

SPECIFICATIONS AND PROPOSAL

FOR

FY22 ONE-YEAR MAINTENANCE CONTRACT FOR PAVEMENT REPAIRS

AT PIERS 51C, 52 & 53 CONTAINER YARD

HONOLULU HARBOR, OAHU, HAWAII

JOB H. C. 10830

**STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION**

TABLE OF CONTENTS

	<u>Page</u>	
Notice to Bidders	1 – 4	
Instructions for Contractor’s Licensing		
Special Provisions	SP-1	
Wage Rate Schedule (Not physically included in the bid documents)		
SPECIFICATIONS		
PART I – GENERAL PROVISIONS for CONSTRUCTION PROJECTS 2016 (Not physically included in the bid documents)		
PART II – TECHNICAL PROVISIONS		
Article X	Project Description	10-1 – 10-7
Article XI	Mobilization and Demobilization	11-1
Article XII	Pavement Repairs	12-1 – 12-9
Article XIII	Triaxial Geogrid	13-1 – 13-3
Article XIV	Stone Matrix Asphalt Pavement	14-1 – 14-8
Article XV	Pavement Markings	15-1 – 15-2
Article XVI	Temporary Water Pollution, Dust, and Erosion Control	16-1 – 16-15
Solid Waste Disclosure Form for Construction Sites	1 – 2	
Requirements of Chapter 104, HRS (eH104-3 dated 04/17)	1 – 2	
Proposal	P-1 – P-10	
Proposal Schedule	P-11 – P-12	
Surety Bid Bond		
Sample Forms:		
Surety Performance Bond		
Performance Bond		
Surety Labor and Material Payment Bond		
Labor and Material Payment Bond		
Chapter 104 HRS Compliance Certificate		

NOTICE TO BIDDERS

(Chapter 103D, HRS)

SEALED BIDS for FY22 ONE-YEAR MAINTENANCE CONTRACT FOR PAVEMENT REPAIRS AT PIERS 51C, 52 & 53 CONTAINER YARD, HONOLULU HARBOR, OAHU, HAWAII, JOB H.C. 10830, will be received at the Contracts Office, Department of Transportation (DOT), Aliiimoku Hale, 869 Punchbowl Street, Honolulu, Hawaii 96813 until 2:00 p.m., Hawaii Standard Time (HST), October 21, 2021, at which time and place they will be publicly opened and read. Bids received after said due date and time shall not be considered.

***ATTENTION: ALL PUBLIC BID OPENINGS WILL BE CONDUCTED VIRTUALLY, UNTIL FURTHER NOTICE.** The viewing of the public bid openings will only be available virtually through the online meeting link posted on the HDOT Contracts webpage one hour before the bid opening (<https://hidot.hawaii.gov/administration/con/>).

In response to the impact of COVID-19, all visitors entering DOT Aliiimoku Hale, including Bidders submitting sealed bids, will be REQUIRED to provide proof of vaccination or proof of a negative test result for COVID-19 within the past seven days before entry. Visitors that do not comply with the proof of vaccination or proof of negative COVID-19 test result requirements previously stated will not be allowed to enter the building. Face masks will be REQUIRED for the entire duration of visit, from entry through departure of the building.

Bid submissions will be accepted by the Contracts Office for drop off in the DOT Aliiimoku Hale lobby between the hours of 1:00 p.m. to 2:00 p.m., HST, Monday through Friday, excluding holidays.

Bidders shall allow enough time to mail or courier their bids to meet the said due date and time. If the bidder chooses to deliver their bid by United States Postal Service (USPS), please be advised the USPS does not deliver directly to the State of Hawaii, DOT, Contracts Office, but to a

central mailroom before final delivery to the Contracts Office. This may cause a delay in receipt of bid(s) by the Contracts Office and the bid(s) may reach the Contracts Office after the said due date and time, resulting in automatic rejection and return of bid. The DOT shall not be responsible for bids not received by the said due date and time due to mail or courier delivery delays. Electronic bids shall not be accepted. Bid envelopes shall be clearly marked "SEALED BID" with complete mailing address to the DOT, Contracts Office.

Bids will be opened and read in the lobby of the DOT Aliiimoku Hale promptly at said time. All bids will be scanned and emailed to all bidders within 24 hours of bid opening.

The scope of work consists of repairing damaged asphalt pavement of Piers 51C, 52 & 53 container yard at Honolulu Harbor. The estimated cost of construction is between \$600,000 and \$750,000.

To be eligible for award, bidders must possess a valid State of Hawaii General Engineering Contractor "A" or Specialty Contractor "C-3" license at the time of bidding.

Bid documents are available to download at: <http://hidot.hawaii.gov/administration/con/>

Bids (hard copy) shall be submitted in a sealed envelope and shall be on the Proposal Form provided in the bid documents furnished by the Department.

The GENERAL PROVISIONS dated 2016 applicable to this project are available on the internet at <http://hidot.hawaii.gov/administration/con/>.

A pre-bid conference is scheduled for 10:00 a.m. on September 23, 2021. **Due to the impacts of COVID-19, attendees must dial the number below to participate by teleconference.**

Dial in number: 978-990-5000

Access code: 741705

All prospective bidders or their representatives (employees) are encouraged to attend, but attendance is not mandatory.

Hawaii Products Preference. The Hawaii Products Preference pursuant to §103D-1002, Hawaii Revised Statutes (HRS), is applicable to this project. Persons wishing to certify and qualify a product as a Hawaii Product shall submit a Certification for Hawaii Product Preference (SPO Form 38) to the DOT Contracts office no later than 4:30 P.M., fourteen (14) calendar days prior to the bid opening date. Late submittals for this project will not be reviewed by the DOT. A separate SPO-Form 38 shall be completed and submitted for each product. Forms are available at <http://spo.hawaii.gov/wp-content/uploads/2013/12/spo-038.doc>.

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

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

Campaign contributions by State and County Contractors. Contractors are hereby notified of the applicability of §11-355, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the 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 §103D-701, HRS and §3-126, HAR.

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

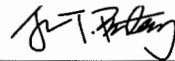
The U.S. Department of Transportation Regulation entitled "Nondiscrimination in

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

For additional information, contact Emmanuel Legaspi, Project Manager, by phone at (808) 587-1875, by fax at (808) 587-1864, or by email at emmanuel.b.legaspi@hawaii.gov.

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

The State reserves the right to immediately issue a notice to proceed to the Contractor after the effective date of the contract.



JADE T. BUTAY
Director of Transportation

Posted: September 14, 2021

INSTRUCTIONS FOR CONTRACTOR'S LICENSING

"A" general engineering contractors and "B" general building contractors are reminded that due to the Hawaii Supreme Court's January 28, 2002 decision in Okada Trucking Co., Ltd. v. Board of Water Supply, et al., 97 Haw. 450 (2002), they are prohibited from undertaking any work, solely or as part of a larger project, which would require the general contractor to act as a specialty contractor in any area where the general contractor has no license. Although the "A" and "B" contractor may still bid on and act as the "prime" contractor on an "A" or "B" project (*See, HRS § 444-7 for the definitions of an "A" and "B" project.*), respectively, the "A" and "B" contractor may only perform work in the areas in which they have the appropriate contractor's license (*An "A" or "B" contractor obtains "C" specialty contractor's licenses either on its own, or automatically under HAR § 16-77-32.*). The remaining work must be performed by appropriately licensed entities. It is the sole responsibility of the contractor to review the requirements of this project and determine the appropriate licenses that are required to complete the project.

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HONOLULU, HAWAII

SPECIAL PROVISIONS

SPECIAL PROVISIONS

The General Provisions is amended as follows:

A. ARTICLE I – TERMS, ABBREVIATIONS, AND DEFINITION

1. Section 1.3 Definitions: The definition for “Subcontractor” is amended by deleting it and replacing it with the following:

“Subcontractor – An individual, partnership, firm, corporation, or 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.”

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

ARTICLE X - PROJECT DESCRIPTION

10.1 GENERAL - The work to be done on this project consists of repairing the damaged asphalt pavement at Piers 51C, 52 & 53 Container Yard, Honolulu Harbor, Oahu. The work shall be accomplished in multiple repair work phases throughout the year.

Bidders are advised to examine the existing conditions at the project site to familiarize themselves with the nature and extent of work involved. Appointments may be made with the Harbors Division Maintenance Engineer for clarification of the work involved and the character and quality of materials described.

The Contractor is not required to take out a policy of builder's risk insurance for this project, as referenced in Section 7.1(b)(4) of the General Provisions for Construction Projects 2016.

10.2 SCOPE OF WORK - The State shall notify the Contractor as to the date work must commence on each repair work phase. The State shall notify the Contractor only after a sufficient amount of work has been generated. The Contractor shall be given fourteen (14) calendar days to commence work after the State's notification.

All work for each repair work phase shall be completed within the working days designated by the approved work schedule.

The major items of work to be done include, but are not limited to the following:

1. Removal and disposal of existing asphalt pavement and base course material.
2. Applying bituminous tack coat.
3. Placing hot mix asphalt base course material.
4. Placing hot mix asphalt pavement.
5. Placing stone matrix asphalt pavement
6. Placing pavement markings.
7. Providing a Storm Water Pollution Prevention Plan (SWPPP).

10.3 CONTRACT DRAWINGS - The locations and sizes of the various repair types are not shown on the contract plans. The Construction Engineer will notify the Contractor when work is to be done during the year. The Construction Engineer, Contractor, and Tenant will meet at the

job site to locate and mark the repair areas, determine the type of repair work to be done, and period of completion of each work phase.

The quantities listed in the Proposal Schedule are approximate and are included for bidding purposes only. Actual payment areas will be obtained from field measurements of work performed in each repair work phase.

10.4 WORK SCHEDULE - The work schedule and assignment of storage area shall be coordinated with the Harbors Division Oahu District Manager and the Construction Engineer and shall be subject to their approval. The Contractor shall coordinate its work so as to minimize interference with the pier and Matson operations. The contractor shall complete all work within the work schedule.

10.5 LIABILITY AND RESPONSIBILITY - The Contractor shall provide, erect and maintain warning signs, lights, barricades, fences, watchmen and/or other means as necessary to prevent unauthorized persons from wandering onto the job site where they may suffer injury or create a hazard to the construction operations or the work. The Contractor shall also take all reasonable precautions for safety in its operations and to prevent injury to its employees and to others having lawful business at the job site.

The Contractor shall be responsible for any and all damages to the pier and facilities caused by its operations. The Contractor shall, at its own expense, make prompt restitution for damages to the facilities caused by its operations or negligence. The Contractor shall hold the State harmless from all claims for loss or injury.

Hawaii One Call. The Contractor shall comply with the Hawaii One Call law, HRS Section 269E-4. This includes, but is not limited to, coordination with the Hawaii One Call Center (HOCC) for any work involving excavation at least five (5) working days but not more than twenty-eight (28) calendar days prior to commencing excavation. The contractor shall provide to HOCC the H.C. project number, a description of the excavation site that may include the county, place, address and measurements as needed. HOCC contact information: telephone 811; website <http://www.digsafelyhawaii.com>.

10.6 PERMITS - The State has obtained a National Pollutant Discharge Elimination System (NPDES) General Permit (File No. HI R10F888) regarding discharges composed entirely of Water runoff associated with construction activities from the Clean Water Branch, State Department of Health at 919 Ala Moana Boulevard.

The Contractor shall prepare and submit its Storm Water Pollution Prevention Plan (SWPPP) to the Department of Health for acceptance prior to start of construction.

The Contractor shall comply with the following permit requirements as needed and complete any information required therein to effectuate the permit:

- A. NPDES Permit for Discharges of Water Associated with Construction Activity from the State Department of Health (Notice of Intent – NOI Form C). An approved Notice of General Permit Coverage (NGPC) has been issued by the Department of Health (DOH). The Contractor shall keep a copy of the Permit application and approved NGPC on site at all times. The Contractor shall obtain a copy from the State.
1. The Contractor shall comply with the following conditions and requirements:
 - a. HAR Chapter 11-55, Chapter C, NPDES General Permit Authorizing Discharges of Water Associated with Construction Activities;
 - b. HAR Chapter 11-55, Appendix A, Department of Health Standard General Permit Conditions;
 - c. HAR Chapter 11-55-34.04(a), 11-55-34.07, 11-55-34.11, 11-55-34.12, and any other applicable sections of HAR Chapter 11-55;
 - d. Plans, reports, specifications and other related materials submitted in and with the Notice of Intent (NOI) and/or later amendments to the NOI;
 - e. A copy of the NGPC, enclosures, plans, reports, specifications and other related materials submitted in and with the NOI and/or later amendments to the NOI must be kept at the job site or at a nearby field office;
 - f. Provide the Department of Health with any general contractor's information that was not identified in the NOI form. The information must include general contractor's legal name, address (location where papers can be hand-delivered), contact person, telephone and fax numbers;
 - g. Site-specific information shall be submitted to the DOH for review and comments thirty (30) days before the commencement of each phase of the construction. All related concern(s) and comment(s) shall be properly addressed to the DOH's satisfaction before any discharge occurs;
 - h. The updated timetable for major construction activities including the date when contractor will begin site disturbances shall be submitted to the DOH before the commencement of each phase of

the construction;

- i. The effectiveness and adequacy of the implemented site-specific plans and sediment and erosion control plans shall be reviewed and updated as often as necessary. Any change(s) to the site-specific plans and/or sediment and erosion control plans or correction(s) to information already on file with the DOH shall be submitted to the Clean Water Branch as such change(s) or correction(s) arise;
 - j. Complete and submit the Solid Waste Disclosure Form for Construction Sites (see Attachment II) to the Office of Solid Waste Management as specified on the form prior to commencement of work; and
 - k. Notify the DOH upon the termination of the subject activities.
2. All permit applications and forms shall be submitted to the Harbors Division for concurrence prior to submission to the accepting agencies.

10.7 SUBMITALS - The Contractor shall submit for review the following items:

- I. Materials – Submit five (5) copies of:
 - A. Aggregate Base Course mix design
 - B. Triaxial Geogrid
 - C. Hot Mix Asphalt Base Course mix design
 - D. Hot Mix Asphalt Pavement mix design
 - E. Stone Matrix Asphalt mix design
 - F. Bituminous Tack Coat material data sheets
 - G. Pre-mixed ReflectORIZED Traffic Paint
- II. Worker Credentials
 - A. Proof of valid TWIC and MARSEC credential card for all Contractor and Sub-contractor workers

10.8 AS BUILT DRAWINGS - The Contractor shall keep one set of drawings at the job site and make all field changes thereon. After completion of the project, a PDF/A format digital file and

two (2) sets of full sized drawings marked up with all the field changes showing the locations, dimensions, areas, and the type of repair work completed shall be submitted to the Construction Engineer.

10.9 HARBOR SECURITY - The Contractor shall submit required documentation of all Contractor and subcontractor's employees, their representatives, suppliers, manufacturers, and alike, and of all necessary vehicles needing access to the project site to the Harbors Division Construction Engineer and District Manager before starting work on the project. The documentation will include the following:

- A. Authorized personnel's first name, middle initial(s), and last name by company name.
- B. Vehicle(s) license plate number(s) by company name.
- C. The Contractor may be directed to use a specified entrance to enter and exit the harbor. Upon every entry, each employee must present and possess a photo identification (ID) card.
- D. All Contractor's and sub-contractor's employees, their representatives, suppliers, manufacturers, and authorized personnel needing access to the project site shall wear their photo ID card at all times.
- E. Contractor's vehicles must be identified with a company logo and will be subject to search. Any employee's personal belongings will also be subject to search.
- F. If the Contractor wishes to remove any fencing or open any locked gates, they shall coordinate with and request approval from the Harbors Construction Engineer and District Manager. If approval is granted, the Contractor shall then be responsible for securing open fencing or gate(s) immediately after entering, or posting security personnel to monitor ingress and egress. Inspections of vehicles and equipment moving through the access points will be done in accordance with current MARSEC level and directives.
- G. If security personnel are required, the Contractor shall hire the same contract security that provides service to the State of Hawaii, Department of Transportation, Harbors Division. In the event that the security contract for Harbors changes, contractor must hire the new security contractor.
- H. By the end of each day, the Contractor shall re-erect and restore all fencing/barrier/perimeter security measures to the satisfaction of the Construction Engineer and the District Manager. Electricity and lighting shall also be restored and in satisfactory working order, to no less than pre-construction conditions, by

the end of each day, to the satisfaction of the Construction Engineer and District Manager.

- I. Under no circumstances shall perimeter security be compromised. If determined by the State, and solely by the State, that the contractor has left the project site in a condition that compromises security of the harbor, the State reserves the right to make the necessary arrangements to provide and enhance perimeter security, including restoration of electrical power and lighting, at the sole expense of the Contractor.
- J. At times, the maritime security level for the State of Hawaii and/or the general color-coded security level for State of Hawaii may be temporarily elevated. In these events, the contractor may be prohibited to access the project site and may be required to stop work as directed by either the Harbors Division's Construction Engineer or District Manager. The Harbors Division will consider impacts to the work and schedule as a result of prolonged work stoppages.
- K. Maritime Security Awareness training is mandatory for all personnel entering the Harbor facility. The Contractor shall be responsible to ensure all of its employees, representatives, subcontractors, vendors, and all alike, requiring access to the harbor area for this project, have been trained and possess the required maritime security card before entering the Harbor's property. Prior to starting work on this project, the Contractor shall provide a list of names (full legal name) and birth dates of all employees, representatives, subcontractors, vendors, and all alike, as well as their vehicles license number, year, make, color and model that will be entering the project site, together with a letter attesting that all personnel have received this training to the Harbors District Manager and Construction Engineer. All employees, representatives, subcontractors, vendors, and all alike, shall wear their respective company's identification card bearing the company's name, the individual's first and last name, and middle initial(s), and a recent photograph of the individual on the front of the identification card at all times while on Harbor's property.

With the possible exception of Item J above, all other requirements indicated shall be considered incidental to the project and shall be provided by the contractor at no cost to the State.

All Contractor's personnel requiring access to secure areas of maritime facilities will be required to obtain a Transportation Worker Identification Credential (TWIC). The project area has been deemed to be within a secured area. TWIC was established by Congress through the Maritime Transportation Security Act and is administered by the Transportation Security Administration (TSA) and U.S. Coast Guard. To obtain a TWIC, the applicant must provide biographic and biometric information such as fingerprints, sit for a digital photograph and successfully pass a security threat assessment conducted by TSA. The contractor will be responsible to obtain and pay for all costs associated in providing their appropriate employees with TWIC. Information

regarding TWIC is available on the TSA website at http://www.tsw.dhs.gov/what_we_do/layers/twic/index/shtm.

10.10 BEST MANAGEMENT PRACTICES - The Contractor must follow standard best management practices (BMPs) for air pollution, water pollution, noise and solid waste control, as required by Federal, State and County regulations, to protect the environment from effects of construction activity, including prohibiting any construction debris or other deleterious materials to fall, flow or otherwise enter harbor waters.

The Contractor shall submit the SWPPP to the Harbors Division for review and comment before work begins. The plan shall satisfy the requirements of ARTICLE XVI – TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL. This plan shall describe and detail all methods and procedures to be used to prevent air and water pollution, including preventing any materials, wastes and debris from entering any adjacent storm drain system and the harbor waters to the satisfaction of the Harbors Division and the State of Hawaii Department of Health (DOH). The Contractor shall revise the plan, at no additional cost to the State, should it be determined by the Construction Engineer and DOH that the plan is insufficient to prevent pollution.

10.11 STANDARD SPECIFICATIONS - The term “Standard Specifications” as used in these Technical Provisions of these Specifications, shall mean the “Hawaii Standard Specifications for Road and Bridge Construction, 2005, Department of Transportation Highway Division, Honolulu, Hawaii.”

10.12 PAYMENT - The various items of work described in this Article shall be paid for as shown on the Proposal Schedule and as covered in the following Articles of these Specifications.

ARTICLE XI - MOBILIZATION AND DEMOBILIZATION

11.1 GENERAL - The work consists of furnishing at the job site, plant, equipment, materials, labor and appliances and performing all work in connection with mobilization and demobilization for the job in accordance with this article of the specifications.

11.2 DESCRIPTION

- A. Mobilization shall include setting up, ready for use, all plant, equipment and necessary materials at the job site.
- B. Providing temporary barricades as required for Harbor operations during construction.
- C. Demobilization shall include the removal of all the Contractor's plant and equipment and surplus material from the job site. The cleanup of the job site, satisfactory to the Construction Engineer, shall also be included in this article.

PAYMENT - Payment for Mobilization and Demobilization shall not be made separately but shall be considered incidental to the applicable items in the Proposal Schedule.

ARTICLE XII – PAVEMENT REPAIRS

12.1 DESCRIPTION - The work to be done under this Article consists of repairing the damaged asphalt pavement in Piers 51C, 52 & 53 container yard.

The Construction Engineer, Contractor, and Tenant will locate and mark the repair areas at the job site, determine the type of repairs to be done, and period of completion of each work phase. Negotiated adjustments by the Construction Engineer may be made if field conditions show that changes or additions are necessary.

12.2 MATERIALS

- A. Aggregate Base Course shall consist of crushed stone free of vegetable matter and other deleterious substances conforming to Section 703.06 of the Standard Specifications.
- B. Hot Mix Asphalt Base (HMAB) Course shall conform to Section 301 of the Standard Specifications.
- C. Bituminous Tack Coat shall be a slow-setting emulsified asphalt conforming to section 407 of the Standard Specifications.
- D. Hot Mix Asphalt (HMA) Pavement shall be State Mix No. III or Superpave 19mm for Types “A” and “C” Repairs, and State Mix V for Type “D” Repairs. State Mix No. III and No. V HMA pavement shall conform to Section 401 of the Standard Specifications.

The Superpave 19mm pavement shall conform to the following modifications:

- 1. Performance Graded (PG) Binder:

Performance graded binder shall conform to Performance Graded Asphalt Binder Specifications, AASHTO M320. Submit, before usage, a Certificate of Compliance, accompanied by substantiating test data, showing conformance with Performance Graded Asphalt Binder Specification. The Engineer will not accept the PG binder without adequate documentation.

PERFORMANCE GRADED BINDERS FOR SPECIFIC MIXES	
MIX	BINDER
Superpave Hot Mix Asphalt for Surface Course (SHMA)	PG 64-16 or PG70-16
* When necessary, neat asphalt with polymer modification shall be used to achieve the specified performance grading.	

2. Aggregates:

Make mineral aggregate by crushing and screening hard, tough, durable stone of uniform quality. Crushed aggregate shall be free from soft or disintegrated pieces, clay, dirt, or other deleterious substances.

Course aggregate shall be that portion of the mineral aggregate retained on the No. 4 sieve. Fine aggregate shall be that portion of the mineral aggregate passing the No. 4 sieve.

When tested according to the designated methods, the combined mineral aggregate shall meet the following requirements:

Test	Test Method	Requirements
Soundness	AASHTO T 104 (5 cycles using sodium sulfate)	9% Maximum
Clay lumps & Friable Particles	AASHTO T 112	0.25% Maximum course aggregate 1.0% Maximum fine aggregate
Flat and Elongated Particles (Length to thickness ratio of 3:1)	ASTM D 4791 (by Weight)	20% Maximum
Los Angeles Abrasion	AASHTO T 96	40% Maximum
Sand Equivalent	AASHTO T 176	45% Maximum
Fine Aggregate Angularity	AASHTO T 304, Method A	45% Maximum
Stripping	AASHTO T 182	Above 95%
Gradation	AASHTO T 27 AASHTO T 11	See Table 402-1
Absorption	AASHTO T 84 & T 85	5% Maximum

At least 90% by weight of the material retained on the No. 4 sieve shall consist of crushed particles. At Least 70% of the material passing the No. 4 sieve and retained on the No. 8 sieve shall consist of crushed particles. A crushed particle is one having at least one mechanically fractured face. A face is considered fractured if it has a projected area that is at least 0.25 of the Maximum projected area of the particle.

3. Aggregate Blend:

Size, uniformly grade, and combine coarse and fine aggregate fractions to produce a job-mix formula that meets the gradation requirements of Table 12-1. Blended aggregate gradation curves shall not pass outside of the maximum control points.

Table 12-1 – Aggregate Gradation Control Points 3/4 Inch Nominal Maximum Size Mix		
SIEVE SIZE	Control Points Percent Passing	
	LOWER	UPPER
1 inch	100.0	100.0
3/4 inch	90.0	100.0
1/2 inch	-	90.0
No. 8	23.0	49.0
No. 200	2.0	8.0

4. Job-Mix Formula:

Design the job-mix formula according to AASHTO PP28 modified by deletion of Section 11 – Evaluation Moisture Susceptibility.

Table 12-2 – Design Criteria	
Ninitial, Ndesign, Nmax	8, 100, 160
Air Voids at Ndesign	4%
Voids in Mineral Aggregate (VMA) at Ndesign (for 3/4 inch Nominal Maximum Particle Size)	13.0% Minimum
Voids Filled with Asphalt (VMA)	65 – 75%
Density at Ninitial (% of Theoretical Maximum Specific Gravity)	Not more than 89.0%
Density at Ndesign (% of Theoretical Maximum Specific Gravity)	96.0%
Density at Nmax (% of Theoretical Maximum Specific Gravity)	Not more than 98.0%
Dust to Binder Ratio	0.8 to 1.6

Submit the job-mix formula at least 15 working days before production. The job-mix formula shall include:

- a. Design percent of aggregate passing each required sieve size,

- b. Design percent of PG binder material added to the aggregate (expressed as % by weight for total mix), and
- c. Temperature at which the mixture is delivered to the point of discharge,
- d. Source of aggregate,
- e. Grade of PG binder,
- f. Test data used to develop job-mix formula.

Mixtures shall meet the requirements of Table 12-1 and Table 12-2 without exceeding allowable tolerances in Table 12-3.

Passing No. 4 and larger sieves	± 6%
Passing No. 8 to No. 100 sieves (inclusive)	± 4%
Passing No. 200 sieve	± 2%
Binder Content (expressed as % by weight of total mix)	± 0.4%
Temperature of Mixture	20° F
Voids, total mix	± 1.0%

5. Compaction Requirements:

92 - 97% Relative compaction based on AASHTO T 209 modified by deletion of Supplemental Procedure for Mixtures Containing Porous Aggregate.

Tensile Strength	70,000 psi	400,000 psi
Length, inch (mm)	0.75" (19.05 mm)	1.5" (38.1 mm)
Color	Yellow, Black, Tan	Yellow, Black, Tan
Acid/Alkali Resistance	Inert	Good
Melt Temperature	212° F (100° C)	800° F (427° C)

- E. Hot Mix Asphalt (HMA) Pavement shall be Stone Matrix Asphalt (SMA) Pavement for Type "B" repairs and shall conform to Article XIV of these Specifications.

12.3 CONSTRUCTION

- A. TYPE "A" REPAIRS - Type "A" Repairs shall be done in areas where the asphalt pavement is unraveled, torn, uplifted or otherwise damaged. Damage extends into the base course.

Type "A" Repairs shall include the following work:

1. The existing asphalt pavement and base course shall be removed by cold planing. Cold planing shall be done in accordance with Section 415 of the Standard Specifications. If the subbase is disturbed, the disturbed subbase material shall be compacted to at least 95 per cent relative compaction. The removed asphalt pavement and base course shall not be reused as base material and shall be disposed of away from the job site. If unsuitable subbase material is encountered, it shall be replaced with aggregate base course as directed by the Construction Engineer in accordance with paragraph 12.3.E below.
2. A bituminous tack coat shall be applied on the prepared subbase surface in accordance with Section 407.03 of the Standard Specifications.
3. New 6-inch thick HMAB course shall be placed on a properly prepared subbase and shall conform to Section 301.03 of the Standard Specifications. The subbase shall be prepared conforming to the requirements of subsection 203.03(D) – Subgrade Preparation of the Standard Specifications.
4. A bituminous tack coat shall be applied on HMAB course in accordance with Section 407.03 of the Standard Specifications.
5. New 5-inch minimum thickness HMA pavement State Mix III or Superpave 19mm shall be placed in accordance with Section 401.03 of the Standard Specifications. The finished pavement shall be smooth, dense, uniformly graded, well drained while maintaining existing drainage, and compacted to a density of not less than 92 percent nor greater than 97 percent of maximum theoretical specific gravity in accordance with AASHTO T 209 modified by deletion of Supplemental Procedure for Mixtures Containing Porous Aggregate.

- B. TYPE "B" REPAIRS - Type "B" Repairs shall be done at areas where the existing asphalt pavement has been deteriorated by the placement of container chassis legs in the reefer rows. These areas may not be contiguous.

Type "B" Repairs shall include the following work:

1. Remove 8-foot wide existing asphalt pavement and base course by cold planing. Cold planing shall be done in accordance with Section 415 of the

Standard Specifications. If the subbase is disturbed, the disturbed subbase material shall be compacted to at least 95 percent relative compaction. The removed asphalt pavement and base course shall not be reused as base material and shall be disposed of away from the job site. If unsuitable subbase material is encountered, it shall be replaced with aggregate base course as directed by the Construction Engineer.

2. A bituminous tack coat shall be applied on the prepared subbase surface in accordance with Section 407.03 of the Standard Specifications.
3. New 6-inch thick HMAB course shall be placed on a properly prepared subbase and shall conform to Section 301.03 of the Standard Specifications. The subbase shall be prepared conforming to the requirements of subsection 203.03(D) – Subgrade Preparation of the Standard Specifications.
4. A bituminous tack coat shall be applied on the HMAB course in accordance with Section 407.03 of the Standard Specifications.
5. New 3-inch thick SMA pavement shall be placed in accordance with Article XIV of these Specifications.

- C. TYPE “C” REPAIRS - Type “C” Repairs shall be done at areas where the existing asphalt pavement is worn, uneven, slightly cracked and the base course is not damaged or contaminated.

Type “C” Repairs shall include the following work:

1. Removing the surface of the existing asphalt pavement to a depth of 5-inches below the existing grade by cold planing. Cold planing shall be done in accordance with Section 415 of the Standard Specifications. The removed asphalt concrete shall be hauled away from the job site and disposed of by the Contractor.
2. The pavement area shall be swept clean of all loose material, water, dirt, excess dust or other objectionable matter.
3. A bituminous tack coat shall be applied on the asphalt concrete base course in accordance with Section 407.03 of the Standard Specifications.
4. New 5-inch minimum thickness HMA pavement State Mix III or Superpave 19mm shall be placed in accordance with Section 401.03 of the Standard Specifications. The finished pavement shall be smooth, dense, uniformly graded, well drained while maintaining existing drainage, and compacted to not less than 92 percent nor greater than 97 percent of the maximum specific gravity determined in accordance with AASHTO T

209, modified by deletion of Supplemental Procedure for Mixtures Containing Porous Aggregate.

- D. TYPE "D" REPAIRS - Type "D" Repairs shall be done at areas where the existing asphalt pavement is worn, uneven, slightly cracked and the base course is not damaged or contaminated.

Type "D" Repairs shall include the following work:

1. Removing the surface of the existing asphalt pavement to a depth of 2-inches below the existing grade by cold planing. Cold planing shall be done in accordance with Section 415 of the Standard Specifications. The removed asphalt concrete shall be hauled away from the job site and disposed of by the Contractor.
2. The pavement area shall be swept clean of all loose material, water, dirt, excess dust or other objectionable matter.
3. A bituminous tack coat shall be applied on the existing asphalt pavement in accordance with Section 407.03 of the Standard Specifications.
4. New 2-inch minimum thickness HMA pavement State Mix III or Superpave 19mm shall be placed in accordance with Section 401.03 of the Standard Specifications. The finished pavement shall be smooth, dense, uniformly graded, well drained while maintaining existing drainage, and compacted to not less than 92 percent nor greater than 97 percent of the maximum specific gravity determined in accordance with AASHTO T 209, modified by deletion of Supplemental Procedure for Mixtures Containing Porous Aggregate.

- E. Replacing Subbase - Replacing subbase shall be done in areas where the existing subbase material is composed of adobe or other unsuitable material. Unsuitable subbase shall be replaced with aggregate base course.

Replacing subbase material shall include the following work:

1. After removal of the existing asphalt pavement and base course, a determination shall be made as to the extent of removal of the existing subbase material. If the subbase material is found to be unsuitable, 12-inch thick of the material shall be removed and disposed of. New triaxial geogrid material shall be placed. For triaxial geogrid specifications, see Article XIII of these Specifications.
2. New aggregate base course shall be placed to conform to Section 304.03 of the Standard Specifications.

- F. The Contractor shall hire an independent qualified testing lab to verify HMA pavement compaction requirements using field compaction testing in accordance with ASTM D2950, density test method by nuclear methods. Tests shall be performed at the minimum rate of three tests per 1,000 square yards.

12.4 PAYMENT - Payment shall be made as described below. Such payment shall include furnishing all labor, material, equipment, and other expenses required to complete each item in accordance with the plans and specifications.

- A. Item 1 - Type "A" Repairs. Payment shall be made at the unit price bid per square yard in the Proposal Schedule for Type "A" Repairs. Such payment shall include removing the existing asphalt pavement and base course material by cold planing, disposing of existing asphalt pavement and base course material, compacting the subbase material, applying bituminous tack coat, placing 6-inch thick HMAB course, applying bituminous tack coat, and placing 5-inch thick State Mix No. III or Superpave 19mm HMA pavement, compaction testing and all other incidental work required to complete this item.
- B. Item 2 - Type "B" Repairs. Payment shall be made at the unit price bid per square yard in the Proposal Schedule for Type "B" Repairs. Such payment shall include removal of 8-foot wide existing asphalt pavement and base course by cold planing, disposing of existing asphalt pavement and base course material, compacting the subbase material, applying bituminous tack coat, placing 6-inch thick HMAB course, applying bituminous tack coat, placing 3-inch thick SMA pavement, compaction testing, and all other incidental work required to complete this item..
- C. Item 3 - Type "C" Repairs. Payment shall be made at the unit price bid per square yard in the Proposal Schedule for Type "C" Repairs. Such payment shall include removal of 5-inch deep existing asphalt pavement by cold planing, disposing of existing asphalt pavement, cleaning the existing asphalt pavement surfaces, applying bituminous tack coat, and placing 5-inch thick State Mix No. III or Superpave 19mm HMA pavement, compaction testing, and all other incidental work required to complete this item.
- D. Item 4 - Type "D" Repairs. Payment shall be made at the unit price bid per square yard in the Proposal Schedule for Type "D" Repairs. Such payment shall include removal of 2-inch deep existing asphalt pavement by cold planing, disposing of existing asphalt pavement, cleaning the existing asphalt pavement surfaces, applying bituminous tack coat, and placing 2-inch thick State Mix V HMA pavement, compaction testing, and all other incidental work required to complete this item.
- E. Item 5 - Replacing Subbase. Payment shall be made at the unit price bid per cubic yard in the Proposal Schedule for Replacing Subbase. Such payment shall include removing and disposing of unsuitable subbase material and placing and

compacting new aggregate base course, and all other incidental work required to complete this item.

ARTICLE XIII – TRIAXIAL GEOGRID

13.1 DESCRIPTION – This section describes furnishing and placing a triaxial geogrid on a prepared surface.

13.2 MATERIALS

- A. General. Unless otherwise indicated in the contract documents, geogrid shall be manufactured from a punched and drawn polypropylene material formed into a radially stable network of open equilateral apertures with six intersecting ribs at each junction and a minimum mid-rib aspect ratio of 1.50, to allow interlocking with the unbound aggregate or base course materials. The combination of the two materials creates an improved mechanically stabilized layer (MSL) with significantly improved properties and performance capabilities that quantifiably allows a designer to modify aggregate and/or pavement sections.
- B. Geogrid Acceptance. The manufacturer's certificate of compliance and certified test results from a nationally accredited USA testing laboratory on the product, tested within six months of the submittal date shall be submitted for approval. Additionally, the following shall be included in the submittal:
 - 1) Manufacturer's name, current address, and telephone number
 - 2) Manufacturer's current Quality Assurance / Quality Control Manual.
 - 3) Full product name by trademark and product number.
 - 4) Geogrid polymer type(s).
 - 5) Recommended overlap.
 - 6) Six square yards of geogrid sample. Geogrid sample shall conform to requirements of Subsection 721.01(C) - Sampling.
- C. Sampling. Sampling shall be in accordance with ASTM D4354.
- D. Physical Properties. Physical property values in these specifications represent minimum average roll values (MARV) and are included for Quality Assurance purposes only. Average test results for any individual roll tested within a lot sampled, shall meet or exceed specified values.
- E. Packaging. Geogrids shall be provided in roll form of length and width to meet requirements.

- F. Identification. Unless otherwise indicated in the contract 53 documents, geogrid shall be identified in accordance with ASTM D 4873 54 and this subsection. Include the following information:
- 1) Unique roll number serially designated.
 - 2) Manufacturer's lot number or control numbers.
 - 3) Name of geogrid manufacturer.
 - 4) Date of manufacture.
 - 5) Product brand name.
 - 6) Manufacturer's style or catalog designation of the geogrid.
 - 7) Roll width, in feet.
 - 8) Roll length, in feet.
 - 9) Net weight of geogrid.
- G. Storage and Handling. Geogrids shall be stored and handled in 75 accordance with ASTM D 4873 and this subsection. During shipment 76 and storage, material shall not be exposed to sunlight or other forms of 77 light that contain ultraviolet rays, for more than 6 months.
- H. Geogrid Pavement Modification Material. Material shall be 80 Tensar TriAx TX7 Geogrid, as manufactured by Tensar International 81 Corporation, or approved equal.
- I. Performance Requirements for Proposing Equal Geogrid Materials
- 1) Performance testing validation with Accelerated Pavement Tests 87 (APT) at a facility in the United States, in compliance with NCHRP 88 Report 512 and Synthesis 325 and AASHTO R-50. A minimum 89 of three Accelerated Pavement Tests (APT) shall be performed 90 on paved structures and use the specific branded product 91 proposed for use. Performance of pavement sections must be 92 evaluated with standard highway moving wheel loads. Geogrid 93 reinforced sections with thinner asphalt sections shall be 94 compared to control section(s) with a thicker asphalt section. Test 95 results are only valid if total ESALs trafficked on each section tested falls within range of ESALs predicted in the design of those sections, with a minimum trafficking requirement of 800,000 ESALs at less than 1 inch permanent surface deformation.

- 2) No proposed alternative equal geogrid will be accepted based on material index properties or explanations of performance based on testing of geogrid index properties, or the use of research conducted on other branded geogrid products (including those of similar manufacturing type). Geotextile materials shall not be considered as an alternate to geogrid materials for subgrade improvement, flexible pavement asphalt and aggregate base section modification.
- 3) Any submittal for an alternate MSL must be submitted at least 2 weeks in advance of the bid date. Submittals submitted less than two weeks before the bid date will be considered non responsive and be considered invalid. The alternate MSL shall contain the following:
 - a) A written statement from the alternative pavement design engineer of record that the proper calibration and validation testing has been performed for the geogrid reinforcement utilized in the MSL in accordance with these specifications
 - b) A submittal package that includes performance studies referenced in section 13.2 I 1 above and documented evidence of calibration and validation testing.
 - c) Any other information as requested by the Engineer.

13.3 CONSTRUCTION – Before placing triaxial geogrid, remove loose or extraneous material and prepare subbase according to the plan. Place triaxial geogrid under manufacturer’s instructions, longitudinally along roadway alignment, and with minimal wrinkles. Overlap adjacent edges of the rolls at least 1.5 feet in the direction the material is spread covering the geogrid. The geogrid may be cut to conform to curves.

13.4 PAYMENT – Payment shall be made as described below. Such payment shall include furnishing all labor, material, equipment, and other expenses required to complete each item in accordance with the plans and specifications.

- A. Item 6 – Triaxial Geogrid. Payment shall be made at the unit price bid per square yard in the Proposal Schedule for Triaxial Geogrid. Such payment shall include installing new triaxial geogrid material and all other incidental work required to complete this item.

ARTICLE XIV – STONE MATRIX ASPHALT PAVEMENT

14.1 DESCRIPTION – This Section describes furnishing and placing stone matrix asphalt pavement on a prepared surface. General requirements for asphalt pavements as specified in Section 401 Hot Mix Asphalt (HMA) Pavement are applicable to this Section, subject to any exceptions contained herein.

14.2 MATERIALS – Materials shall conform to the following:

1. Performance Graded (PG) Binder:

Performance graded binder shall conform to Performance Graded Asphalt Binder Specifications, AASHTO M 332 and meet the following requirement:

AASHTO T 315 Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR).

Submit, before usage, a Certificate of Compliance, accompanied by substantiating test data, showing conformance with Performance Graded Asphalt Binder Specification. The Engineer will not accept the PG binder without adequate documentation.

Grade PG binder using AASHTO M 332 Performance Graded Asphalt Binder Using Multiple Stress Creep Recovery (MSCR) Test. Submit MSCR grading report accompanied by substantiating test data.

PERFORMANCE GRADED BINDERS FOR SPECIFIC MIXES	
MIX	BINDER*
Stone Matrix Asphalt (SMA) for Surface Course	PG 64E-22
* Neat asphalt with elastomer polymer modification shall be used to achieve the specified performance grading.	

2. Aggregates:

Make mineral aggregate by crushing and screening hard, tough, durable stone of uniform quality. Crushed aggregate shall be free from soft or disintegrated pieces, clay, dirt, or other deleterious substances.

Coarse aggregate shall be that portion of the mineral aggregate retained on the No. 4 sieve. Fine aggregate shall be that portion of the mineral aggregate passing the No. 4 sieve.

When tested according to the designated methods, the combined mineral aggregate shall meet the following requirements:

Test	Test Method	Requirement
Soundness	AASHTO T 104 (5 cycles using sodium sulfate)	9% Maximum
Flat and Elongated Particles (Length to thickness ratio of 3:1)	ASTM D 4791 (by Weight)	20% Maximum
Los Angeles Abrasion	AASHTO T 96	30% Maximum
Sand Equivalent	AASHTO T 176	50% Minimum
Absorption	AASHTO T84 & T85	4% Maximum
Gradation	AASHTO T 27 AASHTO T 11	See Table 406-1
Plasticity Index	AASHTO T90	Non-Plastic

100 percent of the material retained on the No. 4 sieve shall consist of crushed particles. A crushed particle is one having at least one mechanically fractured face. A face is considered fractured if it has a projected area that is at least 0.25 of the maximum projected area of the particle.

3. RAP (Reclaimed Asphalt Pavement):

Use of RAP is not allowed in SMA.

4. Aggregate Blend:

Size, uniformly grade, and combine coarse and fine aggregate fractions to produce a job-mix formula that meets the gradation requirements of Table 14-1.

TABLE 14-1 - AGGREGATE GRADATION LIMITS 3/4 INCH NOMINAL MAXIMUM SIZE MIX	
SIEVE SIZE	PERCENT PASSING
1 inch	100
3/4 inch	90-100
1/2 inch	44-70

3/8 inch	25-40
No. 4	20 - 28
No. 8	15 - 22
No. 16	-
No. 30	-
No. 50	-
No. 100	-
No. 200	8 - 12

5. Mineral Filler:

Mineral filler shall conform to AASHTO M 17 and shall be rock dust or crushed limestone conforming to the following:

Test	Test Method	Requirement
Plasticity Index	AASHTO T 90	4% Maximum

6. Stabilizer:

Dosage rate of cellulose shall be approximately 0.3 percent (by weight of total mix) and sufficient to prevent draindown not to exceed the amount stated in Table 14-2 - Design Criteria as determined by AASHTO T 305 Standard Method of Test for Determination of Draindown Characteristics in Uncompacted Asphalt Mixtures. Increase the amount of fiber at no additional cost to HDOT to meet the allowed draindown requirement. Fibers other than cellulose fiber that are equal or better may be used if requested to and accepted by the Engineer. The Engineer is under no obligation to accept a substitution.

7. Job-Mix Formula:

Design the job-mix formula according to AASHTO R 46.

Table 14-2 - Design Criteria	
$N_{initial}, N_{design}, N_{max}$	8, 75, 100

Air Voids at N_{design}	4%
Voids in Mineral Aggregate (VMA) at N_{design} (for 1/2 inch Nominal Maximum Particle Size)	17.0% Minimum
Voids in Coarse Aggregate (VCA)	Less than VCA_{DRC}
Density at N_{initial} (% of Theoretical Maximum Specific Gravity)	Not more than 89.0 %
Density at N_{design} (% of Theoretical Maximum Specific Gravity)	96.0 %
Density at N_{max} (% of Theoretical Maximum Specific Gravity)	Not more than 98.0 %
Binder Content (by weight of total mix)	6.0 % Minimum
Draindown at Production Temperature	0.3 % Maximum
Stabilizer (by weight of total mix)	0.2 - 0.4 %

Submit the job-mix formula at least 30 working days before production. Production paving shall not start until the job mix formula has been reviewed and found acceptable by the Engineer. The job-mix formula shall include:

1. Design percent of aggregate passing each required sieve size (aggregate gradation),
2. Design percent of PG binder material added to the aggregate (expressed as % by weight of total mix),
3. Temperature at which the mixture is delivered to the point of discharge,
4. Source of aggregate,
5. Grade of PG binder,
6. Type and percentage of stabilizer, and
7. Test data used to develop job-mix formula.

Mixtures shall meet the requirements of Table 14-1 and 14-2.

Table 14-3 — Production Tolerances	
Passing 3/8 inch and larger sieves	± 5%
Passing No. 4 to No. 16 sieves (inclusive)	± 4%
Passing No. 30 to No. 100 sieves (inclusive)	± 3%
Passing No. 200 sieve	± 2.0%
Binder Content (expressed as % by weight of total mix)	± 0.4%
Temperature of Mixture	± 20° F
Voids, total mix	± 1.0%

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

14.3 CONSTRUCTION REQUIREMENTS

Construction requirements shall be as specified in Section 401.03 of the Standard Specifications except as follows:

A. Equipment

1) Mixing Plant. Use mixing plants that conform to AASHTO M 156, supplemented as follows:

a) All Plants.

1. Automated Controls. Control proportioning, mixing, and mix discharging automatically.

2. Dust Collector. AASHTO M 156, Requirements for All Plants, Emission Controls is amended as follows:

Equip plant with dust collector. Dispose of collected material. In the case of baghouse dust collectors, dispose of collected material or return collected material uniformly.

3. Stabilizer Supply System. Use a separate system for feeding stabilizing additives to proportion the required amount into the mixture and obtain a uniform distribution.

Stabilizer supply system shall include low level and no-flow indicators, section of transparent pipe for observing consistency of flow or feed interlock with plant controls, and printout of status of feed rate.

2) Hauling Equipment.

Use trucks that have tight, clean, smooth, metal beds for hauling SMA.

Thinly coat truck beds with a minimum quantity of detergent or lime solution to prevent the mixture from adhering to the beds. A light dusting of No. 10 aggregate coated with one percent asphalt may be used in lieu of liquid release agent. The use of diesel or petroleum-based liquid release agents will not be allowed.

Raise truck beds to drain excess water before loading with SMA mixture.

Equip each truck with tarpaulin conforming to the following:

- a) In good condition, without tears and holes.
- b) Large enough to be stretched tightly over truck bed completely covering the mix.

B. Plant Operation.

- 1) Mixing. Measure aggregate and asphalt into mixer in accordance with job-mix formula. Mix until the components are completely mixed and adequately coated with asphalt in accordance with AASHTO M 156. Percent of coated particles shall be 98% when tested in accordance with AASHTO T 195.

C. SMA Storage.

Store the SMA mixture only in silos or surge bins. Do not stockpile the SMA.

Equip the storage silo to prevent segregation of the completed mixture as the mixture is discharged into the silo or surge bin.

Stored material shall be of no less quality than mixtures discharged directly into hauling vehicles.

D. Spreading and Finishing.

Prior to each day's paving operation, check screed or strike-off assembly surface with straight edge to ensure straight alignment. Provide screed or strike-off

assembly that produces finished surface without tearing, shoving, and gouging SMA. Discontinue using spreading equipment that leaves ridges, indentations, or other marks, or combination thereof in surface that cannot be eliminated by rolling or be prevented by adjustment in operation.

The minimum temperature of the bituminous mixture as discharged to the paver shall be established during the mix design procedure. Measure temperature of mix in hauling vehicle just before depositing into spreader.

Deposit SMA in a manner that minimizes segregation. Raise truck beds with tailgates closed before discharging SMA mixture.

Lay, spread, and strike off SMA upon prepared surface. Use asphalt pavers to distribute mixture.

Control horizontal alignment using automatic grade and slope controls from reference line, ski and slope control device, or dual skis.

Obtain sensor grade reference from 30-foot ski for first pass. For subsequent passes, substitution of one ski with joint-matching shoe riding on the recently-placed-finished-adjacent pavement is acceptable. Use of a comparable non-contact mobile reference system and joint matching shoe is acceptable.

Avoid stop-and-go operations. Minimize changing forward speed of paver during paver operation.

Offset longitudinal joint in successive lifts by approximately 6 inches. Position joint in surface course at centerline of pavement when roadway comprises two lanes of width, or at lane lines when roadway is more than two lanes in width. Joints shall be parallel to the centerline of the road or lane and shall have a uniform longitudinal alignment that is not wavy in appearance.

In areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, spread, rake, and lute the mixture by hand tools. For such areas, dump, spread, and screed the mixture to required compacted thickness.

Demonstrate competence of personnel operating grade and crown control device before placing surface courses. If automatic control system becomes inoperative during the day's work, the Engineer will permit the Contractor to finish work using the material on site or is in the process of being delivered to the project using manual controls. Do not resume work until automatic control system is made operative. The Engineer may waive requirement for electronic screed control device when paving gores, shoulders, transitions, and miscellaneous reconstruction areas.

When production of SMA can be maintained and when practicable, use pavers in echelon to place surface course in adjacent lanes.

E. Compaction.

Immediately after spreading and striking off SMA and adjusting surface irregularities, uniformly compact the mixture by rolling.

Initiate compaction within the temperature range determined from the Temperature-Viscosity graph that does not produce excessive horizontal movement.

Use steel-tired tandem rollers for initial or breakdown rolling. Rollers shall follow directly behind the paver.

Finish rolling using tandem roller. Complete compaction before the mix cools below 240°F.

If necessary, repair damage immediately using rakes and fresh mix. Do not displace line and grade of SMA edges during rolling.

Keep roller wheels properly moistened with water or water mixed with small quantities of detergent. Use of excess liquid, e.g., water, detergent and water mixture, diesel, and petroleum- based liquids will not be allowed on rollers.

Along forms, curbs, headers, walls and other places not accessible to rollers, compact mixture with hot hand tampers, smoothing irons or mechanical tampers that have been accepted by the Engineer. On depressed areas, trench roller or cleated compression strips under roller may be used to transmit compression.

Remove pavement that is loose, broken, exposed to deleterious material, contaminated, or shows an excess or deficiency in asphalt binder content; or is defective in any way or combination thereof. Replace with fresh SMA pavement of same type and compact. Remove and replace defective pavement and compact at no increase in contract price or contract time.

Operate rollers at slow but uniform speed with drive wheels nearest the paver. Continue rolling to attain specified density and until roller marks are eliminated.

Compact SMA to not less than 94.0 percent nor greater than 97.0 percent of the maximum specific gravity determined in accordance with AASHTO T 209.

14.4 PAYMENT – Payment shall be made as described in Article XII Section 12.4.B of these Specifications.

ARTICLE XV – PAVEMENT MARKINGS

15.1 GENERAL - The work to be done under this Article consists of furnishing and installing all pavement markings.

15.2 MATERIAL

- A. Pre-mixed Reflectorized Traffic Paint - Pre-mixed reflectorized white and yellow traffic paint shall be composed of a pigment binder and glass spheres and shall conform to Section 755.01 of the Standard Specifications. Glass spheres may be applied immediately after striping using a bead dispenser. Glass spheres shall be applied at a rate of 6 lbs/gal.

15.3 CONSTRUCTION

- A. Pavement markings and striping shall be in conformance with Section 629, Pavement Markings, of the Standard Specifications and conform to the latest edition of the FHWA publication “Manual on Uniform Traffic Control Devices for Streets and Highways” (MUTCD), and as amended, and shall be applied as shown on the plan and as specified herein.
- B. The Contractor shall establish control points throughout the project for the layout of pavement markings and striping. The layout shall be done by the Contractor and approved by the Construction Engineer prior to any installation work.
- C. Pavement paints shall be applied to surfaces that are free of moisture and thoroughly cleaned of loose, foreign or other material that may adversely affect bonding. Clean, newly placed surfaces need not be blast cleaned unless otherwise directed by the Construction Engineer for removal of abnormal amounts of asphalt, dirt, grease, oil or other material that may adversely affect bonding. If necessary, the Contractor shall additionally clean a prepared surface that may become contaminated with moisture, dust or other foreign matter immediately prior to the installation of pavement paints. The Construction Engineer will determine the suitability of any surface for the installation of pavement paints.
- D. Pavement markings and striping shall be applied no sooner than SEVEN (7) days nor later than FOURTEEN (14) days after completion of the pavement. Markings and striping shall be laid out and painted to match the existing layout.

15.4 PAYMENT - Payment shall be made as described below. Such payment shall include furnishing all labor, material, equipment, and other expenses required to complete each item in accordance with the plans and specifications.

- A. Item 7 - Pavement Marking. Payment for pavement markings shall be made at the unit price bid per lineal foot in the Proposal Schedule for Pavement Markings. Such payment shall include laying out control points, cleaning pavement surfaces and placing new pavement markings, and all other incidental work required to complete this item.

ARTICLE XVI – TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL
For Project Subject to NPDES NOI-C Permit

16.1 DESCRIPTION - This section is required for all work, including the Contractor's storage sites. It describes the following:

- A. A detailed Storm Water Pollution Prevention Plan (SWPPP) required by a National Pollutant Discharge Elimination System (NPDES) Appendix C General Permit from the State of Hawaii Department of Health (HDOH) and prepared according to Section 7 of Appendix C, Hawaii Administrative Rules (HAR) Chapter 11-55, will satisfy this requirement. Additionally, all projects at Honolulu, Kalaehoa Barbers Point, and Kahului Harbors are subject to State of Hawaii, Department of Transportation (HDOT) Harbors Division, Storm Water Management Plan (SWMP) requirements, and are subject to Harbors Best Management Practice (BMP) inspections. If any requirement conflicts with those administered by HDOH, the Contractor shall follow the more stringent requirement.
- B. Compliance with applicable federal and other state permit conditions.
- C. Work associated with dewatering and hydrotesting activities and compliance with conditions of the NPDES general permit coverage authorizing discharges associated with construction activity dewatering and hydrotesting.

16.2 GENERAL REQUIREMENTS - In order to provide for the control of temporary water pollution, dust, and erosion arising from the construction activities of the Contractor and his subcontractors in the performance of this contract, the work performed shall comply with all applicable federal, state, and local laws and regulations concerning water pollution control including, but not limited to, the following regulations:

- A. State of Hawaii, HDOH, HAR Chapter 11-54 – Water Quality Standards and Chapter 11-55 – Water Pollution Control.
- B. For projects at Honolulu, Kalaehoa Barbers Point, and Kahului Harbors ONLY, HDOT Harbors Division, Storm Water Management Plan.
- C. For projects at Honolulu, Kalaehoa Barbers Point, and Kahului Harbors ONLY, City and County of Honolulu (CCH), Rules Relating to Water Quality.
- D. For projects at Honolulu, Kalaehoa Barbers Point, and Kahului Harbors ONLY, CCH, Storm Water BMP Manual for Construction.
- E. 40 CFR Part 110, Environmental Protection Agency (EPA), Discharge of Oil.

- F. 40 CFR Part 117, EPA, Determination of Reportable Quantities for Hazardous Substances.
- G. 40 CFR Part 261, EPA, Identification and Listing of Hazardous Waste.
- H. 40 CFR Part 302, EPA, Designation, Reportable Quantities, and Notification.
- I. 49 CFR Part 171, U.S. Department of Transportation, Hazardous Materials Regulations.

16.3 MATERIALS - Materials shall conform to the following when applicable:

- A. Slope Drains. Slope drains may be constructed of pipe, fiber, mats, erosion control fabric, geotextiles, rubble, Portland cement concrete, bituminous concrete, plastic sheets, or other materials acceptable to the Construction Engineer.
- B. Grass. Grass shall be quick growing species such as rye grass, Italian grass, or cereal grasses. Grass shall be suitable to the area and provide a temporary cover that will not compete later with permanent cover. Alternative grasses are allowable if acceptable to the Construction Engineer.
- C. Fertilizer and Soil Conditions. Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Construction Engineer.
- D. Silt Fences. Silt fences shall be synthetic filter fabric mounted on posts and embedded in compacted ground in compliance with American Society for Testing and Materials (ASTM) D6462-03, Standard Practice for Silt Fence Installation.
- E. Berms. Berms shall be gravel or sand wrapped with geotextile material. Alternate materials are allowable if acceptable to the Construction Engineer.
- F. Alternate materials or methods to control, prevent, remove, and dispose of pollution are allowable if acceptable to the Construction Engineer.

16.4 CONSTRUCTION

- A. Preconstruction Requirements.
 - 1. Temporary Water Pollution, Dust, and Erosion Control Meeting. The contractor shall be required to submit a SWPPP to the Construction Engineer and address all comments by the Construction Engineer. After the SWPPP is accepted in writing by the Construction Engineer, the Contractor shall schedule a meeting with the Construction Engineer before the start of construction work to discuss the sequence of work, and plans and proposals for water pollution, dust, and erosion control.

2. Temporary Water Pollution, Dust, and Erosion Control Submittals. The Contractor shall submit the SWPPP for approval by the Construction Engineer prior to the start of work.
 - a. The following information shall be described in the SWPPP as specified in Section 7 of Appendix C, HAR 11-55, at a minimum:
 - 1) Storm water team (by name or position), which is responsible for the development of the SWPPP, any later modifications to it, and for compliance with the requirements in the NPDES permit. The SWPPP must identify the personnel that are part of the storm water team as well as their individual responsibilities.
 - 2) Nature of construction activities including the size of the project site (in acres) and the total area expected to be disturbed by the construction activities (in acres), construction support activity areas covered by permit, and the maximum area expected to be disturbed at any one time.
 - 3) Emergency-related projects in response to a public emergency (e.g., natural disaster, extreme flooding conditions). If this applies to the project, documentation of the cause of the public emergency, information substantiating its occurrence, and a description of the construction necessary to re-establish affected public services shall be included in the SWPPP. The proclamation of a civil defense emergency or similar proclamation is required to be from the President of the United States or State Governor.
 - 4) Identification of other site contractors (e.g., sub-contractors) who will be engaged in construction activities at the site, and the areas of the site over which each contractor has control. If this piece of information is not available at the time the SWPPP is submitted, the plan must be amended to include the information prior to the start of construction activities.
 - 5) Sequence and estimated dates of construction activities including a schedule of the estimated start dates and the duration of the following activities, according to Section 7.2.5 of Appendix C, HAR 11-55:
 - a) Installation of storm water control measures.

- b) Commencement and duration of earth-disturbing activities.
 - c) Cessation, temporarily or permanently, of construction activities on-site, or in designated portions of the project site.
 - d) Final or temporary stabilization of areas of exposed soil.
 - e) Removal of temporary storm water conveyances/ channels and other storm water control measures, removal of construction equipment and vehicles, and cessation of any pollution-generating activities.
- 6) Site map or series of maps, showing the following features of the project, according to Section 7.2.6 of Appendix C, HAR 11-55:
- a) Boundaries of the property and the locations where construction activities will occur, including:
 - i. Locations where earth-disturbing activities will occur (noting any sequencing of construction activities);
 - ii. Approximate slopes and drainage patterns with flow arrows before and after construction;
 - iii. Locations where sediment, soil, or other construction materials will be stockpiled;
 - iv. Locations of any contaminated soil or contaminated soil stockpiles;
 - v. Locations of any crossings of state waters;
 - vi. Designated points on the site where vehicle will exit onto paved roads;
 - vii. Locations of structures and other impervious surfaces upon completion of construction; and

- viii. Locations of construction support activity areas covered by the permit.
 - b) Locations of all state waters, including wetlands and indicate which water bodies are listed as impaired.
 - c) The boundary lines of any natural buffers.
 - d) Topography of the site, existing vegetative cover, and features (e.g., forest, pasture, pavement, structures), and drainage pattern(s) of storm water onto, over, and from the site property before and after construction.
 - e) Storm water discharge locations, including locations of any storm drain inlets on-site and in the immediate vicinity of the site to receive storm water runoff from the project; and locations where storm water will be discharging to state waters (including wetlands).
 - f) Locations of all potential pollutant-generating activities.
 - g) Locations of storm water control measures; and
 - h) Locations where chemicals will be used and stored.
- 7) Construction site pollutants generated by on-site activities. For each pollutant-generating activity, an inventory of pollutants or pollutant constituents (e.g., sediment, fertilizers and/or pesticides, paints, solvents, fuels) associated with that activity, which could be exposed to rainfall and could be discharged from the construction site (include potential spills and leaks).

A list of all material and heavy equipment to be used during construction. Vehicles and equipment shall be well maintained and free from any type of fluid leaks.

- 8) Sources of non-storm water, including, but not limited to, the design, installation, and maintenance of the control measures to prevent its discharge.
- 9) Buffer documentation. When a State water is located within 50 feet of the project's earth disturbances, the Contractor

shall describe which compliance alternative has been selected for the site, and comply with Section 5.1.2.1 of Appendix C, HAR 11-55, Appendix C.

- 10) Description of storm water control measures to be used during construction activity including information on:
 - a) Storm water control measures to be used during construction activity meet the requirements of Section 5 HAR 11-55, Appendix C.
 - i. Information on the type of storm water control measure to be installed and maintained, including design information;
 - ii. What specific sediment controls will be installed and made operational prior to conducting earth-disturbing activities in any given portion of the site to meet the requirement of Section 5.1.2.2.1 of HAR 11-55, Appendix C.
 - iii. If contaminated soil exists on-site, the control measures to either prevent the contact of storm water with the contaminated soil, including any contaminated soil stockpiles, or prevent the discharge of any storm water runoff which has contacted contaminated soil or any contaminated soil stockpiles;
 - iv. For exit points on the site, document stabilization techniques to be used and any additional controls that are planned to remove sediment prior to vehicle exit.
 - v. For linear projects, document the location where the use of perimeter controls in portions of the site is impracticable and the reason why (refer to Section 5.1.2.2.1 of HAR 11-55, Appendix C).

- b) Stabilization practices including specific vegetative and/or non-vegetative practices. Document the circumstances preventing from meeting the deadlines specified in Section 5.2.1.1 and/or 5.2.1.2 of HAR 11-55, Appendix C;
- c) Post-construction measures that will minimize the discharge of pollutants via storm water discharges after construction operations have been finished.

11) Pollution prevention procedures.

- a) Spill prevention and response procedures, including:
 - i. Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks;
 - ii. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Parts 110, 117, or 302, occurs during a 24-hour period. Spill Contact information must be in location that is readily accessible and available.
- b) Waste management procedures on handling and disposing of all wastes generated at the site, including, but not limited to, clearing and demolition debris, sediment removed from the site, construction and domestic waste, hazardous or toxic waste, and sanitary waste.

The Contractor is advised to procure regulated hazardous materials on an as-needed basis, as feasible. All excess regulated hazardous materials at the conclusion of this project shall remain the property of the Contractor and shall be removed

from HDOT Harbors Division property upon the completion of the project.

- 12) Procedures for inspection, maintenance, and corrective action to be followed for conducting site inspections, maintaining the storm water control measures, and, where necessary, taking corrective actions. Additionally, include following information in the SWPPP:
 - a) Personnel responsible for conducting inspections;
 - b) Inspection schedule. Contractor's Self-Inspections shall be conducted at applicable schedules listed below. Note that inspections are only required during the project's normal working hours.
 - i. Inspection Frequency for sites discharging to impaired waters¹. For any portion of the site that discharges to an impaired water, the inspection shall be conducted at the following intervals:
 - a) Once every seven (7) calendar days; and
 - b) Within 24 hours of the occurrence of the storm event of 0.25 inches or greater.
 - c) Daily during periods of a prolonged storm event of 0.25 inches or greater.
 - ii. Inspection Frequency for sites NOT discharging to impaired waters. At a minimum, the inspection shall be conducted in accordance with one of the two schedules listed below:
 - a) At least weekly; or

¹ "Impaired waters" are waters identified as impaired on the State Clean Water Act Section 303(d) list, and waters with a State-established and EPA-approved Total Maximum Daily Load (TMDL). The construction site will be considered to discharge to an impaired water if the first State water to which the discharge enters is to a water on the section 303(d) list or one with a State established and EPA-approved TMDL. For a discharge that enters a storm water drainage system prior to discharge, the first State water to which discharge occurs is the water body that receives the storm water discharge from the storm water drainage system.

- b) Biweekly (once every 14 calendar days), and within 24 hours of the occurrence of a storm event of 0.25 inches or greater, daily during periods of a prolonged storm of 0.25 inches or greater, and within 24 hours after the end of the storm.
- iii. Reductions in inspection frequency. For stabilized areas, the Contractor may reduce the frequency of inspections to monthly (once per month) in any area of the site where the stabilization steps have been completed as follows:
 - a) For vegetative stabilization, all activities necessary to initially seed or plant the area to be stabilized; and/or
 - b) For non-vegetative stabilization, the installation or application of all such non-vegetative measures.

Note that inspections are only required during the project's normal working hours.
- c) Any inspection or maintenance checklists or other forms that will be used.

Contractor shall either keep a properly maintained rain gauge in a secure location to monitor rainfall at the project site, or obtain the storm event information from a weather station that is representative of the location. If a rain gauge is to be utilized to determine if a storm event of 0.25 inches or greater has occurred on the site, it must have a tolerance of at least 0.05 inches of rainfall, and an opening of at least 1-inch diameter. Install the rain gauge on the project site in an area that will not deter rainfall from entering the gauge opening. Maintain the rain gauge and replace the gauge if stolen, it does not function properly or accurately, is worn out, or needs to be relocated. Do not begin fieldwork until the rain gauge is installed and the SWPPP is in place. For any day of rainfall during normal business hours that measures 0.25 inches or greater, the Contractor shall record the total rainfall measured for that day.

- 13) Staff training documentation that the required personnel were trained in accordance with Section 7.2.13 of Appendix C, HAR 11-55, to ensure that all activities on the site comply with the requirements of the issued permit. The list of major required personnel are as listed below:
- a) Personnel responsible for the design, installation, maintenance, and/or repair of storm water controls (including pollution prevention measures);
 - b) Personnel responsible for the application and storage of chemicals (if applicable);
 - c) Personnel responsible for conducting BMP inspections;
 - d) Personnel responsible for taking corrective actions

At a minimum, personnel must be trained to understand the following, if related to the scope of their job duties (e.g., only personnel responsible for conducting inspections need to understand how to conduct inspections):

- a) The location of all storm water controls on the site required by the issued permit, and how they are to be maintained;
- b) The proper procedures to follow with respect to the permit's pollution prevention requirements; and
- c) When and how to conduct inspections, record applicable findings, and take corrective actions.

The Contractor is not required to provide or document formal training for subcontractor or other outside service providers, but must ensure that such personnel understand any requirements of the permit that may be affected by the work they are subcontracted to perform. Detailed discussion is provided in Section 7.2.13.2 of Appendix C, HAR 11-55.

- 14) Documentation of compliance with Safe Drinking Water Act Underground Injection Control (UIC) requirements for certain subsurface storm water controls, if using any of the following storm water controls at the project site:

- a) Infiltration trench (if storm water is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system);
 - b) Commercially manufactured precast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate storm water flow; and
 - c) Drywells, seepage pits, or improved sinkholes (if storm water is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system).
- 15) Other information listed below.
- a) Contractor information (general and subcontractors) including legal name, street address, contact person's name and position title, telephone number, and email address.
 - b) Other state, federal, or county permits including:
 - i. Copy of the drainage system owner's approval allowing the discharge to enter their drainage system (if applicable);
 - ii. Copy of the Department of the Army permit and Section 401 water quality certification (if applicable); and
 - iii. A list of other permits (if applicable).
- 16) Any other information as requested by the Director of HDOH and/or HDOT.
- 17) SWPPP certification. The owner or its duly authorized representative must certify, sign, and date the Plan in accordance with Section 15 of Appendix A, HAR 11-55.
- b. The Contractor shall keep the approved SWPPP on-site or at an easily accessible location throughout the duration of the project. Revisions to the Plan shall be included with the original plan. Modify contract documents to conform to revisions. Include actual

date of installation and removal of BMP. Obtain written acceptance by the Construction Engineer before revising SWPPP. Additionally, the planned modifications to the BMP meeting the conditions listed in Section 7.4.1 of Appendix C, HAR 11-55, shall be documented and updated in the SWPPP according to Section 7.4 of Appendix C, HAR-55. An updated Plan shall be kept on-site throughout the remainder duration of the project.

The Contractor shall follow guidelines in the “*The City and County of Honolulu Storm Water Best Management Practice Manual – Construction,*” (dated November 2011) in developing, installing, and maintaining BMP for the project. Follow *CCH Rules Relating to Soil Erosion Standards and Guidelines* (dated April 1999) for all projects at Honolulu, Kalaehoa Barbers Point, and Kahului Harbors. Use respective Soil Erosion Guidelines for other Maui, Kauai and Hawaii County projects. Information can be found at the respective County websites.

B. Construction Requirements are as follows.

1. No work shall be allowed to begin until submittals detailed in Subsection 14.4 A.2 – Temporary Water Pollution, Dust, and Erosion Control Submittals are completed and accepted in writing by the Construction Engineer. The Contractor shall prevent pollutants from entering state waters. These efforts shall address areas such as those that drain to water, are over water, or drain to storm drains in the area of the project site. The Contractor shall design, operate, implement, and maintain the Plan to ensure that storm water discharges associated with construction activities will not cause or contribute to a violation of applicable state water quality standards.
2. All projects at Honolulu, Kalaehoa Barbers Point, and Kahului Harbors are subject to HDOT Harbors Division SWMP requirements for construction at those harbors. The requirements include, but are not limited to, construction site BMP initial, recurring (i.e. every two weeks from October through March and every two months otherwise), and final inspections at the frequencies outlined in the SWMP. No grading or land disturbance activities are allowed until the initial BMP inspection is completed and required BMPs are found to be properly installed.
3. Address all comments received from the Construction Engineer.
4. Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.

5. Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.
6. BMP shall be in place and operational until the construction is completed and accepted by Harbors.
7. Install and maintain either or both stabilized construction entrances and wheel washes to minimize tracking of dirt and mud onto roadways. Restrict traffic to stabilized construction areas only. Clean dirt, mud, or other material tracked onto the road immediately. Modify stabilized construction entrances to prevent mud from being tracked onto roadways.
8. Chemicals may be used as soil stabilizers for either or both erosion and dust control if acceptable to the Construction Engineer.
9. Cover exposed surface of materials completely with tarpaulin or similar device when transporting aggregate, soil, excavated material or material that may be a source of fugitive dust.
10. Cleanup and remove any pollutant that can be attributed to the Contractor.
11. Install or modify BMP due to change in the Contractor's means and methods, or for omitted condition that should have been allowed for in the accepted SWPPP or a BMP that replaces an accepted one that is not satisfactorily performing.
12. Properly maintain BMP. For projects that require an NPDES Appendix C General Permit from the HDOH, inspect, prepare a monthly compliance report, and make repairs to BMP on a timely basis. Maintain records of BMP inspections for the duration of the project. Submit copies of the inspection reports to the Construction Engineer upon request.
13. Remove, replace or relocate any BMP that must be removed, replaced or relocated due to potential or actual flooding, or potential danger or damage to the project or public.
14. The Contractor's designated representative specified in Subsection 14.4 A. 2.a.1 shall address any BMP concerns brought up by the Construction Engineer within 24 hours of notification, including weekends and holidays. Should the Contractor fail to satisfactorily address these concerns, the Construction Engineer reserves the right to employ outside assistance or use the Construction Engineer's own labor forces to provide necessary corrective measures. The Construction Engineer will charge the Contractor such incurred costs plus any associated project engineering costs. The Construction Engineer will make appropriate deductions from the Contractor's monthly progress estimate. Failure to apply BMP shall

result in either or both the establishment and increase in the amount of retainage due to unsatisfactory progress or withholding of monthly progress payment. Continued failure to apply BMP may result in one or more of the following: the Contractor being fully responsible for all additional costs incurred by HDOT Harbors Division including any fines levied by HDOH, suspension of the Contract, or cancellation of the Contract.

15. The owner or its duly authorized representative shall be responsible for fulfilling the reporting requirements (e.g., state of construction activities, incident notification) according to Section 12 of Appendix C, HAR 11-55, and submittal requirements (e.g., monthly compliance report, Notice of Cessation form) according to Section 13 of Appendix C, HAR 11-55.

- C. **Hydrotesting Activities.** If work includes removing, relocation or installing waterlines, and the Contractor elects to flush waterline or discharge hydrotesting effluent into state waters or drainage systems, obtain a Notice of General Permit Coverage (NGPC) authorizing discharges associated with hydrotesting waters from the HDOH Clean Water Branch (CWB). If a permit is required, prepare and submit permit application (CWB-Notice of Intent (NOI) Form F) to the HDOH CWB.

Do not begin hydrotesting activities until the HDOH CWB has issued a NGPC. Hydrotesting operations shall be in accordance with conditions in the NGPC. Submit a copy of the NPDES Hydrotesting Waters Application and Permit to the Construction Engineer.

- D. **Dewatering Activities.** If excavation or backfilling operations requires dewatering, and the Contractor elects to discharge dewatering effluent into state waters or existing drainage systems, obtain an NGPC authorizing discharges associated with construction activity dewatering from the HDOH CWB. If a permit is required, prepare and submit permit application (CWB-NOI Form G) to the HDOH CWB.

Do not begin dewatering activities until the HDOH-CWB has issued an NGPC. Conduct dewatering operations in accordance with the conditions in the NGPC. Submit a copy of the NPDES Dewatering Application and Permit to the Construction Engineer.

16.5 PAYMENT – Payment for Temporary Stormwater Pollution, Dust and Erosion Control will not be measured and paid for separately but shall be incidental to applicable items in the Proposal Schedule.

No progress payment will be authorized until the Construction Engineer accepts in writing the SWPPP or when the Contractor fails to maintain the project site in accordance with the accepted SWPPP.

The Contractor shall reimburse the State of Hawaii within 30-day for the full amount of all outstanding costs incurred by the State of Hawaii for all citations or fines received as a result of the Contractor's non-compliance with regulations.

**STATE OF HAWAII
DEPARTMENT OF HEALTH
SOLID WASTE SECTION**

Solid Waste Disclosure Form for Construction Sites

The following form shall be filled out for construction projects either identified as under 40 CFR 122.26(b)(14)(x) or produces (or will produce) dredged spoils. A response must be provided for each item. If an item is not relevant to the activity, indicate by "Not Applicable" (N/A), with a short comment.

This form helps the Department of Health, Solid Waste Section (SWS) to identify sources of construction/demolition waste and site clearing debris. Property owners, developers, operators and contractors are responsible for ensuring the proper disposal of such solid waste. Violators of Chapter 11-58.1, HAR, "Solid Waste Management Control," are subject to enforcement, corrective actions, and fines.

Mail completed forms to the Department of Health, Solid Waste Section, 2827 Waimano Home Road, Pearl City, Hawaii 96782. Any questions regarding this form should call (808) 586-4226.

I. Site Information

- A. Site Address: _____
- B. Name of Owner: _____
- C. Owner address: _____
- D. Owner phone number: _____
- E. Tax Map Key (TMK): _____
- F. Size of Site (acres): _____

II. County Permit Information

- A. Issuing County Agency: _____
- B. Grading permit no.: _____
- C. Demolition permit no.: _____
- D. Grubbing/Stockpiling permit no.: _____

III. Site Activity Information

- A. State the kinds of site clearing activities to be completed. State final use of site: _____

- B. Describe structures on site (if none, indicate N/A): _____

If structures exist, are they to be demolished or removed?
 yes no. If yes, submit copy of building assessment.

IV. Contractor Information

A. General Contractor: _____
Contact: _____ Phone: _____

B. Site Clearing/Demolition Contractor: _____
Contact: _____ Phone: _____

C. Hauling Contractor: _____
Contact: _____ Phone: _____

D. Asbestos/Lead Abatement Contractor: _____
Contact: _____ Phone: _____

E. Destination of Waste Materials:

1. Building demolition materials:

To landfill (name): _____

- concrete (specify) _____
- scrap metal (specify) _____
- non-ferrous metals (specify) _____
- roofing materials (specify) _____
- other (specify) _____

To permitted recycling facility (name): _____

- concrete (specify) _____
- green waste (specify) _____
- non-ferrous metals (specify) _____
- scrap metal (specify) _____
- other (specify) _____

For re-use. State what wastes are to be reused and where: _____

2. Dredged spoils:

To landfill (name): _____

To permitted recycling facility (name): _____

For re-use (list address and TMK No.): _____

I declare that I have read and examined the foregoing summary and that the facts stated in it are true.

Sign Here: _____ Title: _____
Print Name: _____ Date: _____
Employer: _____ Phone: _____

NOTE: The person who completed this form must be a representative of either the owner or contractor. Furthermore, if the destination of waste material(s) change or will change, then the owner, contractor or the representative of the owner or contractor shall submit a revised Solid Waste Disclosure Form with updated information to the Department of Health, Solid Waste Section, 2827 Waimano Home Road, Pearl City, Hawaii 96782.

Requirements of Chapter 104, HRS

Wages and Hours of Employees on Public Works Law

Chapter 104, HRS, applies to every public works construction project over \$2,000, regardless of the method of procurement or financing (purchase order, voucher, bid, contract, lease arrangement, warranty, SPRB).

Rate of Wages for Laborers and Mechanics

- Minimum prevailing wages (basic hourly rate plus fringe benefits), as determined by the Director of Labor and Industrial Relations and published in wage rate schedules, shall be paid to the various classes of laborers and mechanics working on the job site. [§104-2(a), (b), Hawaii Revised Statutes (HRS)]
- If the Director of Labor determines that prevailing wages have increased during the performance of a public works contract, the rate of pay of laborers and mechanics shall be raised accordingly. [§104-2(a) and (b), HRS; §12-22-3(d) Hawaii Administrative Rules (HAR)]

Overtime

- Laborers and mechanics working on a Saturday, Sunday, or a legal holiday of the State or more than eight hours a day on any other day shall be paid overtime compensation at not less than one and one-half times the basic hourly rate plus the cost of fringe benefits for all hours worked. If the Director of Labor determines that a prevailing wage is defined by a collective bargaining agreement, the overtime compensation shall be at the rates set by the applicable collective bargaining agreement [§§104-1, 104-2(c), HRS; §12-22-4.1, HAR]

Weekly Pay

- Laborers and mechanics employed on the job site shall be paid their full wages at least once a week, without deduction or rebate, except for legal deductions, within five working days after the cutoff date. [§104-2(d), HRS]

Posting of Wage Rate Schedules

- Wage rate schedules with the notes for prevailing wages and special overtime rates, shall be posted by the contractor in a prominent and easily accessible place at the job site. A copy of the entire wage rate schedule shall be given to each laborer and mechanic employed under the contract, except when the employee is covered by a collective bargaining agreement. [§104-2(d), HRS]

Withholding of Accrued Payments

- If necessary, the contracting agency may withhold accrued payments to the contractor to pay to laborers and mechanics employed by the contractor or subcontractor on the job site any difference between the wages required by the public works contract or specifications and the wages received. [§104-2(e), HRS]

Certified Weekly Payrolls and Payroll Records

- A certified copy of all payrolls shall be submitted weekly to the contracting agency. [§104-3(a), HRS; §12-22-10, HAR]
- The contractor is responsible for the submission of certified copies of the payrolls of all subcontractors. The certification shall affirm that the payrolls are correct and complete, that the wage rates listed are not less than the applicable rates contained in the applicable wage rate schedule, and that the classifications for each laborer or mechanic conform with the work the laborer or mechanic performed. [§104-3(a), HRS; §12-22-10, HAR]
- Payroll records shall be maintained by the contractor and subcontractors for three years after completion of construction. The records shall contain: [§104-3(b), HRS; §12-22-10, HAR]
 - the name and home address of each employee
 - the last four digits of social security number
 - a copy of the apprentice's registration with DLIR
 - the employee's correct classification
 - rate of pay (basic hourly rate + fringe benefits)
 - itemized list of fringe benefits paid
 - daily and weekly hours worked
 - weekly straight time and overtime earnings
 - amount and type of deductions
 - total net wages paid
 - date of payment
- Records shall be made available for examination by the contracting agency, the Department of Labor and Industrial Relations (DLIR), or any of its authorized representatives, who may also interview employees during working hours on the job. [§§104-3(c), 104-22(a), HRS; §12-22-10, HAR]

Termination of Work on Failure to Pay Wages

- If the contracting agency finds that any laborer or mechanic employed on the job site by the contractor or any subcontractor has not been paid prevailing wages or overtime, the contracting agency may, by written notice to the contractor, terminate the contractor's or subcontractor's right to proceed with the work or with the part of the work in which the required wages or overtime compensation have not been paid. The contracting agency may complete this work by contract or otherwise, and the contractor or contractor's sureties shall be liable to the contracting agency for any excess costs incurred. [§104-4, HRS]

Apprentices

- Apprentice wage rates apply to contractors who are a party to a bona fide apprenticeship program which has been registered with the DLIR. In order to be paid apprentice rates, apprentices must be parties to an agreement either registered with or recognized as a USDOL nationally approved apprenticeship program by the DLIR, Workforce Development Division, (808) 586-8877, and the apprentice must be individually registered by name with the DLIR. [§12-22-6(1) and (2), HAR]
- The number of apprentices on any public work in relation to the number of journeyworkers in the same craft classification as the apprentices employed by the same employer on the same public work may not exceed the ratio allowed under the apprenticeship standards registered with or recognized by the DLIR. A registered or recognized apprentice receiving the journeyworker rate will not be considered a journeyworker for the purpose of meeting the ratio requirement. [§12-22-6(3), HAR]

Enforcement

- To ensure compliance with the law, DLIR and the contracting agency will conduct investigations of contractors and subcontractors. If a contractor or subcontractor violates the law, the penalties are: [§104-24, HRS]
 - First Violation Equal to 25% of back wages found due or \$250 per offense up to \$2,500, whichever is greater.
 - Second Violation Equal to amount of back wages found due or \$500 for each offense up to \$5,000, whichever is greater.
 - Third Violation Equal to two times the amount of back wages found due or \$1,000 for each offense up to \$10,000, whichever is greater; and
Suspension from doing any new work on any public work of a governmental contracting agency for three years.
- A violation would be deemed a second violation if it occurs within two years of the **first notification of violation**, and a third violation if it occurs within three years of the **second notification of violation**. [§104-24, HRS; §12-22-25(b), HAR]
- **Suspension:** For a first or second violation, the department shall immediately suspend a contractor who fails to pay wages or penalties until all wages and penalties are paid in full. For a third violation, the department shall penalize and suspend the contractor as described above, **except that if the contractor continues to violate the law, then the department shall immediately suspend the contractor for a mandatory three years. The contractor shall remain suspended until all wages and penalties are paid in full.** [§§104-24, 104-25, HRS]
- **Suspension:** Any contractor who fails to make payroll records accessible or provide requested information within 10 days, or fails to keep or falsifies any required record, shall be assessed a penalty including suspension as provided in Section 104-22(b) and 104-25(a)(3), HRS. [§104-3(c), HRS; §12-22-26, HAR]
- If any contractor interferes with or delays any investigation, the contracting agency shall withhold further payments until the delay has ceased. Interference or delay includes failure to provide requested records or information within ten days, failure to allow employees to be interviewed during working hours on the job, and falsification of payroll records. The department shall assess a penalty of \$10,000 per project, and \$1,000 per day thereafter, for interference or delay. [§104-22(b), HRS; §12-22-26, HAR]
- Failure by the contracting agency to include in the provisions of the contract or specifications the requirements of Chapter 104, HRS, relating to coverage and the payment of prevailing wages and overtime, is not a defense of the contractor or subcontractor for noncompliance with the requirements of this chapter. [§104-2(f), HRS]

For additional information, visit the department's website at <http://labor.hawaii.gov/wsd> or contact any of the following DLIR offices:



Oahu (Wage Standards Division).....(808) 586-8777
Hawaii Island(808) 974-6464
Maui and Kauai(808) 243-5322

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION

PROPOSAL

PROPOSAL TO THE STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION

PROJECT: FY22 ONE-YEAR MAINTENANCE CONTRACT FOR PAVEMENT REPAIRS AT PIERS 51C, 52 & 53 CONTAINER YARD, HONOLULU HARBOR, OAHU, HAWAII

PROJECT NO.: H. C. 10830

COMPLETION TIME: All work for this project shall be completed within three hundred sixty-five (365) calendar days from the date indicated in the Notice to Proceed and the number of days shall commence on the issuance of the notice to proceed. The intent of the contract is to provide for the construction final acceptance of the work described by the contract documents at the accepted bid price and within the time established by the contract. The Contractor has the duty to furnish all labor, materials, equipment, tools, transportation, incidentals, and supplies and to determine the means, methods, and schedules required to complete the work in accordance with the contract documents.

Unless otherwise directed by the Engineer in writing, the Contractor shall not commence with physical construction without sufficient materials and equipment available at the project site for either continuous construction until completion, or completion of a specified portion of the work.

LIQUIDATED DAMAGES: TWO HUNDRED TWENTY FIVE AND NO/100 DOLLARS (\$225.00) for each and every calendar day which the Contractor has delayed the completion of this project

DESIGN PROJECT MANAGER: MR. EMMANUEL LEGASPI
DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
HALE AWA MOKU
79 S. NIMITZ HIGHWAY
HONOLULU, HAWAII 96813
PHONE: (808) 587-1875
FAX: (808) 587-1864

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 5% of the total amount bid, in the form checked below. (Check applicable bid security submitted with bid.)

_____ Surety Bid Bond (Use standard form),

_____ Cash,

_____ Cashier's Check,

_____ Certified Check, or

_____ (Fill in other acceptable security.)

The undersigned Bidder acknowledges receipt of any addendum issued by the Department by recording in the space below the date of receipt.

Addendum No. 1 _____

Addendum No. 3 _____

Addendum No. 2 _____

Addendum No. 4 _____

In accordance with Section 103D-302, Hawaii Revised Statutes, the undersigned as Bidder, has listed the name of each person or firm, who will be engaged by the Bidder on the project as 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

It is understood that certain Hawaii Products may be acceptable for use in this project and that, pursuant to Act 192, SLH 2009, which provides preference for Hawaii Products, a bidder proposing to use such Hawaii products shall so designate in the schedule provided below.

If a bidder proposes to use Hawaii Products, the bidder must so designate in said schedule by entering the cost of such product in the appropriate space provided. Failure on the part of the bidder to designate the use of Hawaii products will automatically void any preference for that product.

Persons desiring to qualify product(s) not currently on the list, shall complete form SPO-38, *Certification for Hawaii Product Preference* in accordance with the Special Provisions of these specifications.

It is understood by the bidder that if the bidder elects to furnish qualified Hawaii Products, and is awarded the contract, then fails to use such products or meet the requirements of such preference, the bidder shall be subject to the statutory penalties, provided in Section 103D-1002, Hawaii Revised Statute, and such other remedies as may be available to the State.

() Yes, I propose to use Hawaii Products and claim the Hawaii Products Preference. I have filled in the table on the following pages as applicable.

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.

DESIGNATION OF APPROVED HAWAII PRODUCTS* TO BE USED
***CONSTRUCTION PRODUCTS AND SOIL AMENDMENTS/PRODUCTS**

Product Category	Product Subcategory as applicable	Manufacturer	Cost FOB Jobsite, Unloaded Including Applicable General Excise & Use Taxes (a)	10% (b)	Credit (a) x (b)
Aggregates – Basaltic Termite Barrier		Ameron International Corporation (Oahu)(Maui)	\$		\$
		HC&D LLC (Oahu)	\$		\$
Aggregates and Sand – Basalt, Rock, Cinder, Limestone and Coral		Ameron International Corporation (Oahu)(Maui)	\$		\$
		Delta Construction Corporation (Oahu)	\$		\$
		Edwin Deluz Trucking & Gravel LLC (Hawaii)	\$		\$
		Goodfellow Bros, Inc. (All Islands)	\$		\$
		Grace Pacific (Oahu)	\$		\$
		GW Construction (Hawaii)	\$		\$
		Hawaiian Cement (Oahu) (Maui)	\$		\$
		Jas. W. Glover, Ltd. (Hawaii) (Kauai)	\$		\$
		Kauai Aggregates (Kauai)	\$		\$
		HC&D LLC (Oahu) (Maui)	\$		\$
		Puna Rock Co., LTD. (Hawaii)	\$		\$
		Sanford’s Service Center, Inc. (Oahu) (Maui) (Hawaii) (Kauai)	\$		\$
		Sphere, LLC (Oahu)	\$		\$
		Tileco, Inc. (Oahu) (Hawaii) (Maui) (Kauai)	\$		\$
		Tri-L Construction, Inc. (Molokai)	\$		\$
West Hawaii Concrete (Hawaii)	\$		\$		
Yamada and Sons, Inc. (Hawaii)	\$		\$		
Aggregates – Recycled Asphalt and Concrete		Glover Honsador (Kauai)	\$		\$
		Grace Pacific (Oahu)	\$		\$
		Jas. W. Glover, Ltd. (Hawaii) (Oahu)	\$		\$
		West Oahu Aggregate Co. Inc. (Oahu)	\$		\$

Asphalt and Paving Materials	Ala Imua LLC (Oahu)	\$	\$
	Black Maui Rose LLC (Maui)	\$	\$
	Black Plumeria LLC (Oahu)	\$	\$
	GP Roadway Solutions, Inc. (All Islands)	\$	\$
	Grace Pacific Corporation (Hawaii) (Oahu) (Kauai)	\$	\$
	Halawa Asphalt LLC (Oahu)	\$	\$
	Hawaii Emulsion, Inc. (All Islands)	\$	\$
	Jas. W. Glover, Ltd. (Hawaii) (Kauai)	\$	\$
	Maui Asphalt X-IV, LLC (Maui) (Molokai)(Kauai)	\$	\$
	Maui Paving LLC (Maui) (Molokai)	\$	\$
	Road and Highway Builders (Oahu)	\$	\$
	Walker-Moody Pavement Products & Equipment (All Islands)	\$	\$
	Yamada and Sons, Inc. dba YS Rock and Con-Agg of Hawaii (Hawaii)	\$	\$
	Cement and Concrete Products	Ameron International Corporation (Oahu) (Maui)	\$
BOMAT, Ltd. (All Islands)		\$	\$
Glover Honsador (Kauai)		\$	\$
Hawaiian Cement (Oahu)(Maui)		\$	\$
Island Ready Mix Concrete, Inc. (Oahu)		\$	\$
Jas. W. Glover, Ltd. (Hawaii)(Kauai)		\$	\$
Jensen Enterprises (All Islands)		\$	\$
Kiewit Infrastructure West Co. (Oahu)		\$	\$
Kohala Coast Concrete & Precast LLC (Hawaii)		\$	\$
HC&D LLC (Oahu) (Maui)		\$	\$
O. Thronas, Inc. (Kauai)		\$	\$
Road and Highway Builders, LLC (Oahu)		\$	\$
Tileco, Inc. (Oahu)(Hawaii)(Maui)(Kauai)		\$	\$
Tri-L Construction, Inc. (Molokai)		\$	\$
West Hawaii Concrete (Hawaii)		\$	\$
Yamada and Sons, Inc. (Hawaii)	\$	\$	

Precast Concrete Products		Aloha Precast, Inc. (All Islands)	\$	\$
		Ameron International Corporation (Oahu)	\$	\$
		GPRM Prestress LLC (All Islands)	\$	\$
		Hawaii Concrete Products, Inc. (Oahu)	\$	\$
		Hawaii Precast, Inc. (All Islands)	\$	\$
		Kohala Coast Concrete & Precast LLC (Hawaii)	\$	\$
		Ramtek Fabrication Co., Inc. (All Islands)	\$	\$
		Walker Industries, Ltd. (Oahu)(Hawaii)(Maui)(Kauai)	\$	\$
Environmental Sewage – Treatment Innovative System (ESIS)	Septic Tanks	Ameron International Corporation (Oahu)	\$	\$
		Environmental Waste Management Systems, Inc. (Oahu)(Hawaii)(Maui)(Kauai)	\$	\$
		Walker Industries, Ltd. (All Islands)	\$	\$
Hot Dip Galvanizing		Universal Associates, Inc. (Oahu)	\$	\$
Metal Roofing and Flashing – Preformed		HPM Building Supply (All Islands)	\$	\$
Pipes – Aluminum and Galvanized	Pipes – Misc.	Ameron International Corporation (Oahu)	\$	\$
Aluminum Floating Dock – Misc.		Bluewater Marine and Dock Specialties (All Islands)	\$	\$
		High Seas Welding LLC dba JS Marine (All Islands)	\$	\$
Signs – Traffic, Regulatory & Construction		GP Roadway Solutions, Inc. (All Islands)	\$	\$
		Safety Systems and Signs Hawaii, Inc. (All Islands)	\$	\$
Veneer		Big Rock Manufacturing (All Islands)	\$	\$

Soil Amendments, Mulch, Compost		Eko Systems Inc. (Oahu) (Maui) (Hawaii)(Kauai)	\$	\$
		Hawaiian Earth Recycling LLC (All Islands)	\$	\$
		Island Topsoil LLC (All Islands)		
		Kauai Nursery & Landscaping, Inc. (All Islands)	\$	\$
		Molokai Seed Co. (All Islands)	\$	\$
		Sanford's Service Center, Inc. (Hawaii)	\$	\$
Compost Filter		EnviroTech BioSolutions Hawaii, Inc. (All Islands)	\$	\$
		Certified Erosion Control Hawaii LLC (All Islands)	\$	\$
TOTAL			\$	\$

FY22 ONE-YEAR MAINTENANCE CONTRACT FOR
PAVEMENT REPAIRS AT PIERS 51C, 52 & 53 CONTAINER YARD
HONOLULU HARBOR, OAHU, HAWAII

JOB H. C. 10830

PROPOSAL SCHEDULE

Item No.	Item Description	Approx. Quantity (a)	Unit	Unit Price (b)	Amount Bid (a x b)
1	Type "A" Repairs	1,000	Square Yards	\$_____/Sq. Yard	\$_____
2	Type "B" Repairs	750	Square Yards	\$_____/Sq. Yard	\$_____
3	Type "C" Repairs	5,000	Square Yards	\$_____/Sq. Yard	\$_____
4	Type "D" Repairs	100	Square Yards	\$_____/Sq. Yard	\$_____
5	Replacing Subbase	75	Cubic Yards	\$_____/Cu. Yard	\$_____
6	Triaxial Geogrid	65	Square Yards	\$_____/Sq. Yard	\$_____
7	Pavement Markings	7,500	Lineal Feet	\$_____/Li. Foot	\$_____
TOTAL AMOUNT FOR COMPARISON OF BIDS \$_____					

Bids shall include all Federal, State, County and other applicable taxes and fees.

The TOTAL AMOUNT FOR COMPARISON OF BIDS will be used to determine the lowest responsible bidder.

Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.

In case of a discrepancy between unit price and the total in said bid, the unit price shall prevail. Bids will be evaluated on the basis of the TOTAL AMOUNT FOR COMPARISON OF BIDS. If the lowest TOTAL AMOUNT FOR COMPARISON OF BIDS is less than, or approximately equal to the funds available for this project, an award will be made to the lowest responsible bidder.

If the lowest TOTAL AMOUNT FOR COMPARISON OF BIDS exceeds the funds available for this project, the State reserves the right to negotiate with the lowest responsible bidder as permitted under Section 103D-302, Hawaii Revised Statutes, as amended, to reduce the scope of work and award a contract.

Should additional funds become available at any time after the establishment of the lowest responsible bidder, then work and associated costs which previously had been deleted from the contract scope to bring the project within the then available funding, may be fully restored to the contract scope and the TOTAL AMOUNT FOR COMPARISON OF BIDS as the additional funding may accommodate. Cost escalation for any bid items will not be allowed to be added to the TOTAL AMOUNT FOR COMPARISON OF BIDS when restoring contract scope as stated above.

Submission of Proposal 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.

No additional compensation will be paid by the State for losses, including overhead and profit, resulting from reduced scope of work.

Contract time shall remain the same whether or not the overall scope of work is decreased.

The bidder must enter all unit prices and amounts otherwise it may affect the awarding of the contract.

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

SAMPLE FORMS

Contents:

Performance Bond (Surety)
Performance Bond
Labor and Material Payment Bond (Surety)
Labor and Material Payment Bond
Chapter 104, HRS Compliance Certificate

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 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 Contract with the 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 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 _____, 20__.

«CONTRACTOR»
Name of Corporation, Partnership, or Individual

Signature and Title of Signer

Notary Seal
NOTARY ACKNOWLEDGEMENT

Subscribed and sworn before me this
_____ day of _____
Notary signature _____
Notary public, State of _____
My Commission Expires: _____

Notary Seal
NOTARY CERTIFICATION

Doc. Date: _____ #Pages: _____
Notary Name: _____ Circuit
Doc. Description: _____

Notary signature _____
Date _____