MARKET SURVEY

SUBJECT: US ARMY WHITE OAK TRAILER DECKING MARKET SURVEY

Return the completed survey no later than Close of Business (COB) 28 December 2018 to all of the following:

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DESCRIPTION AND BACKGROUND:

- 1. The hardwood, Apitong (*Dipterocarpus* spp.), also called Keruing, has been the most prevalent decking hardwood on flatbed DoD tactical trailers for some years. Apitong is an East Asian sourced tropical rainforest hardwood. It was recently discovered that the International Union for Conservation of Nature (IUCN) Red List classified numerous Apitong species as "Extinct", "Critically Endangered", and "Endangered." These IUCN Red List classifications resulted from a decline in natural growing range and widespread commercial exploitation.
- 2. AR 200-1 defines the Army's overall environmental regulatory policy, which includes a global commitment to environmental stewardship and sustainability. Section 2-1 (1) specifically states that all Army organizations will foster an ethic within the Army that takes us beyond environmental compliance to sustainability. The Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA-ALT) is expressly charged with ensuring integration of environmental quality considerations in all aspects of acquisition programs. AR 200-1, Sec. 1-7, Section 3-3(d) specifically states: "Acquisition program managers should ensure that weapons systems are designed so that they can be tested, operated, maintained, repaired, and disposed of in accordance with applicable environmental, safety, and occupational health statutes, regulations, policies, and environmental treaties and agreements." In summary AR 200-1 makes it Army policy to sustain the environment by numerous means including minimizing adverse effects on environmental resources while enabling the worldwide Army mission. The use of internationally recognized endangered species by the Army counters AR 200-1 regulatory policy. As such, known sustainable hardwood species must be utilized for trailer floorboards going forward.
- 3. In July 2018, The United States Army Tank-automotive and Armaments Command (TACOM) Commander directed a transition to sustainably sourced, non-listed hardwood species. The Commander's intention was to address AR 200-1 environmental compliance and to proactively manage Apitong's obsolescence while mitigating potential future supply and readiness issues. Leading authorities were consulted at the USDA Forest Service Forest Products Laboratory (USDA-FS-FPL) and Michigan Technological University School of Forest Resources and Environmental Science Wood Protection Group (MTU-SFRES) regarding a satisfactory sustainable replacement for Apitong. Suitable and cost-comparable hardwoods with adequate mechanical properties were considered. The received recommendation was White Oak, which has natural superior Biodeterioration resistance; is strong, hard, and abrasion resistant; is grown, harvested, and milled domestically; and most importantly, is of known sustainable sourcing being an IUCN species of "Least Concern" for extinction. As a result of the above findings, competitive

specification language for White Oak trailer floorboards has been created to be utilized for future floorboard trailer production and sustainment procurements.

- 4. The American Hardwood Export Council indicated that the available domestic White Oak commercial supply can supply the Army's total decking needs and provided the following information:
 - a. White Oak accounts for 15.7 percent of the total U.S. hardwood growing stock (2.08 billion cubic meters). The growing range of White Oak roughly constitutes the eastern half of the continental United States
 - b. American White Oak range is the eastern half of the U.S. and is growing at 39.6 million cubic meters per year, while the harvest is only 20.9 million cubic meters per year. The net volume, after harvest, is increasing 18.6 million cubic meters per year.

Market Survey Request:

The Government seeks to widely solicit interested forestry industry and identify potential commercial sources for White Oak trailer floorboards.

General Information:

There is no risk to you for participating in this survey. Participation in this effort is strictly voluntary with no cost or obligation to be incurred by the U.S. Government. This notice does not constitute an Invitation to Bid or Request for Proposal. This request for information does not commit the Government to pay any cost incurred in preparation of any submission to this questionnaire. The Government will in no way be bound to this information if any solicitation is issued. The Government will not release any information marked with proprietary legend received in response to this questionnaire to any firms, agencies, or individuals outside the Government without written permission in accordance with the legend.

Instructions for Completing Survey:

All interested firms, regardless of size, are encouraged to respond to this request for information.

It is not necessary to respond to this market survey in order to be eligible for future contract awards.

Electronic responses are required respectively for the questionnaire. It is requested that electronic responses be provided in any of the following formats: Microsoft Word 2013 or earlier, Microsoft Excel 2013 or earlier, Microsoft PowerPoint 2013 or earlier, or an Adobe Acrobat .pdf file. The maximum size of each e-mail message should be no more than ten (10) megabytes. You may use multiple e-mail messages. The subject line must include the message number, (example: 1 of 3, 2 of 3, 3 of 3), and quote mark "[Company's Name] response to White Oak Market Survey".

MARKET SURVEY CURRENT DESIGN CONSIDERATIONS AND QUESTIONNAIRE:

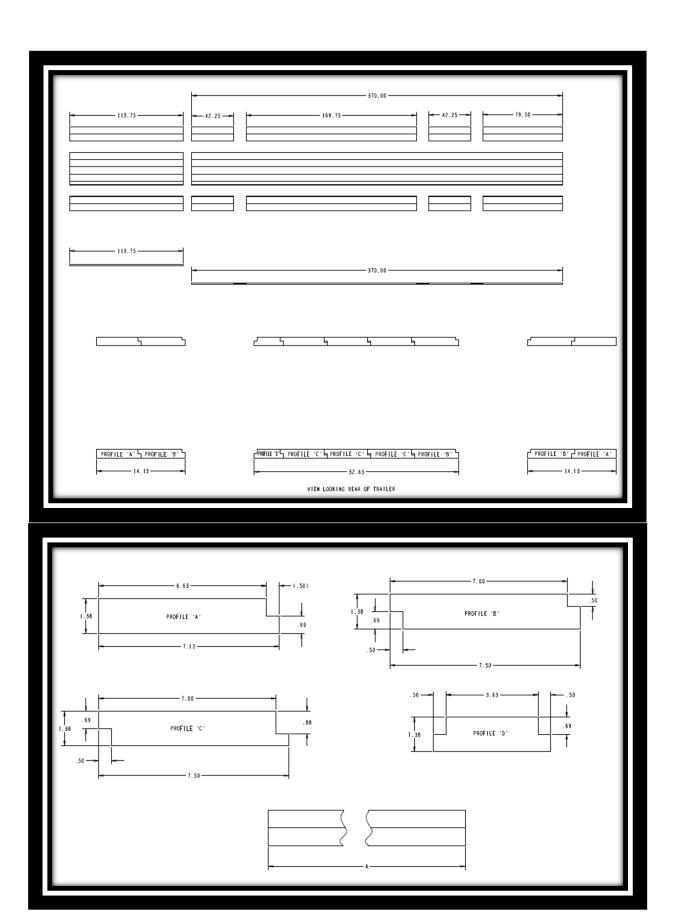
The questionnaire and relevant information for design considerations below are intended to provide a snapshot of the situation so that you can provide your company's capabilities for delivering a solution for white oak floorboard decking. Specifically, please provide a quote meeting the information in the "Current Design Considerations" section below.

Current Design Considerations:

The White Oak material to be used in your quote must adhere to the following specification language:

Floorboards shall be White Oak species and in accordance with Federal Specification for Hardwood Lumber MM-L-736, Type II: Hardwood construction lumber; Selects grading (threshold) or higher F1F or FAS (objective) rated in accordance with National Hardwood Lumber Association (NHLA) Rules. Floorboard lumber shall be domestically grown, sourced, and milled. The lumber/boards cut method shall be plainsawn (threshold) or quartersawn (objective) type. Boards shall be surfaced and of the required profile (length, width, thickness, and edge detail). For natural rot resistance, only heartwood (not sapwood) containing non-absorptive plugged tyloses shall be used. Floorboards shall be continuous for the required length without butt-joints or breaks. For the required continuous length floorboards, joined lumber in length is acceptable. If joining is utilized, it shall be the horizontal structural finger type. Joined segments shall be a minimum of 72 inches apart. Finger joining adhesives shall be suitable for exterior hardwood applications and shall meet the exterior adhesive requirements specified in ASTM D2559 using a White Oak (Quercus alba) substrate. The strength of the finger joint shall be no less than 75% of the base hardwood and qualified using the Axial Tension Test method specified in ASTM D7469. Defects in hardwood component segments shall not impair the quality of joints. No knot, split, or similar defect shall be permitted at a machined/glued finger-joint, where it may impair the strength and serviceability of the component. The cut end-grain at each board end shall be seal saturated with appropriate moisture resistant wax coating.

Please provide a quote for the kit dimensions below (See Market Survey Questionnaire, Section 7).



Market Survey Questionnaire: Co	ompany Information and Request for Quote White Oak Floorboard
Company Identification: Company Name: Cage Code: Mailing Address: Company Website: Location of Facilities: Point of Contact: Phone Number: Fax Number: Email:	
Business Type (Check all that apply)8(a)	: Minority Owned
Disabled Veteran	Small Business
Hub Zone	Small-Disadvantaged
Large Business	Women Owned
	our company provide in terms of manufactured lumber products, Please list and describe the similar products or services provided to
2. How long has your company beer	in business?
3. What is the current size status of specific socioeconomic category?	your business (small, large, other)? Does your company fall under a
•	ustry Classification System (NAICS) Codes, Commercial and Data Universal Numbering System (DUNS) number, if available.
	ces relating to trailers for the DoD or USG? If yes, please state subcontractor and provide the name of the requiring activity, the performance.
6. Has your company provided servi please explain.	ces relating to trailers for any non U.S. based Government? If yes,
, , ,	specified White Oak Trailer Floorboard Kit outlined in the "Current cing for 5, 50, and 100 kits and further explain cost reduction with
END OF QUESTIONNAIRE	

NOTE: The USG is not asking you to develop or provide any proprietary or sensitive information in response to this market survey nor is this market survey a request for proposal. Companies responding to this survey are required to submit electronic responses for this survey.