident Project Representative (RPR) to be necessary to complete the work within the intended scope of the contract as previously modified.

FAA - The Federal Aviation Administration. When used to designate a person, FAA shall mean the Administrator or their duly authorized representative.

Federal Specifications - The federal specifications and standards, commercial item descriptions, and supplements, amendments, and indices prepared and issued by the General Services Administration.

Force Account – a) Contract Force Account - A method of payment that addresses extra work performed by the Contractor on a time and material basis. b) Owner Force Account - Work performed for the project by the Owner's employees.

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

Intention of Terms - Whenever, in these specifications or on the plans, the words "directed," "required," "permitted," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the direction, requirement, permission, order, designation, or prescription of the Engineer and/or Resident Project Representative (RPR) is intended; and similarly, the words "approved," "acceptable," "satisfactory," or words of like import, shall mean approved by, or acceptable to, or satisfactory to the Engineer and/or RPR, subject in each case to the final determination of the Owner. Any reference to a specific requirement of a numbered paragraph of the contract specifications or a cited standard shall be interpreted to include all general requirements of the entire section, specification item, or cited standard that may be pertinent to such specific reference.

Lighting - A system of fixtures providing or controlling the light sources used on or near the airport or within the airport buildings. The field lighting includes all luminous signals, markers, floodlights, and

illuminating devices used on or near the airport or to aid in the operation of aircraft landing at, taking off from, or taxiing on the airport surface.

Major and Minor Contract Items - A major contract item shall be any item that is listed in the proposal, the total cost of which is equal to or greater than 20% of the total amount of the award contract. All other items shall be considered minor contract items.

Modification of Standards (MOS) - Any deviation from standard specifications applicable to material and construction methods in accordance with FAA Order 5300.1.

Owner - The term "Owner" shall mean the party of the first part or the contracting agency signatory to the contract. Where the term "Owner" is capitalized in this document, it shall mean airport Sponsor only. The Owner for this project is the State of Hawaii, Department of Transportation, Airports Division.

Passenger Facility Charge (PFC) - Per 14 Code of Federal Regulations (CFR) Part 158 and 49 United States Code (USC) § 40117, a PFC is a charge imposed by a public agency on passengers enplaned at a commercial service airport it controls.

Pavement Structure - The combined surface course, base course(s), and subbase course(s), if any, considered as a single unit.

Project - The agreed scope of work for accomplishing specific airport development with respect to a particular airport.

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

Quality Assurance (QA) - Owner's responsibility to assure that construction work completed complies with specifications for payment.

Quality Control - Contractor's responsibility to control material(s) and construction processes to complete construction in accordance with project specifications.

Quality Assurance (QA) Inspector - An authorized representative of the Engineer and/or Resident Project Representative (RPR) assigned to make all necessary inspections, observations, tests, and/or observation of tests of the work performed or being performed, or of the materials furnished or being furnished by the Contractor.

Quality Assurance (QA) Laboratory - The official quality assurance testing laboratories of the Owner or such other laboratories as may be designated by the Engineer or RPR. May also be referred to as Engineer's, Owner's, or QA Laboratory.

Resident Project Representative (RPR) - The individual, partnership, firm, or corporation duly authorized by the Owner to be responsible for all necessary inspections, observations, tests, and/or observations of tests of the contract work performed or being performed, or of the materials furnished or being furnished by the Contractor and acting directly or through an authorized representative.

Runway - The area on the airport prepared for the landing and takeoff of aircraft.

Runway Safety Area (RSA) - A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft. See the construction safety and phasing plan (CSPP) for limits of the RSA.

Safety Plan Compliance Document (SPCD) - Details how the Contractor will comply with the CSPP.

Sponsor - A Sponsor is defined in 49 USC § 47102(24) as a public agency that submits to the FAA for an AIP grant; or a private Owner of a public-use airport that submits to the FAA an application for an AIP grant for the airport.

Subgrade - The soil that forms the pavement foundation.

Supplemental Agreement - A written agreement between the Contractor and the Owner that establishes the basis of payment and contract time adjustment, if any, for the work affected by the supplemental agreement. A supplemental agreement is required if: (1) in scope work would increase or decrease the total amount of the awarded contract by more than 25%; (2) in scope work would increase or decrease the total of any major contract item by more than 25%; (3) work that is not within the scope of the originally awarded contract; or (4) adding or deleting of a major contract item.

Taxilane - A taxiway designed for low-speed movement of aircraft between aircraft parking areas and terminal areas.

Taxiway - The portion of the air operations area of an airport that has been designated by competent airport authority for movement of aircraft to and from the airport's runways, aircraft parking areas, and terminal areas.

Taxiway/Taxilane Safety Area (TSA) - A defined surface alongside the taxiway prepared or suitable for reducing the risk of damage to an aircraft. See the construction safety and phasing plan (CSPP) for limits of the TSA.

2.7 REQUEST FOR SUBSTITUTION OF SPECIFIED MATERIALS AND EQUIPMENT BEFORE BIG OPENING is amended as follows:

1. The last sentence in the first paragraph (line 147 to 152) shall be replaced with the following:  
"Where bidder intends to use material or equipment of an unspecified brand, make, or model, the bidder must submit a request to the Department for review and approval at the earliest date possible. Requests shall be submitted via email to the Contact person listed in HlePRO for the solicitation. The request must be received via email to the Contract person listed in HlePRO for the solicitation. The request must be received no later than twenty-three (23) calendar days before the bid opening date."
2. The first sentence in the second paragraph (line 154 to 156) shall be replaced with the following: "It shall be the responsibility of the bidder to submit sufficient evidence based upon which a determination can be made by the Department that the alternate brand is a qualified equivalent."

2.8 PREPARATION AND DELIVERY OF BID is amended as follows:

Last Paragraph (line 189 to 192) shall be replaced with the following:

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

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

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

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

2.11 BID SECURITY is amended as follows:

Delete Section 2.11(a) in its entirety and replace with the following:

“(a) Unless directed otherwise in the invitation for bids, each bid shall be accompanied by bid security which is intended to protect the Department against failure or refusal of a bidder to execute the contract for the work bid or to supply the required performance and payment bonds. In as much as the Contract to be executed is an Open-End contract under which the contract price, or total amount to be paid the Contractor cannot be determined at the time the contract is executed, the bid security required shall be as follows:

Bid Security Amount.....\$500,000.00

Bid security shall be one of the following forms:

1. A deposit of legal tender,
2. A valid surety bid bond, underwritten by a company licensed to issue bonds in the State of Hawaii, or
3. A certificate of deposit; credit union share certificate; or cashier’s, treasurer’s, teller’s, or official check drawn by or a certified check accepted by a bank, savings institution, or credit union insured by the Federal Deposit Insurance Corporation (FDIC) or the National Credit Union Administration (NCUA) and payable at sight or unconditionally assigned to the Department. These instruments may be utilized only to a maximum of one hundred thousand dollars (\$100,000.00). If the required amount totals over one hundred thousand dollars (\$100,000.00), more than one instrument not exceeding one hundred thousand dollars (\$100,000.00) each and issued by different financial institutions shall be accepted.

If bidder elects options (1) or (3) above for its bid security, said bid security shall be in its original form and shall be submitted before the bid deadline to the Contract Office, Department of Transportation, Aliiaimoku Hale, 869 Punchbowl Street, Room 105, Honolulu, Hawaii 96813. Original

surety bid bonds do not need to be submitted to the Contracts Office. Bidders are reminded that a copy of its surety bid bond shall be included with its bid submitted and uploaded to HlePRO.”

2.12 Pre-Opening Modification or Withdrawal of Bids is amended as follows:

Delete 2.12 Pre-Opening Modification or Withdrawal of Bids in its entirety and replace with the following:

“Bids may be modified or withdrawn prior to the bid opening date and time. Withdrawal or revision of proposal shall be completed and submitted and uploaded to HlePRO prior to the bid opening date and time”.

2.14 PUBLIC OPENING OF BIDS is amended as follows;

Delete 2.14 Public Opening of bids in its entirety.

2.24 REQUIREMENTS OF CONTRACT BONDS is amended as follows;

Delete section 2.24(c) in its entirety and replace with the following:

“(c) Prior to execution of the contract, the successful bidder shall file a good and sufficient performance bond and payment bond on the forms furnished by the Department. In as much as the contract to be executed is a price-term, open end, or requirements contract under which the contract price, or total amount to be paid the Contractor cannot be determined at the time the contract is executed, the performance and payment bond amounts required shall be as follows:

Performance Bond.....\$10,000,000.00

Payment Bond.....\$10,000,000.00

The Contractor shall submit the required contract bond(s) together with the signed contract in accordance with Section 2.25 Execution of Contract.

The above amounts represent the performance and payment bond amounts required for the initial term of the contract. If work orders issued during the initial contract term exceed the original bond requirements, the procurement officer shall require additional performance and payment bonds to cover said work orders.

If the contract is extended beyond the initial term, the State shall require new bonds for each subsequent term. Such performance and payment bonds for each subsequent term, may be extensions of the original bond(s) by endorsements thereto, provided that, as to any claims which may have arisen or may arise while said bonds were in effect, said bonds shall remain in full force and effect.

The performance and payment bond amounts may be reduced upon written determination by the head of the purchasing agency, if it is deemed to be in the best interest of the State.”

2.25 Execution of Contract is amended as follows;

Delete 2.25 Execution of Contract in its entirety and replacing it with the following:

"2.25 Execution of Contract. The contract, contract performance and payment bonds, and HRS Chapter 104 Compliance Certificate, shall be executed by the successful bidder and returned within ten (10) days or within such further time as the Department may allow after the bidder has received the contract for execution. The contract shall not bind the State in any way unless said contract has been fully and properly executed by all the parties thereto, the Comptroller has endorsed thereon its certificate that there is available an unexpended appropriation over and above all outstanding contracts, sufficient to cover the amount required by the contract, and the fully executed contract is received by the Contractor. If the Contractor fails to execute the contract and file acceptable bond(s) within ten (10) days, or within such further time as the Department may allow, the Department may cancel the award and award the contract to the next lowest, responsive and responsible bidder. The Department may recover its damages against the bid security as described in Subsection 2.11(c) herein." 4.12 UTILITIES AND SERVICES is amended as follows:

Add the following after the last paragraph:

"(e) Repairs and Outages.

- (1) The Contractor shall have available on 24-hour call sufficient specialty contractors, such as electrical and plumbing contractors, to repair any, damage to existing facilities that might occur as a result of construction operations regardless of when the damage might occur.
- (2) Outage: Written requests for power outage, communication changes, and water and sewer connection outages shall be submitted to the Engineer at least seven (7) days in advance or as specified in other sections of these specifications. Outages will be restricted to non-peak operational hours between midnight and 6:00 a.m."

7.4 WORKING HOURS; NIGHT WORK is amended as follows:

Delete 7.4 Working Hours in its entirety and replace with the following:

"7.4 Working Hours. Normal working hours shall be coordinated with the State Project Manager."

7.21 PUBLIC CONVENIENCE AND SAFETY - is hereby added to Article VII of the General Provisions:

"It shall be especially noted by the Contractor that the area directly adjacent to the existing in use runways and taxiways, is an extremely hazardous area and that very strict controls will apply throughout the entire period required to complete all work within 500 feet from the edge of an in use runway and 180 feet from the edge of an in use taxiway.

The Contractor shall familiarize himself with the Airport Certification Manual available for review at the Airport Manager's Office and shall comply with its requirements.

The Contractor is responsible for the security of access points to the Airport Operational Area that are located within the limits of construction and will be fined \$1,000 per incident for any breach of security at these locations. All gates leading into the AOA shall be kept locked and if required to be open, the Contractor shall provide professional security guards to attend gates. The guards must be approved by the Director and shall be required to attend a training session conducted by the Airport Manager prior to gate assignment."

8.8 LIQUIDATED DAMAGES FOR FAILURE TO COMPLETE THE WORK OR PORTIONS OF THE WORK ON



TIME is amended as follows;

The second paragraph of Section 8.8 shall be deleted in its entirety and replaced with the following;

When the Contractor fails to reach substantial completion of the work for which liquidated damages are specified, within the time or times fixed in the contract or any extension thereof, in addition to all other remedies for breach that may be available to the State, the Contractor shall pay liquidated damages to the State of ONE THOUSAND SEVEN HUNDRED FIFTY DOLLARS (\$1,750.00) per calendar day for failure to complete the project at each airport in the time to be stated and agreed upon by the Engineer.

8.20 LIMITATION OF OPERATIONS: is hereby added to the General Provisions:

"The following limitations shall be observed by the Contractor when operating within 75 feet from the edge of any taxiway.

General - The Contractor shall schedule his operations to minimize interference with the movement of aircraft or passengers as may be required by the Engineer. The Contractor shall be responsible to alert all of his personnel to the location of power and signal cables installed for the operation of the airport. The Contractor shall control his operations in a manner to preclude any possible damage to those cables. Utility companies shall be notified by the Contractor one week before commencement of work. The Contractor shall give notice to the Engineer in writing, at least 168 hours before operating within 75 feet from the edge of any taxiway and the Engineer will assure himself that the Airport Management personnel are notified in sufficient time to publish the warning (NOTAM). The Contractor shall immediately repair any damages to the existing perimeter fence to prevent inadvertent entry to the Airport Operation Area (AOA).

Work in Vicinity of Runways and Taxiways in Use - Under the terms of this contract, it is intended that work shall be completed without disturbing the paved surface of existing runways and taxiways, unless shown otherwise on the plans.

Aircraft traffic shall not be interrupted. The Contractor shall schedule to work within 75 feet of the taxiway as directed by the Airport Management. No ruts, holes, or open trenches of 3 inches or more in depth and no objects or material 3 inches or more in height shall be permitted within the safety area when the airfield is in operation in conformance to Federal Aviation Regulation Part 139. The Contractor is also informed that Airport Zoning Regulations dictate that a 'clear zone' be maintained 500 feet on each side of an active runway, to be known as a hazardous area. The Contractor shall comply with all regulations governing ground operations within hazardous areas. The following FAA Advisory Circulars -or later versions and FAA Regulations specify these requirements.

AC 150/5210-5D Painting, Marking, and Lighting Vehicles Used on an Airport, dated April 2010

AC 150/5340-IM Standards for Airport Markings, dated May 2019

AC 150/5370-2G Operational Safety on Airports During Construction, dated December 2017

FAA Regulations Objects Affecting Navigable Airspace Part 77

The Contractor shall keep all personnel and equipment off the areas not specifically designated for work under this Contract. At all times when the Contractor's equipment is not in use, the equipment shall be moved outside the hazardous areas to an area designated by the Engineer. Under no condition shall equipment be parked, or material stored within the hazardous areas.

Failure on the part of the Contractor to abide by the above will result in suspension of work.

Authority of Control Tower Personnel - With the exception of actual construction methods, the airport control tower personnel will have full authority to control the Contractor's movements within the existing taxiway. When required, the Contractor shall maintain a constant radio vigil within all work areas and in addition shall keep at least one flagman on duty with the radio man. When notified by the control tower to temporarily halt operations, it shall be the duty of the flagman, through the use of appropriate methods (lighted flares shall not be used under any circumstances), to notify all operators of equipment and other personnel to cease work and move men and equipment off of hazardous areas. Contractor shall provide, at his own expense, the necessary radio and equipment including a radio equipped mobile vehicle to maintain contact with control tower personnel at all times during job performance. A transceiver operating at a frequency designated by the Engineer to communicate with the Control Tower.

Marking of Hazardous Areas - The Engineer will designate areas that are hazardous for aircraft. The Contractor shall provide red blinker lights spaced not more than 50 feet apart around all hazardous areas and areas of work within 75 feet of any taxiway. Such systems shall be subject to approval by the Engineer. The Contractor shall have personnel on call 24 hours per day for the emergency maintenance of hazard markings.

The Contractor shall provide red flags not less than 20 inches square in addition to the red blinker lights. When danger flags are made of fabric, a wire stiffener shall be used to hold the flags in an extended position. Flags shall be so mounted that they do not produce a hazard. The red danger flags shall be spaced not more than 50 feet apart around all areas of work within 75 feet of any taxiway.

All systems proposed by the Contractor for lighting and barricading shall be submitted to the Engineer for review prior to installation. The Contractor shall install all flags, lighting and barricades as required by the Engineer. Such systems shall be subject to approval by the Engineer.

Storage of Equipment and Materials - At the end of each working shift, all of the Contractor's equipment shall be withdrawn to an area designated by the Engineer. The Contractor shall park all equipment in an orderly fashion and place a sufficient number of red flasher lights to identify these areas. Materials stored within the airport shall be so placed and the work shall, at all times, be so conducted as to cause no greater obstruction to the air and ground traffic than is considered necessary by the Engineer. No runways, taxiways or roadways shall be closed or opened, except by permission of the Engineer.

Blasting Operations - The Contractor shall notify the Engineer at least three (3) days before performing blasting operations as to the extent and timing of such operations, so that the Control Tower and other concerned parties can be informed.

Utilities - The Contractor shall provide for the protection of all utilities from damages in areas to be traversed by his vehicles and equipment. If required, buried cables and utility lines shall be protected by mounding earth over the cables or by any other method approved by the Engineer.

The Contractor shall notify representatives of the owner, agencies, and other affected organizations at least 48 hours prior to working in any area containing the facilities of these organizations.

Failure to notify the owning organization will prevent authorization to work in a specific area.

Archaeological Features - Any archaeological features such as petroglyphs, burial sites, and artifacts discovered or unearthed during the performance of the work shall immediately be brought to

the attention of the Engineer and all work that would damage or destroy these features shall be discontinued. The Engineer will decide, after proper investigation, to salvage or abandon such artifacts."

8.21 OPERATION OF CONTRACTOR'S MOTOR VEHICLE AND PERSONNEL IN RESTRICTED AIR OPERATIONS AND MOVEMENT AREAS is hereby added to the General Provisions:

"The contractor shall conform with all sections of the "State of Hawaii, Department of Transportation, Airports Division, Contractor's Training Guide" pertaining to access and operation in the Airport Operation Area (AOA) hereinafter described as follows:

A. Motor Vehicles in Airport Operation Area

For safety reasons, the operation of motor vehicles in the AOA must conform with all applicable State Airport rules and regulations.

B. Motor Vehicle Access Permit

Each motor vehicle operated in the AOA is required to:

1. Meet all State licensing registration and safety requirements and be specifically licensed for operation in the AOA.
2. Meet all insurance requirements.
3. Be restricted to operation by those persons qualified to drive the vehicle and in possession of a current Ramp Driver's License and applicable Motor Vehicle Operator's License.

C. The operators of motor vehicles in the AOA shall be responsible for meeting the following insurance requirements.

1. Licensed Vehicles

As a condition for authorization to enter the AOA, the Contractor shall provide evidence of vehicle liability insurance in the form of a Certificate of Insurance issued by an authorized insurance carrier. Automobile Liability and general Liability (combined single limit, Bodily Injury and Property Damage, per occurrence) shall be required in the applicable minimum limits specified below:

a. Daniel K. Inouye International Airport

- (1) Standard AOA clearance.....\$5,000,000
- (2) Limited AOA clearance .....\$1,000,000 Limited AOA clearance is defined as operations restricted to Diamond head and Ewa Concourses second level roadways and connecting third level main terminal roadway only, with entry and exit via Security Access Point "C" (Primary) and Access Point "A" (Secondary)

b. Other Airports

Standard AOA clearance.....\$1,000,000  
Standard AOA clearance is defined as any portion of a public Airport from which the public is restricted by fences or appropriate signs and no leased or demised to anyone for exclusive use and shall include runways, taxiways, all ramp and apron areas, aircraft parking and storage areas, fuel storage areas,

maintenance areas, and any other area of a public Airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft or used for embarkation or debarkation of passengers.

2. Unlicensed Vehicles

Airport Liability (or General Liability) shall be required in the applicable minimum limits specified below:

a. Daniel K. Inouye International Airport, Kahului Airport and Ellison Onizuka Kona International Airport at Keahole

AOA clearance.....\$5,000,000

b. All other Airports

AOA clearance.....\$1,000,000

- (1) Specifically name the State of Hawaii as additionally insured.
- (2) Indicate that the Airport Engineer will be provided with a 30-day written prior notice of policy cancellation or material change in coverage or conditions.

D. Operator's Permit

- 1. No person shall operate a motor vehicle on the AOA unless he holds and carries on his person a current Airport Motor Vehicle operator's permit issued by the State of Hawaii, Department of Transportation, Airports Division.
- 2. Operator's permits will only be issued to persons who apply through the Airport District Security Office and pass a written exam covering those portions of the Airport Rules and Regulation relating to the operation of vehicles in Airport Operations Areas.

E. Authorized Vehicles

- 1. Only vehicles considered operationally safe and necessary for the performance of this contract may be allowed to operate in the AOA.
- 2. All motor vehicles must be painted in such a manner so as to be easily identifiable and must carry the Contractor's name on each side. These signs may be of a temporary nature applied to the side windows or doors.  
  
The lettering shall be in bold characters of a minimum of four (4) inches in height and one and one-half (1-1/2) inches in widths, the height of logos should be a minimum of six (6) inches.
- 3. The Contractor's operations on, over, across, and/or immediately adjacent to any runway and/or taxiway at a towered airport shall require the use of two-way radio communication. The Contractor shall obtain the necessary equipment at his own expense.
- 4. No person shall operate a motor vehicle on the AOA unless he holds and carries on his person a current Motor Vehicle Operator's Permit issued by the Airport

Manager.

- a. The Motor Vehicle Operator's Permit will be issued only to persons who apply through the Airport Security Section and pass a written exam covering those portions of the Airport Rules and Regulations relating to the operation of vehicles in the AOA.
- b. Permits issued may be suspended or revoked for cause at any time by the Airports Division.

F. Airport Operation Area Construction Pass

1. Issuance of Airport Operation Area (AOA) Construction Passes shall be limited to contractors, subcontractors, companies, organizations, individuals engaged in authorized and approved construction activity which requires a continuing need for entry into the AOA or Airfield Movement Areas Request letters for such passes must be made to the Airport District Manager's Office in accordance with the Contractors Training Guide or applicable District requirements.
2. As a condition for security area clearance, applicants must comply with Transportation Security Regulation 1542 which requires a ten-year background Criminal History Records Check for those individuals employed under this contract.

G. Access to Movement Areas

1. Movement areas shall mean all of the runways and taxiways of the Airport which are utilized for taxiing, takeoff, and landing of aircraft.
  - a. Any vehicle which requires access to the movement area shall be equipped with operational radio equipment capable of positive two-way contact with Tower/Ground Control.
  - b. Operators of vehicles in movement areas must possess knowledge and familiarity with restricted and airfield movement areas, operational rules, regulations, and procedures, or be under direct escort by individuals meeting all of the above requirements.
2. Vehicle Operations on Movement Areas
  - a. No vehicle shall proceed across any runway unless specifically cleared by Tower/Ground Control.
  - b. The operator of a vehicle in the movement area shall not leave his vehicle unless continuous radio contact is maintained with the Tower/Ground Control while he is away from his vehicle.
  - c. Any vehicle proceeding onto the movement area between the hours of sunset and sunrise shall be equipped with an overhead flashing light which is visible for one (1) mile, unless such vehicle is being escorted by another vehicle so equipped.
  - d. All vehicles operated on the movement area between sunrise and sunset except those being escorted, shall operate an overhead amber or red flashing beacon visible for at least one (1) mile; or display a flag at least

three (3) feet square with orange and white checkered squares of not less than one (1) foot on each side.

#### H. Runway and Taxiway Closure

1. Requests for runway or taxiway closures, or for any work which affect operational conditions at the airport must be made in writing through the Airport Engineering Branch.
2. Temporarily closed runways require placement of a lighted "X" runway closure marker on top of the runway identification numerals at both ends of the closed runway.
3. Taxiway closures require placement of barricades with alternate orange and white markings at each end of the closed taxiway segment. Barricades must be supplemented with flashing red lights. The intensity of the lights and spacing for barricades, and lights must adequately define and delineate the hazardous area.

#### I. Gate Guards Furnished by Contractors

1. If a contractor is permitted by the airport to maintain operational control of an AOA Access Gate, entry through such gate shall be controlled by the posting of a gate guard.
  - a. Written instruction will be provided, outlining the guard's duties to enforce those requirements and provisions prescribed by the airport's security program to include all personnel and vehicle entry and access requirements.
  - b. Procedures will be established to identify the actions which will be undertaken by the guard in calling for assistance.
  - c. An approved emergency communications procedure will be established.

#### J. Compliance

1. The contractor shall comply with all regulations and rules governing the Air Operations Areas during construction, as specified in the following or later versions:
  - a. Hawaii Revised Statutes, Title 19, Administrative Rules for Public Airports.
  - b. Federal Aviation Administration Advisory Circular AC 150/5340-1, Standards for Airport Markings; AC 150/5370-2, Operational Safety on Airports During Constructions.

#### K. Enforcement Authorization

Act 21, Section 1, Section 261-17(a), HRS; Federal Aviation Administration Regulations, Part 139, Part 107.

#### L. Right of Rejection or Revocation

The State of Hawaii, Airports Division, reserves the right to withhold, deny or revoke any airport security clearance, licenses or permits to any individual or organization who fails to meet the prescribed or required access area clearance criteria to include background investigation information, or fails to observe or comply with established rules,

regulations, and directives.

It should be clearly understood that such denial or revocation is based solely on airport security or safety considerations and does not in any way constitute a determination by the State with regard to private employment by any individual or organization."

-----END OF SECTION-----

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HONOLULU, HAWAII

SPECIFICATIONS  
PART I  
GENERAL PROVISIONS

The Hawaii Department of Transportation AIR and WATER Transportation Facilities Division General Provisions for Construction Projects dated 2016 is not physically included in these specifications. The General Provisions are available at <http://hidot.hawaii.gov/administration/con/>



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HONOLULU, HAWAII

SPECIFICATIONS  
PART II  
TECHNICAL PROVISIONS

## SECTION 01000 – DESCRIPTION OF WORK

### PART 1 – GENERAL

- 1.0 DESCRIPTION OF WORK – This project involves the following work at various airports Statewide:
- A. Runway Rubber Removal by water blasting removal methods as specified in Section 02400. Rubber removal shall be performed at intervals as directed by the State Project Manager.
  - B. Painting of Airfield Markings as requested by the State Project Manager. This may include any marking on the airfield. The Contractor shall also perform periodic cleaning and repainting of runway markings obscured by aircraft tire rubber and other deposits, outside of normal runway rubber removal. Note material requirements for Hilo International Airport (ITO) as defined in Specification Section 02871 (Runway and Taxiway Markings).
  - C. ALLOWANCE
    - 1. Allowance includes, but not limited to, works required by the regulation(s); unforeseen conditions and other measures, such as temporary safety measures, and security measures, when approved by the Engineer; and special equipment supply, when requested by the Engineer,
    - 2. Use the allowance only as directed by the Engineer for the Airport’s purposes and only by Change Orders that indicate amounts to be charged to the allowance.
    - 3. Contractor's overhead, profit, and related costs for products and equipment ordered by the Airport under the contingency allowance are included in the allowance and are not part of the Contract Sum. These costs include delivery, installation taxes, insurance, equipment rental, and similar costs.
    - 4. Change Orders authorizing use of funds from the contingency allowance will include Contractor's related costs and reasonable overhead and profit margins.
    - 5. At project closeout, any unused amounts remaining in the Allowance will be credited back to the State.
- 2.0 PROJECT REQUIREMENTS – The Contractor shall comply with the following.
- A. Contractor Licensing – The Contractor must possess a valid State of Hawaii General Engineering “A” at the time of bidding. 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.
  - B. Rubber Removal Certification – The Contractor must be qualified in their rubber removal operation in accordance with Specification Section 02400, Part 3, section 1.C – Contractor Qualifications

- C. Seal Coat Qualification – The Contractor must meet the requirements for manufacturer’s representation and Contractor qualifications in accordance with Specification Section 02608, Part 3, section 4.0 – Field Quality Control

## PART 2 – PRODUCTS

- 1.0 MATERIALS – Materials used on this project shall conform to the requirements of the relevant sections of the Contract. Water shall be of potable quality. The Contractor shall be responsible for providing all water used for rubber and paint removal, and equipment cleaning on this project. The Airport will not provide water directly to the Contractor. If the Contractor utilizes water sources that are in use for other projects on Airport property, the Contractor shall ensure that the following devices are installed at the water source:

- A. Water Meter – Shall be of the turbine type to monitor the Contractor’s water use.
- B. Backflow Prevention Device – Shall be of the reduced pressure principal type to protect the Airport water system from the Contractor’s activities.

Failure to ensure that these devices are installed prior to the use of Airport provided water may be grounds for immediate suspension of Airport water use and may result in termination of authorization to use Airport water. If found in violation of these requirements, the Contractor may be required to immediately remedy the situation to the satisfaction of the State at the Contractor’s sole cost.

## PART 3 – EXECUTION

- 1.0 CONTRACTOR’S WORK WINDOWS – Work areas on this project are located on Airport runways and taxiways that require FAA approved closures for work to be done. These closures are defined as the Contractor’s work windows. Work windows will be prescribed by each individual airport based on operational and safety requirements at that location. Typical work hours are night work varying from 10pm to 6am. Work windows of five (5) hours or more shall be required at each airport. Work windows may be required on weekends or holidays, but remain subject to all applicable state, local, and federal labor laws.

The State Project Manager (SPM) or the Airport Manager may require that the Contractor attend a weekly project coordination meeting to be held at a location to be determined at the preconstruction conference. Work window hours for a week may be adjusted pending discussion at the preceding week’s project coordination meeting. Work windows may only be adjusted with the acceptance of the Airport Manager and the concurrence of the State Project Manager. The Contractor’s absence from a coordination meeting will be considered as a cancellation of the following week’s work schedule unless a request is made to re-schedule the meeting. No extensions of contract time will be granted due to the work cancellations due to the Contractor’s absence at a project coordination meeting. The final decision on work window hours shall be made by Airport Operations. No extended overhead will be paid for such delays.

A. Non-Typical Work Windows - The Contractor may request to perform rubber removal work without a runway closure during the normal work hours of the Air Traffic Control Tower (ATCT) in a "Personnel and Equipment Working" (PAEW) operation. PAEW operations may only proceed with the approval of the Airport Manager, the ATCT, and the Project Manager, and may be subject to the availability of oversight from airport personnel capable of monitoring construction activities. PAEW Operations shall be performed according to the following requirements.

1. The Contractor must be able to completely clear the runway of all equipment and personnel, check for Foreign Objects or Debris (FOD), and be cleared by airport operations within fifteen minutes of being notified by the Airport Operation Controller (AOC). PAEW operations will not be allowed if the Contractor cannot demonstrate this capability. This shall be verified by the Construction Manager (CM) prior to beginning full operations.

Bidders should not assume that they will be allowed to perform PAEW operations.

2. The Contractor shall designate personnel solely responsible for clearing any FOD generated by their operations. Designated personnel shall escort the rubber removal equipment and remove any FOD as it is generated. Furthermore, the Contractor shall perform a FOD sweep upon being notified to clear the runway by the Airport Operation Controller (AOC).
3. The Contractor shall secure the services of a standby vehicle or other equipment capable of removing any equipment that suffers a mechanical failure and cannot remove itself from the runway. Such vehicle shall possess any equipment necessary to remove the construction equipment (e.g. tow bar, tow cable, etc.)
4. The Contractor shall remove any equipment that becomes unable to remove itself from the runway immediately after a mechanical failure. At no time should the Contractor's equipment or personnel impede the safe movement of any aircraft on the airfield. Field repairs to contractor or subcontractor equipment shall not be performed on the runways, taxiways, or aprons.
5. PAEW Operations shall only be permitted during the operational hours of the ATCT as previously noted.
6. As with full runway closures, the Contractor is responsible for coordinating PAEW operations with the AOC, ATCT, Airport Manager, and Construction Manager.
7. Any portable lighting units used for PAEW operations shall be highly mobile and easily removed from the runway. Lights shall be angled

downward, shielded from casting light upwards, and shall not cause a distraction to air crews nor an attraction to avian wildlife.

2.0 PROJECT LIMITATIONS – The Contractor shall comply with the following.

- A. Weather Limitations – No work shall be performed when the rain intensity exceeds light, sustained showers. Furthermore, work may be suspended when “Kona” weather or other negative weather conditions have been declared by the Air Traffic Control Tower (ATCT).
- B. Closure Limitations – Multiple runway closures will not be given to the Contractor. All rubber removal and painting work shall be completed on one (1) runway prior to work commencing on the next runway or as indicated on the approved Construction Safety & Phasing Plan (CSPP). The Contractor shall attend project coordination meetings with the State Project Manager and Airport Operations.

Runway intersections will require additional coordination and be addressed on a case-by-case basis. They may require unique and extraordinary safety and oversight measures in order to complete work in these areas. These closures will be carried out at no additional cost to the State.

- C. Emergency Limitations – During emergency conditions, the Air Traffic Control Tower may push back start times, move up end times, interrupt work temporarily, or cancel work entirely. These emergency conditions include failure of airfield equipment, disabled aircraft on the airfield, aircraft emergency landing requests, and other events which are unforeseen and uncontrollable.
- D. Storage Limitations – The Contractor shall coordinate with the Airport Manager for location of storage for all rubber removal and painting materials until required testing is completed and proper disposal is completed.
- E. Waste Cleanup and Removal – The Contractor shall assume ownership of all rubber waste removed by this project and shall remove all rubber and any other waste generated by this project at the end of each phase. The Contractor shall coordinate with the Airport Manager for location of storage of rubber and any other waste generated by the project until required testing and disposal. The Contractor shall be responsible for any waste cleanup resulting from any spills, illicit discharges, or improper disposal of waste. The Contractor shall protect the waste generated by the project from external factors including, but not limited to, rain and wind.
- F. Airport Operations – All work schedules are subject to change to accommodate airport operations. All schedule changes shall be at no additional cost to the State.

- G. FOD Control – The Contractor shall conform to all Airport requirements regarding FOD Control.
- H. Construction Safety & Phasing Plan – The Contractor shall submit a Construction Safety and Phasing Plan four (4) weeks prior to starting work at each airport for each deployment that will detail how the Contractor will conform to FAA and Airport safety requirements when working on the airfield. These plans are to provide specific details regarding the operations, equipment, procedures and schedule for the contractor while operating on a specific airfield. These plans are subject to extensive review by the State District and Division, as well as reviewed by the various affected branches of the FAA. Sample safety plans and templates are available upon request.

### 3.0 EQUIPMENT

- A. Communications – All vehicles operating in the Airport Operations Area (AOA) shall be equipped with radios capable of receiving and transmitting on the air and ground frequencies utilized by Air Traffic Control towers at all airports covered by this contract. The Contractor shall have at least one employee qualified to communicate with the Air Traffic Control Tower using radio and visual methods with the rubber removal crew at all times while they are on the airfield. All personnel under the Contractor's control shall be able to communicate with each other on a separate communication system. The Contractor shall have and monitor a fully charged cellular telephone at all times on the job site.
- B. Other – The Contractor shall provide portable restroom facilities as needed.

4.0 AOA GUIDE – The Contractor is responsible for traversing the AOA between staging areas and work sites on their own and in an acceptable manner. The State Project Manager or the Construction Manager will not perform airfield escort duties for the Contractor. Therefore, the Contractor shall have one fully qualified employee for each work crew, to maneuver, communicate, and guide all personnel around the AOA. Prior to the start of construction, the Contractor shall demonstrate to the State Project Manager that their AOA guide is fully capable of their duties. The AOA guide will remain with their work crew at all times. If it is necessary for the AOA guide to leave their work crew, then another employee qualified as an AOA guide will relieve the previous guide. Work shall not proceed until the State Project Manager is satisfied with the AOA guide's qualifications.

5.0 PROJECT MANAGEMENT – The Contractor shall provide a dedicated project manager to act as the authorized person delegated to act on the Contractor's behalf for the project duration. The project manager shall possess a BS degree in either architecture, building sciences, construction management, or related field from a nationally accredited institution in the United States, or have appropriate construction experience to competently manage the project. The Contractor shall submit the project manager's qualifications to the State Project Manager for approval.

6.0 INSPECTION AND CORRECTIONS OF DEFECTS – All materials furnished, and services performed by the Contractor under this contract shall be subject to inspection and test by the Director or his representative. Inspection at all times and places may be conducted unannounced (including the period of performance), in any event, prior to acceptance. All inspections and tests by the Director shall be performed in such a manner as will not unduly delay or interrupt the Contractor’s work.

Unless otherwise specifically provided for in the specifications, all equipment, materials, and articles incorporated in the work covered by this contract are to be new and of the most suitable grade. Where equipment, materials, or articles are referred to in the specifications, as “equal to” any particular standard, the State Project Manager shall decide the questions of equality.

At any time during the performance of this contract, but not later than six (6) months after acceptance of the services or materials incorporated in accordance with the requirements of this contract, the Director may require the Contractor to remedy by correction or replacement, any services of this contract with the following exceptions:

- A. Loss of runway friction due to aircraft tire rubber deposited after final acceptance of a rubber removal operation performed on that runway. This does not apply to rubber deposited after a portion of runway surface has been cleaned, but the overall operation is not complete.
- B. Repainted and accepted runway pavement markings that are obscured by aircraft tire rubber deposited after final acceptance of work for that repainting operation.

The Contractor shall report any areas where potential pavement damage may occur, in writing, immediately prior to beginning removal operations on a runway or taxiway including enough details to locate the area(s) that may be potentially damaged by the removal operation. The Construction Manager or inspector shall document these areas with photographs in the presence of the Contractor’s representative prior to any removal operations. The photographs will be used to show the pavement condition immediately prior to any removal operations. The Contractor shall also make note of adjacent areas not in the scope of work that may be damaged or may soon suffer damage and report those areas to the airport operations manager and State Project Manager.

The Contractor shall remain vigilant against pavement damage during rubber and/or paint removal operations. Removal operations shall be halted immediately in the event that any pavement damage is observed by the Contractor, Construction Manager, or State Personnel present. DOTA will bring in a separate pavement repair contractor to repair such pavement damage at DOTA cost. Pavement damage that is not reported to the Construction Manager shall be repaired by the Contractor at no additional cost to the State.

The correction limits and specifications will be determined by the State Project Manager, not the Contractor. All corrections, with the exception of pavement damage

during rubber removal and/or paint removal operations, shall be at no additional cost to the State.

- 7.0 ACCESS GATES – The AOA may be accessed via specially locked gates. The Contractor may access these gates by requesting keys from the Airport Manager. Each key requires a Five Hundred Dollar (\$500.00) deposit. No staging is allowed at fire stations.
- 8.0 EMERGENCY WORK STOPPAGES –If so, directed by the State Project Manager or a designated representative during a work window, the Contractor shall perform an Emergency Work Stoppage to reopen or not close the runway to allow for temporary emergency usage. Emergency use shall include emergency landings, medical emergencies (e.g. air ambulance use), and incidents during the work night on other runways or nearby airports that necessitate the diversion of landing and takeoff operations to the runway where work is taking place. Early reopening or late closing of the runway due to rescheduled flights or unforeseen events such as inclement weather, flight delays (arrivals or takeoffs), airfield incidents (e.g. accidents, runway incursions by any party, security breaches, etc.), diversions prior to the beginning of the work night, Acts of God, etc. do not constitute an emergency work stoppage and are incidental to the Contract.

Work operations that do not normally require the placement of traffic controls are not eligible for compensation for emergency work stoppages (e.g. PAEW operations, etc.).

Emergency work stoppage time will start when the Contractor begins the removal of equipment and traffic controls from the airfield and ends once the traffic controls have been reinstalled. If an emergency work stoppage is declared and the Contractor has not begun the placement of traffic controls, then only the standby time and the installation of traffic controls prior to the start of work will be counted towards the work stoppage. Outright cancellation of a work night prior to the initial placement of traffic controls due to emergency use or airport operations shall not be counted as an emergency work stoppage. However, the Contractor may request that the State Project Manager count this as a “rain out day”. The decision to resume work will be made by the State Project Manager or a designated representative prior to or upon the completion of the emergency runway usage or the first opportunity that the runway may be re-closed, and work resumed. The final decision on what constitutes an emergency work stoppage, when it begins, and when it ends rests with the State Project Manager.

Emergency work stoppages shall include any work necessary to restore the runway to a condition usable for emergency use by aircraft including but not limited to the removal of all construction traffic controls, FOD check, standing by for the completion of the emergency runway usage, and any work necessary to re-close the runway if work is resumed.

- 9.0 CONTRACT TERM – The project contract is for a term of twelve (12) months. Subject to the availability of State funds, this contract may be extended by mutual agreement for two (2) additional twelve (12) month terms at the option of the State provided:
- A. The option to extend is exercised by the State prior to expiration of the contract;



- B. The term, including additional twelve (12) month extensions, shall not exceed thirty-six (36) months except as amended; and
- C. Payment to the Contractor for each of the additional terms is based on the unit bid prices indicated in the Proposal Schedule of the original contract with no adjustments.

The Contractor is advised that a contract similar in all essentials to this contract may be advertised for bids by the State so that the bids will be received at least 30 days prior to the expiration of this contract. The Contractor may submit a bid in response to such solicitation of bids upon compliance with the applicable requirements.

PART 4 – MEASUREMENT AND PAYMENT

1.0 BASIS OF PAYMENTS – Work under this Section with the exception of PART 3, section 8.0 (Emergency Work Stoppages) shall not be measured for payment but will be paid for at the Contract Unit Price.

2.0 PAYMENT

- A. Payment for emergency work stoppages shall be on an hourly basis for each airport. This price shall be full compensation for all labor, pro-rated rental fees, etc. for removal of all equipment including traffic controls, performing FOD check, standing by, and resumption of work operations if those operations are resumed.

The quantity of emergency work stoppage time cannot be accurately predicted. The quantities shown in the proposal schedule are estimates for bidding purposes based on previous projects.

- B. Payment for but not limited to unforeseen conditions and other measures, such as temporary safety measures, and security measures, when approved by the Engineer; and special equipment supply, when requested by the Engineer shall be on a statewide allowance.

Payment shall be made under:

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
01000-A	Emergency Work Stoppage – Daniel K. Inouye International Airport	Hour
01000-B	Emergency Work Stoppage – Kalaheo Airport	Hour
01000-C	Emergency Work Stoppage – Lihue Airport	Hour
01000-D	Emergency Work Stoppage – Kahului Airport	Hour
01000-E	Emergency Work Stoppage – Kapalua Airport	Hour

01000-F	Emergency Work Stoppage – Molokai Airport	Hour
01000-G	Emergency Work Stoppage – Lanai Airport	Hour
01000-H	Emergency Work Stoppage – Hilo International Airport	Hour
01000-I	Emergency Work Stoppage – Ellison Onizuka Kona International Airport at Keahole	Hour
01000-J	Unforeseen Conditions and Other Measures	Allowance

END OF SECTION

## SECTION 01560 – GENERAL ENVIRONMENTAL, HEALTH, & SAFETY CONTROLS

### PART I – GENERAL

#### 1.01 RELATED DOCUMENTS

The General Provisions for Construction Projects (2016), Special Provisions and General Requirements of the Specifications, apply to the work specified in this Section.

#### 1.02 DESCRIPTION

This section addresses the prevention of environmental pollution as the result of construction operations under this contract. For the purpose of this specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare, unfavorably alter ecological balances of importance to human life, adversely affect other species of importance, or degrade the utilization of the environment for aesthetic and recreational purposes.

#### 1.03 REFERENCES

All work shall conform to the most recent edition of the following Federal, State, and Local regulations, unless otherwise noted or specified on the drawings or in these specifications. Where conflicts among the requirements or with these specifications exists, the most stringent requirements shall apply.

- A. DOTA Construction Site Runoff Control Program  
<http://hidot.hawaii.gov/airports/doing-business/engineering/environmental/construction-site-runoff-control-program>
- 1. DOTA Construction Activities Best Management Practices (BMP) Field Manual.
- B. Department of Health (DOH) Hazard Evaluation & Emergency Response (DOH HEER) <https://health.hawaii.gov/heer/>
- C. State of Hawaii Administrative Rules, Title 11, Department of Health (DOH)
  - 1. Chapter 46, Community Noise Control.
  - 2. Chapter 59, Ambient Air Quality.
  - 3. Chapter 60.1, Air Pollution Control.
  - 4. Chapters 260.1, 261.1, 262.1, 263.1, 264.1, 265.1, 266.1, 268.1, 270.1, 271.1, 273.1, and 279.1, Hazardous Waste Management.
  - 5. Chapter 451, State Contingency Plan.

- 6. Chapter 501, Asbestos Requirements.
- D. CFR Title 40, Protection of the Environment, Chapter I, Environmental Protection Agency.
- E. CFR Title 42, Public Health, Chapter I, Public Health Service, Department of Health and Human Services.

#### 1.04 SUBMITTALS

- A. The Contractor shall submit the following items as required:
  - 1. Individual Wastewater System (IWS) Final Report: For projects involving the construction of an individual wastewater system, an IWS Final Report is required to be submitted to the DOTA Engineering Branch, Environmental Section (AIR-EE) for approval, prior to submitting to DOH Wastewater Branch and prior to project closeout.
  - 2. Underground Injection Control (UIC) Well Final Report: For new drainage well construction and existing drainage well modification, a UIC Well Final Report is required to be submitted to AIR-EE for review and approval, prior to submitting to DOH Safe Drinking Water Branch (SDWB), and prior to project closeout. The Final Report shall also be submitted within the deadline specified on the UIC Approval to Construct. If a project involves abandoning an existing drainage well, written instructions shall be obtained from DOH SDWB and a copy provided to AIR-EE prior to backfilling the demolished well. All supporting documentation requested by DOH post demolition work shall be completed and provided to AIR-EE for review prior to submitting to DOH SDWB.
  - 3. AST (Flammable/Combustible Liquid) Tank Installation: Provide signed record of Final Inspection issued by County Fire Department.
  - 4. Waste Manifests: If a project will generate hazardous waste, the Contractor shall prepare waste manifests in accordance with HAR 11-262 and provide records to AIR-EE.
- B. The Contractor shall comply with all applicable regulations and maintain records of permits, licenses, certificates, and other environmental regulatory requirement correspondence. Submit copies of permits, licenses, certifications, inspection reports, releases, notices, receipts for fee payments, correspondence, records, and similar documents, established for compliance with environmental regulations bearing on performance of the work.

#### PART 2 – PRODUCTS (Not Used)

#### PART 3 – EXECUTION

##### 3.01 AIR POLLUTION CONTROL

AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE

STATEWIDE

STATE PROJECT NO. BS1424-23R

GENERAL ENVIRONMENTAL, HEALTH, & SAFETY CONTROLS

01560-2

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- A. Emission: The Contractor shall not be allowed to operate equipment and vehicles that show excessive emissions of exhaust gases until corrective repairs or adjustments are made, as determined by the Engineer.
- B. Dust: The Contractor, for the duration of the contract, shall maintain all excavations, embankments, haul roads, permanent access roads, plant sites, waste disposal areas, borrow areas, graded areas, staging and storage areas, and all other work areas within or outside the project limits free from dust that would cause a hazard or nuisance to the work or operations of other Contractors, or to persons or property. Industry-accepted methods, that meet requirements of DOTA Construction BMP Field Manual as noted in Specification 01561 and that meet stabilization suitable for the area or materials involved.
- C. Burning on Airport property shall not be permitted.

### 3.02 SPILL CONTROL

- A. The Contractor shall follow the DOTA Construction Site Runoff Program and relevant documents, such as the Construction BMP Field Manual to implement BMPs to prevent spills and leaks and report and cleanup spills and leaks immediately, as required.

### 3.03 DISPOSAL

- A. All unusable debris and waste material shall be hauled away to an appropriate local landfill. Contractor shall control dust during loading operations.
- B. Contractor shall consult with the landfill and conduct any required waste characterization to ensure that waste meets the landfill's requirements for size, type, etc.
- C. No burying of debris or waste materials, except for materials that are specifically indicated elsewhere in these specifications as suitable for backfill, shall be permitted on the project site.
- D. Contractor shall manage all construction materials, debris, and waste in a manner that prevents Foreign Object Debris (FOD) from reaching the airfield, where it could be an aircraft safety hazard.

### 3.04 HAZARDOUS MATERIALS CONTROL

Hazardous materials shall be properly stored and handled. The use of prohibited hazardous materials, e.g., asbestos, lead paint, and polychlorinated biphenyls (PCBs), in the construction of this project shall be strictly prohibited. Any corrective action to remove and replace hazardous material and contaminated work areas shall be at the sole expense of the Contractor.

### 3.05 OCCUPATIONAL HEALTH AND SAFETY

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The Contractor shall at all times comply with all State of Hawaii and Federal rules and regulations related to occupational health and safety and develop and follow a Health and Safety Plan describing measures the Contractor will employ to protect the health and safety of their employees. Include measures required to protect the public from dangers associated with their work.

#### PART 4 – MEASUREMENT AND PAYMENT

##### 4.01 BASIS OF MEASUREMENT AND PAYMENT

All work specified in this Section shall not be measured nor paid for separately but shall be considered incidental to item 01561, Construction Site Pollution Controls.

**END OF SECTION**

## SECTION 01561 – CONSTRUCTION SITE POLLUTION CONTROLS

### PART 1 – GENERAL

#### 1.01 RELATED DOCUMENTS

The General Provisions for Construction Projects (2016), Special Provisions and General Requirements of the Specifications, apply to the work specified in this Section.

#### 1.02 DESCRIPTION

- A. This Section describes procedures for the proper application of management and engineering controls at State of Hawaii, Department of Transportation, Airports (DOTA) construction sites so that pollutants do not impact any storm drainage system, State water, soil, or groundwater.
- B. The Contractor shall supply all labor, materials, and equipment necessary for the management of stormwater during construction and to carry out the work in accordance with these specifications, and all applicable Federal, State, and local regulations and latest amendments.
- C. This Section also applies to construction support activities including concrete or asphalt batch plants, rock crushing plants, equipment staging yards/areas, material storage areas, excavated material disposal areas, borrow areas, waste management facilities, sanitary facilities, material storage areas, and temporary equipment fueling locations, regardless of their proximity to the Airport Property and State Right-of-Way. For areas serving multiple construction projects or operating beyond the completion of the construction project in which it supports, the Contractor shall be responsible for securing the necessary permits, clearances, and documents, and following the conditions of the permits and clearances, at no cost to the State.
- D. The Contractor shall be responsible for all subcontractors, suppliers, and vendors, and shall ensure that the means and methods of construction activities of subcontractors, suppliers, and vendors are in full compliance with this Section.
- E. The Contractor shall examine and be familiar with documents related to stormwater management at the airports and shall comply with related requirements for construction stormwater control. Should a requirement not be clearly described within the construction plans, specifications, permits and other applicable bid documents, notify the Engineer immediately for interpretation.

#### 1.03 REFERENCES

All work shall conform to the most recent edition of the following, unless otherwise noted or specified on the drawings or in these specifications. Where conflicts among the requirements or with these specifications exists, the most stringent requirements shall apply.

- A. DOTA Construction Site Runoff Control Program  
<http://hidot.hawaii.gov/airports/doing-business/engineering/environmental/construction-site-runoff-control-program>
  - 1. DOTA Construction Activities Best Management Practices (BMP) Field Manual.
  - 2. DOTA Environmental Requirements for Construction Projects Standard Operating Procedures.
  - 3. DOTA Stormwater Management Plans (SWMPs) for the Daniel K. Inouye International Airport (HNL) and Kahului Airport (OGG), as applicable.
  - 4. DOTA Industrial SWPPPs for the HNL, OGG, and the Lihue Airport (LIH), as applicable.
- B. State of Hawaii Administrative Rules, Title 11, Department of Health (DOH)  
<https://health.hawaii.gov/opppd/departement-of-health-administrative-rules-title-11/>
  - 1. Chapter 54, Water Quality Standards
  - 2. Chapter 55, Water Pollution Control
  - 3. Chapter 451, State Contingency Plan
- C. United States (U.S.) Code of Federal Regulations (CFR), Title 40, Chapter I: Environmental Protection Agency.
- D. Hawaii Revised Statutes (HRS), Part I, Chapter 128D, "Environmental Response Law".

## PART 2 – PRODUCTS

### 2.01 MATERIALS

Comply with applicable materials described in the current DOTA Construction Activities BMP Field Manual. Refer to FAA Advisory Circulars and DOTA District Office, including Wildlife Hazard Management Plan, for additional guidance and conditions. In addition, materials shall comply with the following:

- A. Grass: The FAA and USDA recommend the following grass species when requiring grass: "No-Mow" bermudagrass ("Green Velvet") (*Cynodon dactylon*) or Seashore paspalum (*Paspalum vaginatum*). These species possess higher than average drought resistance, saline soil tolerances, and most importantly, do not produce seed heads attractive to the majority of hazardous avian species. Use stolons, sprigs, or plugs to avoid providing hazardous species with a readily available food source. The use of seeds is generally not allowed.

Alternative grass species shall only be applied with the approval by the Engineer



after consultation with United States Department of Agriculture (USDA) airport representative. This includes, but is not limited to, sodding, cuttings, and planting. Grass shall be a quick-growing species. Grass shall be suitable to the area and provide a temporary cover that will not compete later with permanent cover.

- B. Irrigation: Any required irrigation shall be done after dark to reduce instances of water becoming a hazardous wildlife attractant.

## PART 3 – EXECUTION

### 3.01 PRE-CONSTRUCTION REQUIREMENTS

Do not begin construction activities until all submittals detailed in this Subsection are completed, submitted to the Engineer, and accepted in writing by AIR-EE.

- A. Water Pollution, Dust, Sediment, and Erosion Control Meeting: Schedule a water pollution, dust, sediment, and erosion control meeting with the Engineer after all documents required by AIR-EE are submitted to the Engineer and accepted in writing by AIR-EE. The meeting shall be scheduled a minimum of 14 calendar days prior to the Start Work Date. At a minimum, the meeting shall be attended by the Contractor, subcontractors whose work may provide an impact to stormwater or site environmental conditions, Engineer, AIR-EE, and any authorized representatives of the designated attendees. The meeting will discuss the sequence of work and plans and proposals for water pollution, dust, sediment, and erosion controls.
- B. Land Disturbance Calculations: The Contractor is responsible for calculating the total land disturbance for the life of the project and complying with all environmental requirements associated with the total land disturbance calculated. Disturbance of land is defined by Hawaii Department of Health as “the penetration, turning, or moving of soil or resurfacing of pavement with exposure of the base course or the exposure of bare soil or ground surface, including the land surface exposed by construction roads, baseyards, staging areas, demolition, headquarters, and parking areas. It does not include grass or weed cutting, bush or tree trimming or felling that leaves soil or ground intact. It includes ‘grubbing’ in its normal meaning of the use of equipment to knock down and push vegetation out of the way, typically uprooting vegetation and disturbing the ground surface.”

Land disturbing activities that shall be included in the disturbance area calculation shall follow the guidance provided in the Environmental Requirements for Construction Projects Standard Operating Procedures.

- C. Site-Specific BMP (SSBMP) Plan or Stormwater Pollution Prevention Plan (SWPPP): The Contractor shall submit a SSBMP Plan (for projects disturbing less than one acre) or SWPPP (for projects disturbing one acre or more) using the latest DOTA template for acceptance by AIR-EE. If a SSBMP Plan or SWPPP was prepared by the Designer, the Contractor shall revise the plan using

the latest template to include additional information required of the Contractor and any changes the Contractor proposes. The SSBMP Plan or SWPPP shall include site-specific temporary BMPs following requirements and practices outlined in DOTA's "Construction Activities BMP Field Manual." All AIR-EE comments shall be resolved and the SSBMP Plan or SWPPP approved prior to the start of land-disturbing activities, including those activities that are needed for the implementation of the BMPs. Submission of the complete and acceptable SSBMP Plan or SWPPP is the sole responsibility of the Contractor, and additional contract time will not be issued for delays due to incompleteness.

D. SSBMP Plan/SWPPP Modifications: Modify, as necessary, and resubmit amended SSBMP Plan or SWPPP and construction schedules to the Engineer for acceptance by AIR-EE. Amendments to the SSBMP Plan or SWPPP shall be made under the following circumstances at a minimum:

1. Conditions that develop during construction that were unforeseen during the design and pre-construction stages that could impact stormwater, soil, or groundwater.
2. Changes to the Contractor's Means and Methods of Construction that could impact stormwater, soil, or groundwater.
3. Omitted conditions that should have been allowed for in the accepted documents.
4. A SSBMP Plan measure that replaces an accepted SSBMP Plan measure that was not satisfactorily performing.
5. Revised dates of installation and/or removal of SSBMP Plan measures.

SSBMP Plan/SWPPP modifications shall be submitted to the Engineer and accepted in writing by AIR-EE before implementing the revised site-specific BMPs in the field. Amendments to the SSBMP Plan or SWPPP shall be included with the original SSBMP Plan or SWPPP and documented in the Amendment Log.

E. Documentation: A copy of the accepted original or amended SSBMP Plan or SWPPP, with the signed certification by the authorized representative filed with DOH for SWPPPs, shall be kept on site or at an accessible location so that it can be made available at the time of an on-site inspection, or upon request by the Engineer, AIR-EE, DOTA's designated authorized representative, and/or DOH/EPA Representative.

F. NPDES Construction Permit: If the total land disturbance for the life of the project, including all construction support activity areas, is one acre or more, coverage under an NPDES Permit Authorizing Discharges of Storm Water Associated with Construction Activity (NPDES Construction Permit) authorizing stormwater discharges associated with construction activity is required from the Department of Health, Clean Water Branch (CWB).

1. Do not begin land-disturbing activities until the CWB has issued an Individual NPDES Permit or NGPC. Conduct land-disturbing activities in accordance with the conditions of the NPDES Permit and/or NGPC.
  2. The Contractor shall submit a Notification of Start to CWB a minimum of seven calendar days before the start of construction and provide AIR-EE with a record of submittal.
  3. Before construction begins, the Contractor shall assign one of their personnel as the Duly Authorized Representative, in accordance with Section 15 of Appendix A, Chapter 1155. The Duly Authorized Representative is responsible for compliance with the NPDES Construction Permit (i.e., operations of the construction project) and shall certify, sign, and date various documents, including the SWPPP and SWPPP inspection documents.
- G. Solid Waste Disclosure: Submit the Solid Waste Disclosure Form for Construction Sites, if applicable, to the DOH Solid Waste Branch as specified on the form within 7 calendar days before the start of construction activities and provide a copy to the Engineer. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer. This shall also include documentation from any intermediary facility where solid waste is stored, handled or processed.
- H. NPDES Hydrotesting Permit: If hydrotesting activities require effluent discharge into State waters or drainage systems, coverage under an NPDES Hydrotesting Waters Permit authorizing discharges associated with hydrotesting is required from the CWB. Do not begin hydrotesting activities until the CWB has issued an Individual NPDES Permit or NGPC for hydrotesting. Conduct Hydrotesting operations in accordance with the conditions of the NPDES Permit and/or NGPC.
- I. NPDES Dewatering Permit: If dewatering activities require effluent discharge into State waters or drainage systems, coverage under an NPDES Dewatering Permit authorizing discharges associated with dewatering is required from the CWB. Do not begin dewatering activities until the CWB has issued an Individual NPDES Permit or NGPC for dewatering. Conduct dewatering operations in accordance with the conditions of the permit or NGPC.
- J. Construction BMP Training: All Contractor's and subcontractor's employees on the project shall complete the DOTA Construction BMP Training prior to entering the construction site and every calendar year thereafter. All Contractor and subcontractor personnel involved with construction project responsibilities shall also be trained on the site-specific BMPs that are utilized during construction and spill response. Records of completion and/or training roster sign-in sheet shall be up to date and included in the SWPPP or SSBMP Plan. Additional training required by AIR-EE shall be at no additional time or cost to the project. There are two training options:

1. All Contractor and subcontractor employees involved with construction project responsibilities watch the DOTA Construction BMP Training Video located on the DOTA Construction Site Runoff Control Program webpage and complete the [DOTA Construction BMP Training Survey](#) with a passing score, or
2. The Contractor and subcontractor supervisors/managers watch the DOTA Construction BMP Training Video located on the DOTA Construction Site Runoff Control Program webpage, complete the [DOTA Construction BMP Training Survey](#) with a passing score, then train all employees involved with construction project responsibilities and submit a sign-in roster documenting all employees trained at the bottom of the [DOTA Construction BMP Training Survey](#).

[DOTA Construction BMP Training Survey:](#)

<https://hidot.hawaii.gov/airports/doing-business/engineering/environmental/construction-bmp-training-survey/>

- K. Construction Connection, Discharge, and Surface Runoff Permit: The Contractor shall complete the Contractor's section of the Construction Connection, Discharge, and Surface Runoff Permit and submit to AIR-EE for review. All AIR-EE comments shall be resolved prior to the start of land-disturbing activities.

### 3.02 CONSTRUCTION REQUIREMENTS

- A. Construction Start: Do not expose or disturb surface area of earth material or initiate any land-disturbing activities until submittals detailed in Subsection 01561.3.01 – Pre-construction Requirements are completed, submitted to the Engineer and accepted in writing by AIR-EE. Once installation of BMPs is allowed, a Pre-construction BMP Inspection is conducted, and all deficiencies that are noted during the inspection shall be corrected prior to any other ground disturbance.
- B. BMP Installation and Maintenance: Provide, install, maintain, monitor, repair and replace BMPs as needed to maintain efficacy. Address all inspection comments received from the Engineer, AIR-EE, and/or DOTA's designated authorized representative.
- C. Protect temporarily or permanently disturbed soil surface from rainfall impact, runoff, and wind before the end of each work day. Coordinate and schedule the work to the maximum extent possible to minimize the amount of exposed or disturbed surface area of earth material.
- D. Install and maintain stabilized construction entrances/exits, including any wheel washes, to minimize tracking of dirt and mud onto roadways, sidewalks, and other paved areas. Restrict traffic to stabilized construction entrance areas only. Clean dirt, mud, or other material tracked onto the road, sidewalk, or other paved area by the end of the same day in which the track-out occurs. If tracking is excessive or sediment is being transported farther along the pavement or

sidewalk by other vehicles traveling outside of the construction site, conduct cleaning and sweeping immediately. Modify stabilized construction entrances/exits, as needed, to prevent mud from being tracked onto road. Stabilize entire access roads if necessary.

- E. Maintain all excavations, embankments, haul roads, permanent access roads, plant sites, waste disposal areas, borrow areas, and all other work areas within the project limits free from dust that would cause a hazard to the work, airport operations, operations of other contractors, or to persons or property. If chemicals are used as soil stabilizers for erosion and dust control, submit the manufacturer's product data sheets of the chemicals to the Project Manager for acceptance by AIR-EE. Oil treating shall not be used. Dust screens and fabrics are not allowed to be mounted on, or to inhibit the view of, the TSA and AOA Security Fences.
- F. Cover exposed surfaces of materials completely with tarpaulin or a similar device when transporting aggregate, soil, excavated material, or other materials that may be a source of fugitive dust.
- G. Protect ditches, channels, and other drainageways leading away from cuts and fills at all times by:
  - 1. Hydromulching cuts and fills that may erode.
  - 2. Installing check dams or other silt control devices.
  - 3. Other methods acceptable to AIR-EE.
- H. Clean up and remove any pollutant that is attributed to the Contractor. Care shall be taken to ensure that no petroleum/chemical products, bituminous materials, or other deleterious substances, including debris, are allowed to fall, flow, leach, or otherwise enter the sewage systems or storm drains. Deposition of solid waste or the discharge of liquid waste, such as fuels, lubricants, bituminous waste, untreated sewage and other pollutants that may contaminate stormwater, surface waters, soil, or groundwater shall not be permitted.
- I. Disturbed Area Stabilization: Immediately initiate stabilization of exposed soil areas upon completion of land-disturbing activities for areas where disturbance has permanently or temporarily ceased on any portion of the site. Land-disturbing activities have permanently ceased when clearing and excavation within any area of the construction site that will not include permanent structures has been completed. Land-disturbing activities have temporarily ceased when clearing, grading, or excavation within any area of the site will not resume for a period of 14 or more calendar days, but such activities will resume in the future. The term "immediately" is used in this Section to define the deadline for initiating stabilization measures. "Immediately" means as soon as practicable, but no later than the end of the next work day, following the day when the land-disturbing activities have temporarily or permanently ceased.

1. After the initiation of stabilization, stabilization activities shall be completed according to the following timeline:
  - a. For projects with an NPDES Construction Permit:
    - For construction areas discharging into waters not impaired for nutrients or sediments, complete installation of stabilization measures within 14 calendar days after the temporary or permanent cessation of land-disturbing activities.
    - For construction areas discharging into nutrient or sediment impaired waters, complete installation of stabilization measures within 7 calendar days after the temporary or permanent cessation of land-disturbing activities.
  - b. For projects without an NPDES Construction Permit, complete stabilization within 14 calendar days after the temporary or permanent cessation of land-disturbing activities.
- J. Notice of Cessation: For projects with an NPDES Construction Permit, the Contractor shall submit a Notice of Cessation to CWB within seven calendar days after the end of the month that the project was completed and provide AIR-EE with a record of submittal.
- K. Changes to Land-disturbing Activities: The Contractor shall be responsible to prepare a new SWPPP or SSBMP Plans or amend existing SWPPP or SSBMP Plans if changes to the project or to the Contractor's activities result in land-disturbing activities additional to those previously approved:
  1. Land-disturbing activity outside of the approved limits is NOT allowed until approval and proper permits are received. Revised documents, including an updated SWPPP or SSBMP Plan, shall be submitted to and approved by AIR-EE prior to conducting additional land-disturbing activities.
  2. If coverage under an NPDES Construction Permit is needed, no activity in the additional area may occur until the additional permit coverage is granted:
    - a. If the project was already granted coverage under an NPDES Construction Permit, additional coverage shall be obtained from CWB for the additional area, either by adding the area to existing project documents, and applying for NPDES Construction Permit coverage for the entire project OR by creating new documents and obtaining separate NPDES Construction Permit coverage for the additional area.
    - b. If the new disturbed area will result in the total disturbed area

equaling one (1.0) acre or more for a project without existing NPDES Construction Permit coverage, NPDES Construction Permit coverage shall be obtained from CWB that will cover all land-disturbing activities anticipated for the life of the project.

### 3.03 INSPECTIONS

Refer to the DOTA Construction Site Runoff Program for information pertaining to AIR-EE BMP inspections (pre-construction, routine, and final). Contractor self-inspections shall occur based on the frequency outlined in the SSBMP Plan and, if applicable, NPDES Permit (HAR 11-55) and SWPPP requirements.

- A. Corrective Actions: The Contractor shall be responsible for the correction of all deficiencies identified during any of the above inspections.
1. If the Contractor fails to satisfactorily address inspection deficiencies, the DOTA reserves the right to employ outside assistance or use the State's own labor forces to provide necessary corrective measures. The Contractor will be fully responsible for all related cost and time. The State will charge the Contractor such incurred costs plus any associated project engineering costs and will make appropriate deductions from the Contractor's progress payment. Additionally, DOTA can issue liquidated damages for deficiencies not resolved to DOTA's satisfaction and for illicit discharges or contaminant discharges to soil, groundwater, surface water, or State waters (see Appendix A).
  2. Failure to install or maintain site-specific BMP measures may result in the assessment of liquidated damages (Appendix B). Depending on the severity of the deficiencies, additional enforcement actions, such as suspension of work and/or termination of the contract (with the Contractor's Surety being fully responsible for all additional costs incurred by the State), can be conducted and assessed against the Contractor.
  3. For all citations or fines received by the DOTA for non-compliance, including non-compliance with NPDES Permit conditions, the Contractor shall reimburse the State within 30 calendar days for the full amount of outstanding cost that the State has incurred. The State may deduct incurred costs from the Contractor's progress payments; however, the Contractor shall be responsible for reimbursing the State if the costs exceed remaining payments owed to the Contractor.
  4. The Contractor shall be responsible for all citations, fines and penalties levied by DOH or EPA against the State due to the Contractor's failure to satisfactorily address site-specific BMP deficiencies and/or any Contractor's illicit discharges. The State may make the appropriate deductions from the Contractor's progress payment.; however, the Contractor shall be responsible for reimbursing the State if the costs of correction exceed remaining payments owed to the Contractor.

PART 4 – MEASUREMENT AND PAYMENT

4.01 BASIS OF MEASUREMENT AND PAYMENT

Work under this Section will be paid for under the various contract items shown below.

For ALLOWANCE items in the Proposal Schedule, the allowance is an estimate, and the amount shall not exceed the maximum amount shown in the Proposal Schedule. The Contractor shall provide an estimated cost for Construction Site Runoff Control for each proposal under the Contract. Payment shall be the actual cost as invoiced by the Contractor and approved by the DOTA Engineer. The Contractor shall be allowed to include overhead, profit, insurance and/or other markups, as stipulated in Section 9.5 of the 2016 General Provisions for Construction Projects, Air and Water Transportation Facilities Divisions.

<u>Item No.</u>	<u>Item</u>	<u>Unit</u>
01561.J	Construction Site Runoff Control Program	Allowance

Liquidated Damages, up to \$25,000 per day (Appendix A), shall be assessed for each non-compliance of the BMP requirements described in this Section. The Contractor shall not be entitled to recover any Liquidated Damages assessed, even after the deficiencies have been corrected.

The Liquidated Damages cited in Appendix A are in excess of reimbursement for any citations, fines, or penalties levied by any regulatory agency against the State due to the Contractor's violations of clean water regulations or standards.



**Appendix A. Liquidated Damages Schedule for Non-Compliances**

Non-Compliance	Amount
Failure to obtain coverage under an NPDES Construction Permit for construction activities associated with a project that will disturb one acre or more of land, or will be part of a larger common plan of development that will disturb one acre or more of land, as defined by DOH.	\$1,000 per calendar day per violation.
Failure to obtain coverage under an NPDES Hydrotesting Permit for hydrotesting activities that will require effluent discharge into State waters or drainage systems.	\$1,000 per calendar day per violation.
Failure to obtain coverage under an NPDES Dewatering Permit for dewatering activities that will require effluent discharge into State waters or drainage systems.	\$1,000 per calendar day per violation.
Failure to comply with the conditions specified in an NPDES Permit, or any other applicable permit.	\$1,000 per calendar day per violation.
Failure to schedule a Pre-construction BMP Inspection and receive acceptance of all associated corrective actions prior to conducting land-disturbing activities.	\$1,000 per calendar day per violation.
Failure to provide corrective actions accepted by AIR-EE or their designated authorized representative by the deadlines identified in the BMP inspection report.	\$1,000 per calendar day per violation.
Failure to have the accepted SSBMP Plan and amendments or the accepted SWPPP and amendments available at a project construction site.	\$1,000 per calendar day per violation.
Failure to properly install or maintain a BMP specified by the SSBMP Plan, SWPPP, contract drawings and documents, or permit.	\$2,000 per calendar day per violation.

Non-Compliance	Amount
<p>Failure to have an accepted amendment to the SSBMP Plan or an accepted amendment to the SWPPP prior to implementing changes to previously accepted BMPs.</p> <p>Note: Advance review and acceptance can be provided to satisfy this non-compliance. However, for projects with an NGPC or NPDES permit, the written amendment shall still be formally submitted for certification and signature by the authorized representative identified in the NGPC or NPDES Permit.</p>	<p>\$2,000 per calendar day per violation.</p>
<p>Failure to conduct required inspections.</p>	<p>\$1,000 for each of the first ten violations, \$2,500 for each of the next ten violations, \$5,000 for each subsequent violation.</p>
<p>Failure to maintain required records such as BMP inspection reports, rain gauge data logs, etc.</p>	<p>\$500 per calendar day for the first ten days of each violation, \$1,000 per calendar day for the next ten days of each violation, \$2,500 per calendar day for each subsequent day of violation.</p>
<p>Any violation resulting in a polluted discharge.</p>	<p>Up to \$25,000 per calendar day per violation.</p>
<p>Note: Liquidated Damages shown in the Table shall be assessed at the discretion of the DOTA.</p>	

**Assessment of Liquidated Damages for Non-Compliance:**

The Contractor may be assessed liquidated damages by issuance of an Enforcement Letter. The Enforcement Letter shall indicate the amount of liquidated damages that are assessed for the non-compliances which shall be deducted from the Contractor's next progress payment. The Enforcement Letter will be sent electronically via e-mail and a hard copy to the Contractor's designated representative(s), identified in Section 01561.3.01(2)(d), responsible for the Contractor's Construction Site Runoff Control Program. An Enforcement Letter may be issued with or without previous verbal notifications, written warnings, or official enforcement letters (i.e. Warning Letter or Notice of Violation (NOV)).

Liquidated Damages may be assessed for the following:

AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE

STATEWIDE

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- Non-compliances listed in the Table, herein, included in Appendix A.
- Non-compliances have not been corrected in the timeframes noted.
- Corrective actions are not completed after a verbal notification, written warning (email or formal letter), or NOV is issued.
- Contractors are non-responsive to DOTA's directives.
- Repeated non-compliance.
- A polluted discharge has occurred.

The number of days used for the liquidated damages calculations shall start on the day that the non-compliance was required to be corrected and shall end on the day that the non-compliance is corrected and accepted. If DOTA's personnel are not able to go out in the field to verify that the BMP deficiencies are corrected in the timeframe specified, the Contractor can send photographs showing the corrected deficiency via e-mail to the DOTA Engineer and AIR-EE along with documentation on how the deficiency was corrected. The DOTA Engineer and AIR-EE may visit the site to verify the corrective actions are acceptable. If the corrective actions are acceptable, then the clock stops on the day that the documentation was received.

**The Contractor shall not be entitled for compensation for any liquidated damages or penalty, fine, or citations assessed and deducted from the Contractor's progress payments, even after corrective actions have been taken.**

END OF SECTION

SECTION 01562 – MANAGEMENT OF CONTAMINATED MEDIA, SOIL DISPOSAL, AND SOIL REUSE

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

The General Provisions for Construction Projects (2016), Special Provisions and General Requirements of the Specifications, apply to the work specified in this Section.

1.02 DESCRIPTION

- A. This Section describes procedures for the management of known and/or unknown contaminated media (e.g., soil, sediment, groundwater, soil vapor, and building materials) and disposal and on-site reuse of either contaminated or uncontaminated soil/sediment (referred to herein as “soil”), that may be disturbed or generated during excavation or demolition activities, or other construction activities associated with this project.
- B. All soil shall be treated as potentially contaminated until it is determined otherwise.
- C. The Contractor shall supply all labor, materials, and equipment necessary for the removal, temporary storage, testing, handling, backfilling and management of soil and contaminated media to carry out the work in accordance with these specifications, and all applicable Federal, State, and local regulations and latest amendments.
- D. The Contractor shall follow the State of Hawaii, Department of Transportation, Airports (DOTA) Programmatic Environmental Hazard Evaluation and Environmental Hazard Management Plan (DOTA EHE-EHMP), a Construction-Environmental Hazard Management Plan (C-EHMP) Addendum, or a Site-Specific C-EHMP, whichever applies to the project.
- E. The Contractor and their Qualified Environmental Professional shall review any site-specific investigation reports (e.g., Phase II Environmental Site Assessment [ESA]) or construction management plans, etc.) to understand the conditions that may affect work performance.
- F. Qualified Environmental Professional: The Contractor shall employ a Qualified Environmental Professional (QEP) who possesses a minimum of five (5) years of experience providing environmental oversight for the management of contaminated media during construction activities, who shall assist in the preparation of the Contractor’s C-EHMP (Site-Specific or Addendum). The QEP shall be identified in the applicable EHMP document.
- G. Should the Contractor deviate from the DOTA EHE-EHMP, C-EHMP Addendum, or Site-Specific EHMP, the Contractor shall be responsible to prepare or modify any existing Hawaii Department of Health (DOH) required C-EHMP (Site-specific

or Addendum). Any deviation from construction EHMPs will require approval by DOH and the DOTA Engineering Branch, Environmental Section (AIR-EE) prior to implementation. The Contractor shall detail deviations from standard practices and explain how those deviations will be protective of human health and the environment.

H. The primary contaminant-related hazards addressed by the DOTA EHE-EHMP or a C-EHMP include, but are not limited to, the following Contaminants of Potential Concern (COPCs):

- Petroleum-related Hydrocarbons, e.g., TPH-g, TPH-d, TPH-o, BTEX, and PAHs
- Constituents of light distillate fuels and/or Chlorinated Solvents (together considered volatile organic compounds or VOCs)
- Polychlorinated Biphenyls (PCBs)
- Pesticides, e.g., Chlordane, Dieldrin
- Metals, e.g., Arsenic, Barium, Cadmium, Total Chromium, Lead, Mercury, Selenium, and Silver
- Per- and Polyfluoroalkyl Substances (PFAS)

In addition, free petroleum product (e.g., gasoline, aviation gasoline, diesel fuel, jet fuel, motor oils, lubricating oils) may be encountered in soil or groundwater in areas of previous petroleum releases.

Soil vapor may be present from volatile COPCs present in subsurface soil or groundwater.

Should changes in site conditions or additional site information identify contaminants or risks to human health and/or the environment not addressed by the DOTA EHE-EHMP or C-EHMP (Site-Specific or Addendum), the Contractor shall be responsible to revise, update, and finalize a C-EHMP (Site-Specific or Addendum), to be reviewed and approved by AIR-EE and the DOH Hazard Evaluation and Emergency Response (HEER) Office.

The Contractor shall coordinate with AIR-EE, as well as have any C-EHMP (Site-Specific or Addendum) approved by the HEER Office, prior to the start or continuation (in the case of an Addendum) of any related ground disturbing activities.

### 1.03 REFERENCES

All work shall conform to the latest edition of the following, unless otherwise noted or specified on the drawings or in these specifications. Where conflicts among the requirements or with these specifications exists, the most stringent requirements shall apply.

A. DOTA Construction Site Runoff Control Program

<https://hidot.hawaii.gov/airports/doing-business/engineering/environmental/construction-site-runoff-control-program/>

1. DOTA EHE-EHMP
  2. DOTA Construction Best Management Practices (BMP) Field Manual
- B. Department of Health (DOH) Hazard Evaluation & Emergency Response (DOH HEER) <https://health.hawaii.gov/heer/>
1. Technical Guidance Manual (TGM) for Implementation of the State Contingency Plan (including updates).
  2. Guidance for Soil Stockpile Characterization and Evaluation of Imported and Exported Fill Material.
  3. HEER Office Screening for Environmental Hazards at Sites with Contaminated Soil and Groundwater.
  4. HEER Office Construction EHMP and EHMP Addendum Template
- C. State of Hawaii Administrative Rules, Title 11, DOH <https://health.hawaii.gov/opppd/departement-of-health-administrative-rules-title-11/>
1. Chapter 54 Water Quality Standards
  2. Chapter 58.1 Solid Waste Management Control
  3. Chapter 59 Ambient Air Quality Standards
  4. Chapter 11-260.1-279.1 Hazardous Waste Management: General Provisions
  5. Chapter 280.1 Underground Storage Tanks
  6. Chapter 451 State Contingency Plan
- D. The Hawaii Environmental Response Law (Hawaii Revised Statutes [HRS] Chapter 128D) and the State Contingency Plan (Hawaii Administrative Rules [HAR] Title 11, Chapters 451-1–451-24).
- E. American Petroleum Institute (API) RP 2219 <https://www.api.org/oil-and-natural-gas/health-and-safety/refinery-and-plant-safety/occupational-safety/rp-2219>
- F. United States Code of Federal Regulations (CFR), Title 29: Labor <https://www.ecfr.gov/current/title-29>
- G. CFR, Title 40: Protection of the Environment <https://www.ecfr.gov/current/title-40>

1. Part 50, "National Primary and Secondary Ambient Air Quality Standards A".
  2. Part 122, "EPA Administered Permit Program: The National Pollutant Discharge Elimination System".
  3. Part 261, "Identification and Listing of Hazardous Waste".
  4. Part 263, "Standards Applicable to Transporters of Hazardous Waste".
  5. Part 302, "Designation, Reportable Quantities, and Notification".
- H. CFR, Title 49: Transportation  
<https://www.ecfr.gov/current/title-49>
1. Part 171, "General Information, Regulations, and Definitions".
  2. Part 172, "Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans".
- I. U.S. EPA Comprehensive Environmental Restoration, Compensation, and Liability Act (CERCLA), Section 107(1), exemption for cleanup of legally applied pesticide products.  
<https://www.epa.gov/enforcement/superfund-enforcement-authorities>

## PART 2 – PRODUCTS (Not Used)

## PART 3 – EXECUTION

### 3.01 GENERAL WORK PROCEDURES

- A. Prior to beginning work, the Contractor, the Contractor's Qualified Environmental Professional, and the Engineer or their representative shall review and discuss all available information pertaining to contamination or potential contamination at the work site.
- B. It should be noted that, in some cases, the contamination (e.g., soil contaminated with metals, PCBs, pesticides, PFAS, etc.) may not be identifiable through visual and/or olfactory observation, and contaminant-specific field screening techniques may need to be implemented.
- C. Potential or suspected contaminated media from separate locations or sources shall not be mixed or placed together without the approval of the Qualified Environmental Professional and AIR-EE.
- D. The removal, transfer, or handling of explosive or flammable media shall be conducted using explosion-proof pumps and equipment. If a vacuum truck is

used for removal of liquids or residues, the area of operation for the vacuum truck shall be vapor free. Discharge the vacuum pump exhaust gases through a hose of adequate size and length downwind of the truck and tank area. Vacuum truck operating and safety practices shall conform to API RP 2219. Collect tank residues in drums, tanks, or tank trucks labeled according to 49 CFR 171 and 49 CFR 172 and dispose of as required by regulation.

- E. Follow Decontamination regulations and procedures as necessary.
- F. Soil excavation, grading, and any disturbance of contaminated soil may cause a potential exposure to Contractor's employees and the public from the release of vapors or fugitive dust. The routes of exposure to dusts are by inhalation, ingestion, and dermal contact. The Contractor shall use engineering controls such as water spraying and wind barriers to control fugitive dust. The Contractor shall use engineering controls to mitigate the release and exposure to soil vapors.
- G. The Contractor shall test excavated soil for the presence of COPC and managed in accordance with this Section and relevant guidance and regulations.
- H. Report construction activities in areas with contaminated soil or groundwater by completing the appropriate forms in the DOTA EHE-EHMP, Appendix B.3 Construction Activities Release Response Plan. Submit the forms to the DOH Office of Hazard Evaluation and Emergency Response (HEER) Office and provide a copy of the forms to the Engineer and AIR-EE.
- I. All correspondence with DOH and other regulatory agencies must include the Engineer and AIR-EE.

### 3.02 PRECONSTRUCTION REQUIREMENTS

- A. Submit the following a minimum of 30 calendar days prior to beginning any ground disturbing activities, for approval by AIR-EE.
  - 1. The Contractor's revisions to the C-EHMP Addendum or Site-Specific C-EHMP completed in the design phase, or creation of a C-EHMP addendum if deviating from the DOTA EHE-EHMP, that includes, but is not limited to:
    - a. Procedures, engineering controls, and methods the Contractor will use during the excavation, soil stockpiling and segregation, temporary storage, testing, handling, treatment, backfilling, and disposal of contaminated media, work area isolation, construction barriers, dust control, decontamination, and emergency management.
    - b. Names of the Contractor's and their subcontractor's qualified personnel who will be supervising or managing contaminated materials at the site. Include the personnel's phone number and



qualifications.

- c. Name(s) of the Contractor's Qualified Environmental Professional, including their qualifications.
- d. Proposed schedule of work.
- e. Location map of temporary contaminated stockpiles and other contaminated media storage, including infrastructure such as pipes and appurtenances, if applicable.
- f. All documents required as part of the appendices to the DOTA EHE-EHMP (e.g., health and safety plan and completing the management plans in the appendices) or C-EHMP (Site-Specific or Addendum) applicable appendices (e.g., health and safety plan, construction material documents, etc.).

### 3.03 CONSTRUCTION REQUIREMENTS

#### A. Soil Excavation and Stockpiling:

1. Notify the HDOH HEER Office at least 90 calendar days prior to disturbing contaminated soil at "HEER Sites" as defined [HI DOH e-Permitting System - Notification of Construction Activities \(HEER Office\), Version 1.6 \(hawaii.gov\)](#) or most recent version available. Obtain AIR-EE's review and concurrence prior to submittal to DOH.
2. The disturbance of contaminated media shall be performed in accordance with the DOTA EHE-EHMP or the Contractor's approved C-EHMP (Site-Specific or Addendum), where applicable. The HEER Office and AIR-EE shall be immediately notified if contaminated media not previously known or anticipated is encountered. The HEER Office will determine whether additional sampling is required. The Contractor shall provide a location map with Global Positioning System (GPS) coordinates and approximate depth below ground surface at which contaminated media were encountered to the Engineer and AIR-EE.
3. Any soil stockpile shall not exceed 100 cubic yards unless approved in the applicable C-EHMP document. If deviating from the plan, approval from DOH is required. Soils placed in watertight containers shall be covered with plastic sheeting or positioned under a roof when not in active use. Soil stockpiles and containers shall be located at least 50 feet from drainage features, surface waters, and stormwater drainage paths.
4. Any liquid-phase oil or free product associated with the contaminated soil shall be drained prior to stockpiling. If feasible, the free product should be separated from the soil, properly stored, profiled, and disposed of at an approved recycling or disposal facility.

B. Soil Testing and Disposal:

The contractor shall test all soil generated during excavation, demolition, or other construction activities. Sampling and testing of stockpiles shall be, at a minimum, in accordance with the latest edition of the DOH's Guidance for Soil Stockpile Characterization and Evaluation of Imported and Exported Fill Material. The Contractor's QEP shall direct the soil sampling collection and testing methods in accordance with the most current guidelines. Stockpiles shall be tested using multi-increment (MI) sampling methodology in accordance with the TGM. Alternative sampling approaches, and appropriate decision unit (DU) volumes for large volume soil stockpiles, should be discussed with AIR-EE and may be utilized on a case-by-case basis when approved by the HEER Office.

Note that in accordance with DOTA policy, no soil from airport property shall be reused offsite, even if the soil appears acceptable for unrestricted reuse based on testing conducted. Exceptions to this policy may only occur with the written approval of the Engineer and AIR-EE.

1. Offsite Soil Disposal

- a. The Contractor shall confirm the disposal facility's sampling requirements, as well as their standards for disposal.
- b. Soil that is a regulated hazardous waste shall be disposed at an approved United States Environmental Protection Agency (EPA) regulated facility.
- c. Soil that is above the Hawaii Department of Health (DOH) Tier 1 Environmental Action Levels (EAL) for unrestricted use but not a regulated hazardous waste shall be disposed of at a DOH or EPA permitted disposal facility (i.e., landfill), unless on-site reuse is approved by the Engineer and AIR-EE as described below.
- d. For any contaminated media removed from Airport property to an approved facility, the Contractor shall be responsible for its legal disposal.

2. On-site Soil Reuse

- a. The Contractor shall test all soils designated for on-site reuse. Soil that does not exceed applicable DOH Tier 1 Environmental Action Levels (EAL) for unrestricted use may be reused on-site (within construction site boundaries) with AIR-EE approval.
- b. Soil with contaminants that exceed DOH Tier 1 EALs may be approved for on-site (within construction site boundaries) reuse with written approval from AIR-EE and when the following conditions are met:

- i. Contaminated soil is reused within other contaminated areas in the proximity of its original location.
- ii. Contaminated soil is reused no less than 150 meters from the nearest surface water or surface water inlet.
- iii. Contaminated soil is reused at an elevation above the tidally influenced high water table, and at least one foot below the finish surface grade, with the most contaminated soil placed at the bottom of the excavation and cleanest soil toward the ground surface. A minimum of one foot of clean soil shall comprise the final, top backfill layer and, unless waived by DOTA and DOH, an impervious layer shall cap this top layer.
- iv. Contaminated soil is not reused within or beneath the footprint of a permanent building structure.
- v. Contaminated soil to be reused cannot contain free oil, oil sheens, oil stains, or total petroleum hydrocarbons (TPH) concentrations exceeding 5,000 milligrams per kilogram (mg/kg).

C. Groundwater Management: Groundwater may be contaminated by petroleum hydrocarbons, dissolved metals, PFAS, VOCs, and/or pesticides, and may be encountered during soil excavation or dewatering activities.

1. If contaminated groundwater is discovered at a previously unknown source or site on the project, the Contractor shall immediately notify the Engineer, AIR-EE, and HEER Office. Provide a location map with GPS coordinates and approximate mean sea level depth of the groundwater at which the contamination was encountered.
2. The disturbance of contaminated groundwater shall be performed in accordance with the DOTA EHE-EHMP, or C-EHMP (Site-Specific or Addendum), where applicable. The HEER Office will determine whether additional sampling is required.
3. If free product is present in the extracted groundwater, it shall be separated from the groundwater, profiled, and disposed of at an DOH-approved recycling/disposal facility. Free product shall not be moved from one excavation to another. Engineering measures shall be taken to prevent the transfer of the free product during dewatering. Water contaminated with free product shall not be discharged from a dewatering pit.
4. Releases of contaminated groundwater to surface water bodies or areas beyond the work area is prohibited.

5. Groundwater shall only be re-infiltrated in the ground with the prior approval of AIR-EE and HEER Office. Under circumstances where contaminated groundwater cannot be re-infiltrated, proper disposal at a licensed facility shall be conducted. Notification to the appropriate agencies and other pertinent information related to the discharge shall be conducted by copying the Engineer and AIR-EE on all correspondence and copies of correspondence provided upon request.
6. The Contractor is responsible for the legal disposal or discharge of groundwater that is not re-infiltrated and shall provide AIR-EE with copies of waste manifests.
7. For groundwater containerized and removed from Airport property, the Contractor shall have representative samples taken and tested in accordance with DOH guidelines, standards, and regulations. A copy of the groundwater test results shall be submitted to AIR-EE. The groundwater shall not be disposed offsite without the approval of the Engineer and a written approval from the DOH-permitted facility receiving the groundwater indicating that they acknowledge the groundwater test results and providing their approval to dispose the groundwater at their facility. Transport off-site shall occur in DOT-approved containers or mobile tanks. Documentation for the removal of containerized groundwater is required in the Close-Out Report detailed in Section 3.04.
8. With approval from AIR-EE and oversight from the QEP, small volumes of groundwater may be disposed via evaporation from a constructed (lined) pond or basin, with solid residuals properly tested and disposed in accordance with this specification.
9. Release Reporting: Encountering previously unknown contaminated soil or groundwater during subsurface construction activities is considered a release and shall be reported to the HEER Office. Copies of the DOH Release Report, DOH-issued Release Number, and email correspondence (if applicable), shall be furnished to the Engineer and AIR-EE. The Contractor shall be responsible for release reporting and AIR-EE shall be included on all correspondence with the HEER office.
10. Contractor shall comply with DOTA and HEER Office requirements. A written report shall be provided to the HEER Office. The Hawaii Hazardous Substance Written Follow-up Notification Form is provided in the DOTA EHE-EHMP, Appendix B.1. Photos shall be included to document the incident. The Contractor shall keep a copy of the completed Form B.1 and provide copies of the written report to the Engineer and AIR-EE.
11. Report all leaks and spills immediately to AIR-EE, DOTA personnel, and regulatory agencies in accordance with the airport-specific DOTA Spill Reporting Fact Sheet available via the DOTA Construction Site Runoff Control Program Webpage at <https://hidot.hawaii.gov/airports/doing->

[business/engineering/environmental/construction-site-runoff-control-program/](#).

Releases that occur during construction activities or releases due to unforeseen events (spills) shall be reported immediately.

- D. Underground Storage Tanks (USTs) and Utility Pipes:
1. For any UST or pipeline, whether unexpectedly discovered or a planned removal, the nature of the UST or pipeline and whether they are inactive shall be determined prior to removal. Immediately notify the Engineer, AIR-EE and HEER Office of any unexpected encounter with a UST or buried piping.
  2. The Contractor shall record field observations of the UST and pipelines. These observations shall include, but are not limited to, the following:
    - a. Location relative to fixed landmarks, including GPS coordinates. Provide a location map that shows the UST and pipelines that were encountered. The map shall include a North arrow and a scale.
    - b. Depth, diameter, length, and type of piping. Describe the condition of the pipe.
    - c. Volume and type of fuel or product, including analytical laboratory reports for the product recovered.
    - d. Beginning and ending fluid levels, if applicable.
    - e. Flow rates, if applicable.
    - f. Direction of flow.
    - g. Detailed photographs.
    - h. Detailed description of actions taken following the discovery, such as cutting, product removal, and disposal.
  3. Provide records of the field observations to the Engineer, AIR-EE, and HEER Office.
  4. The removal of all USTs must comply with HAR § 11-280.1, and all correspondence related to identification, removal, and documentation must be provided to the Engineer and AIR-EE. Only personnel knowledgeable and trained in pipeline and UST removal shall cut, drain, and remove USTs and pipelines. Hazardous conditions, particularly those created by explosive vapors and releases of product to the environment, shall be mitigated prior to removal activities. If any waste

pipe or UST components are to be stored on-site prior to disposal, the area shall be lined with polyethylene plastic sheeting, 20 mil or thicker, and bermed to contain any free product. Provisions shall be in place to contain viscous products that may liquify after exposure to atmospheric heating. The waste pipe segments shall be drained of any residual product and stored on appropriate dunnage with the ends of the pipe sealed or covered to protect the interior of the pipe from contact with rainwater and wind.

5. All removed pipelines and USTs shall be properly disposed or recycled.
6. The Contractor shall prepare and submit a UST Removal Report, including the results of all sampling activities required under HAR § 11-280.1, to the Engineer, AIR-EE, and the DOH SHWB (UST Program).

### 3.04 POST-CONSTRUCTION REQUIREMENTS

- A. Submit a Project Close-out Report within 30 calendar days after work is completed. The Close-out Report shall contain the following applicable contents:
  1. A signed letter certifying that the removal and disposal of all contaminated materials were completed in accordance with the DOTA EHE-EHMP or Contractor's approved C-EHMP (Site-Specific or Addendum), and all applicable Federal, State, and local rules and regulations.
  2. All approved DOTA EHE-EHMP deviation request forms. (Reference Appendix B of the DOTA EHE-EHMP.)
  3. Any Site-Specific EHMP(s) or Long-term EHMP(s). For locations at an airport for which DOTA has already established a Site-Specific EHMP from previous projects, the DOTA's Site-Specific EHMP shall remain applicable, with any approved amendments resulting from a change in site conditions due to construction.
  4. All testing and laboratory results, including chain of custody, for any soil/sediment, groundwater, soil vapor, or other media sampling and analysis.
  5. Any results from air monitoring.
  6. Record of Field Observations, including location map with GPS coordinates, limits, and depths of any contaminated media (soil, groundwater, etc.) that were encountered at previously unknown source or sites on the project. Include a copy of the completed Hawaii Hazardous Substance Written Follow-up Notification form that was submitted to DOH and all other associated documents.
  7. If contaminated soil was disposed off-site (off Airport Property), include

the following:

- a. A copy of the signed agreement from the receiving facility acknowledging the sample test results and indicating acceptance of the soil.
  - b. Documentation of the quantity of soil received by the facility.
  - c. Copies of the test results of the soil sampling.
  - d. All certifications, disposal forms, waste manifests, and summary logs.
8. If any soil was approved for reuse on-site (within the construction site boundaries), at a minimum, include the following:
- a. Copies of the test results of the soil sampling.
  - b. The quantity of soil that was re-used on-site.
  - c. Location map of the re-used soil. Include GPS coordinates of its emplaced limits.
  - d. A brief description of the purpose of the reused soil (e.g., general fill, utility trench backfill material, etc.). Include the depth and thickness of its placement.
  - e. Photos of the site after placement of the re-use soil has been completed.
9. Record of Field Observation of any unanticipated UST or pipeline discovered during construction activities, including a copy of the completed DOH Notice of Intent to Close Underground Storage Tanks form, UST Closure Report, and all other associated documents.
10. The Close-out Report may be distinct to each contaminated media type/source. For sites with multiple contaminated media types/sources, Close-out Reports for each contaminated media type can be submitted separately or combined into a project-wide compilation of reports.

PART 4 – MEASUREMENT AND PAYMENT

4.01 BASIS OF MEASUREMENT AND PAYMENT

Work specified in this Section will be paid at the unit price measurement noted below.

<u>Item No.</u>	<u>Item</u>	<u>Unit</u>
01562.J	Management of Contaminated Media, Soil Disposal, and Soil Reuse	Allowance

Payment shall be full compensation for work prescribed in this Section and contract documents and stipulated below.

Lump Sum items will be paid in accordance with the bid price upon approval of completed work under that line item by the Engineer. Should any unforeseen conditions arise, payment shall be made by an allowance, as directed by the Engineer.

For ALLOWANCE items in the Proposal Schedule, the allowance is an estimate and the amount shall not exceed the maximum amount shown in the Proposal Schedule. Payment shall be the actual cost as invoiced by the Contractor and approved by the DOTA Engineer. The Contractor shall be allowed to include overhead, profit, insurance and/or other mark-ups, as stipulated in Section 9.5 of the 2016 General Provisions for Construction Projects, Air and Water Transportation Facilities Divisions.

**Should the DOTA receive reports of any illegal dumping of material, and if illegal dumping is confirmed to have occurred, the DOTA will assess a Liquidated Damages amount of \$5,000 per truck per day, until the illegally dumped material has been cleaned up or the incident has been remedied to the satisfaction of the Engineer with the DOH’s concurrence. The Contractor shall not be entitled to recover any Liquidated Damages assessed, even after the non-compliance has been corrected.**

**The Contractor shall be responsible for reimbursing DOTA for all citations, fines, and penalties levied by DOH, EPA, Department of Labor and Industrial Relations, or any other regulatory agency against the State due to the Contractor’s failure to properly manage contaminated medias, including non-compliance with the DOTA EHE-EHMP, DOTA Site-Specific EHMP, or and Site-specific C-EHMP or C-EHMP Addendum.** The Contractor shall reimburse the State within 30 calendar days for the full amount of any outstanding cost that the State has incurred. The State may deduct all incurred costs from the Contractor’s monthly progress payments; however, the Contractor shall be responsible for reimbursing the State if the costs of correction exceed remaining payments owed to the Contractor.

If the Contractor fails to satisfactorily address the non-compliance item, DOTA reserves the right to employ outside assistance or use the State’s own labor forces to provide



necessary corrective measures. The Contractor shall be fully responsible for all cost and time. The State shall charge the Contractor such incurred costs plus any associated project engineering costs and shall make appropriate deductions from the Contractor's monthly progress payment.

END OF SECTION

## SECTION 01700 – MOBILIZATION

### PART 1 – GENERAL

- 1.0 DESCRIPTION – This item shall consist of Mobilization of the Contractors equipment, materials and supplies, temporary buildings, and facilities, as required to complete the Contract requirements.
- 2.0 RELATED DOCUMENTS
- A. The General Provisions of the Contract, including General and Special Provisions, the General Requirements of the Specifications, the Supplemental Special Provisions, and the Airports Division Supplement to Special Provisions, apply to the work specified in this Section.
  - B. Section 699 of “Hawaii Standard Specifications for Road and Bridge Construction, 2005”, including Special Provisions for 2005 Standard Specifications, are hereby incorporated into and made a part of these specifications by reference unless modified hereinafter.
- 3.0 MOBILIZATION - The Contractor shall mobilize and transport his construction plant and equipment including materials and supplies for operation to the site of work, construct temporary buildings and facilities as necessary, and assemble the equipment at the site as soon as possible after receipt of Notice to Proceed, subject to the provisions of the General Provisions.
- 4.0 STAGING AREA - Pending the availability of space on airport property, the State will issue Revocable Permit(s) to the Contractor for the use of the space, assessed at a monthly fee of \$25 for each Revocable Permit issued or otherwise directed by the County Property Management office. The space(s) may be used for a field office, staging of materials and equipment, vehicle parking or other uses subject to the approval of the State. All spaces shall be subject to the requirements of an approved construction site runoff control program.

Since space on the airport property is extremely limited, the State does not guarantee the space(s) provided to the Contractor will be in close proximity to the project site. The State will make every effort to provide the Contractor with space on airport property, however, should the State determine that no space is available for such uses(s), the responsibility shall then be on the Contractor to find space outside of airport property.

### PART 2 - PRODUCTS (Not Used)

### PART 3 – EXECUTION

- 1.0 WORK AT EACH AIRPORT – The Contractor shall have the resources, equipment, and staff required to perform simultaneous mobilizations and work at more than one airport at the request of the State Project Manager. The Contractor shall mobilize at each airport (up to two at one time) at the written direction of the State Project Manager.

PART 4 - MEASUREMENT AND PAYMENT

- 1.0 METHOD OF MEASUREMENT – Mobilization will be paid for each mobilization per airport. Measurement for payment shall not apply. The maximum bid allowed for "Mobilization" is an amount not to exceed six (6) percent of the sum of all items (excluding this item and all Allowances) for each airport. If the proposal submitted by the bidder indicates an amount in excess of the allowable maximum, the indicated amount or amounts shall be reduced to the allowable maximum; the total sum for each individual airport in the proposal schedule shall be adjusted to reflect any such reduction. For the purposes of comparing bids and determining the contract price to be inserted in the contract awarded to the bidder, if any is so awarded, the "Total Bid Amount for Comparison" adjusted in accordance with the foregoing shall be used and the bidder's proposal shall be deemed to have been submitted for the amounts as reduced and adjusted in accordance herewith.
- 2.0 BASIS OF PAYMENT – Mobilization will be paid for at the contract bid price under Mobilization for each airport. Partial payments will be made as follows:
- A. When one percent (1 %) of the original contract amount for the individual airport is earned, ten percent (10 %) of the bid amount will be paid.
  - B. When two and a half percent (2 1/2%) of the original contract amount for the individual airport is earned, fifty percent (50%) of the bid amount will be paid.
  - C. When five percent (5%) of the original contract amount for the individual airport is earned, seventy-five percent (75%) of the bid amount will be paid.
  - D. When ten percent (10%) of the original contract amount for the individual airport is earned, one hundred percent (100%) of the bid amount will be paid.

Nothing herein shall be construed to limit or preclude partial payments otherwise provided by the contract.

Payment will be made under:

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
01700-A	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Daniel K Inouye Intl Airport	Each
01700-B	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Kalaeloa Airport	Each
01700-C	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Lihue Airport	Each

01700-D	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Kahului Airport	Each
01700-E	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Kapalua Airport	Each
01700-F	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Molokai Airport	Each
01700-G	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Lanai Airport	Each
01700-H	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Hilo International Airport	Each
01700-I	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Ellison Onizuka Kona International Airport at Keahole	Each

END OF SECTION

## SECTION 01810 – TRAFFIC CONTROL

### PART 1 – GENERAL

- 1.0 DESCRIPTION – This work consists of the daily setup and takedown of all traffic control and safety devices as shown on the plans and according to these specifications.

### PART 2 – PRODUCTS

- 1.0 EQUIPMENT – The Contractor is responsible for providing and maintaining equipment used for traffic control in an acceptable condition. Acceptable equipment condition shall be in accordance with the American Traffic Safety Service Association (ATTSSA) with no lamps out on any traffic control and safety device used.
- A. Runway Lighted "X" – Two (2) units are required for each runway the Contractor intends to close. Each unit must meet or exceed the applicable FAA specification. Each Unit shall be portable, tow-able, acquirable by pilots at least five (5) nautical miles away, recognizable as a letter "X" for at least 1 1/2 nautical mile away, capable of 40-volt operation from dimming during night use, able to withstand a minimum wind speed of 40 miles per hour without affecting aiming or operation, have an illuminated failure indicator from the back (runway side) of the unit, energized by a portable power supply capable of supplying a minimum 24-hour continuous operation, and able to be set up or taken down by one (1) person within five (5) minutes. Each unit shall have the following additional characteristics:
- (1) Minimum arrangement of nine (9) 150W/120V PAR-38 clear incandescent or white color transmitting lamps, with spotlights arranged in the shape of a letter "X," spaced 3'6" on centers, and mounted on 14-foot arms that are crossed at 90 degree (90°) and painted yellow on all sides. (All lights must illuminate when in use.)
  - (2) Flash lighted signals at an approximate rate of three (3) seconds "on" and one (1) second "off," or lit continuously if the flasher unit fails.
  - (3) From 1 1/2 nautical miles away, the signal shall provide a horizontal coverage of at least 15 degrees (15°) on each side of the runway centerline, and a vertical coverage from 0 degree to 10 degree (0° to 10°) above horizontal, during the day or night.
  - (4) Adjustable aiming and leveling to allowing tilting to an optimum angle of five degrees (5°) from vertical.
- B. Barricades – Shall be low profile barricades mounted with at least one (1) red 360 degree (360°) light mounted to each barricade and sufficient weights to ensure they are not blown down by winds. Low profile barricades shall be either Neubert Aero Corporation Model NAC-PC 2410, Multi-Barrier Safety Barricade Model No. AR-10x96 or FAA approved equivalent.

- C. Cones – Shall be predominantly orange, fluorescent red-orange, or fluorescent yellow orange; incapable of damaging vehicular traffic upon impact. They shall be a minimum 28 inches in height with two (2) retro-reflective white bands and stacked as called for on the plans.
- D. Setup and Takedown Equipment – All equipment needed to fulfill traffic control contract requirements.

### PART 3 – EXECUTION

1.0 CONSTRUCTION REQUIREMENTS – No work shall commence until all traffic control contract requirements are met, if work is performed without meeting traffic control contract requirements, the State will immediately suspend and terminate the violator.

- A. Setup and Takedown – Prior to setting up and taking down the traffic control and safety devices, the Contractor shall contact the FAA Air control Tower to ascertain the Airport's current operating wind conditions (northerly/easterly winds, also known as "Trade Winds"; or southerly/westerly winds, also known as "Kona Winds").

The contractor shall then set up or take down the traffic control and safety devices according to the plans due to the prevailing wind conditions.

- B. Construction Safety Plan – The Contractor shall submit a construction safety plan for each airport where work is to take place. Each plan shall meet all FAA requirements for a construction safety plan. A sample construction safety plan will be provided upon request. The construction safety plan shall also show the Contractor's proposed placement and quantities of all traffic control equipment at each runway for review and acceptance by the Engineer and FAA. Bidders shall be experienced at determining the placement and quantity of traffic controls to isolate their work areas from active taxiways and runways per FAA and Airport requirements. Any additional traffic controls required by the FAA or the State due to inadequate pre-bid analysis by the Contractor shall be provided at no additional cost to the State.
- C. Runway Closures may vary by airport and are subject to airport operation schedules. The Contractor shall attend all relevant coordination meetings and understand the operational limitations of each airport. The following airports have historically had limited closure times, including but not limited to, weekends only and/or short closure windows, available:
  - LIH, RWY 17-35
  - OGG, RWY 2-20
  - KOA, RWY 17-35
  - ITO, RWY 8-26

### PART 4 – MEASUREMENT AND PAYMENT

1.0 METHOD OF MEASUREMENT

- A. Work under this Section will not be measured for payment but will be paid for at the Contract Allowance Price.

2.0 BASIS OF PAYMENT

- A. All payments shall be full compensation for all work described under this section, and all materials, labor, tools, equipment, and incidentals, needed to complete the Contract.
- B. Payment shall be made under:

<u>Item No.</u>	<u>Description</u>	<u>Unit Price</u>
01810-J	Traffic Control	Allowance

END OF SECTION

## SECTION 02400 – RUBBER REMOVAL

### PART 1 – GENERAL

- 1.0 DESCRIPTION – This work consists of removing aircraft tire rubber deposits from flexible or rigid runway pavement surfaces in the areas demonstrated to have excessive or near excessive deposits via continuous friction measurement surveys or as directed by the State Project Manager (reference Appendix C).

Rubber removal shall use a water blasting removal method as specified in PARTs 3.0 & 4.0, but all work shall be in accordance with these specifications.

### PART 2 – MATERIALS

- 1.0 MATERIALS – Water used for rubber removal method must be potable.

### PART 3 – EXECUTION

#### 1.0 CONSTRUCTION REQUIREMENTS

A. Weather Limitations – No work shall be performed when the rain intensity exceeds light, sustained showers.

B. Equipment – All water blasting equipment shall be self propelled or towed for rapid deployment to accommodate immediate clearing of the runway when aircraft emergency operations occur. Equipment shall have ample power and be in sufficient numbers to complete all work according to the contract requirements.

(1) Rubber Removal Equipment – Shall be rated, by the water blasting equipment, to remove rubber deposits of one-quarter inch (1/4") thickness or the full depth of a standard runway groove per Part 3, section 1.D.2 at a minimum rate of four thousand (4,000) square feet per hour. Actual removal rates will vary depending on rubber thickness. The Contractor shall be capable of providing the water blasting rubber removal method.

Equipment shall be a high-pressure water blaster operating at pressures of 6,500 to 40,000 pounds per square inch, using up to ten (10) gallons of water per minute.

(2) Reclaiming Equipment – Shall recover all rubber material and all standing and running wash water used during the rubber removal method.

(3) Retaining Equipment – Shall be used to hold all reclaimed wash water that is beyond the reclaiming equipment's storage capacity.



(4) Transferring Equipment – Shall be used whenever the retaining and reclaiming equipment are not interconnectable. If this equipment is unable to transfer reclaimed wash water during the reclaiming process, rubber removal work shall cease until the reclaiming equipment is ready to continue.

(5) Hauling and Disposal Equipment – The Contractor shall haul and properly dispose rubber removal wash water to a site off the Airport following the completion of the “RCRA-8 Metals Test”. Prior to the completion the RCRA-8 test, the rubber removal wash water shall be stored within Airport property. Treatment and disposal shall conform to all Federal, State, and local regulations for the disposal of such waste.

Rubber removal and reclaiming equipment shall be self propelled or towed by an appropriate motor vehicle. Equipment which must be moved or propelled across the rubber removal work area under muscle power is not acceptable for use on this project.

The Contractor shall remove any rubber removal equipment, support vehicles, or other self-propelled equipment that becomes unable to remove itself from the runway immediately after a breakdown. Field repairs shall not be performed on the runways, taxiways, or aprons. The Contractor may only make repairs at their designated staging area, outside the AOA, or off airport property. To that end, the Contractor shall possess a vehicle capable of removing any other vehicle or self-propelled equipment that suffers a mechanical breakdown and cannot remove itself from the runway. Such a tow vehicle shall possess all supplementary equipment necessary to remove the inoperative equipment (e.g. tow bar, tow cable, etc.)

All self-propelled equipment shall conform to FAA and Airport requirements for vehicles operating within the aircraft movement area if it will operate or be staged within the movement area.

C. Contractor Qualifications – The Contractor shall be qualified in their rubber removal operation and shall provide documentation of their qualifications. Submit prior to award all documentation of past rubber removal projects addressing items 1 or 2 below which shall be received by the State Project Manager no later than seven (7) working days from the date of the written request from the State. Qualification shall be based on one of the two following sets of criteria:

(1) Previous Rubber Removal Projects – The Contractor must have successfully completed a minimum two (2) projects utilizing their method of choice. Documentation of past rubber removal projects as representation of contractor qualifications shall be received by the State Project Manager no later than seven (7) working days from the date of the written request from the State. Such documentation shall contain the following information:

- a. Description of Project – A full description of the project must include details of the scope of project.
- b. Project Location – The location of the project must be stated.

- c. Contact Information – Contact information for the airport(s) where the project(s) were conducted. Electronic mail addresses and phone numbers must be included.
  - d. Rubber Removal Area – The total area where rubber removal took place must be stated in square feet.
- (2) Manufacturer Certification, Training, and Assistance – The Contractor must be certified in the proper operation of the rubber removal equipment. To that end, the Contractor shall be certified by the manufacturer of the rubber removal equipment. Documentation, as described below, shall be received by the State Project Manager no later than seven (7) working days from the date of the written request from the State.
- a. The Contractor shall provide documentation of the manufacturer’s certification. Such certification may take the form of certified training and usage of the equipment.
  - b. The Contractor shall provide a list of all of their personnel who are trained to operate the rubber removal equipment as well as documentation of the rubber removal equipment manufacturer’s certification that said personnel are trained in its operation.
  - c. If the Contractor does not meet the experience requirements stated above, then the Contractor shall arrange for the presence of an on-site technical consultant provided by the manufacturer of the water blasting equipment. The Manufacturer shall provide documentation that their technical consultant is certified to operate the equipment and may train others in the use of said equipment. The technical consultant shall be present for the test strip operation and a minimum of two (2) work weeks of full rubber removal to assist the Contractor in the operation of the rubber removal equipment.
  - d. The manufacturer or supplier shall also provide documentation of the use of their product on a minimum of two (2) past rubber removal projects at any airport in the United States conforming to the requirements of 14 CFR Part 139. Such documentation shall conform to the requirements stated for past rubber removal project documentation above.

Contractors who cannot satisfy either set of requirements may not be awarded the contract. Any expenses associated with obtaining documentation of previous projects or the manufacturer’s certification and the technical consultant’s services are incidental to the Contract.

D. Rubber Removal Work

(1) Test Strip – The Contractor shall perform the contracted work on an area with the minimum dimensions of ten (10) feet wide by five hundred (500) feet long. This is to demonstrate to the State Project Manager that their equipment and methods conform to the contract requirements and does not damage the structural integrity of the pavement surface. A rubber removal test strip shall be performed on each runway prior to the first rubber removal operation at each airport for the Contract period. The State Project Manager may require a new test strip operation if the Contractor changes rubber removal equipment due to breakdown or new equipment.

HDOT may conduct a partial Continuous Friction Measurement (CFM) survey immediately after the completion of each test strip operation in order to determine its acceptability per Part 3, section 1.D.2 below. A minimum of two (2) CFM test runs will be performed on the test strip. The abbreviated CFM test must demonstrate that the average friction level within the test strip area has been restored to a level equal to or greater than the “Maintenance Planning Limit” criteria as detailed in Table 3-2 of FAA AC150/5320-12C, Chapter 3. Once the test strip is accepted by the State Project Manager, the Contractor and the State Project Manager or a designated representative will examine the test strip area to come to a mutual agreement on the visual inspection criteria for 90% rubber removal as required by Part 3, section 1.D.2. The agreed upon nine (9) square foot “acceptable area” will be marked off and photos will be taken of it for each runway or airport. At least one photo must show the pavement surface detail. The State Project Manager will use the photos as a visual comparison in the event that any further rubber removal work that is visually inspected per Part 3, section 1.D.2.

The State Project Manager will determine a suitable test strip location on each runway. Full rubber removal operations will not commence without the State Project Manager’s approval. Test strips shall be paid for at the same unit price as for regular rubber removal operations.

(2) Full Operations & Acceptance Criteria – Each rubber removal operation, as called for by the State Project Manager, shall remove the rubber build-up from the areas such that the friction is restored to a level greater than the “Maintenance Planning Limit” criteria for the CFM equipment used by HDOTA to perform the test. These criteria shall be as detailed in Table 3-2 of FAA AC150/5320-12C, Chapter 3 for 40 MPH or 60 MPH tests.

The State Project Manager will make the final determination of the necessity to perform a rubber removal operation and scope based on CFM results. The State Project Manager will inform the Contractor of the decision to schedule a rubber removal operation in writing. The Contractor shall schedule and commence rubber removal operations on that runway within six (6) weeks. The Contractor shall notify the State Project Manager in writing if they are unable to schedule the rubber removal operation within six (6) weeks of written notification.

The State will perform CFM surveys conformant to the requirements of the latest version of FAA Advisory Circular 150/5320-12 – Measurement, Construction, and Maintenance of Skid Resistant Airport Pavement Surfaces in order to determine the acceptability of the rubber removal. For testing and acceptance purposes, the work area on each runway will be divided up into sections with a minimum length of five hundred (500) feet up to a maximum length of two thousand (2,000) feet along the runway centerline. All CFM surveys will be performed along the full runway length except as noted by the State Project Manager. A CFM survey will be conducted on each section once they are completed by the Contractor. Tentative acceptance of a section will be granted if the CFM survey demonstrates that the average friction within the section is restored to a friction level equal to or greater than the “Maintenance Planning Limit” criteria as detailed in Table 3-2 of FAA AC150/5320-12C, Chapter 3 for both 40 MPH and 60 MPH tests at a minimum. The Contractor shall note that the “Maintenance Planning Limit” criteria vary depending on the CFM equipment used (e.g. Dynatest CFM units are rated at 0.60 and 0.47 for the 40 MPH and 60 MPH tests respectively, while Mu Meter CFM units are rated at 0.52 and 0.38 respectively).

The State Project Manager will note any locations within the completed section that demonstrates friction measurements lower than the “Maintenance Planning Limit” criteria. Such areas shall be subjected to additional rubber removal treatments until friction testing demonstrates conformance with the aforementioned criteria, at no additional cost to the State. HDOTA shall perform a CFM survey after each additional rubber removal treatment to determine the effectiveness of each cleaning.

If subsequent CFM testing demonstrates that a previously treated and tentatively accepted section of runway has fallen below the FAA “Minimum Limit Criteria”, the Contractor shall perform additional rubber removal treatments until subsequent friction testing demonstrates conformance with the aforementioned criteria, at no additional cost to the State. HDOTA shall perform an additional CFM survey after each additional rubber removal treatment to determine the effectiveness of each cleaning, at no additional cost to the State.

Rubber removal work resulting in friction levels greater than the “Maintenance Planning Limit” criteria shall be incidental to the Contract.

In the event of a mechanical or electrical breakdown of the CFM equipment which requires lengthy repairs and the lack of spare CFM equipment, the State Project Manager will visually inspect the rubber removal areas for acceptability using the mutually agreed upon visual acceptance criteria determined during the test strip operation. An acceptable level of removal, as determined by visual inspection, shall have a minimum of 90% removal of rubber build-up from the areas shown on the plans without damaging the pavement’s structural integrity. Removal levels beyond 90% shall be incidental. A 90% removal level within the rubber removal limits is defined such that there shall not be a remaining surface of undisturbed rubber on areas larger than one square inch where the pavement surface material is not clearly exposed. Final

determination of rubber removal acceptability via visual inspection shall be solely upon the judgment of the State Project Manager.

Upon completion of daily rubber removal, the State Project Manager and the Contractor or their designated representatives shall measure the rubber removal area and note an agreed upon daily removal quantity on the daily construction report. If a daily measurement is determined to be impracticable by the State Project Manager, then a weekly measurement shall be made.

(3) Recovery - The Contractor shall immediately recover all rubber material and all standing and running wash water from water blasting rubber removal operations. The Contractor shall recover dislodged rubber and flush water via vacuum truck or other suitable equipment immediately after flushing. All recovered rubber and wash water shall be retained until the end of each workday or night and shall be properly disposed of as directed by the State Project Manager following the completion of the RCRA-8 test.

(4) Rubber Waste Water Testing - The Contractor shall obtain the services of an accredited independent testing laboratory to perform a "RCRA-8 Metals Test" upon the recovered wash water. The RCRA-8 test shall be performed prior to each disposal of wash water. The Contractor shall notify the State Project Manager of the date of sample taking two (2) weeks in advance of the sample taking. At its option, the State may observe the Contractor's on-site sample taking process to verify laboratory and/or method compliance. The Contractor shall submit a copy of the test results to the receiver of the wash water. Five (5) copies of each test result, including an electronic copy shall also be submitted to the State Project Manager for review. No payments will be made on rubber removal until the results of each test have been reviewed and fully accepted by the State Project Manager. Testing shall be paid for under the Rubber Removal and Paint Making Testing and Disposal Allowance.

(5) Disposal - The Contractor shall properly dispose of or recycle all retained rubber and wash water. The Contractor must provide DOTA with disposal records for all recovered materials.

Alternative methods of disposal such as evaporation pits, disposal into wash rack, etc. may be considered per airport following review and approval by the State Project Manager.

Upon each disposal of retained rubber and wash water the Contractor shall complete and submit the current version of United States Environmental Protection Agency Form 8700-22 (Uniform Hazardous Waste Manifest) to the State Project Manager along with five (5) copies thereof for review and acceptance. A separate form shall be completed for each disposal of wash water and retained rubber. In the event that the landfill or disposal agent determines that the 8700-22 form is not required, the Contractor shall obtain a letter from the disposal company, landfill, or other entity accepting the rubber waste for final disposal and/or recycling stating that they have made that determination.

The Contractor shall also submit one (1) original and five (5) copies of the weigh tags or disposal tickets as provided by the disposal company, landfill, or other entity accepting the rubber waste and/or wash water for final disposal and/or recycling. Such tags shall clearly state the following information.

- a) Name and actual address of the disposal company, landfill, or other entity accepting the rubber waste for final disposal and/or recycling. P.O. Boxes are not acceptable.
- b) Name of the hauling company if the waste is not hauled by the Contractor.
- c) Name of the Contractor
- d) Type of material (rubber, paint, etc.)
- e) Weight of material.
- f) Acknowledgement by the receiver of the acceptance of the RCRA-8 test results for that load.

Optionally, the State Project Manager may accept a letter or statement from the landfill or recycler stating that they have accepted the rubber waste and wash water. Such letter must also state the approximate weight of material accepted and the date(s) it was accepted. The letter shall be signed by a person in responsible charge for landfill or recycler operations.

Removed rubber and/or wash water shall not be mixed with materials from other projects prior to dumping. Weigh tags or disposal tickets that show materials mixed in from other projects may not be accepted by the State Project Manager.

No payments will be made on each rubber waste and wash water disposal until all 8700-22 forms and weigh tags, disposal tickets, or disposal acceptance letter, for that payment have been reviewed and fully accepted by the State Project Manager.

The Contractor is reminded that they are solely responsible for any fines and/or legal fees assessed for any illegal or improper dumping or recycling of waste rubber and/or wash water.

The Contractor shall have knowledge of disposal requirements for all landfills or receiving entities. All necessary disposal forms requiring State approval/ signature shall be provided to the State within one (1) week of receiving the waste analysis results. All debris and equipment shall be disposed of and removed from the airport property within two (2) weeks of the completion of work or receipt of the signed landfill disposal forms, whichever is later. Unforeseen Conditions that may prevent the debris from being disposed of in the two (2)

week time frame above shall immediately be brought to the attention of the State in writing. Compensation shall not be provided for disposal costs beyond the two (2) week period except due to Unforeseen Conditions which have been accepted by the State.

- E. Correcting Pavement Damages – Shall be in accordance with Section 01000, Part 3, section 6.0, of the specifications.

## 2.0 RUBBER REMOVAL FREQUENCY AND SCOPE

The specific quantities of rubber removal work for this project cannot be accurately predicted at this time (reference Appendix C). However, based on previous experience with past rubber removal projects, the State estimates that rubber removal may occur at the locations noted in Appendix C. The Contractor shall use the rubber removal methodologies noted within this specification section.

In the event that the CFM equipment is unable to perform routine testing at an airport for whatever reason, the State Project Manager will establish a rubber removal schedule to be followed by the Contractor to ensure that rubber removal is performed at the frequency and scope on each runway as required by the Airport Manager and/or the FAA as part of ongoing Part 139 inspections.

Bidders shall note that quantities are estimates provided for the purpose of comparing bids. Actual quantities will vary depending on CFM survey results and the determination of the State Project Manager. Bidders are advised that they should bid accordingly.

The State reserves the right to transfer rubber removal quantities between runways at the same airport in order to provide additional rubber removal on a runway with no change in unit price or total rubber removal quantity for that airport.

- 3.0 SCHEDULING & COORDINATION – Scheduling of rubber removal operations must be approved by the State Project Manager prior to commencing any rubber removal operations. The Contractor shall take into account the necessary work that must be done prior to any rubber removal operations at any airport. Per Spec Section 01000, Part 3, section 2.H, the Contractor shall submit a construction safety and phasing plan for review by HDOTA and FAA. The construction safety plan must be accepted by the State Project Manager, Airport Manager, and FAA before any work may begin. The Contractor shall use the FAA template for construction safety and phasing plans.

Once a rubber removal operation has been scheduled and the construction safety plan accepted, the Contractor shall coordinate all necessary activities including but not limited to requesting badges, purchasing needed supplies (pavement paint, etc.), arranging for equipment and vehicle rentals, arranging for shipping of friction testing equipment if required, etc. The Contractor shall also be responsible for coordination with Airport personnel for on-site staging/storage area especially within the AOA, security, operational details, AOA access, coordination with airline flight schedules, etc.

In the event that a rubber removal operation is scheduled on an island that has two or more airports on this Contract, the State Project Manager may require that the Contractor also perform rubber removal at the adjacent airports. Examples of this include Maui (Kahului Airport and Kapalua Airport), Hawaii Island (Hilo International Airport and Ellison Onizuka Kona International Airport at Keahole), & Oahu, (Daniel K. Inouye International Airport and Kalaeloa Airport).

**PART 4 – MEASUREMENT AND PAYMENT**

1.0 **MEASUREMENT** – Rubber removal shall be measured by the square footage of rubber removed within the contract work limits for the water blasting removal method.

Rubber waste disposal will be paid for under an allowance and is subject to the requirements of Section 02400 Part 3, section 1.D.5 – Disposal.

2.0 **PAYMENT** – Payment for the accepted quantities of rubber removal shall be made at the contract unit price per square foot for each rubber removal method. This price shall be full compensation for training, equipment rentals, rubber removal, wash water reclamation, and furnishing all materials, labor, equipment, tools, and incidentals needed to complete all work according to the contract requirements.

Payment shall be made under:

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
02400-A	Water Blasting Rubber Removal – Daniel K. Inouye International Airport	Square Foot (S.F.)
02400-B	Water Blasting Rubber Removal – Kalaeloa Airport	Square Foot (S.F.)
02400-C	Water Blasting Rubber Removal – Lihue Airport	Square Foot (S.F.)
02400-D	Water Blasting Rubber Removal – Kahului Airport	Square Foot (S.F.)
02400-E	Water Blasting Rubber Removal – Kapalua Airport	Square Foot (S.F.)
02400-F	Water Blasting Rubber Removal – Molokai Airport	Square Foot (S.F.)
02400-G	Water Blasting Rubber Removal – Lanai Airport	Square Foot (S.F.)
02400-H	Water Blasting Rubber Removal – Hilo International Airport	Square Foot (S.F.)
02400-I	Water Blasting Rubber Removal – Ellison Onizuka Kona International Airport	Square Foot (S.F.)



Payment for all transferring, retaining, testing, hauling, and disposal of all rubber waste and wash water, as well as paint waste and wash water shall be made under:

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
2400-J	Rubber Removal and Paint Marking Testing and Disposal	Allowance

See specification Section 02620 – Runway and Taxiway Markings for details and requirements for paint waste and wash water.

## SECTION 02608 - EMULSIFIED ASPHALT SEAL COAT (P-608)

### PART 1 - GENERAL

- 1.0 RELATED DOCUMENTS - The General Provision of the contract, including General and Special Provisions and General Requirements of the Specifications, apply to the work specified in this section.
- 2.0 SUMMARY - This item shall consist of the application of an emulsified asphalt surface treatment composed of an emulsion of natural and refined asphalt materials, water and a polymer additive, for taxiways and runways with the application of a suitable aggregate to maintain adequate surface friction; and airfield secondary and tertiary pavements including low-speed taxiways, shoulders, overruns, roads, parking areas, and other general applications with or without aggregate. The terms seal coat, asphalt sealer, and asphalt material are interchangeable throughout this specification. The term emulsified asphalt means an emulsion of natural and refined asphalt materials. The emulsified asphalt surface treatment shall be applied in accordance with these specifications, and as shown on the plans or as directed by the Engineer

Aggregate shall be added to the seal coat on runway and taxiway pavement. Aggregate shall not be used on shoulder pavement and is optional on roads, parking areas, and other general pavement applications.

Emulsified asphalt surface treatment with or without aggregate shall hereby be referred to as "seal coat". The addition of aggregate to the seal coat material shall follow the plans and these specifications. Chip Seal, Slurry Seal, or Fog Seal are not used on this project.

- 3.0 QUANTITIES OF MATERIALS PER SQUARE YARD - The approximate amounts of materials per square yard (square meter) for the asphalt surface treatment shall be as provided in the table for the treatment area(s) at the specified dilution rate(s) as noted on the plans. The actual application rates will vary within the range specified to suit field conditions and will be recommended by the manufacturer's representative and approved by the Engineer from the test area/sections evaluation.

Application Rate

Dilution Rate	Quantity of Emulsion gal/yd <sup>2</sup> (l/m <sup>2</sup> )	Quantity of Aggregate lb/yd <sup>2</sup> (kg/m <sup>2</sup> ) (seal coat only)
1:1	0.10-0.15 (0.45-0.68)	0.20-0.50 (0.11-0.27)
2:1	0.08-0.15 (0.36-0.54)	0.20-0.50 (0.11-0.27)

4.0 SUBMITTALS

- A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.
- B. Material certificates & test reports including Material Safety Data Sheets (MSDS)
- C. Emulsion Material: Samples of the emulsion that the Contractor proposes to use, together with a statement as to its source, shall be submitted, and approval shall be obtained before using such material. Samples shall be taken in accordance with AASHTO T40 or ASTM D140. The Contractor shall submit to the State Project Manager a manufacturer's certified report for each consignment of the emulsion. The manufacturer's certified report shall not be interpreted as a basis for final acceptance. All such reports shall be subject to verification by testing samples of the emulsion received for use on the project.

PART 2 - PRODUCTS

1.0 MATERIAL REQUIREMENTS

ASTM C117	Standard Test Method for Materials Finer than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM D5	Standard Test Method for Penetration of Bituminous Materials
ASTM D244	Standard Test Methods and Practices for Emulsified Asphalts
ASTM D2007	Standard Test Method for Characteristic Groups in Rubber Extender and Processing Oils and Other Petroleum-Derived Oils by the Clay-Gel Absorption Chromatographic Method

ASTM D2042	Standard Test Method for Solubility of Asphalt Materials in Trichloroethylene
ASTM D2995	Standard Practice for Estimating Application Rate of Bituminous Distributors
ASTM D4402	Standard Test Method for Viscosity Determination of Asphalt at Elevated Temperatures Using a Rotational Viscometer
ASTM D5340	Standard Test Method for Airport Pavement Condition Index Surveys
AC 150/5320-12	Measurement, Construction, and Maintenance of Skid-Resistant Airport Pavement Surfaces
AC 150/5320-17	Airfield Pavement Surface Evaluation and Rating (PASER) Manuals
AC 150/5380-6	Guidelines and Procedures for Maintenance of Airport Pavements

## 2.0 MATERIALS

### A. Aggregate

The aggregate material shall be dry, clean, dust and dirt free, sound, durable, angular shaped manufactured specialty sand, such as that used as an abrasive, with a Mohs hardness of 6 to 8. The Contractor shall submit the specialty sand manufacturer’s technical data and a manufacturer’s Certificate of Analysis (COA) indicating that the specialty sand meets the requirements of the specification to the RPR prior to start of construction. The sand must be approved for use by the RPR and shall meet the following gradation limits when tested in accordance with ASTM C136 and ASTM C117:

Aggregate Material Gradation Requirements<sup>1</sup>

Sieve Designation (square openings)	Individual Percentage Retained by Weight
No. 10 (2.00 mm)	0
No. 14 (1.41 mm)	0-4
No. 16 (1.18 mm)	0-8
No. 20 (850 µm)	0-35
No. 30 (600 µm)	20-50
No. 40 (425 µm)	10-45
No. 50 (300 µm)	0-20
No. 70 (212 µm)	0-5
No. 100 (150 µm)	0-2
No. 200 (75 µm)	0-2

<sup>1</sup> Locally available sand or abrasive material that is slightly outside of the gradation requirements may be approved by the Engineer with concurrence by the seal coat manufacturer for the use of locally available sand or abrasive material. The Engineer and manufacturer's field representative should verify acceptance during application of Control strips.

The Contractor shall provide a certification showing particle size analysis and properties of the material delivered for use on the project. The Contractor's certification may be subject to verification by testing the material delivered for use on the project.

## B. ASPHALT EMULSION

The asphalt emulsion shall meet the properties in the following table:

Concentrated Asphalt Emulsion Properties

Properties	Specification	Limits
Viscosity, Saybolt Furol at 77°F (25°C)	ASTM D7496	20 – 100 seconds
Residue by Distillation or Evaporation	ASTM D6997 or ASTM D6934	57% minimum
Sieve Test	ASTM D6933	0.1% maximum
24-hour Stability	ASTM D6930	1% maximum
5-day Settlement Test	ASTM D6930	5.0% maximum
Particle Charge <sup>1</sup>	ASTM D7402	Positive 6.5 maximum pH

<sup>1</sup> pH may be used in lieu of the particle charge test, which is sometimes inconclusive in slow setting, asphalt emulsions.

The asphalt material base residue shall contain not less than 20% gilsonite, or uintaite and shall not contain any tall oil pitch or coal tar material and shall contain no less than one percent (1%) polymer.

Tests on Residue from Distillation or Evaporation

Properties	Specification	Limits
Viscosity at 275°F (135°C)	ASTM D4402	1750 cts maximum
Solubility in 1, 1, 1 trichloroethylene	ASTM D2042	97.5% minimum
Penetration	ASTM D5	50 dmm maximum
Asphaltenes	ASTM D2007	15% minimum
Saturates	ASTM D2007	15% maximum
Polar Compounds	ASTM D2007	25% minimum
Aromatics	ASTM D2007	15% minimum

The asphalt emulsion, when diluted in the volumetric proportion reflected in the plans shall have the following properties:

One-to-One Dilution Emulsion Properties

Properties	Specification	Limits
In Ready-to-Apply Form, one part concentrate to one part water, by volume		
Viscosity, Saybolt Furol at 77°F (25°C)	ASTM D7496	5 – 50 seconds
Residue by Distillation or Evaporation	ASTM D6997 or ASTM D6934	28.5% minimum
Pumping Stability <sup>1</sup>		Pass

<sup>1</sup> Pumping stability is tested by pumping one pint (475 ml) of seal coat diluted one (1) part concentrate to one (1) part water, at 77°F (25°C), through a 1/4-inch (6 mm) gear pump operating 1750 rpm for 10 minutes with no significant separation or coagulation.

Two-to-One Dilution Emulsion Properties

Properties	Specification	Limits
In Ready-to-Apply Form, two parts concentrate to one part water, by volume		
Viscosity, Saybolt Furol at 77°F (25°C)	ASTM D7496	5 – 50 seconds
Residue by Distillation or Evaporation	ASTM D6997 or ASTM D6934	38% minimum
Pumping Stability <sup>1</sup>		Pass

<sup>1</sup> Pumping stability is tested by pumping one pint (475 ml) of seal coat diluted one (1) part concentrate to one (1) part water, at 77°F (25°C), through a 1/4-inch (6 mm) gear pump operating 1750 rpm for 10 minutes with no significant separation or coagulation.

The Contractor shall provide a copy of the manufacturer’s Certificate of Analysis (COA) for the emulsified asphalt delivered to the project. If the asphalt emulsion is diluted at other than the manufacturer’s facility, the Contractor shall provide a supplemental COA from an independent laboratory verifying the asphalt emulsion properties.

The COA shall be provided to and approved by the RPR before the emulsified asphalt is applied. The furnishing of the vendor’s certified test report for the asphalt material shall not be interpreted as a basis for final acceptance. The manufacturer’s COA may be subject to verification by testing the material delivered for use on the project.

The asphalt material storage and handling temperature shall be between 50°F - 160°F (10°C - 70°C).

Contractor shall provide a list of airport pavement projects, exposed to similar

climate conditions, where this product has been successfully applied within at least 5 years of the project.

C. WATER

Water used in mixing or curing shall be from potable water sources. Other sources shall be tested in accordance with ASTM C1602 prior to use. Water used in making and diluting the emulsion shall be potable, with a maximum hardness of 90ppm calcium and 15ppm magnesium; deleterious iron, sulfates, and phosphates maximum 7ppm, and less than 1ppm of organic byproducts. Water shall be a minimum of 140°F (60°C) prior to adding to emulsion.

D. POLYMER

The polymer shall meet the properties in the following table:

Polymer Properties

Properties	Limits
Solids Content	47% to 65%, Percent by Weight
Weight	8.0 to 9.0 pounds/gallon (1.07 to 1.17 kg/L)
pH	3.0 to 8.0
Particle Charge	Nonionic/Cationic
Mechanical Stability	Excellent
Film Forming Temperature, °C	+5°C, minimum
Tg, °C	22°C, maximum

The manufacturer shall provide a copy of the Certificate of Analysis (COA) for the polymer used in the seal coat; and the Contractor shall include the COA with the emulsified asphalt COA when submitting to the Engineer.

E. SEAL COAT WITH AGGREGATE

The Contractor shall submit friction test data to the State Project Manager from no less than one of the airport projects identified under section 2.1.B of this specification. The test data must be from the same project and include technical details on application rates, aggregate rates, and point of contact at the airport to confirm use and success of sealer with aggregate.

Friction test data in accordance with AC 150/5320-12, at 40 or 60 mph (65 or 95 km/h) wet, must include as a minimum; the friction value prior to sealant application; two values, between 24 and 96 hours after application, with a minimum of 24 hours between tests; and one value between 180 days and 360 days after the

application. The results of the tests between 24 and 96 hours shall indicate friction is increasing at a rate to obtain similar friction value of the pavement surface prior to application, and the long-term test shall indicate no apparent adverse effect with time relative to friction values and existing pavement surface.

Seal coat material submittal without required friction performance will not be approved. Friction tests performed on this project cannot be used as a substitute of this requirement.

### PART 3 - EXECUTION

- 1.0 CONTROL AREAS AND CONTROL STRIPS - Prior to full application, the control strip must be accepted by the RPR. The surface preparation, personnel, equipment, and method of operation used on the test area(s) and control strip(s) shall be the same as used on the remainder of the work.

A qualified manufacturer's representative shall be present in the field to assist the Contractor in applying control areas and/or control strips to determine the appropriate application rate of both emulsion and aggregate to be approved by the RPR.

A test area(s) and control strip(s) shall be applied for each differing asphalt pavement surface identified in the project. The test area(s) and control strip(s) shall be used to determine the material application rate(s) of both emulsion and sand prior to full production.

- A. For taxiway, taxiway and apron surfaces:

Prior to full application, the Contractor shall place test areas at varying application rates as recommended by the Contractor's manufacturer's representative to determine appropriate application rate(s). The test areas will be located on representative section(s) of the pavement to receive the asphalt surface treatment designated by the Engineer.

- B. For runway and high speed exit taxiway surfaces:

Prior to full application, the Contractor shall place a series of control strips a minimum of 300 feet (90 m) long by 12 feet (3.6 m) wide, or width of anticipated application, whichever is greater, at varying application rates as recommended by the manufacturer's representative and acceptable to the Engineer to determine appropriate application rate(s). The control strips should be separated by a minimum of 200 feet between control strips. The area to be tested will be located on a representative section of the pavement to receive the asphalt surface treatment designated by the Engineer. The control strips should be placed under similar field conditions as anticipated for the actual application. The skid resistance of the existing pavement shall be determined for each control strip with a continuous friction measuring equipment (CFME). The skid resistance of existing pavement can be immediately adjacent to the control strip or at the same location as the control strip if testing prior to application. The Contractor may begin testing



the skid resistance of runway and high-speed exit taxiway control strips after application of the asphalt surface treatment has fully cured, generally 8 to 36 hours after application of the control strips depending on site and environmental conditions. Aircraft shall not be permitted on the runway or high speed exit taxiway control strips until such time as the Contractor validates that its surface friction meets the maintenance planning friction levels in AC 150/5320-12, Table 3-2 when tested at speeds of 40 and 60 mph (65 and 95 km/h) wet with approved CFME.

If the control strip should prove to be unsatisfactory, necessary adjustments to the application rate, placement operations, and equipment shall be made. Additional control strips shall be placed and additional skid resistance tests performed and evaluated. Full production shall not begin without the Engineer's approval of an appropriate application rate(s). Acceptable control strips shall be paid for in accordance with section 4.2 below.

## 2.0 CONSTRUCTION METHODS

### A. Worker safety:

The seal coat product shall be handled with caution. The Contractor shall obtain a Material Safety Data Sheet (MSDS) for both the asphalt emulsion product and sand and require workmen to follow the manufacturer's recommended safety precautions.

### B. Weather limitations:

The asphalt emulsion shall be applied only when the existing pavement surface is dry and when the weather is not foggy, rainy, or when the wind velocity will prevent the uniform application of the material. No material shall be applied in strong winds that interfere with the uniform application of the material(s), or when dust or sand is blowing or when rain is anticipated within eight (8) hours of application completion. The atmospheric temperature and the pavement surface temperature shall both be at, or above 60°F (16°C) and rising. Seal coat shall not be applied when pavement temperatures are expected to exceed 130°F within the subsequent 72 hours if traffic will be opened on pavement within those 72 hours. During application, account for wind drift. Cover existing buildings, structures, runway edge lights, taxiway edge lights, informational signs, retro-reflective marking and in-pavement duct markers as necessary to protect against overspray before applying the emulsion. Should emulsion get on any light or marker fixture, promptly clean the fixture. If cleaning is not satisfactory to the Engineer, the Contractor shall replace any light, sign or marker with equivalent equipment at no cost to the Owner.

### C. Equipment and tools. The Contractor shall furnish all equipment, tools, and machinery necessary for the performance of this work.

1. Pressure distributor.

The emulsion shall be applied with a manufacturer-approved computer rate-controlled asphalt distributor. The equipment shall be in good working order and contain no contaminants or diluents in the tank. Spray bar tips must be clean, free of burrs, and of a size to maintain an even distribution of the emulsion. Any type of tip or pressure source is suitable that will maintain predetermined flow rates and constant pressure during the application process with application speeds under eight (8) miles per hour (13 km per hour) or seven hundred (700) feet per minute (213 m per minute). The equipment will be tested under pressure for leaks and to ensure proper set-up before use. The Contractor will provide verification of truck set-up (via a test-shot area), including but not limited to, nozzle tip size appropriate for application per nozzle manufacturer, spray-bar height and pressure and pump speed appropriate for the viscosity and temperature of sealer material, evidence of triple-overlap spray pattern, lack of leaks, and any other factors relevant to ensure the truck is in good working order before use.

The distributor truck shall be equipped with a 12-foot (3.7-m), minimum, spray bar with individual nozzle control. The distributor truck shall be capable of specific application rates in the range of 0.05 to 0.25 gallons per square yard (0.15 to 0.80 liters per square meter). These rates shall be computer-controlled rather than mechanical. The distributor truck shall have an easily accessible thermometer that constantly monitors the temperature of the emulsion, and have an operable mechanical tank gauge that can be used to cross-check the computer accuracy.

The distributor truck shall effectively heat and mix the material to the required temperature prior to application in accordance with the manufacturer's recommendations.

The distributor shall be equipped with a hand sprayer to spray the emulsion in areas not accessible to the distributor truck.

2. Aggregate spreader (for seal coat with aggregate)

The asphalt distributor truck will be equipped with an aggregate spreader mounted to the distributor truck that can apply sand to the emulsion in a single pass operation without driving through wet emulsion. The aggregate spreader shall be equipped with a variable control system capable of uniformly distributing the sand at the specified rate at varying application widths and speeds. The aggregate spreader must be adjusted to produce an even and accurate application of specified aggregate. Prior to any seal coat application, the aggregate spreader will be calibrated onsite to ensure acceptable uniformity of spread. The Engineer will observe the calibration and verify the results. The aggregate spreader will be re-calibrated each time the aggregate rate is changed either during the application of test strips or production. The Contractor may consult the seal coat manufacturer representative for procedure and guidance.

The sander shall have a minimum hopper capacity of 3,000 pounds (1361 kg) of sand. Push-type hand sanders will be allowed for use around lights, signs and other obstructions, if necessary.

3. Power broom/blower.

A power broom and/or blower shall be provided for removing loose material from the surface to be treated.

4. Equipment calibration.

The Contractor shall calibrate the equipment using either of the following procedures:

- a. First procedure. The Contractor shall furnish a State Calibration Certification for the emulsified asphalt distributor, from any state providing that service, or other acceptable agency certification approved by the State Project Manager, and the calibration date shall have been within six (6) months of the contract award, or up to 12 months if supporting documents substantiate continuous work using the same distributor.
- b. Second procedure. The Contractor shall furnish all equipment, materials and labor necessary to calibrate the emulsified asphalt distributor and the aggregate spreader. Perform all calibrations with the approved job materials and prior to applying the specified coatings to the prepared surface. Perform calibration of the emulsified asphalt distributor in accordance with ASTM D2995. Perform work to calibrate the tank and measuring devices of the distributor. Perform inspection and calibration at the beginning of the work and at least once a day during construction.

D. Preparation of asphalt pavement surfaces.

Clean pavement surface immediately prior to placing the seal coat so that it is free of dust, dirt, grease, vegetation, oil or any type of objectionable surface film. Remove oil or grease from the asphalt pavement by scrubbing with a detergent, washing thoroughly with clean water, and then treat these areas with a spot primer. Any additional surface preparation, such as crack repair, shall be in accordance with specification section 02753.

1. Allow new asphalt pavement surfaces to cure so that there is no concentration of oils on the surface. A period of at least 30 days at 70°F (21°C) daytime temperatures shall elapse between the placement of a hot mixed asphalt concrete surface course and the application of the surface treatment.

Perform a water-break-free test to confirm that the surface oils have degraded and dissipated. (Cast approximately one gallon (4 liters) of clean water out over the surface. The water should sheet out and wet the surface

uniformly without crawling or showing oil rings.) If signs of crawling or oil rings are apparent on the pavement surface, additional time must be allowed for additional curing and retesting of the pavement surface prior to treatment.

2. Remove all vegetation and debris from cracks to a minimum depth of 1 inch (25 mm). If extensive vegetation exists treat the specific area with a concentrated solution of a water-based herbicide approved by the State Project Manager. Fill all cracks, ignoring hairline cracks (< 1/4 inch (6 mm) wide) with a crack sealant per ASTM D6690. Wider cracks (over 1-1/2 inch wide (38 mm)), along with soft or sunken spots, indicate that the pavement or the pavement base should be repaired or replaced as stated below. Any excess joint or crack sealer on the surface of the pavement shall also be removed from the pavement surface.
3. Remove oil or grease that has not penetrated the asphalt pavement by scraping or by scrubbing with a detergent, then wash thoroughly with clean water. After cleaning, treat these areas with an oil spot primer.
4. Clean pavement surface immediately prior to placing the surface treatment by sweeping, flushing well with water leaving no standing water, or a combination of both, so that it is free of dust, dirt, grease, vegetation, oil or any type of objectionable surface film

F. Emulsion mixing.

The application emulsion shall be obtained by blending asphalt material concentrate, water and polymer, if specified. Always add heated water to the asphalt material concentrate, never add asphalt material concentrate to heated water. Mix heated water with asphalt material, by volume, in the volumetric proportion approved by the State Project Manager as noted in section 1.3 above.

Add 1% polymer, by volume, to the emulsion mix. If the polymer is added to the emulsion mix at the plant, submit weight scale tickets to the Engineer. As an option, the polymer may be added to the emulsion mix at the job site provided the polymer is added slowly while the asphalt distributor truck circulating pump is running. The mix must be agitated for a minimum of 15 minutes or until the polymer is mixed to the satisfaction of the Engineer.

G. Application of asphalt emulsion.

The asphalt emulsion shall be applied using a pressure distributor upon the properly prepared, clean and dry surface at the application rate recommended by the manufacturer's representative and approved by the RPR from the test area/sections evaluation for each designated treatment area. The asphalt emulsion should be applied at a temperature between 130°F (54°C) and 160°F (70°C) or in accordance with the manufacturer's recommendation.

If low spots and depressions greater than 1/2 inch (12 mm) in depth in the pavement surface cause ponding or puddling of the applied materials, the pavement surface shall be lightly broomed with a broom or brush type squeegee until the pavement surface is free of any pools of excess material.

During all applications, the surfaces of adjacent structures shall be protected to prevent their being spattered or marred.

H. Application of aggregate material (for seal coat with aggregate):

Immediately following the application of the asphalt emulsion, friction sand at the rate recommended by the manufacturer's representative and approved by the Engineer from the test area/sections evaluation for each designated application area, shall be spread uniformly over the asphalt emulsion in a single-pass operation simultaneous with the sealer application. The aggregate shall be spread to the same width of application as the asphalt material and shall not be applied in such thickness as to cause blanketing.

Sprinkling of additional aggregate material, and spraying additional asphalt material over areas that show up having insufficient cover or bitumen, shall be done by hand whenever necessary. In areas where hand work is necessitated, the sand shall be applied before the sealant begins to break.

Minimize aggregate from being broadcast and accumulating on the untreated pavement adjacent to an application pass. Prior to the next application pass, the Contractor shall clean areas of excess or loose aggregate and remove from project site.

3.0 FIELD QUALITY CONTROL

A. Manufacturer's representation:

The manufacturer's representative knowledgeable of the material, procedures, and equipment described in the specification is responsible to assist the Contractor and Engineer in determining the appropriate application rates of the emulsion and aggregate, as well as recommendations for proper preparation and start-up of seal coat application. Documentation of the manufacturer representative's experience and knowledge for applying the seal coat product shall be furnished to the Engineer a minimum of 10 work days prior to placement of the control strips. The cost of the manufacturer's representative shall be included in the Contractor's bid price.

B. Contractor qualifications.

The Contractor shall provide documentation to the Engineer that the seal coat Contractor is qualified to apply the seal coat, including personnel, and equipment, and has made at least three (3) applications similar to this project in the past two (2) years.

#### 4.0 MATERIAL ACCEPTANCE

##### A. Application Rate.

The rate of application of the asphalt emulsion shall be verified at least twice per day.

##### B. Friction tests.

Friction tests in accordance with AC 150/5320-12, Measurement, Construction, and Maintenance of Skid-Resistant Airport Pavement Surfaces, shall be performed on all runway and high-speed taxiways that received a seal coat. Each test includes performing friction tests at 40 mph and 60 mph (65 or 95 km/h) both wet, 15 feet (4.5 m) to each side of runway centerline with approved continuous friction measuring equipment (CFME). The Contractor shall coordinate testing with the Engineer and provide the Engineer a written report of friction test results. The Engineer shall be present for testing.

Friction testing is not required for applications intended to remediate pavement surface damage caused by any paint removal operations where paint will be reapplied to the pavement.

#### 5.0 SURPLUS AND WASTE MATERIALS DISPOSAL

##### A. Disposal Unsatisfactory Materials.

Surplus unsatisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off the Airport's property.

##### B. Stockpile Satisfactory Materials. Surplus material shall be stockpiled within the Airport's property, designated by the Air District Manager.

### PART 4 - MEASUREMENT AND PAYMENT

#### 1.0 BASIS OF MEASUREMENT AND PAYMENT - Work under this Section will be paid for under the various contract items shown below.

For ALLOWANCE items in the Proposal Schedule, the allowance is an estimate, and the amount shall not exceed the maximum amount shown in the Proposal Schedule. The Contractor shall provide an estimated cost for Emulsified Asphalt Seal Coat Without Aggregate or Asphalt Seal Coat With Aggregate for each proposal under the Contract. Payment shall be the actual cost as invoiced by the Contractor and approved by the State Project Manager. The Contractor shall be allowed to include overhead, profit, insurance and/or other markups, as stipulated in Section 9.5 of the 2016 General Provisions for Construction Projects, Air and Water Transportation Facilities Divisions.

<u>Item No.</u>	<u>Description</u>	<u>Unit Price</u>
02608-J(1)	Emulsified Asphalt Seal Coat Without aggregate	Allowance
02608-J(2)	Emulsified Asphalt Seal Coat With aggregate	Allowance

END OF SECTION

SECTION 02620 – RUNWAY AND TAXIWAY MARKINGS

PART 1 – GENERAL

1.0 DESCRIPTION – Work to be done by the Contractor as part of this section shall consist of the following items:

- A. Partial removal and repainting of existing runway and taxiway markings at the locations shown on the plans, or as directed by the State Project Manager. Markings are to be repainted at the current locations, dimensions, and configuration. See Appendix D – Pavement Marking Details for info on marking details and dimensions. Note that paint removal and refreshing needs and quantities will vary from airport to airport and year to year depending on needs of the airport:

Table A – General Description of Markings to Be Refreshed

Description	Color	Glass	Beads	6" Black Enhancement
1) Runway Centerline Marking		White	Yes	Enhanced
2) Refresh Runway Edge Markings		White	No	No
3) Refresh Runway Shoulder Markings		Yellow	No	No
4) Refresh Runway Touchdown Zone Markings		White	Yes	Enhanced
5) Refresh Runway Aiming Point Markings		White	Yes	Enhanced
6) Refresh Runway Designation Markings		White	Yes	Enhanced
7) Refresh Runway Threshold Markings		White	Yes	Enhanced
8) Refresh Runway Threshold Bar Markings		White	Yes	Enhanced
9) Refresh Displaced Threshold Markings		White	Yes	Enhanced
10) Refresh Blast Pad Chevron Markings		Yellow	No	No
11) Refresh Taxiway Centerline Markings		Yellow	Yes	No
12) Refresh Taxiway Enhanced Centerline Markings		Yellow	Yes	Enhanced
13) Refresh Taxiway Centerline Lead-On/ Lead Off Marking		Yellow	Yes	No
14) Refresh Taxiway Edge Markings		Yellow	No	No
15) Refresh Taxiway Shoulder Markings		Yellow	No	No
16) Refresh Surface Painted Holding Position				



	Markings (Hold Bar)	Yellow	Yes	Enhanced
17)	Refresh Surface Painted ILS Holding Position			
	Markings	Yellow	Yes	Enhanced
18)	Refresh Surface Painted Non-Movement			
	Area Boundary Marking	Yellow	Yes	Enhanced
19)	Refresh Surface Painted Holding Position			
	Signs (Red Carpet)	Red	Yes	Enhanced
20)	Refresh Surface Painted Taxiway	Yellow/	Yes <sub>2</sub>	Enhanced
	Location Signs	Black		
21)	Refresh Marking for Arresting Gear	Yellow	No	No

Note 1: Displaced Threshold Markings shall be white with the exception of the demarcation bar, which shall be yellow and 36" wide. Coordination with the State Project Manager is required prior to painting the Displaced Threshold Markings at Kalaeloa Airport to confirm marking requirements.

Note 2: Only the yellow marking shall contain glass beads.

- B. Surface preparation of existing asphalt pavement around existing runway and taxiway markings to receive new black enhancements.
- C. Painting of new six inch (6") black enhancements at existing runway & taxiway markings at the locations shown on the plans, or as directed by the State Project Manager. (Reference Table A, Part 1, section 1.A, see above). Black enhancements for each marking shall conform to the requirements of FAA AC150/5340-1M or the latest revision thereof.
- D. All work performed as part of this section shall be in accordance with the plans and specifications. The terms "paint" and "marking material" as well as "painting" and "application of markings" are interchangeable throughout this specification.

## 2.0 REFERENCES:

### A. TESTING REQUIREMENTS

- ASTM C371 Standard Test Method for Wire-Cloth Sieve Analysis of non-plastic Ceramic Powders
- ASTM D92 Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester
- ASTM D711 Standard Test Method for No-Pick-Up Time of Traffic Paint
- ASTM D968 Standard Test Methods for Abrasion Resistance of Organic Coatings by Falling Abrasive
- ASTM D2240 Standard Test Method for Rubber Property - Durometer Hardness

ASTM D7585 Standard Practice for Evaluating Retroreflective Pavement Markings Using Portable Hand-Operated Instruments

ASTM E1710 Standard Test Method for Measurement of Retroreflective Pavement Marking Materials with CEN-Prescribed Geometry Using a Portable Retro reflectometer.

ASTM E2302 Standard Test Method for Measurement of the Luminance Coefficient Under Diffuse Illumination of Pavement Marking Materials Using a Portable Reflectometer

ASTM G154 Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials

## B. MATERIAL REQUIREMENTS

ASTM D476 Standard Classification for Dry Pigmentary Titanium Dioxide Products

40 CFR Part 60, Appendix A-7, Method 24. Determination of volatile matter content, water content, density, volume solids, and weight solids of surface coatings

29 CFR Part 1910.1200 Hazard Communication

FED SPEC TT-B-1325D Beads (Glass Spheres) Retro-Reflective

American Association of State Highway and Transportation Officials (AASHTO) M247 Standard Specification for Glass Beads Used in Pavement Markings

FED SPEC TT-P-1952E

Paint, Traffic and Airfield Marking, Waterborne

Commercial Item Description A-A-2886B

Paint, Traffic, Solvent Based

FED STD 595 Colors used in Government Procurement

AC 150/5340-1 Standards for Airport Markings

## PART 2 – MATERIALS

- 1.0 MATERIALS ACCEPTANCE – The Contractor shall furnish manufacturer’s certified test reports for materials shipped to the project. The certified test reports shall include a statement that the materials meet the specification requirements. The reports can be used for material acceptance, or the State Project Manager may perform verification testing. The reports shall not be interpreted as a basis for payment. The Contractor shall notify the State Project Manager upon arrival of a shipment of materials to the site. All material shall arrive in sealed containers 55 gallons or smaller for inspection by the State Project Manager. Material shall not be loaded into the equipment until inspected by the State Project Manager.
- 2.0 MARKING MATERIALS – Paint shall be waterborne in accordance with the requirements of Part 2, section 2.A below. Paint shall be furnished in the following colors in accordance with Federal Standard No. 595.

<u>Fed Std. No 595 Color</u>	<u>Number</u>
White	37925
Yellow	33538 or 33655
Black	37038
Red	31136

A. Waterborne.

Paint shall meet the requirements of Federal Specification TT-P-1952E, Type II. In addition, the paint for Hilo International Airport (ITO) shall meet the requirements of Federal Specification TT-P-1952E, Type II, and also include an algicide and rust inhibitor that minimizes algae growth and rust spotting. The non-volatile portion of the vehicle for all paint types shall be composed of a 100% acrylic polymer as determined by infrared spectral analysis.

- 3.0 REFLECTIVE MEDIA – Glass beads for red paint shall meet the requirements for Federal Specification TT-B-1325D, Type I, gradation A. Glass beads for white and yellow paint shall meet the requirements for Federal Specification TT-B-1325D, Type III. Glass beads shall be treated with all compatible coupling agents recommended by the manufacturers of the paint and reflective media to ensure adhesion and embedment. Glass beads shall not be used in black and green-paint.

PART 3 – EXECUTION

- 1.0 WEATHER LIMITATIONS – The painting shall be performed only when the surface is dry and when the surface temperature is at least 45°F (7°C) and rising and the pavement surface temperature is at least 5°F (2.7°C) above the dew point or meets the manufacturer's recommendations. Markings shall not be applied when the pavement temperature is greater than 130°F (55°C) or as specified by the paint manufacturer. Markings shall not be applied when the wind speed exceeds 10 mph unless windscreens are used to shroud the material guns.
- 2.0 EQUIPMENT – Equipment shall include the apparatus necessary to properly clean the existing surface, a mechanical marking machine, a bead dispensing machine, and such auxiliary hand-painting equipment as may be necessary to satisfactorily complete the job.

The mechanical marker shall be an atomizing spray-type or airless-type marking machine suitable for application of traffic paint. It shall produce an even and uniform film thickness at the required coverage and shall apply markings of uniform cross-sections and clear-cut edges without running or spattering and without over spray.

Bead dispensing machine shall be a pneumatically operated pressurized gun type unit capable of spreading glass beads at a rate of 20 lbs. per minute. Gravity dispensing type units are not acceptable for use on this project.

- 3.0 PAINT REMOVAL AND SURFACE PREPARATION – The Contractor shall complete the required work according to the following requirements:

## A. Preparation of surfaces

Immediately before application of the paint, the surface shall be dry and free from dirt, grease, oil, laitance, or other contaminants that would reduce the bond between the paint and the pavement. Use of any chemicals or impact abrasives during surface preparation shall be approved in advance by the State Project Manager. After the cleaning operations, sweeping, blowing, or rinsing with pressurized water shall be performed to ensure the surface is clean and free of grit or other debris left from the cleaning process.

### 1) Preparation of new pavement surfaces

The area to be painted shall be cleaned by broom, blower, water blasting, or by other methods approved by the State Project Manager to remove all contaminants, including PCC curing compounds, minimizing damage to the pavement surface.

### 2) Preparation of pavement to remove existing markings.

Existing pavement markings shall be removed by water blasting, or by other methods approved by the State Project Manager minimizing damage to the pavement surface. The removal area may need to be larger than the area of the markings to eliminate ghost markings. After removal of markings on asphalt pavements, apply a fog seal or seal coat to 'block out' the removal area to eliminate 'ghost' markings.

### 3) Preparation of pavement markings prior to remarking

Prior to remarking existing markings, loose existing markings must be removed minimizing damage to the pavement surface, with a method approved by the State Project Manager. After removal, the surface shall be cleaned of all residue or debris.

## B. Recovery

The Contractor shall immediately recover and retain all removed paint material and all wash water. All retained wash water and paint material shall be secured at the contractor's designated staging area until the necessary testing can be completed and cleared for disposal. Once testing is completed all waste materials shall be properly disposed of, as described herein, or as otherwise directed by the State Project Manager.

## C. Removed Paint Waste Testing

The Contractor shall obtain the services of an accredited independent testing laboratory to perform an "RCRA-8 Metals Test" upon the recovered wash water and retained paint material. The Contractor shall submit a copy of the testing laboratory's current certification to perform the "RCRA-8" test prior to beginning any work, unless otherwise directed by the State Project Manager.

The RCRA-8 test shall be performed prior to each disposal of wash water and retained paint. The State Project Manager may witness the sample collection by the Contractor prior to the sample being shipped to the testing laboratory. The Contractor shall notify the State Project Manager at least two (2) weeks in advance of sampling the wastewater. The Contractor shall submit a copy of the test results to the receiver of the wash water and retained paint material. Five (5) printed copies and one (1) electronic copy of each test result shall also be submitted to the State Project Manager for review.

No payments will be made on paint removal until the results of each test have been reviewed and fully accepted by the State Project Manager. Testing shall be paid for under the Rubber Removal and Paint Marking Testing and Disposal Allowance.

#### D. Disposal

The Contractor shall properly dispose of all retained paint and wash water after State Project Manager's approval. The Contractor shall provide DOTA with disposal records for all recovered materials.

Alternative methods of disposal such as evaporation pits, disposal into wash rack, etc. may be considered per airport following review and approval by the State Project Manager.

Upon each disposal of retained paint and wash water the Contractor shall complete and submit the current revision United States Environmental Protection Agency Form 8700-22 (Uniform Hazardous Waste Manifest) to the State Project Manager along with five (5) copies thereof for review and acceptance. A separate form shall be completed for each disposal of wash water and retained paint. In the event that the landfill or disposal agent determines that the 8700-22 form is not required, the Contractor shall obtain a letter from the disposal company, landfill, or other entity accepting the paint waste for final disposal and/or recycling stating that they have made that determination.

No payments will be made on paint waste and wash water disposal until all 8700-22 forms, weigh tags, disposal tickets, or landfill letters have been reviewed and fully accepted by the State Project Manager.

The Contractor shall also submit one (1) original and five (5) copies of the weigh tags or disposal tickets as provided by the disposal company, landfill, or other entity accepting the paint waste for final disposal and/or recycling. Such tags shall clearly state the following information.

- 1) Name and address of the disposal company, landfill, or other entity accepting the paint waste for final disposal and/or recycling. If a mailing address or P.O. Box is used, then the physical address of the recycling center or final disposal location of the rubber waste must be noted.
- 2) Name of the hauling company if the waste is not hauled by the Contractor
- 3) Name of the Contractor.
- 4) Type of material (rubber, paint, etc.)
- 5) Weight of material
- 6) Acknowledgement by the receiver of the acceptance of the RCRA-8 test results for that load.

The Contractor may also submit a letter or statement from the landfill, recycler, or receiving entity stating the same information noted above and that they have accepted the paint waste and wash water.

Removed paint and/or wash water shall not be mixed with materials from other projects prior to transfer to the landfill or recycler. Weigh tags or disposal tickets that show mixed materials may not be accepted by the State Project Manager. Removed paint and/or wash water may be mixed with other materials removed as part of this project (e.g. removed rubber).

The Contractor shall be solely responsible for any fines and/or legal fees assessed for any illegal or improper dumping or recycling of waste paint and/or wash water.

- E. Within 24 hours prior to remarking existing markings, the existing markings must be removed such that 50% of the existing markings are removed with low (3,500-10,000 psi) water-blaster. After water-blasting, the surface shall be cleaned of all residue or debris.
- F. Prior to the initial application of markings, the Contractor shall certify in writing that the surface has been prepared in accordance with the paint manufacturer's requirements, that the application equipment is appropriate for the type of marking paint and that environmental conditions are appropriate for the material being applied. This certification along with a copy of the paint manufacturer's surface preparation and application requirements must be submitted and approved by the State Project Manager prior to the initial application of markings.

#### 4.0 LAYOUT OF MARKINGS – Markings shall be laid out as follows:

- A. Enhanced Markings – Enhanced Markings shall be laid out in advance of the paint application.

- B. Existing Markings – Existing Markings to be repainted shall be painted such that no changes in dimensions, configuration, or overall layout occur unless otherwise noted in Part 3, section 5 (Paint Application) below.
- C. Glass Beads – Identified markings in Table A of Part 1, section 1.A shall receive glass beads per FAA AC150/5340-1M, Standards for Airport Markings, or the latest revision thereof.

5.0 PAIN T APPLICATION – Paint shall be applied in accordance with the following requirements:

- A. Enhanced Markings – Paint shall be applied at the locations and to the dimensions and spacing shown on Appendix D – Pavement Marking Details, or as directed by the State Project Manager. Paint shall not be applied until the layout and condition of the surface has been approved by the State Project Manager. The edges of the markings shall not vary from a straight line more than 1/2 inch (12 mm) in 50 feet (15 m), and marking dimensions and spacing shall be within the following tolerances:

Marking Dimensions and Spacing Tolerance

Dimension and Spacing	Tolerance
36 inch (910 mm) or less	±1/2 inch (12 mm)
greater than 36 inches to 6 feet (910 mm to 1.85 m)	±1 inch (25 mm)
greater than 6 feet to 60 feet (1.85 m to 18.3 m)	±2 inch (50 mm)
greater than 60 feet (18.3 m)	±3 inch (76 mm)

- B. Existing markings – Paint shall be applied to match the boundaries defined by remaining existing marking. Should the existing marking be less than the required dimension, the new marking shall be painted to meet the FAA-AC150/5340-1M standard dimensions. For bidding purposes, the Contractor shall refer to the following runway dimensions:

	<u>Airport</u>	<u>Runway</u>	<u>Length(feet)</u>	<u>Width (feet)</u>
1.	Hilo International Airport <sub>1</sub> :	8-26	9,800	150
		3-21	5,600	150
2.	Daniel K. Inouye International Airport:	8L-26R	12,300	200
		8R-26L	12,000	200
		4L-22R	6,952	150
		4R-22L	9,000	150
3.	Kahului Airport:	2-20	6,995	150
		5-23	4,990	150

4.	Kalaheo Airport:			
		4L-22R	4,500	200
		4R-22L	8,000	200
		11-29	6,000	200
5.	Kapalua Airport:			
		2-20	3,000	100
6.	Ellison Onizuka Kona International Airport at Keahole:			
		17-35	11,000	150
7.	Lanai Airport:			
		3-21	5,000	150
8.	Lihue Airport:			
		17-35	6,500	150
		3-21	6,500	150
9.	Molokai Airport:			
		5-23	4,494	100
		17-35	3,118	100

1. Hilo International Airport paint shall include an algicide and rust inhibitor per Part 2.2.A of this specification.

- C. Paint shall be mixed in accordance with the manufacturer's instructions and applied to the pavement with a marking machine at the rate shown in Table B of this specification section. The addition of thinner will not be permitted.
- D. Prior to the initial application of markings, the Contractor shall certify in writing that the surface has been prepared in accordance with the paint manufacturer's requirements, that the application equipment is appropriate for the marking paint and that environmental conditions are appropriate for the material being applied. This certification along with a copy of the paint manufacturer's application and surface preparation requirements must be submitted to the State Project Manager prior to the initial application of markings.
- E. Glass Beads shall be distributed upon all new and repainted markings in conformance with these specifications and Part 3, section 4.C above. A dispenser shall be furnished that is properly designed for attachment to the marking machine and suitable for dispensing glass beads. Glass beads shall be applied at the minimum rate shown in Table B. Glass beads shall not be applied to black paint. Glass beads shall adhere to the cured paint or all marking operations shall cease until corrections are made. Different bead types shall not be mixed. Regular monitoring of glass bead embedment should be performed.



All emptied containers shall be returned to the paint storage area for checking by the State Project Manager. The containers shall not be removed from the airport or destroyed until authorized by the State Project Manager.

Table B. Application Rates for Paint And Glass Beads

Paint Type	Paint Square feet per gallon, ft <sup>2</sup> /gal (Sq m per liter, m <sup>2</sup> /l)	Glass Beads, Type I, Gradation A Pounds per gallon of paint-lb/gal (Km per liter of paint-kg/l)	Glass Beads, Type III Pounds per gallon of paint-lb/gal (Km per liter of paint-kg/l)
Waterborne Type I or II	115 ft <sup>2</sup> /gal max (2.8 m <sup>2</sup> /l)	7 lb/gal min (0.85 kg/l)	10 lb/gal min (1.2 kg/l)

Note: Application rates shown in Table B are minimum and maximum requirements. The Contractor is responsible to ensure sufficient paint and glass bead coverage to meet the reflectivity standards described in Part 3, section 7.B

6.0 MANDATORY TEST STRIP - Prior to the full application of airfield markings, the Contractor shall produce a test strip in the presence of the Construction Manager and or the authorized representative of the State Project Manager. The Contractor shall have a maximum of three (3) attempts to produce a test strip acceptable to the State. If for any reason the test strip is not accepted within these parameters the contract will be terminated, at which point the State shall have the right to accomplish the Project by other means, including without limitation, the right to retain another general contractor or firm to complete contract requirements.

- A. Existing Markings – The area of the test strip will be identified by the State Project Manager and shall include the following markings:
  - 1) One full sized runway centerline marking complete with black highlighting.
  - 2) One hundred (100) linear feet of runway edge-line.
  - 3) One hundred (100) linear feet of six-inch (6”) width, or two hundred (200) square feet of taxiway centerline.
  - 4) One hundred (100) linear feet of taxiway edge line.
  
- B. Test Strip Crew and Designated Substitutes – The Contractor shall ensure that the crew applying the test strip is the same crew applying the remainder of the airfield markings within the scope of work. Any potential substitutes for the test strip crew shall also be present with the test strip crew while the test strip is being applied. These persons shall be designated as substitutes in the event that one or more of the test strip crew is unavailable for work during construction operations.
  
- C. Full construction operations may proceed once the test strip has been accepted by the State Project Manager. The State Project Manager will record the names of the Contractor

personnel on the crew that applied the accepted test strip. The State Project Manager will also record the names of the designated substitutes. This is to ensure that the personnel reporting for work during full construction operations is the same crew that applied the test strip or their designated substitutes.

7.0 ACCEPTANCE OF WORK – The Construction Manager will examine the newly painted markings for conformance with the plans and specifications.

- A. Paint – Paint will be examined for evidence of holidays or uneven coverage to be corrected at the direction of the State Project Manager at no additional cost to the State. Any evidence of the underlying pavement color showing through the new paint will be grounds for non-acceptance.
- B. Retroreflectivity Levels – The Construction Contractor will collect and record readings for all markings that possess glass beads to ensure they provide the required level of retroreflectivity for night operations. The Construction Manager shall be present when the retroreflectivity measurements are taken. All measurements will be taken as soon after application as practicable and when the pavement and markings are sufficiently dry such that tracking will not occur.

Retroreflectivity will be measured by a portable retro-reflectometer according to ASTM E1710 and the practices in ASTM D7585 shall be followed for taking retroreflectivity readings with a portable unit and computing measurement averages. A vehicle mounted unit may also be used.

The minimum acceptable average for white markings shall be 600 millicandelas per square meter per lux (mcd/m<sup>2</sup>/lx) at installation. The minimum acceptable average for yellow markings shall be 300 millicandelas per square meter per lux (mcd/m<sup>2</sup>/lx) at installation.

Areas not meeting the retroreflective requirements stated above shall be re-marked at no additional cost to the State.

- C. Crew Continuity – Prior to beginning construction operations for the work shift, the Construction Manager will verify that the Contractor work crew reporting for work that night is the same crew that applied the test strip, or their designated substitutes as noted in Part 3, section 6 above. The State Project Manager will not accept any markings applied by a work crew different from the crew that applied the test strip. Such markings shall be removed and reapplied by the proper crew if so, directed by the State Project Manager, at no additional cost to the State.

8.0 PROTECTION AND CLEANUP – After application of the markings, all markings shall be protected from damage until dry. All surfaces shall be protected from excess moisture and/or rain and from disfiguration by spatter, splashes, spillage, or drippings. The Contractor shall remove from

the work area all debris, waste, loose or unadhered reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the State. The Contractor shall dispose of these wastes in strict compliance with all applicable state, local, and Federal environmental statutes and regulations.

PART 4 – MEASUREMENT AND PAYMENT

1.0 MEASUREMENT - Runway Centerline Marking, Aiming Points, Touchdown Zone Markings, Runway Threshold Markings, Runway Threshold Bar, Runway Identifier Markings, Runway Shoulder Markings, and Taxiway Shoulder Markings will not be measured for payment.

Runway Edgelines, Runway Chevron Markings, Taxiway Edgelines, Taxiway Centerlines, Taxiway Lead-in Lines, and Surface Painted Holding Position Sign Markings shall be measured by the square footage, or each item of painting done within the accepted limits.

Disposal of removed paint material and wash water will be paid for under an allowance and is subject to the requirements Part 3, section 3.0 of this specification.

2.0 PAYMENT - Payment for Runway Centerline Marking, Aiming Points Touchdown Zone Markings, Runway Threshold Markings, Runway Threshold Bar, Runway Identifier Markings, Runway Shoulder Markings, and Taxiway Shoulder Markings shall be made at the respective contract prices per marking.

Payment for Runway Edgelines, Runway Chevron Markings, Taxiway Edgelines, Taxiway Centerlines, and Taxiway Lead-in Lines shall be made at the respective contract prices per square foot.

All prices shall be full compensation for furnishing all materials and for all labor, equipment, tools, paint removal wash water reclamation, and incidentals necessary to complete the item.

Payment for each airport will be made under the following:

A. Daniel K Inouye International Airport

Item No.	Description	Unit
02620-A1	Refresh Runway Centerline Markings	EA
02620-A2	Refresh Runway Edge Markings	SF
02620-A3	Refresh Runway Shoulder Markings	EA
02620-A4	Refresh Runway Touchdown Zone Markings	EA
02620-A5	Refresh Runway Aiming Point Markings	EA
02620-A6	Refresh Runway Designation Markings	EA
02620-A7	Refresh Runway Threshold Markings	EA
02620-A8	Refresh Runway Threshold Bar Markings	EA

02620-A10	Refresh Blast Pad Chevron Markings	SF
02620-A11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	SF
02620-A12	Refresh Taxiway Enhanced Centerline Markings	SF
02620-A13	Refresh Taxiway Shoulders Markings	EA
02620-A14	Refresh Surface Painted Holding Position Markings (Hold Bar)	SF
02620-A15	Refresh Surface Painted ILS Holding Position Markings	SF
02620-A16	Refresh Surface Painted Non-Movement Area Boundary Markings	SF
02620-A17	Refresh Surface Painted Holding Position Signs (Red Carpet)	SF
02620-A18	Refresh Surface Painted Taxiway Direction & Location Signs	SF

#### B. Kalaeloa Airport

Item No.	Description	Unit
02620-B1	Refresh Runway Centerline Markings	EA
02620-B2	Refresh Runway Edge Markings	SF
02620-B4	Refresh Runway Touchdown Zone Markings	EA
02620-B5	Refresh Runway Aiming Point Markings	EA
02620-B6	Refresh Runway Designation Markings	EA
02620-B7	Refresh Runway Threshold Markings	EA
02620-B8	Refresh Runway Threshold Bar Markings	EA
02620-B9	Refresh Displaced Threshold Markings	SF
02620-B10	Refresh Blast Pad Chevron Markings	SF
02620-B11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	SF
02620-B12	Refresh Taxiway Enhanced Centerline Markings	SF
02620-B14	Refresh Surface Painted Holding Position Markings (Hold Bar)	SF
02620-B16	Refresh Surface Painted Non-Movement Area Boundary Markings	SF
02620-B17	Refresh Surface Painted Holding Position Signs (Red Carpet)	SF
02620-B18	Refresh Surface Painted Taxiway Direction & Location Signs	SF

C. Lihue Airport

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
02620-C1	Refresh Runway Centerline Markings	EA
02620-C2	Refresh Runway Edge Markings	SF
02620-C4	Refresh Runway Touchdown Zone Markings	EA
02620-C5	Refresh Runway Aiming Point Markings	EA
02620-C6	Refresh Runway Designation Markings	EA
02620-C7	Refresh Runway Threshold Markings	EA
02620-C8	Refresh Runway Threshold Bar Markings	EA
02620-C9	Refresh Displaced Threshold Markings	SF
02620-C10	Refresh Blast Pad Chevron Markings	SF
02620-C11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	SF
02620-C12	Refresh Taxiway Enhanced Centerline Markings	SF
02620-C14	Refresh Surface Painted Holding Position Markings (Hold Bar)	SF
02620-C16	Refresh Surface Painted Non-Movement Area Boundary Markings	SF
02620-C17	Refresh Surface Painted Holding Position Signs (Red Carpet)	SF

D. Kahului Airport

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
02620-D1	Refresh Runway Centerline Markings	EA
02620-D2	Refresh Runway Edge Markings	SF
02620-D3	Refresh Runway Shoulder Markings	EA
02620-D4	Refresh Runway Touchdown Zone Markings	EA
02620-D5	Refresh Runway Aiming Point Markings	EA
02620-D6	Refresh Runway Designation Markings	EA
02620-D7	Refresh Runway Threshold Markings	EA
02620-D8	Refresh Runway Threshold Bar Markings	EA
02620-D9	Refresh Displaced Threshold Markings	SF
02620-D10	Refresh Blast Pad Chevron Markings	SF
02620-D11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	SF

02620-D12	Refresh Taxiway Enhanced Centerline Markings	SF
02620-D14	Refresh Surface Painted Holding Position Markings (Hold Bar)	SF
02620-D15	Refresh Surface Painted ILS Holding Position Markings	SF
02620-D16	Refresh Surface Painted Non-Movement Area Boundary Markings	SF
02620-D17	Refresh Surface Painted Holding Position Signs (Red Carpet)	SF

#### E. Kapalua Airport

Item No.	Description	Unit
02620-E1	Refresh Runway Centerline Markings	EA
02620-E2	Refresh Runway Edge Markings	SF
02620-E5	Refresh Runway Aiming Point Marking	EA
02620-E6	Refresh Runway Designation Markings	EA
02620-E7	Refresh Runway Threshold Markings	EA
02620-E8	Refresh Runway Threshold Bar Markings	EA
02620-E11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	SF
02620-E12	Refresh Taxiway Enhanced Centerline Markings	SF
02620-E14	Refresh Surface Painted Holding Position Markings (Hold Bar)	SF
02620-E17	Refresh Surface Painted Holding Position Signs (Red Carpet)	SF
02620-E18	Refresh Apron Markings	SF

#### F. Molokai Airport

Item No.	Description	Unit
02620-F1	Refresh Runway Centerline Markings	EA
02620-F2	Refresh Runway Edge Markings	SF
02620-F3	Refresh Runway Shoulder Markings	EA
02620-F5	Refresh Runway Aiming Point Markings	EA
02620-F6	Refresh Runway Designation Markings	EA
02620-F7	Refresh Runway Threshold Markings	EA
02620-F8	Refresh Runway Threshold Bar Markings	EA
02620-F9	Refresh Displaced Threshold Markings	SF

02620-F11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	SF
02620-F12	Refresh Taxiway Enhanced Centerline Markings	SF
02620-F14	Refresh Surface Painted Holding Position Markings (Hold Bar)	SF
02620-F16	Refresh Surface Painted Non-Movement Area Boundary Markings	SF
02620-F17	Refresh Surface Painted Holding Position Signs (Red Carpet)	SF
02620-F18	Refresh Apron Markings	SF

G. Lanai Airport

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>
02620-G1	Refresh Runway Centerline Markings	EA
02620-G2	Refresh Runway Edge Markings	SF
02620-G4	Refresh Runway Touchdown Zone Markings	EA
02620-G5	Refresh Runway Aiming Point Markings	EA
02620-G6	Refresh Runway Designation Markings	EA
02620-G7	Refresh Runway Threshold Markings	EA
02620-G8	Refresh Runway Threshold Bar Markings	EA
02620-G10	Refresh Blast Pad Chevron Markings	SF
02620-G11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	SF
02620-G12	Refresh Taxiway Enhanced Centerline Markings	SF
02620-G14	Refresh Surface Painted Holding Position Markings (Hold Bar)	SF
02620-G16	Refresh Surface Painted Non-Movement Area Boundary Markings	SF
02620-G17	Refresh Surface Painted Holding Position Signs (Red Carpet)	SF

#### H. Hilo International Airport

Item No.	Description	Unit
02620-H1	Refresh Runway Centerline Markings	EA
02620-H2	Refresh Runway Edge Markings	SF
02620-H4	Refresh Runway Touchdown Zone Markings	EA
02620-H5	Refresh Runway Aiming Point Markings	EA
02620-H6	Refresh Runway Designation Markings	EA
02620-H7	Refresh Runway Threshold Markings	EA
02620-H8	Refresh Runway Threshold Bar Markings	EA
02620-H9	Refresh Displaced Threshold Markings	SF
02620-H10	Refresh Blast Pad Chevron Markings	SF
02620-H11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	SF
02620-H12	Refresh Taxiway Enhanced Centerline Markings	SF
02620-H14	Refresh Surface Painted Holding Position Markings (Hold Bar)	SF
02620-H15	Refresh Surface Painted ILS Holding Position Markings	SF
02620-H16	Refresh Surface Painted Non-Movement Area Boundary Markings	SF
02620-H17	Refresh Surface Painted Holding Position Signs (Red Carpet)	SF

#### I. Ellison Onizuka Kona International Airport at Keahole

Item No.	Description	Unit
02620-I1	Refresh Runway Centerline Markings	EA
02620-I2	Refresh Runway Edge Markings	SF
02620-I3	Refresh Runway Shoulder Markings	EA
02620-I4	Refresh Runway Touchdown Zone Markings	EA
02620-I5	Refresh Runway Aiming Point Markings	EA
02620-I6	Refresh Runway Designation Markings	EA
02620-I7	Refresh Runway Threshold Markings	EA
02620-I8	Refresh Runway Threshold Bar Markings	EA
02620-I10	Refresh Blast Pad Chevron Markings	SF
02620-I11	Refresh Taxiway Centerline, Lead On/Lead Off and Edge Markings	SF

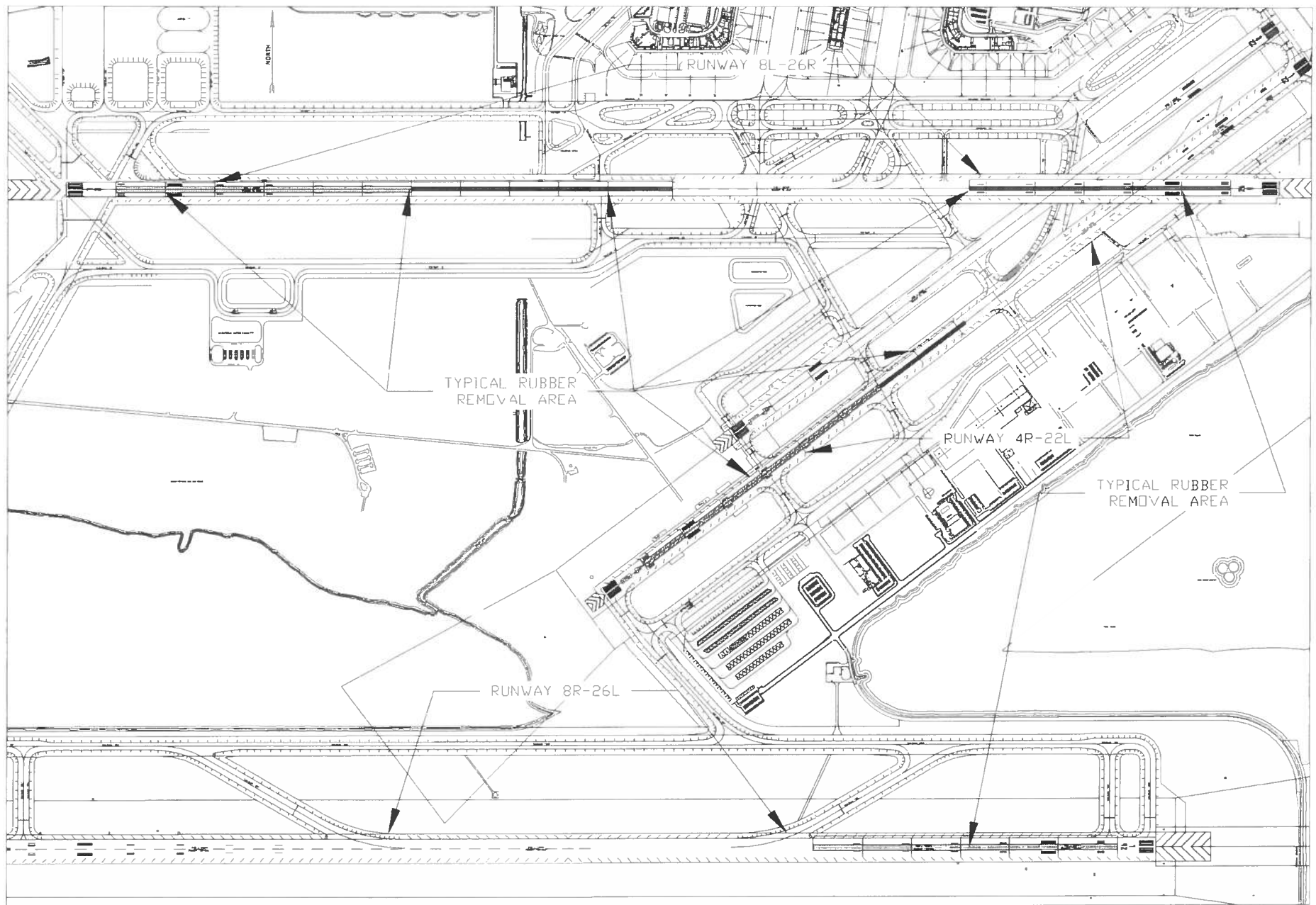


02620-I12	Refresh Taxiway Enhanced Centerline Markings	SF
02620-I13	Refresh Taxiway Shoulder Markings	EA
02620-I14	Refresh Surface Painted Holding Position Markings (Hold Bar)	SF
02620-I15	Refresh Surface Painted ILS Holding Position Markings	SF
02620-I16	Refresh Surface Painted Non-Movement Area Boundary Markings	SF

END OF SECTION

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HONOLULU, HAWAII


APPENDIX B



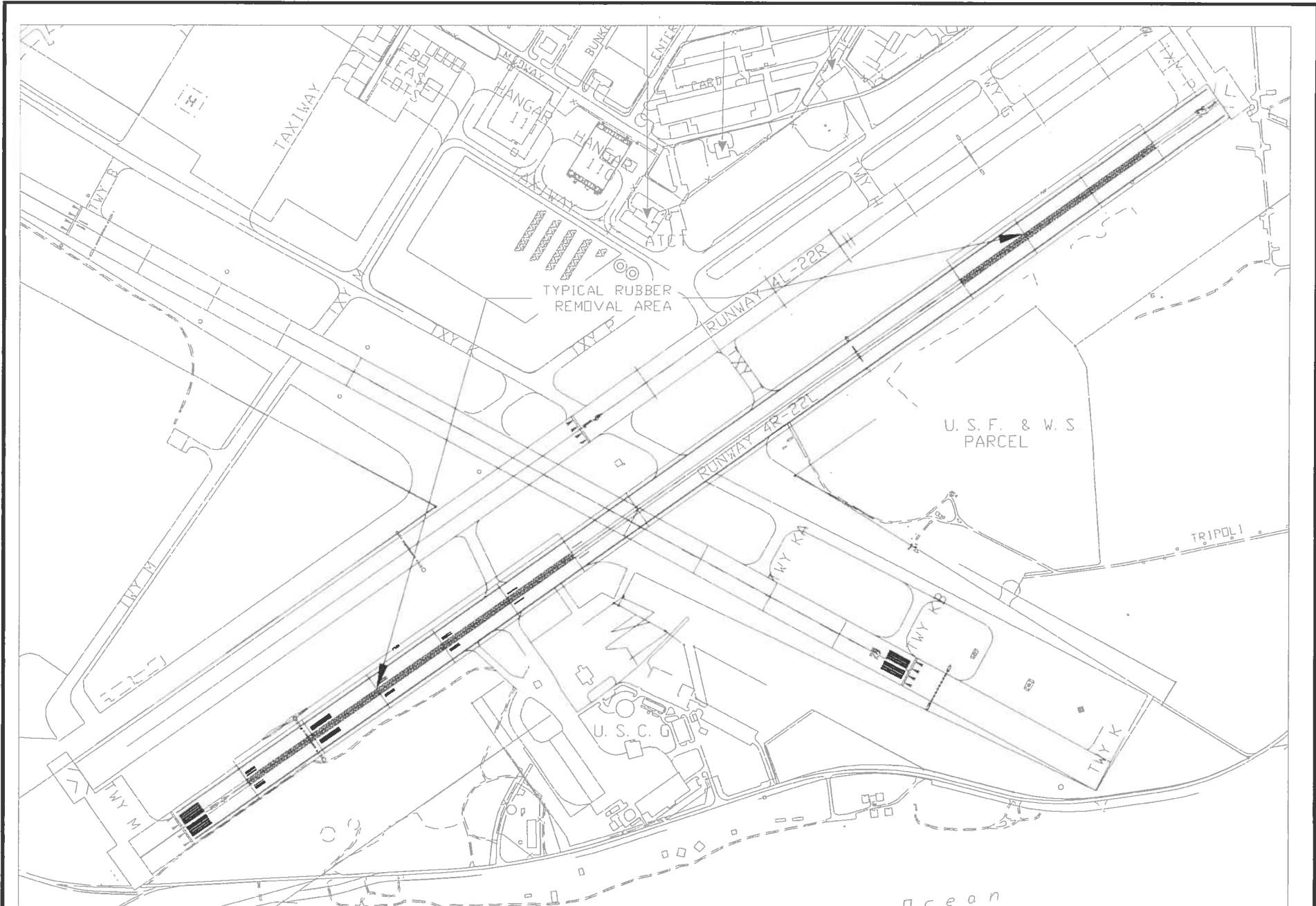
**NOTES:**

1) DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL RUBBER REMOVAL AREA & SCOPE SHALL BE DETERMINED BY THE STATE PROJECT MANAGER

NOT TO SCALE

HONOLULU INTERNATIONAL AIRPORT		Date : January 25, 2012	EXHIBIT:
 Airports Division	RUBBER REMOVAL AREAS (TYPICAL)	RUNWAY FRICTION MAINTENANCE	Appendix
			SHT 1 of 10

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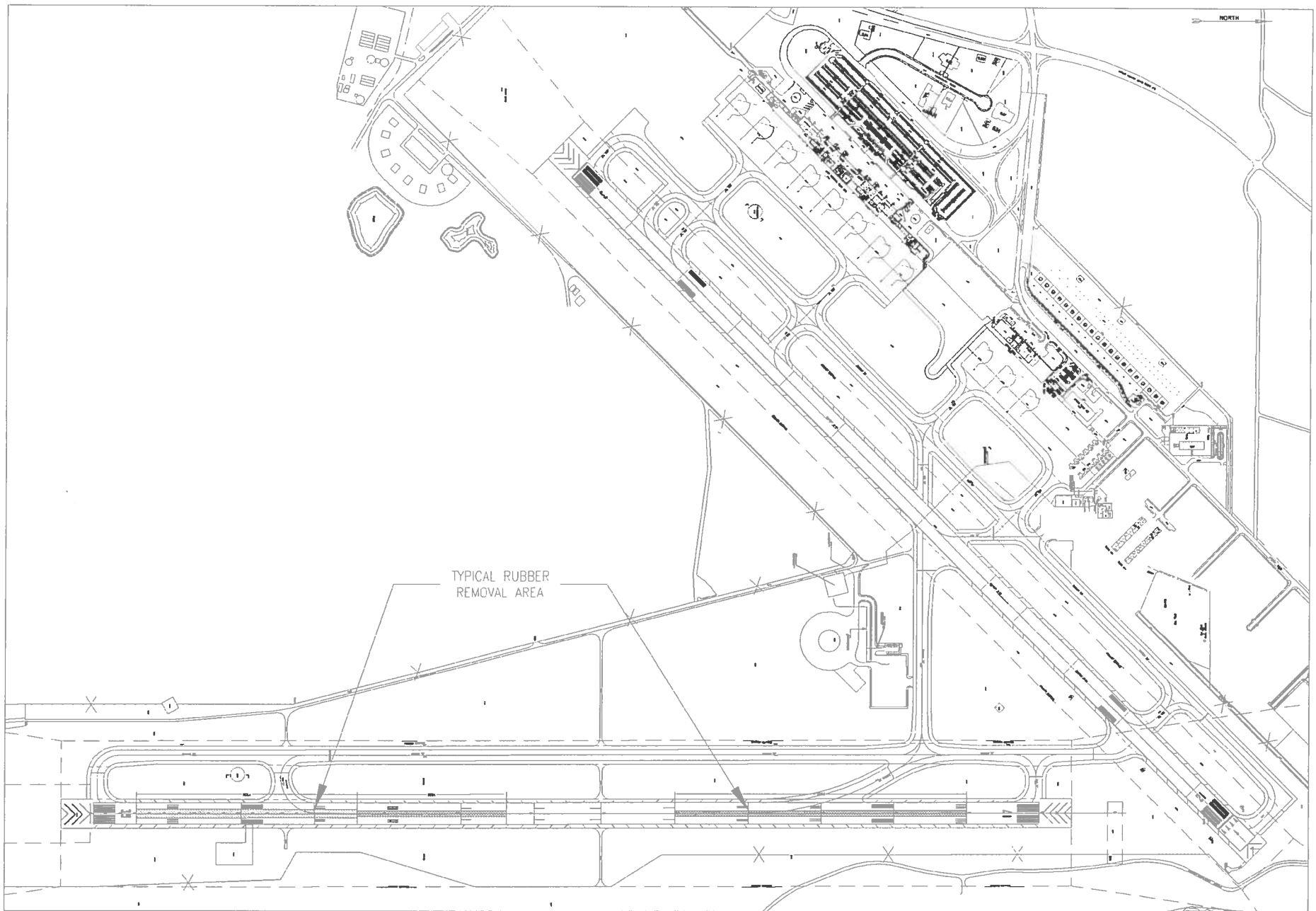
**NOTES:**

1) DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL RUBBER REMOVAL AREA & SCOPE SHALL BE DETERMINED BY THE STATE PROJECT MANAGER

NOT TO SCALE


<b>KALAELOA AIRPORT</b>  Airports Division		Date : January 25, 2012	EXHIBIT: Appendix
<b>RUBBER REMOVAL AREAS (TYPICAL)</b>		<b>RUNWAY FRICTION MAINTENANCE</b>	SHT 2 of 10

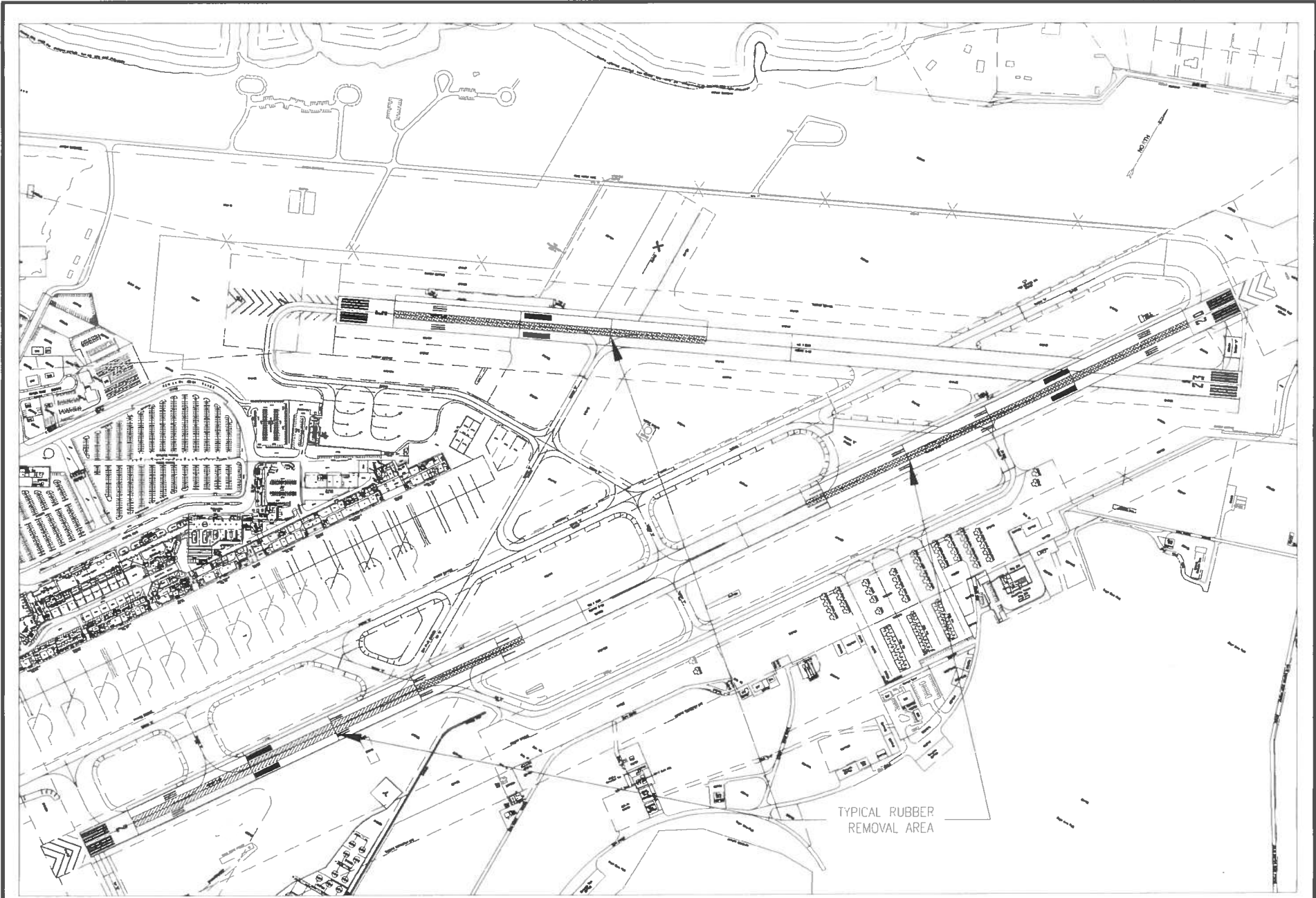
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NOTES:  
 1) DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL RUBBER REMOVAL AREA & SCOPE SHALL BE DETERMINED BY THE STATE PROJECT MANAGER

NOT TO SCALE

LIHUE AIRPORT	Date : January 25, 2012	EXHIBIT:
 Airports Division	<b>RUBBER REMOVAL AREAS (TYPICAL)</b>	<b>RUNWAY FRICTION MAINTENANCE</b>  Appendix SHT 3 of 10



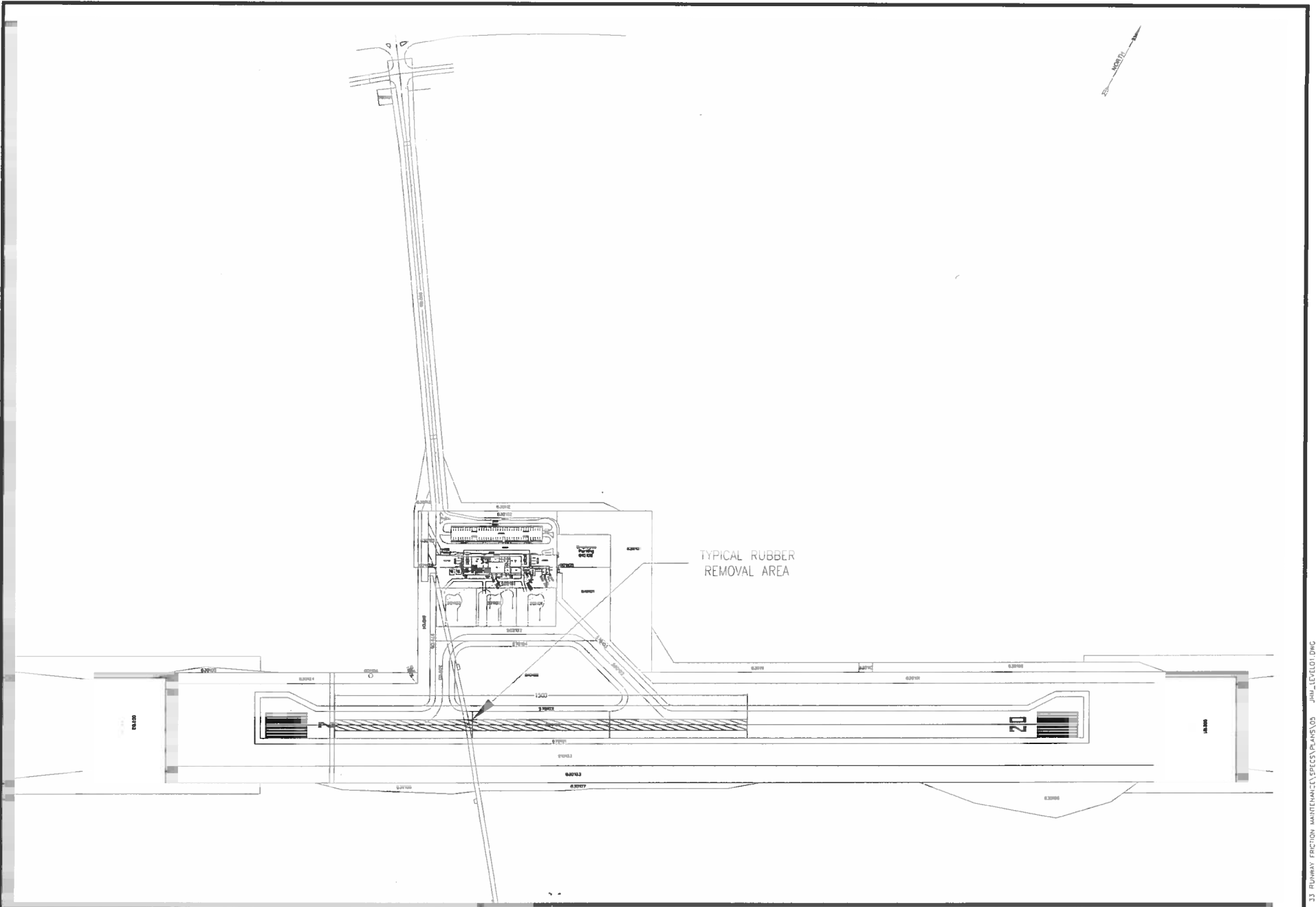
TYPICAL RUBBER  
REMOVAL AREA

NOTES:  
1) DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL RUBBER REMOVAL AREA & SCOPE SHALL BE DETERMINED BY THE STATE PROJECT MANAGER

NOT TO SCALE

KAHULUI AIRPORT		Date : January 25, 2012	EXHIBIT:
 Airports Division	RUBBER REMOVAL AREAS (TYPICAL)	RUNWAY FRICTION MAINTENANCE	Appendix
			SHT 4 of 10


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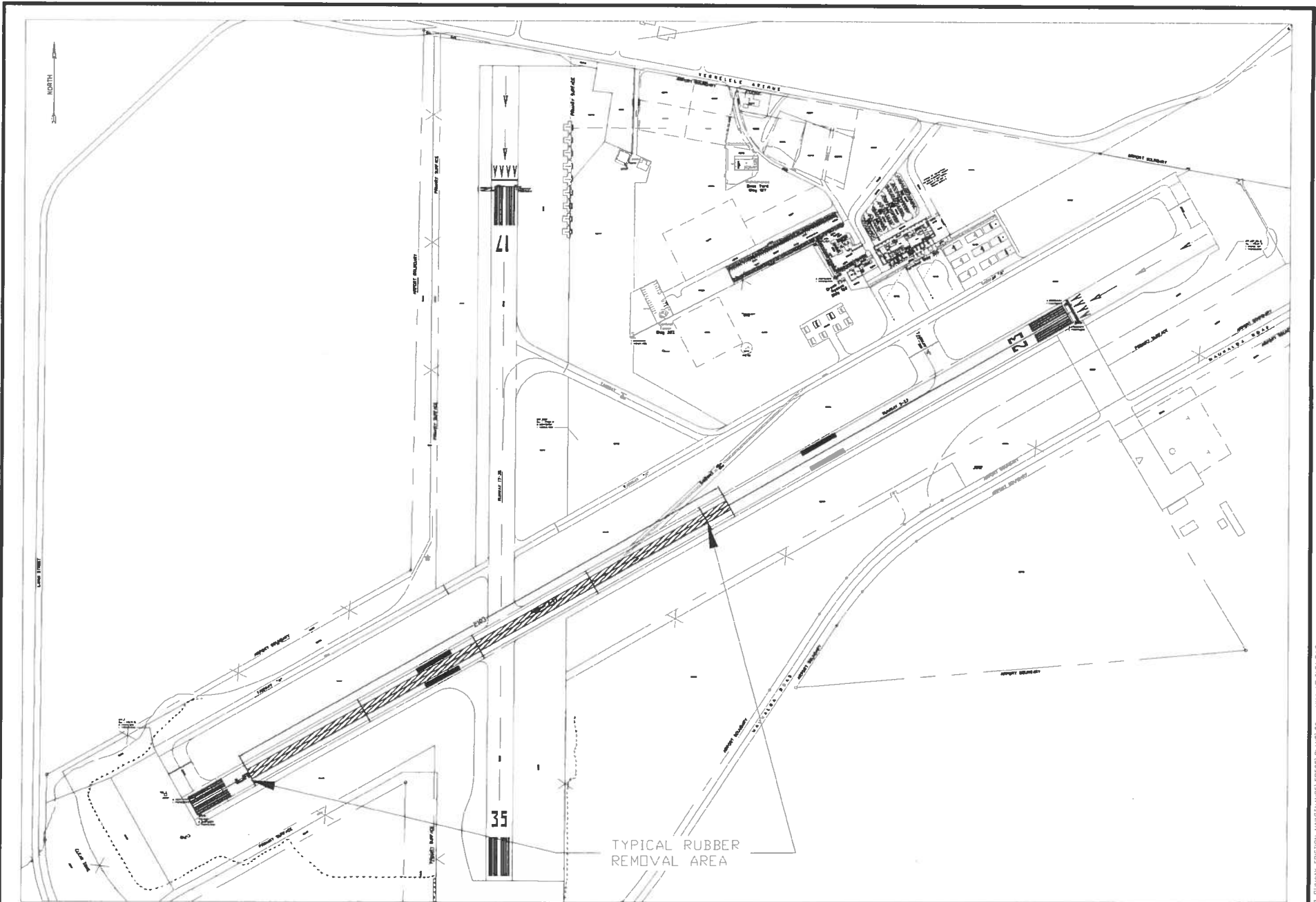


**NOTES:**

1) DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL RUBBER REMOVAL AREA & SCOPE SHALL BE DETERMINED BY THE STATE PROJECT MANAGER

NOT TO SCALE


KAPALUA AIRPORT		Date : 1/25/12	EXHIBIT:
 Airports Division	RUBBER REMOVAL AREAS (TYPICAL)	RUNWAY FRICTION MAINTENANCE	Appendix
			SHT 5 of 10



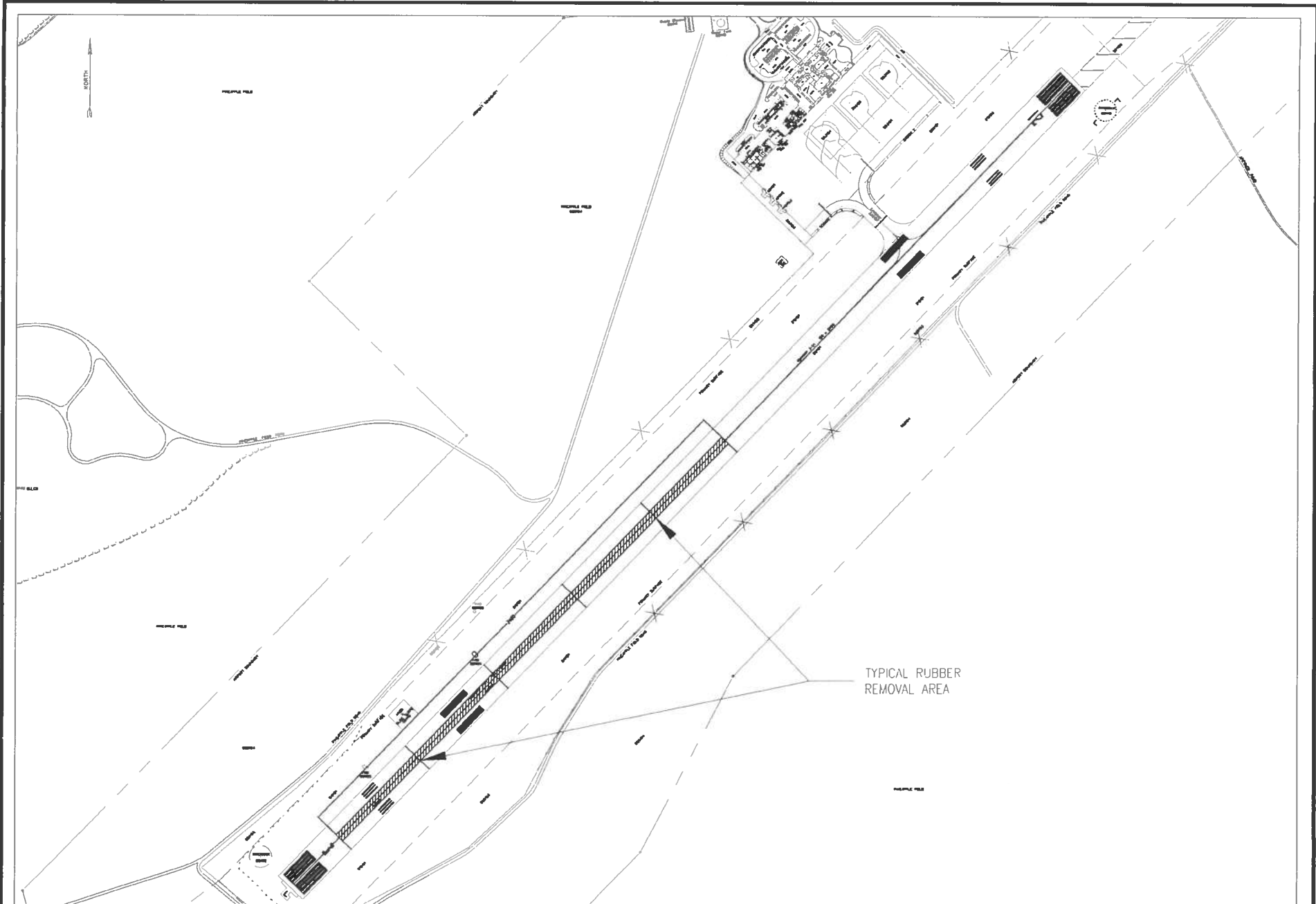
**NOTES:**

1) DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL RUBBER REMOVAL AREA & SCOPE SHALL BE DETERMINED BY THE STATE PROJECT MANAGER

NOT TO SCALE


<b>MOLOKAI AIRPORT</b>  Airports Division		Date : January 25, 2012	EYH:RJT:
<b>RUBBER REMOVAL AREAS (TYPICAL)</b>		<b>RUNWAY FRICTION MAINTENANCE</b>	Appendix SHT 6 of 10



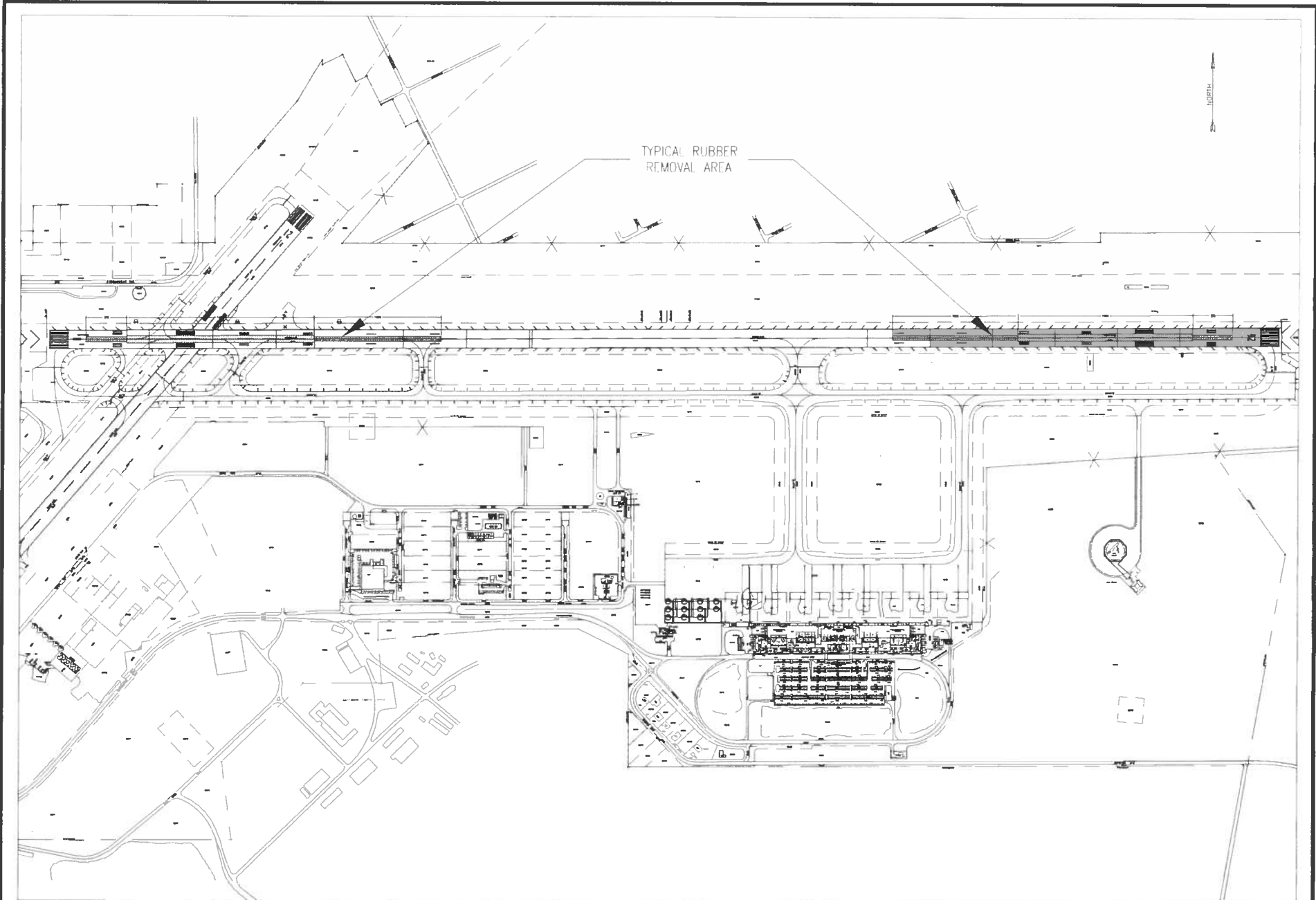


NOTES:  
 1) DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL RUBBER REMOVAL AREA & SCOPE SHALL BE DETERMINED BY THE STATE PROJECT MANAGER

NOT TO SCALE

LANAI AIRPORT	Date : January 25, 2012	EXHIBIT:
 Airports Division	RUBBER REMOVAL AREAS (TYPICAL)	Appendix SHT 7 of 10
RUNWAY FRICTION MAINTENANCE		

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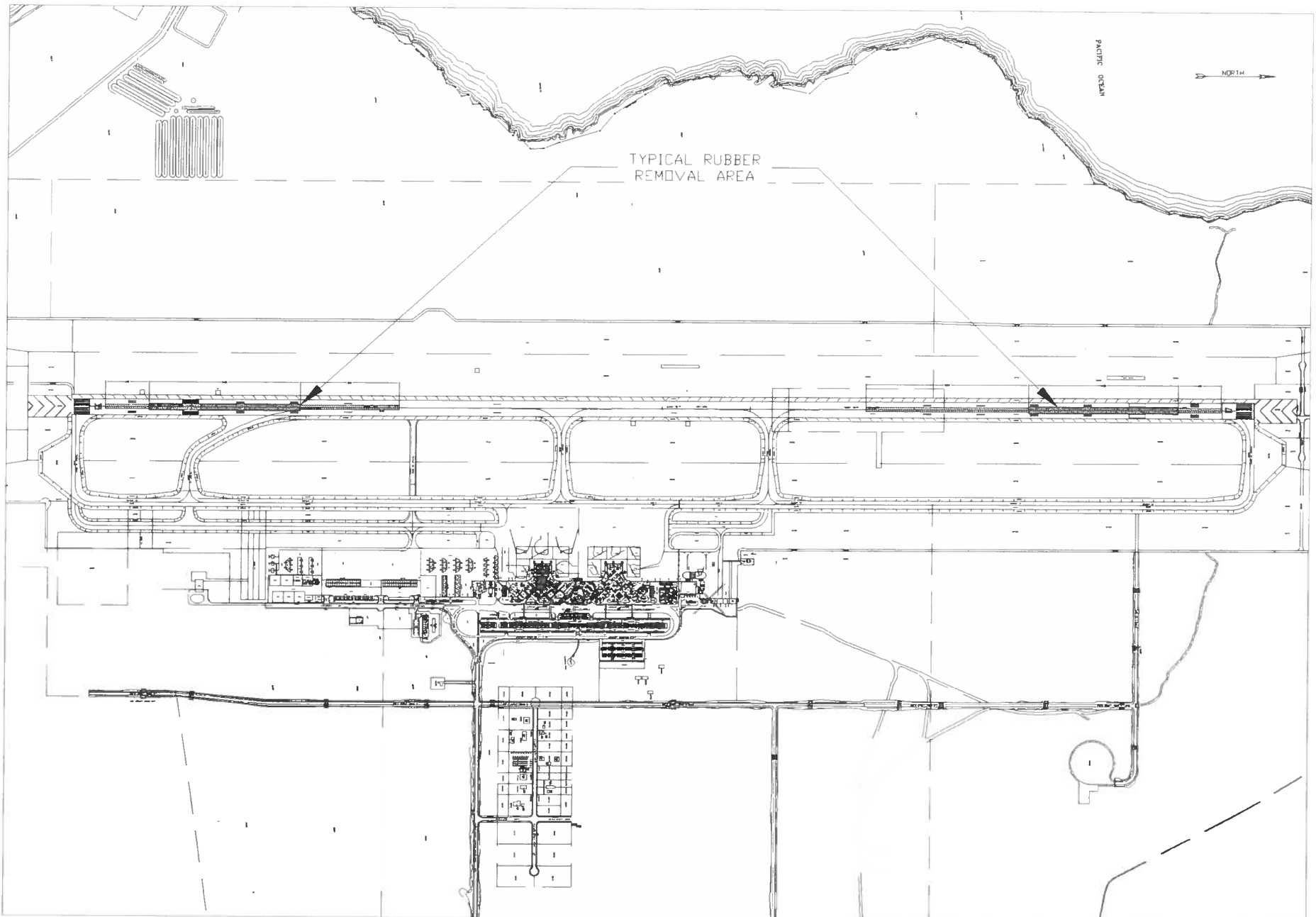
**NOTES:**

1) DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL RUBBER REMOVAL AREA & SCOPE SHALL BE DETERMINED BY THE STATE PROJECT MANAGER

NOT TO SCALE

HILO INTERNATIONAL AIRPORT		Date : January 25, 2012	EXHIBIT:
 Airports Division	<b>RUBBER REMOVAL AREAS (TYPICAL)</b>	<b>RUNWAY FRICTION MAINTENANCE</b>	Appendix
			SHT 8 of 10


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**NOTES:**

1) DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL RUBBER REMOVAL AREA & SCOPE SHALL BE DETERMINED BY THE STATE PROJECT MANAGER

NOT TO SCALE

KONA INTERNATIONAL AIRPORT AT KEAHOLE		Date : January 25, 2012	EXHIBIT:
	RUBBER REMOVAL AREAS (TYPICAL)	RUNWAY FRICTION MAINTENANCE	Appendix
			SHT 9 of 10

**TABLE 14.1 RUBBER REMOVAL SCHEDULE & ESTIMATED SCOPE**

AIRPORT	RUNWAY	APCH END	SF PER REMOVAL	REMOVAL PER YEAR	PERIOD	AREA REMOVED PER YEAR (SF)	METHOD (1)	APCH END	SF PER REMOVAL	REMOVAL PER YEAR	PERIOD	AREA REMOVED PER YEAR (SF)	METHOD (1)	TOTAL AREA REMOVED PER YEAR (SF)
HONOLULU INTERNATIONAL AIRPORT	8L-26R	8L	320,600	2	YEARLY	641,200	W	26R	114,280	1	YEARLY	114,280	W	755,480
	8R-26L	26L	199,200	2	YEARLY	398,400	W	8R	0	0	N/A	0		398,400
	4L-22R	4L	120,000	1	YEARLY	120,000	W	22R	0	0	N/A	0		120,000
	4R-22L	4R	240,000	2	YEARLY	480,000	W	22L	0	0	N/A	0		480,000
KALAELOA AIRPORT	4R-22L	4R	100,000	1	YEARLY	100,000	W	22L	60,000	1	YEARLY	60,000	W	160,000
LIHUE AIRPORT	17-35	17	130,800	1	YEARLY	130,800	W	35	80,000	1	YEARLY	80,000	W	210,800
	3-21	21	80,000	1	YEARLY	40,000	W	3	0	0	N/A	0		40,000
KAHULUI AIRPORT	2-20	2	142,600	1	YEARLY	142,600	W	20	108,400	1	YEARLY	108,400	C	251,000
	5-23	5	80,000	1	YEARLY	80,000	W	23	80,000	1	YEARLY	80,000	W	160,000
KAPALUA AIRPORT	2-20	2	30,000	1	YEARLY	30,000	W	20	0	0	N/A	0		30,000
MOLOKAI AIRPORT	5-23	5	84,120	1	YEARLY	84,120	W	23	0	0	N/A	0		84,120
LANAI AIRPORT	3-21	3	50,000	1	YEARLY	50,000	W	21	0	0	N/A	0		50,000
HILO INTERNATIONAL AIRPORT	8-26	8	180,000	1	YEARLY	180,000	W	26	156,000	1	YEARLY	156,000	W	336,000
	3-21	3	50,000	1	YEARLY	50,000	W	21	0	0	N/A	0	W	50,000
KONA INTERNATIONAL AIRPORT AT KEAHOLE	17-35	35	165,000	1	YEARLY	165,000	W	17	135,000	1	YEARLY	135,000	C	300,000

**Notes:**

1) Under the "Method" column, "W" indicates waterblasting.

2) Rubber removal methods noted on this schedule are for bidding purposes only. This represents potential rubber removal methodology for each runway as determined by the Engineer at the time of bid. Rubber removal methodology for a particular runway may change over the course of the project. Per Part 3.1.D.2, final determination of the rubber removal methodology will be made by the Engineer.

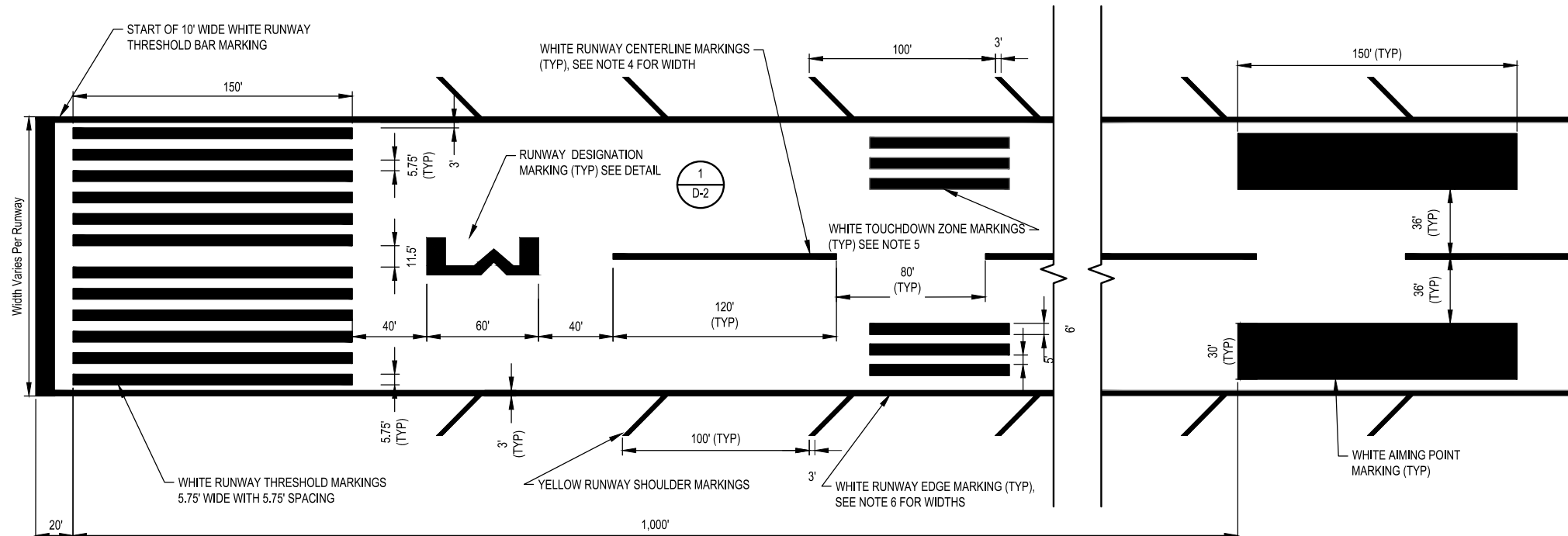
3) Per Part 3.2, all quantities are estimates provided for the purpose of comparing bids. Actual quantities will vary depending on CFM survey results and the determination of the Engineer. Bidders are advised that they should bid accordingly. The State reserves the right to transfer rubber removal quantities between runways at the same airport in order to provide additional rubber removal on a runway with no change in unit price.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HONOLULU, HAWAII

APPENDIX C



Airports Division  
DEPARTMENT OF TRANSPORTATION  
STATE OF HAWAII



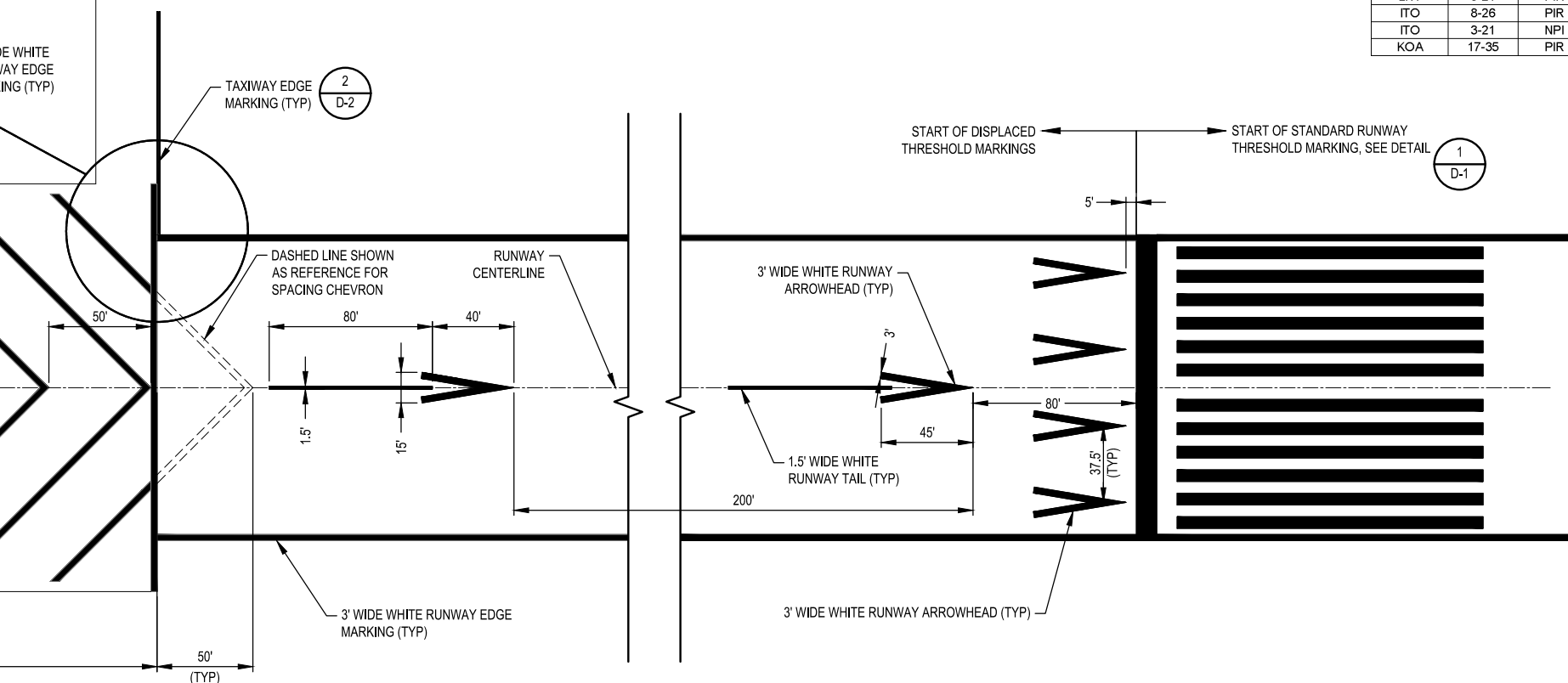
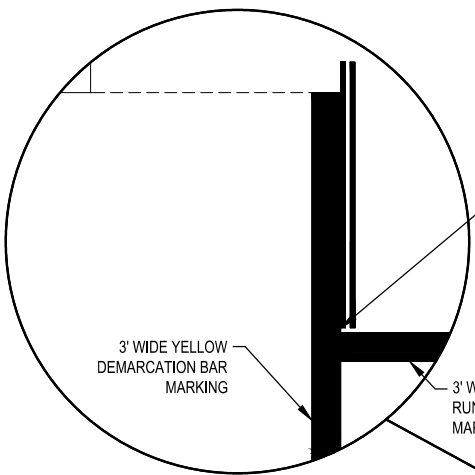
GENERAL NOTES:

1. RUNWAY CENTERLINE MARKING WIDTHS MAY VARY NEAR THE RUNWAY MIDPOINT TO ACCOMMODATE VARIED RUNWAY LENGTHS.
2. GLASS BEADS SHALL BE APPLIED TO ALL PAVEMENT MARKINGS, EXCEPT BLACK OUTLINE AND SHOULDER MARKINGS.
3. RUNWAY MARKINGS LAYOUT VARIES PER EACH AIRPORT AND EACH AIRPORT RUNWAY APPROACH TYPE.
4. THE MINIMUM WIDTH OF THE RUNWAY CENTERLINE MARKINGS ARE:
  - A. 36 INCHES (90 CM) FOR PRECISION RUNWAYS.
  - B. 18 INCHES (45 CM) FOR NON-PRECISION RUNWAYS.
  - C. 12 INCHES (30 CM) FOR VISUAL RUNWAYS.
  - D. REFER TO RUNWAY CENTERLINE STRIPING WIDTH PER AIRPORT RUNWAY CENTERLINES TABLE.
5. TOUCHDOWN ZONE MARKINGS VARY DEPENDING ON IF IT IS PIR, NPI, OR A VISUAL RUNWAY.
6. RUNWAY EDGE MARKINGS WIDTH:
  - A. 36 INCHES FOR RUNWAYS 100 FEET OR WIDER.
  - B. 18 INCHES FOR RUNWAYS LESS THAN 100 FEET WIDE.

RUNWAY CENTERLINE REQUIREMENTS

AIRPORT ID	RWY	RWY TYPE	EXISTING RWY CTL WIDTH (INCHES)	FAA REQUIRED RWY CTL WIDTH (INCHES)
HNL	8L-26R	PIR	36"	36"
HNL	8R-26L	PIR	36"	36"
HNL	4L-22R	NPI	36"	18"
HNL	4R-22L	PIR	36"	36"
JRF	4L-22R	BSC/VIS	36"	12"
JRF	4R-22L	PIR	36"	36"
JRF	11-29	BSC/VIS	36"	12"
LIH	3-21	NPI	36"	18"
LIH	17-35	PIR	36"	36"
OGG	2-20	PIR	36"	36"
OGG	5-23	NPI	36"	18"
JHM	2-20	NPI	18"	18"
MKK	5-23	NPI	36"	18"
MKK	17-35	BSC/VIS	18"	12"
LNY	3-21	PIR	36"	36"
ITO	8-26	PIR	36"	36"
ITO	3-21	NPI	36"	18"
KOA	17-35	PIR	36"	36"

RUNWAY MARKINGS  
SCALE: N.T.S. 1 D-1



BLAST PAD AND DISPLACED THRESHOLD MARKINGS  
SCALE: N.T.S. 2 D-1

KEY PLAN / NOTES:

NO.	DATE	REVISIONS

BID DOCUMENTS

MAY 2024  
DATE

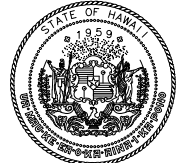
PROJECT TITLE :  
**AIRPORT RUBBER REMOVAL AND PAVEMENT MARKINGS MAINTENANCE**

PROJECT NO.:  
**BS1424-23R**

SHEET TITLE:  
**PAVEMENT MARKING DETAILS 1**

DATE : <b>07/2023</b>	DWG. NO. <b>C-1</b>
SHEET :	

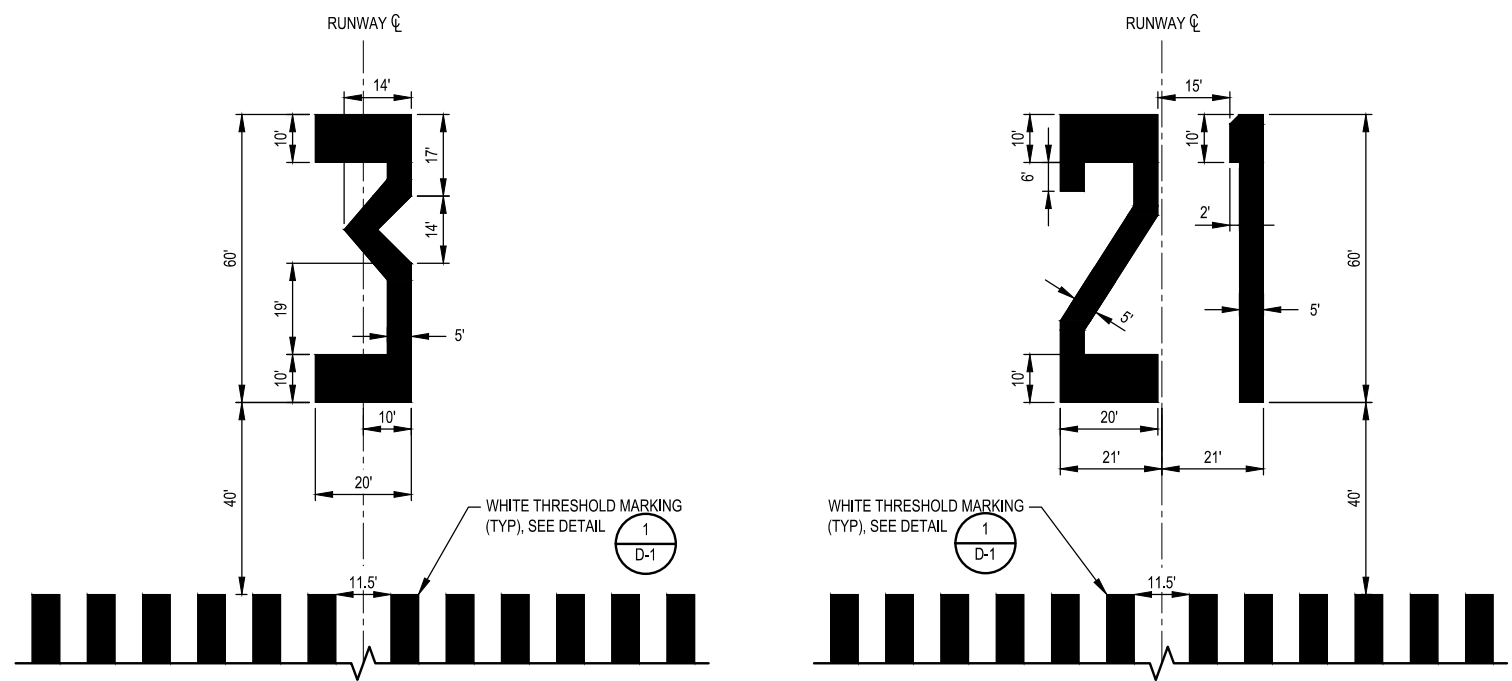
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Airports Division  
DEPARTMENT OF TRANSPORTATION  
STATE OF HAWAII

**GENERAL NOTES:**

- GLASS BEADS SHALL BE APPLIED TO ALL PAVEMENT MARKINGS, EXCEPT BLACK OUTLINE AND SHOULDER MARKINGS.
- ALL RUNWAY & TAXIWAY MARKINGS SHALL HAVE A 6" WIDE PAINTED BLACK OUTLINE. BLACK OUTLINE NOT SHOWN ON THIS SHEET FOR CLARITY.

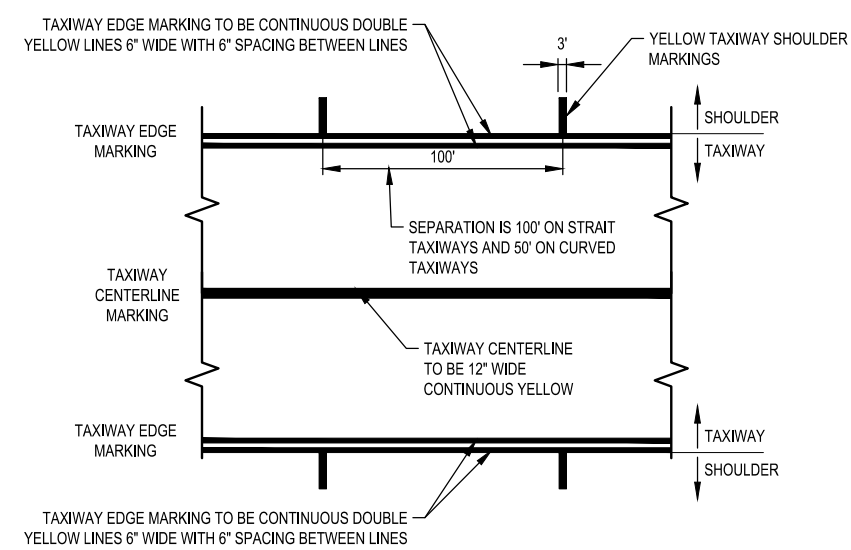


**RUNWAY DESIGNATION MARKING**  
SCALE: N.T.S.



**NOTES:**

- ALL CHARACTERS TO BE PAINTED WHITE, 60' HIGH (UNLESS NOTED OTHERWISE), WITH VERTICAL STROKE OF 5', HORIZONTAL STROKE OF 10' AND DIAGONAL STROKE OF 5'.
- ALL NUMERALS ARE HORIZONTALLY SPACED AT 15' APART.
- SINGLE DESIGNATIONS ARE CENTERED ON THE RUNWAY PAVEMENT CENTERLINE. FOR DOUBLE DESIGNATIONS THE CENTER OF THE OUTER EDGES OF THE TWO NUMERALS IS CENTERED ON THE RUNWAY PAVEMENT CENTERLINE.
- DETAILS FOR ADDITIONAL NUMERALS AVAILABLE UPON REQUEST.

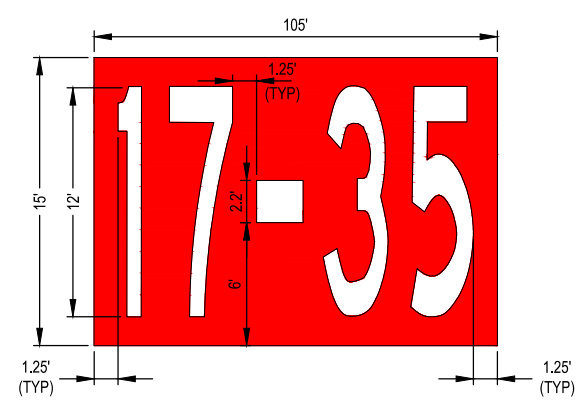
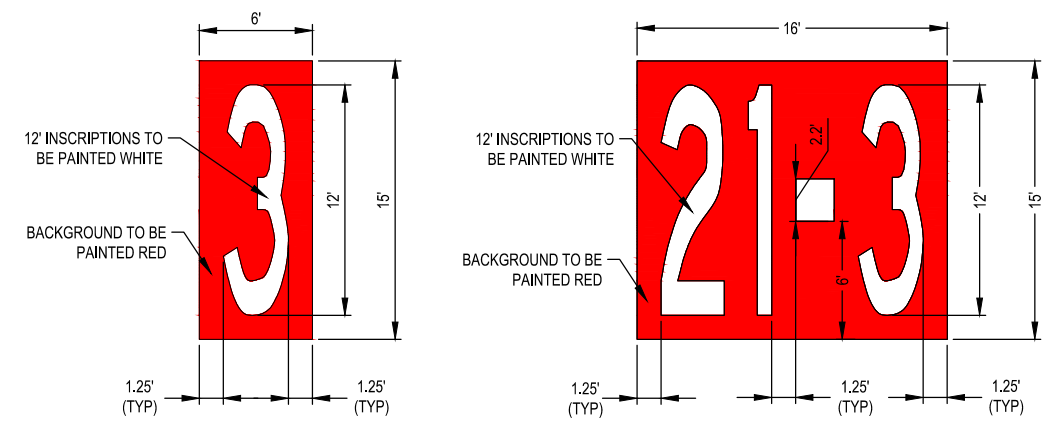


**TAXIWAY CENTERLINE & EDGE MARKING**  
SCALE: N.T.S.

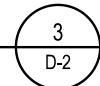


**NOTES:**

- TAXIWAY CENTERLINE MARKING IS CONTINUOUS IN LENGTH EXCEPT WHERE IT INTERSECTS A HOLD POSITION MARKING, POSITION OBSTACLE FREE ZONE MARKING, OR A RUNWAY MARKING ELEMENT.



**12' SURFACE PAINTED HOLD POSITION SIGNS (SPHPS)**  
SCALE: N.T.S.



DSGN.	DRWN.	CHKD.	APPD.
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**KEY PLAN / NOTES:**

NO.	DATE	REVISIONS
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**BID DOCUMENTS**

MAY 2024  
DATE

**PROJECT TITLE :**

**AIRPORT RUBBER REMOVAL AND PAVEMENT MARKINGS MAINTENANCE**

**PROJECT NO.:**

**BS1424-23R**

**SHEET TITLE:**

**PAVEMENT MARKING DETAILS 2**

DATE : 07/2023 DWG. NO.

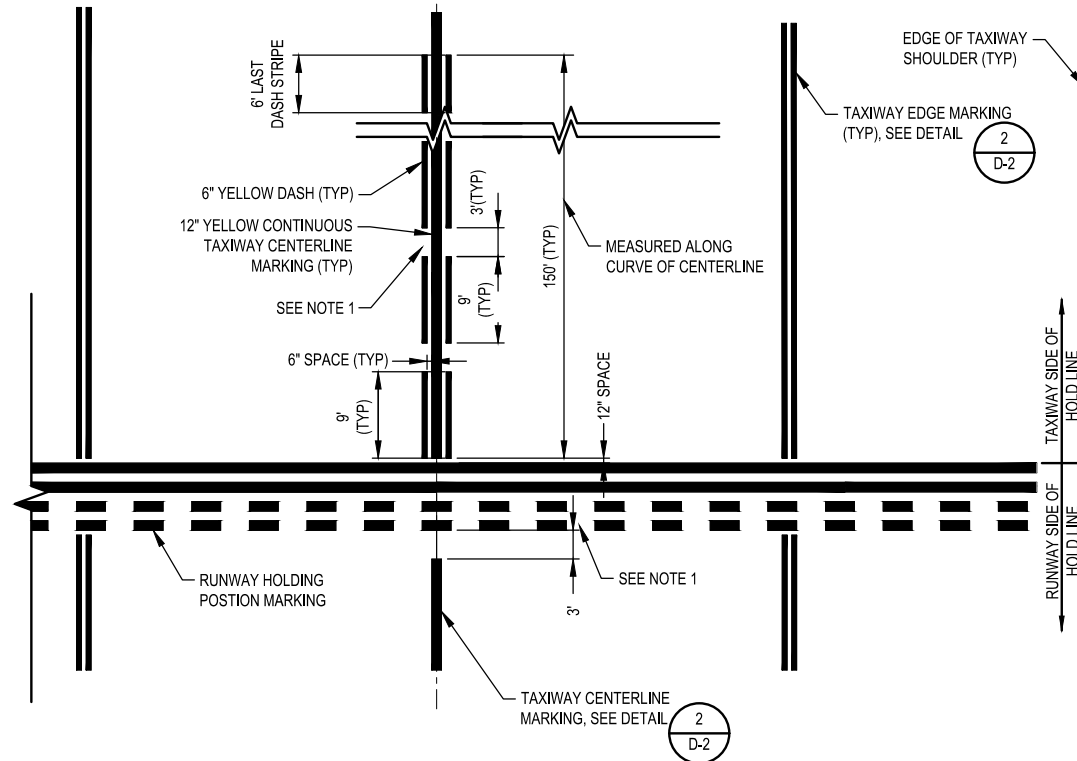
SHEET :

**C-2**

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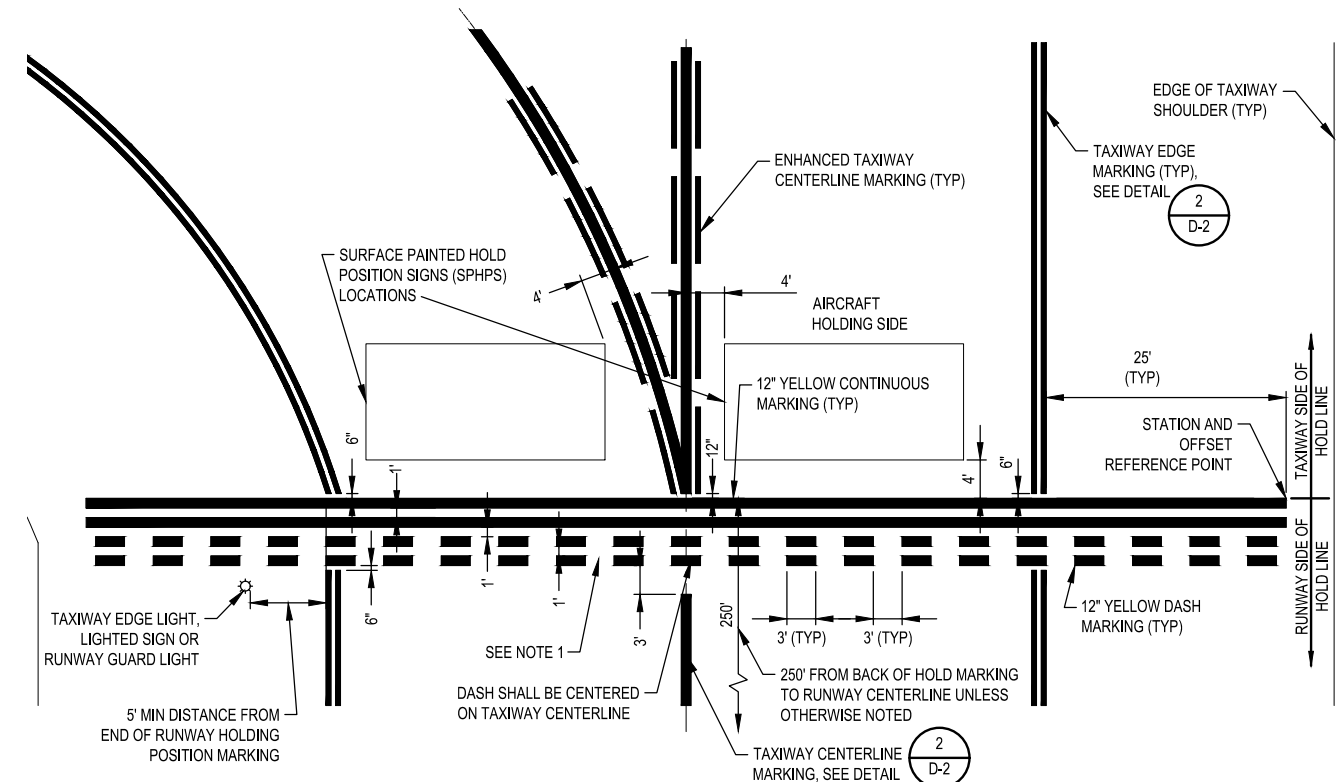


Airports Division  
DEPARTMENT OF TRANSPORTATION  
STATE OF HAWAII



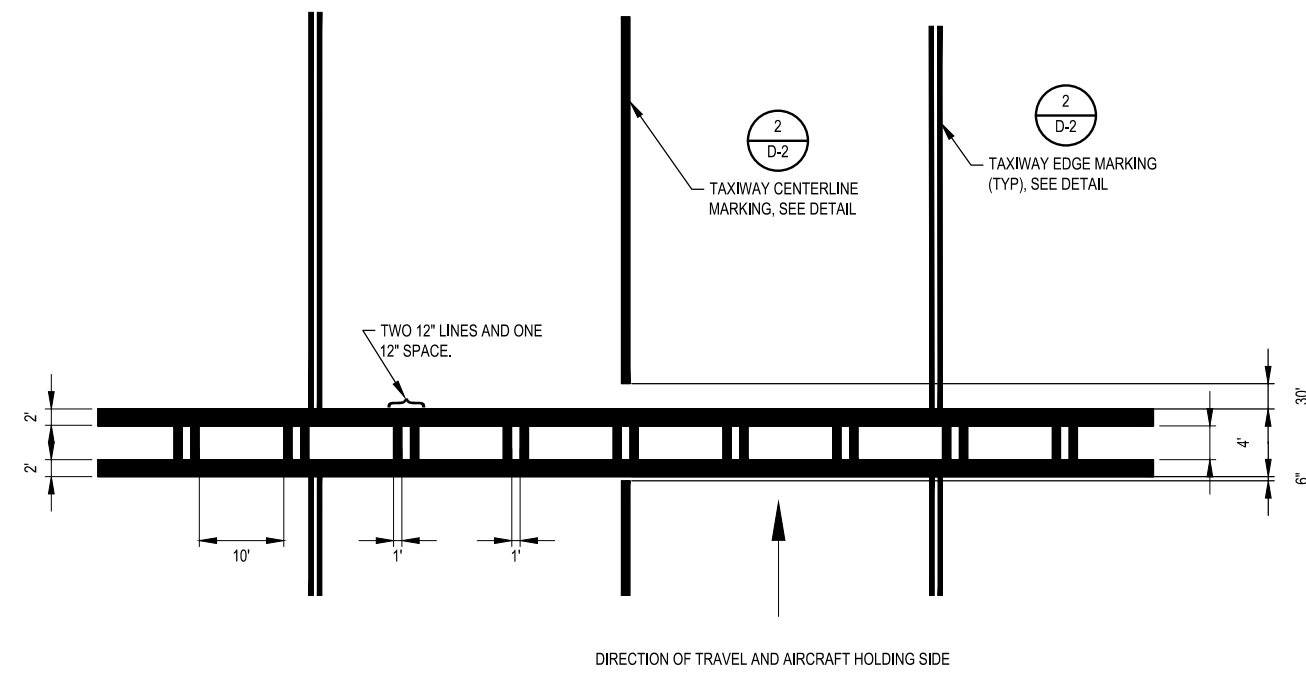
ENHANCED TAXIWAY CENTERLINE MARKINGS 1 D-3  
SCALE: N.T.S.

NOTES:  
1. ALL SPACES BETWEEN ENHANCED TAXIWAY CENTERLINE DASHES SHALL BE PAINTED BLACK.



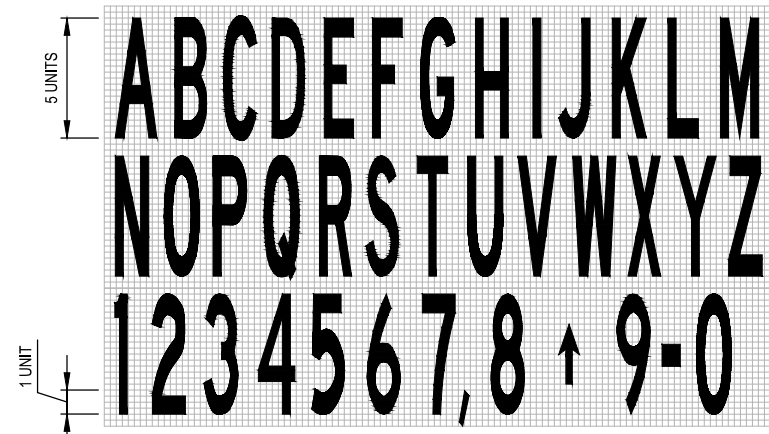
RUNWAY HOLDING POSITION MARKINGS 2 D-3  
SCALE: N.T.S.

NOTES:  
1. ALL SPACES BETWEEN RUNWAY HOLDING POSITION DASHES SHALL BE PAINTED BLACK.



ILS HOLDING POSITION MARKING 3 D-3  
SCALE: N.T.S.

NOTES:  
1. DIMENSIONS DO NOT ACCOUNT FOR OUTLING MARKING IN BLACK PAINT WHEN ON LIGHT COLORED PAVEMENT.



INSCRIPTION FOR SPHPS 4 D-3  
SCALE: N.T.S.

NOTES:  
1. INCREASE DIMENSIONS PROPORTIONALLY.  
2. FONT SHAPES PER FAA AC 150/5340-1M APPENDIX B.  
3. THE VERTICAL PLACEMENT OF THE COMMA AND THE DASH WITH RESPECT TO OTHER CHARACTERS IS AS SHOWN. HORIZONTAL PLACEMENT IS AT THE DISCRETION OF THE DESIGN ENGINEER.  
4. DETAILS FOR ADDITIONAL NUMERALS AVAILABLE UPON REQUEST.

DSGN.	DRWN.	CHKD.	APPD.
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KEY PLAN / NOTES:

NO.	DATE	REVISIONS
-----	------	-----------

BID DOCUMENTS

MAY 2024  
DATE

PROJECT TITLE :

AIRPORT RUBBER  
REMOVAL AND PAVEMENT  
MARKINGS MAINTENANCE

PROJECT NO.:

BS1424-23R

SHEET TITLE:

PAVEMENT MARKING  
DETAILS 3

DATE :	07/2023	DWG. NO.	C-3
SHEET :			

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## **Requirements of Chapter 104, HRS Wages and Hours of Employees on Public Works Law**

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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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HONOLULU, HAWAII

PROPOSAL

PROPOSAL TO THE  
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION

PROJECT: AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS  
MAINTENANCE  
STATEWIDE

PROJECT NO: State Project No. BS1424-23R

COMPLETION TIME: TWELVE (12) MONTHS from the date indicated in the Notice to Proceed from the Department.

OPTION TO EXTEND: This contract may be extended for a maximum of two (2) additional twelve (12) month periods subject to the terms outlined in Specification Section 01000, Part 3 - Execution, Paragraph 9.0. The total term of the contract shall not exceed thirty-six (36) months.

LIQUIDATED DAMAGES: ONE THOUSAND SEVEN HUNDRED FIFTY DOLLARS (\$1,750.00) per calendar day for failure to complete project at each airport in the time to be stated and agreed upon by the Engineer.

PROJECT MANAGER: James Fu  
Department Of Transportation  
Airports Division  
Honolulu International Airport  
400 Rodgers Boulevard, Suite 700  
Honolulu, Hawaii 96819-1880  
Phone: (808) 838-8832  
Email: [james.fu2@hawaii.gov](mailto:james.fu2@hawaii.gov)

ELECTRONIC SUBMITTAL: Bidders shall submit and upload the complete proposal to HiePRO prior to the bid opening date and time. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HiePRO. Bidders shall refer to SPECIAL PROVISIONS 2.8 PREPARATION AND DELIVERY OF BID for complete details. FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HiePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.

Director of Transportation  
869 Punchbowl Street  
Honolulu, Hawaii 96813

Dear Sir:

The undersigned Bidder declares the following:

1. It has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal.
2. It has not been assisted or represented on this matter by any individual who has, in a State capacity, been involved in the subject matter of this contract within the past two years.
3. It has not and will not, either directly or indirectly offered or given a gratuity (i.e. an entertainment or gift) to any State or County employee to obtain a contract or favorable treatment under a contract.

The undersigned Bidder further agrees to the following:

1. If this proposal is accepted, it shall execute a contract with the Department to provide all necessary labor, machinery, tools, equipment, apparatus and any other means of construction, to do all the work and to furnish all the materials specified in the contract in the manner and within the time therein prescribed in the contract, and that it shall accept in full payment therefore the sum of the unit and/or lump sum prices as set forth in the attached proposal schedule for the actual quantities of work performed and materials furnished and furnish satisfactory security in accordance with Section 103D-324, Hawaii Revised Statutes, within 10 days after the award of the contract or within such time as the Director of Transportation may allow after the undersigned has received the contract documents for execution, and is fully aware that non-compliance with the aforementioned terms will result in the forfeiture of the full amount of the bid guarantee required under Section 103D-323, Hawaii Revised Statutes.
2. That the quantities given in the attached proposal schedule are approximate only and are intended principally to serve as a guide in determining and comparing the bids.
3. That the Department does not either expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work, or to omit portions of the work, as may be deemed necessary or advisable by the Director of Transportation, and that all increased or decreased quantities of work shall be performed at the unit prices set forth in the attached proposal schedule except as provided for in the specifications.

4. In case of a discrepancy between unit prices and the totals in said Proposal Schedule, the unit prices shall prevail.
5. Agrees to begin work within 10 working days after the date of notification to commence with the work, which date is in the notice to proceed, and shall finish the entire project within the time prescribed.
6. The Director of Transportation reserves the right to reject any or all bids and to waive any defects when in the Director's opinion such rejections or waiver will be for the best interest of the public.

The Bidder acknowledges receipt of and certifies that it has completely examined the following listed items: the Hawaii Department of Transportation, Air and Water Transportation Facilities Division General Provisions for Construction Projects dated 2016, the Notice to Bidders, the Special Provisions, if any, the Technical Provisions, the Proposal, the Contract and Bond Forms, and the Project Plans.

In accordance with Section 103D-323, Hawaii Revised Statutes, this proposal is accompanied with a bid security in the amount of 500,000.00 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 a Subcontractor or Joint Contractor and the nature of work to be done by each. 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.

<u>Name of Subcontractor</u>	<u>Nature and Scope of Work</u>
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____

<u>Name of Joint Contractor</u>	<u>Nature and Scope of Work</u>
1. _____	_____
2. _____	_____
3. _____	_____

("None" or if left blank indicates no Subcontractor or Joint Contractor; if more space is needed, attach additional sheets.)

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)

By \_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Print Name and 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.



## PREFERENCES

Bidders agree that preferences shall be taken into consideration to determine the low bidder in accordance with said Sections and the rules promulgated, however, the award of contract will be in the amount of the bid offered exclusive of any preferences.

### A. HAWAII PRODUCTS PREFERENCE

In accordance with ACT 174, SLH 2022, effective June 27, 2022, Hawaii Products Preference shall not apply to solicitations for public works construction. Therefore, the Hawaii Products Preference shall not apply to this project.

### B. APPRENTICESHIP PROGRAMS PREFERENCE

In accordance with ACT 17, SLH 2009 – Apprenticeship Program, 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.

Any bidder seeking this preference must be a party to an apprenticeship agreement registered with the Department of Labor and Industrial Relations 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.

The bidder is responsible for complying with all submission requirements for registration of its apprenticeship program before requesting the preference.

( ) Yes, I wish to be considered for the Apprenticeship Programs Preference. I have included Certification Form(s) 1 with my bid.

### C. RECYCLED PRODUCT PREFERENCE

Recycled product preference shall not apply to this proposal.

PROPOSAL SCHEDULE  
AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
Project No. BS1424-23R

A. Daniel K Inouye International Airport

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
01000-A	Emergency Work Stoppage	40	Hour	\$	\$
01700-A	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Daniel K Inouye Intl Airport	4	EA	\$	\$
02400-A	Water Blasting Rubber Removal - Daniel K. Inouye International Airport	1,100,000	SF	\$	\$
02620-A1	Refresh Runway Centerline Markings	130	EA	\$	\$
02620-A2	Refresh Runway Edge Markings	166,600	SF	\$	\$
02620-A3	Refresh Runway Shoulder Markings	258	EA	\$	\$
02620-A4	Refresh Runway Touchdown Zone Markings	104	EA	\$	\$
02620-A5	Refresh Runway Aiming Point Markings	16	EA	\$	\$
02620-A6	Refresh Runway Designation Markings	20	EA	\$	\$
02620-A7	Refresh Runway Threshold Markings	112	EA	\$	\$
02620-A8	Refresh Runway Threshold Bar Markings	8	EA	\$	\$
02620-A10	Refresh Blast Pad Chevron Markings	31,500	SF	\$	\$
02620-A11	Refresh Taxiway Centerline, Lead On/ Lead Off, and Edge Markings	220,500	SF	\$	\$
02620-A12	Refresh Taxiway Enhanced Centerline Markings	16,800	SF	\$	\$
02620-A13	Refresh Taxiway Shoulder Markings	457	EA	\$	\$
02620-A14	Refresh Surface Painted Holding Position Markings (Hold Bar)	41,650	SF	\$	\$
02620-A15	Refresh Surface Painted ILS Holding Position Markings	9,500	SF	\$	\$

PROPOSAL SCHEDULE  
 AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
 Project No. BS1424-23R

A. Daniel K Inouye International Airport (cont'd)

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
02620-A16	Refresh Surface Painted Non-Movement Area Boundary Markings	18,500	SF	\$	\$
02620-A17	Refresh Surface Painted Holding Position Signs (Red Carpet)	33,000	SF	\$	\$
02620-A18	Refresh Surface Painted Taxiway Direction & Location Signs	296	SF	\$	\$
Daniel K. Inouye International Airport Total				\$	

PROPOSAL SCHEDULE  
AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
Project No. BS1424-23R

B. Kalaeloa Airport

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
01000-B	Emergency Work Stoppage	10	Hour	\$	\$
01700-B	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Kalaeloa Airport	1	EA	\$	\$
02400-B	Water Blasting Rubber Removal – Kalaeloa Airport	160,000	SF	\$	\$
02620-B1	Refresh Runway Centerline Markings	59	EA	\$	\$
02620-B2	Refresh Runway Edge Markings	72,450	SF	\$	\$
02620-B4	Refresh Runway Touchdown Zone Markings	18	EA	\$	\$
02620-B5	Refresh Runway Aiming Point Markings	12	EA	\$	\$
02620-B6	Refresh Runway Designation Markings	14	EA	\$	\$
02620-B7	Refresh Runway Threshold Markings	48	EA	\$	\$
02620-B8	Refresh Runway Threshold Bar Markings	6	EA	\$	\$
02620-B9	Refresh Displaced Threshold Markings	8,100	SF	\$	\$
02620-B10	Refresh Blast Pad Chevron Markings	4,200	SF	\$	\$
02620-B11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	36,400	SF	\$	\$
02620-B12	Refresh Taxiway Enhanced Centerline Markings	6,020	SF	\$	\$
02620-B14	Refresh Surface Painted Holding Position Markings (Hold Bar)	14,000	SF	\$	\$
02620-B16	Refresh Surface Painted Non-Movement Area Boundary Markings	6,000	SF	\$	\$

PROPOSAL SCHEDULE  
 AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
 Project No. BS1424-23R

B. Kalaeloa Airport (cont'd)

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
02620-B17	Refresh Surface Painted Holding Position Signs (Red Carpet)	9,600	SF	\$	\$
02620-B18	Refresh Surface Painted Taxiway Direction & Location Signs	700	SF	\$	\$
Kalaeloa Airport Total				\$	

PROPOSAL SCHEDULE  
AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
Project No. BS1424-23R

C. Lihue Airport

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
01000-C	Emergency Work Stoppage	20	Hour	\$	\$
01700-C	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Lihue Airport	1	EA	\$	\$
02400-C	Water Blasting Rubber Removal – Lihue Airport	258,000	SF	\$	\$
02620-C1	Refresh Runway Centerline Markings	41	EA	\$	\$
02620-C2	Refresh Runway Edge Markings	54,600	SF	\$	\$
02620-C4	Refresh Runway Touchdown Zone Markings	32	EA	\$	\$
02620-C5	Refresh Runway Aiming Point Markings	8	EA	\$	\$
02620-C6	Refresh Runway Designation Markings	7	EA	\$	\$
02620-C7	Refresh Runway Threshold Markings	48	EA	\$	\$
02620-C8	Refresh Runway Threshold Bar Markings	4	EA	\$	\$
02620-C9	Refresh Displaced Threshold Markings	1,600	SF	\$	\$
02620-C10	Refresh Blast Pad Chevron Markings	8,700	SF	\$	\$
02620-C11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	53,900	SF	\$	\$
02620-C12	Refresh Taxiway Enhanced Centerline Markings	10,850	SF	\$	\$
02620-C14	Refresh Surface Painted Holding Position Markings (Hold Bar)	11,200	SF	\$	\$
02620-C16	Refresh Surface Painted Non-Movement Area Boundary Markings	800	SF	\$	\$

PROPOSAL SCHEDULE  
AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
Project No. BS1424-23R

C. Lihue Airport (cont'd)

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
02620-C17	Refresh Surface Painted Holding Position Signs (Red Carpet)	6,900	SF	\$ _____	\$ _____
Lihue Airport Total				\$ _____	

PROPOSAL SCHEDULE  
AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
Project No. BS1424-23R

D. Kahului Airport

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
01000-D	Emergency Work Stoppage	30	Hour	\$	\$
01700-D	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Kahului Airport	1	EA	\$	\$
02400-D	Water Blasting Rubber Removal – Kahului Airport	411,000	SF	\$	\$
02620-D1	Refresh Runway Centerline Markings	37	EA	\$	\$
02620-D2	Refresh Runway Edge Markings	49,700	SF	\$	\$
02620-D3	Refresh Runway Shoulder Markings	94	EA	\$	\$
02620-D4	Refresh Runway Touchdown Zone Markings	38	EA	\$	\$
02620-D5	Refresh Runway Aiming Point Markings	8	EA	\$	\$
02620-D6	Refresh Runway Designation Markings	6	EA	\$	\$
02620-D7	Refresh Runway Threshold Markings	48	EA	\$	\$
02620-D8	Refresh Runway Threshold Bar Markings	3	EA	\$	\$
02620-D9	Refresh Displaced Threshold Markings	500	SF	\$	\$
02620-D10	Refresh Blast Pad Chevron Markings	7,200	SF	\$	\$
02620-D11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	40,600	SF	\$	\$
02620-D12	Refresh Taxiway Enhanced Centerline Markings	9,100	SF	\$	\$
02620-D14	Refresh Surface Painted Holding Position Markings (Hold Bar)	18,900	SF	\$	\$
02620-D15	Refresh Surface Painted ILS Holding Position Markings	950	SF	\$	\$



PROPOSAL SCHEDULE  
 AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
 Project No. BS1424-23R

D. Kahului Airport (cont'd)

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
02620-D16	Refresh Surface Painted Non-Movement Area Boundary Markings	8,250	SF	\$	\$
02620-D17	Refresh Surface Painted Holding Position Signs (Red Carpet)	9,000	SF	\$	\$
Kahului Airport Airport Total				\$	

PROPOSAL SCHEDULE  
 AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
 Project No. BS1424-23R

E. Kapalua Airport

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
01000-E	Emergency Work Stoppage	10	Hour	\$	\$
01700-E	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Kapalua Airport	1	EA	\$	\$
02400-E	Water Blasting Rubber Removal – Kapalua Airport	30,000	SF	\$	\$
02620-E1	Refresh Runway Centerline Markings	8	EA	\$	\$
02620-E2	Refresh Runway Edge Markings	12,880	SF	\$	\$
02620-E5	Refresh Runway Aiming Point Markings	4	EA	\$	\$
02620-E6	Refresh Runway Designation Markings	3	EA	\$	\$
02620-E7	Refresh Runway Threshold Markings	16	EA	\$	\$
02620-E8	Refresh Runway Threshold Bar Markings	2	EA	\$	\$
02620-E11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	5,054	SF	\$	\$
02620-E12	Refresh Taxiway Enhanced Centerline Markings	840	SF	\$	\$
02620-E14	Refresh Surface Painted Holding Position Markings (Hold Bar)	1,336	SF	\$	\$
02620-E17	Refresh Surface Painted Holding Position Signs (Red Carpet)	468	SF	\$	\$
02620-E18	Refresh Apron Markings	1,000	SF	\$	\$
Kapalua Airport Total				\$	

PROPOSAL SCHEDULE  
AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
Project No. BS1424-23R

F. Molokai Airport

Item No.	Item	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
01000-F	Emergency Work Stoppage	12	Hour	\$	\$
01700-F	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Molokai Airport	1	EA	\$	\$
02400-F	Water Blasting Rubber Removal – Molokai Airport	20,000	SF	\$	\$
02620-F1	Refresh Runway Centerline Markings	19	EA	\$	\$
02620-F2	Refresh Runway Edge Markings	18,900	SF	\$	\$
02620-F3	Refresh Runway Shoulder Markings	84	EA	\$	\$
02620-F5	Refresh Runway Aiming Point Markings	4	EA	\$	\$
02620-F6	Refresh Runway Designation Markings	7	EA	\$	\$
02620-F7	Refresh Runway Threshold Markings	16	EA	\$	\$
02620-F8	Refresh Runway Threshold Bar Markings	1	EA	\$	\$
02620-F9	Refresh Displaced Threshold Markings	2,700	SF	\$	\$
02620-F11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	5,950	SF	\$	\$
02620-F12	Refresh Taxiway Enhanced Centerline Markings	2,240	SF	\$	\$
02620-F14	Refresh Surface Painted Holding Position Markings (Hold Bar)	2,400	SF	\$	\$
02620-F16	Refresh Surface Painted Non-Movement Area Boundary Markings	800	SF	\$	\$
02620-F17	Refresh Surface Painted Holding Position Signs (Red Carpet)	3,200	SF	\$	\$
02620-F18	Refresh Apron Markings	1,150	SF	\$	\$
<b>Molokai Airport Total</b>				<b>\$</b>	

PROPOSAL SCHEDULE  
 AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
 Project No. BS1424-23R

G. Lanai Airport

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
01000-G	Emergency Work Stoppage	10	Hour	\$	\$
01700-G	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Lanai Airport	1	EA	\$	\$
02400-G	Water Blasting Rubber Removal – Lanai Airport	50,000	SF	\$	\$
02620-G1	Refresh Runway Centerline Markings	18	EA	\$	\$
02620-G2	Refresh Runway Edge Markings	23,100	SF	\$	\$
02620-G4	Refresh Runway Touchdown Zone Markings	14	EA	\$	\$
02620-G5	Refresh Runway Aiming Point Markings	4	EA	\$	\$
02620-G6	Refresh Runway Designation Markings	3	EA	\$	\$
02620-G7	Refresh Runway Threshold Markings	24	EA	\$	\$
02620-G8	Refresh Runway Threshold Bar Markings	2	EA	\$	\$
02620-G10	Refresh Blast Pad Chevron Markings	5,600	SF	\$	\$
02620-G11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	4,410	SF	\$	\$
02620-G12	Refresh Taxiway Enhanced Centerline Markings	250	SF	\$	\$
02620-G14	Refresh Surface Painted Holding Position Markings (Hold Bar)	544	SF	\$	\$
02620-G16	Refresh Surface Painted Non-Movement Area Boundary Markings	750	SF	\$	\$
02620-G17	Refresh Surface Painted Holding Position Signs (Red Carpet)	675	SF	\$	\$
Lanai Airport Total				\$	

PROPOSAL SCHEDULE  
AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
Project No. BS1424-23R

H. Hilo International Airport

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
01000-H	Emergency Work Stoppage	30	Hour	\$	\$
01700-H	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Hilo Intl Airport	1	EA	\$	\$
02400-H	Water Blasting Rubber Removal – Hilo International Airport	386,000	SF	\$	\$
02620-H1	Refresh Runway Centerline Markings	49	EA	\$	\$
02620-H2	Refresh Runway Edge Markings	63,840	SF	\$	\$
02620-H4	Refresh Runway Touchdown Zone Markings	36	EA	\$	\$
02620-H5	Refresh Runway Aiming Point Markings	8	EA	\$	\$
02620-H6	Refresh Runway Designation Markings	6	EA	\$	\$
02620-H7	Refresh Runway Threshold Markings	48	EA	\$	\$
02620-H8	Refresh Runway Threshold Bar Markings	4	EA	\$	\$
02620-H9	Refresh Displaced Threshold Markings	1,500	SF	\$	\$
02620-H10	Refresh Blast Pad Chevron Markings	7,500	SF	\$	\$
02620-H11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	58,800	SF	\$	\$
02620-H12	Refresh Taxiway Enhanced Centerline Markings	7,000	SF	\$	\$
02620-H14	Refresh Surface Painted Holding Position Markings (Hold Bar)	21,000	SF	\$	\$
02620-H15	Refresh Surface Painted ILS Holding Position Markings	2,340	SF	\$	\$
02620-H16	Refresh Surface Painted Non-Movement Area Boundary Markings	5,250	SF	\$	\$

PROPOSAL SCHEDULE  
 AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
 Project No. BS1424-23R

H. Hilo International Airport (cont'd)

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
02620-H17	Refresh Surface Painted Holding Position Signs (Red Carpet)	6,500	SF	\$	\$
Hilo International Airport Total				\$	

PROPOSAL SCHEDULE  
AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
Project No. BS1424-23R

I. Ellison Onizuka Kona International Airport at Keahole

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
01000-I	Emergency Work Stoppage	40	Hour	\$	\$
01700-I	Mobilization (not to exceed six (6%) of the sum of all items, excluding this item and all Allowances) for Ellison Onizuka Kona Intl Airport at Keahole	1	EA	\$	\$
02400-I	Water Blasting Rubber Removal – Ellison Onizuka Kona International Airport	300,000	SF	\$	\$
02620-I1	Refresh Runway Centerline Markings	36	EA	\$	\$
02620-I2	Refresh Runway Edge Markings	46,200	SF	\$	\$
02620-I3	Refresh Runway Shoulder Markings	182	EA	\$	\$
02620-I4	Refresh Runway Touchdown Zone Markings	36	EA	\$	\$
02620-I5	Refresh Runway Aiming Point Markings	4	EA	\$	\$
02620-I6	Refresh Runway Designation Markings	4	EA	\$	\$
02620-I7	Refresh Runway Threshold Markings	24	EA	\$	\$
02620-I8	Refresh Runway Threshold Bar Markings	2	EA	\$	\$
02620-I10	Refresh Blast Pad Chevron Markings	6,200	SF	\$	\$
02620-I11	Refresh Taxiway Centerline, Lead On/Lead Off, and Edge Markings	26,600	SF	\$	\$
02620-I12	Refresh Taxiway Enhanced Centerline Markings	2,940	SF	\$	\$
02620-I13	Refresh Taxiway Shoulder Markings	401	EA	\$	\$
02620-I14	Refresh Surface Painted Holding Position Markings (Hold Bar)	5,100	SF	\$	\$
02620-I15	Refresh Surface Painted ILS Holding Position Markings	1,900	SF	\$	\$

PROPOSAL SCHEDULE  
 AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
 Project No. BS1424-23R

I. Ellison Onizuka Kona International Airport at Keahole (cont'd)

Item No.	Description	Quantity per Year (A)	Unit	Unit Price (B)	Total (A x B)
02620-I16	Refresh Surface Painted Non-Movement Area Boundary Markings	5,550	SF	\$	\$
Ellison Onizuka Kona International Airport at Keahole Total				\$	



PROPOSAL SCHEDULE  
 AIRFIELD RUBBER REMOVAL & PAVEMENT MARKINGS MAINTENANCE  
 Project No. BS1424-23R

J. Proposal Summary

Item No.	Description				Bid Amount Subtotal
A	Total Daniel K. Inouye International Airport			\$	<hr/>
B	Total Kalaeloa Airport			\$	<hr/>
C	Total Lihue Airport			\$	<hr/>
D	Total Kahului Airport			\$	<hr/>
E	Total Kapalua Airport			\$	<hr/>
F	Total Molokai Airport			\$	<hr/>
G	Total Lanai Airport			\$	<hr/>
H	Total Hilo International Airport			\$	<hr/>
I	Total Ellison Onizuka Kona International Airport at Keahole			\$	<hr/>
01000-J	Unforeseen Conditions	1	Allowance	ALLOW.	\$ 50,000.00
01561-J	Construction Site Pollution Controls	1	Allowance	ALLOW.	\$ 20,000.00
01562-J	Management of Contaminated Media, Soil Disposal, and Soil Re-use	1	Allowance	ALLOW.	\$ 10,000.00
01810-J	Traffic Control	1	Allowance	ALLOW.	\$ 100,000.00
02400-J	Rubber Removal and Paint Marking Testing and Disposal	1	Allowance	ALLOW.	\$ 300,000.00
02608-J(1)	Emulsified Asphalt Seal Coat without aggregate	1	Allowance	ALLOW.	\$ 50,000.00
02608-J(2)	Emulsified Asphalt Seal Coat with aggregate	1	Allowance	ALLOW.	\$ 50,000.00
TOTAL AMOUNT FOR COMPARISON OF BIDS					<hr/> <b>\$</b>

NOTES:

The bid prices herein shall include all labor, materials, equipment, and incidentals necessary to construct all items in place, including installation and testing of equipment, complete and ready for operation, all in accordance with the plans and specifications.

- Note 1: Bids shall include all Federal, State, County and other applicable taxes and fees.
- Note 2: The TOTAL AMOUNT FOR COMPARISON OF BIDS shall be used to determine the lowest responsible bidder.
- Note 3: Bidders shall complete all unit prices and amounts. Failure to do so shall be grounds for rejection of bid.
- Note 4: If a discrepancy occurs between unit bid price and the bid price, the unit bid price shall govern.
- Note 5: **Bidders shall submit and upload the complete proposal to HlePRO prior to the bid opening date and time. Proposals received after said due date and time shall not be considered. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HlePRO. Do not include confidential and/or proprietary documents with the proposal. The record of each bidder and respective bid shall be open to public inspection. Original (wet ink, hard copy) proposal documents are not required to be submitted. Contract award shall be based on evaluation of proposals submitted and uploaded to HlePRO. FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HlePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.**
- Note 6: The State reserves the right to reject any or all Bids and to waive any defects in said Bids in the best interest of the State.
- Note 7: Submission of a Bid is a warranty that the bidder has made an examination of the project site and is fully aware of all conditions to be encountered in performing the work and the requirements of the plans and specifications.
- Note 8: The bidder's attention is directed to Section 2.11 - BID SECURITY and Section 2.24 - REQUIREMENTS OF CONTRACT BONDS OF THE "General Provisions", as amended by the Special Provisions.
- Note 9: Bidder shall be paid for actual work performed as directed by the Engineer for allowance items. Bidder will not be paid overhead and profit for unused allowance funds.
- Note 10: If the TOTAL AMOUNT FOR COMPARISON OF BIDS exceeds the funds available for the project, then the State reserves the right to negotiate with the lowest, responsive, responsible bidder as permitted under Section 103D-302, Hawaii Revised Statutes (HRS), to further reduce the scope of work and award a contract thereafter.

# SURETY BID BOND

Bond No. \_\_\_\_\_

KNOW TO ALL BY THESE PRESENTS:

That we, \_\_\_\_\_  
(full name or legal title of offeror)

as Offeror, hereinafter called the Principal, and

\_\_\_\_\_  
(name of bonding company)

as Surety, hereinafter called Surety, a corporation authorized to transact business as a Surety in the State of Hawaii, are held and firmly bound unto

\_\_\_\_\_  
(State/county entity)

as Owner, hereinafter called Owner, in the penal sum of

\_\_\_\_\_  
(required amount of bid security)

Dollars (\$ \_\_\_\_\_), lawful money of the United States of America, for the payment of which sum well and truly to be made, the said Principal and the said Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

**WHEREAS:**

The Principal has submitted an offer for

\_\_\_\_\_  
(project by number and brief description)

**NOW, THEREFORE:**

The condition of this obligation is such that if the Owner shall reject said offer, or in the alternate, accept the offer of the Principal and the Principal shall enter into a contract with the Owner in accordance with the terms of such offer, and give such bond or bonds as may be specified in the solicitation or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof as specified in the solicitation then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_  
Name of Principal (Offeror) (Seal)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name of Surety (Seal)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HONOLULU, HAWAII

FORMS

Contents:

Contract  
Performance Bond (Surety)  
Performance Bond  
Labor and Material Payment Bond (Surety)  
Labor and Material Payment Bond  
Chapter 104 HRS, Compliance Certificate  
Certification of Compliance for Employment of State Residents

CONTRACT

THIS AGREEMENT, made this day of \_\_\_\_\_, by and between the STATE OF HAWAII, by its Director of Transportation, hereinafter referred to as "STATE", and «CONTRACTOR», «STATE\_OF\_INCORPORATON», whose business/post office address is «ADDRESS», hereinafter referred to as CONTRACTOR";

WITNESSETH: That for and in consideration of the payments hereinafter mentioned, the CONTRACTOR hereby covenants and agrees with the STATE to complete in place, furnish and pay for all labor and materials necessary for "«PROJECT\_NAME\_AND\_NO»", or such a part thereof as shall be required by the STATE, the total amount of which labor, 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 «BASIC»----DOLLARS (\$«BASIC\_NUMERIC») as follows:

TOTAL AMOUNT FOR COMPARISON OF BIDS.....\$«BASIC\_NUMERIC»

which sum shall be provided from State funds, all in accordance with the specifications, the special provisions, if any, the notice to bidders, the instructions to bidders, the proposal and plans for «PROJECT\_NO\_ONLY», and any supplements thereto, on file in the office of the Director of Transportation. These documents, together with all alterations, amendments, and additions thereto and deductions therefrom, are attached hereto or incorporated herein by reference and made a part of this contract.

The CONTRACTOR hereby covenants and agrees to complete such construction within «WORKING\_DAYS» from the date indicated in the Notice to Proceed from the State subject, however, to such extensions as may be provided for in writing under the specifications.

For and in consideration of the covenants, undertakings and agreements of the CONTRACTOR herein set forth and upon the full and faithful performance thereof by the CONTRACTOR, the STATE hereby agrees to pay the CONTRACTOR the sum of «BASIC»---DOLLARS (\$«BASIC\_NUMERIC») in lawful money, but not more than such part of the same as is actually earned according to the STATE's determination of the actual quantities of work performed and materials furnished by the CONTRACTOR at the unit or lump sum prices set forth in the attached proposal schedule. Such payment, including any extras, shall be made, subject to such additions or deductions hereto or hereafter made in the manner and at the time prescribed in the specifications and this contract.

An additional sum of «EXTRAS»-----DOLLARS (\$«EXTRA\_NUMERIC») is hereby provided for extra work.

All words used herein in the singular shall extend to and include the plural. All words used in the plural shall extend to and include the singular. The use of any gender shall extend to and include all genders.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be duly executed the day and year first above written.

STATE OF HAWAII

\_\_\_\_\_  
Director of Transportation

«CONTRACTOR»

(Seal)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print name

\_\_\_\_\_  
Print Title

\_\_\_\_\_  
Date

**PERFORMANCE BOND (SURETY)**  
(6/21/07)

**KNOW TO ALL BY THESE PRESENTS:**

That \_\_\_\_\_,  
*(Full Legal Name and Street Address of Contractor)*

as Contractor, hereinafter called Principal, and \_\_\_\_\_  
\_\_\_\_\_  
*(Name and Street Address of Bonding Company)*

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a  
surety in the State of Hawaii, are held and firmly bound unto the \_\_\_\_\_,  
*(State/County Entity)*

its successors and assigns, hereinafter called Obligee, in the amount of \_\_\_\_\_

\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_), to which payment Principal and Surety bind themselves,  
their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by  
these presents.

**WHEREAS**, the above-bound Principal has signed a Contract with Obligee on  
\_\_\_\_\_, for the following project: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

hereinafter called Contract, which Contract is incorporated herein by reference and made a part  
hereof.

**NOW THEREFORE**, the condition of this obligation is such that:

If the Principal shall promptly and faithfully perform, and fully complete the Contract in  
strict accordance with the terms of the Contract as said Contract may be modified or amended  
from time to time; then this obligation shall be void; otherwise to remain in full force and effect.



Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

In the event of Default by the Principal, of the obligations under the Contract, then after written Notice of Default from the Oblige to the Surety and the Principal and subject to the limitation of the penal sum of this bond, Surety shall remedy the Default, or take over the work to be performed under the Contract and complete such work, or pay moneys to the Oblige in satisfaction of the surety's performance obligation on this bond.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

(Seal)

\_\_\_\_\_  
Name of Principal (Contractor)

\*

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

(Seal)

\_\_\_\_\_  
Name of Surety

\*

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**\*ALL SIGNATURES MUST BE ACKNOWLEDGED  
BY A NOTARY PUBLIC**

# PERFORMANCE BOND

**KNOW TO ALL BY THESE PRESENTS:**

That we, \_\_\_\_\_  
*(full legal name and street address of Contractor)*

as Contractor, hereinafter called Contractor, is held and firmly bound unto the

\_\_\_\_\_ *(State/County entity)*

its successors and assigns, as Obligee, hereinafter called Obligee, in the amount

\_\_\_\_\_ 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 TO ALL BY THESE PRESENTS:

That we, \_\_\_\_\_  
(full legal name and street address of Contractor)

as Contractor, hereinafter called Contractor, is held and firmly bound unto \_\_\_\_\_  
(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

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 \_\_\_\_\_.

\_\_\_\_\_  
Name of Corporation, Partnership, or Individual

\_\_\_\_\_  
Signature and Title of Signer

Subscribed and sworn before me this  
\_\_\_\_\_ day of \_\_\_\_\_.

\_\_\_\_\_  
Notary Public, \_\_\_\_\_ Judicial Circuit,  
State of Hawaii  
My Commission Expires: \_\_\_\_\_



**CERTIFICATION OF COMPLIANCE  
FOR  
EMPLOYMENT OF STATE RESIDENTS  
HRS CHAPTER 103B, AS AMENDED BY ACT 192, SLH 2011**

Project Title: \_\_\_\_\_

Agency Project No: \_\_\_\_\_

Contract No.: \_\_\_\_\_

As required by Hawai'i Revised Statutes Chapter 103B, as amended by Act 192, Session Laws of Hawai'i 2011-Employment of State Residents on Construction Procurement Contracts, I hereby certify under oath, that I am an officer of \_\_\_\_\_ and

(Name of Contractor or Subcontractor Company)

for the Project Contract indicated above, \_\_\_\_\_ was in

(Name of Contractor or Subcontractor Company)

compliance with HRS Chapter 103B, as amended by Act 192, SLH 2011, by employing a workforce of which not less than eighty percent are Hawai'i residents, as calculated according to the formula in the solicitation, to perform this Contract.

I am an officer of the **Contractor** for this contract.

I am an officer of the **Subcontractor** for this contract.

***CORPORATE SEAL***

\_\_\_\_\_  
(Name of Company)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Print Title)

Subscribed and sworn to me before this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

Doc. Date: \_\_\_\_\_ # of Pages \_\_\_\_\_ 1<sup>st</sup> Circuit

Notary Name: \_\_\_\_\_

Doc. Description: \_\_\_\_\_

\_\_\_\_\_  
Notary Public, 1<sup>st</sup> Circuit, State of Hawai'i  
My commission expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Signature

\_\_\_\_\_  
Date

NOTARY CERTIFICATION