

NASA/KSC SOLICITATION NNK13482809R
ATTACHMENT J-B – KSC PROJECT SPECIFIC REQUIREMENTS

**KENNEDY SPACE CENTER PROJECT SPECIFIC REQUIREMENTS APPLICABLE
TO ALL WORK PERFORMED UNDER THIS CONTRACT
(JAN 2013)**

The Kennedy Space Center project specific requirements supporting Contract Section I are identified in this Attachment J-B. Nothing contained in this Attachment J-B shall relieve the Contractor from complying with other requirements of this contract, which are not identified and described in this Attachment J-B. All costs associated with the requirements of this Attachment J-B are included in the firm-fixed price of this contract.

**J-B-1 UTILITY OUTAGE, ENERGIZED ELECTRICAL WORK, ELECTRICAL
HAZARD ANALYSIS, AND EXCAVATION PERMITS**

(a) Utility Outage Requests and Electrical Work Permits

- (1) Utility Outage Requests: All outages required during the prosecution of work which affects utility systems, such as electrical, water, fire detection and protection systems and air handling systems will require permits. Work shall be scheduled to hold outages to a minimum. Request for utility outage permits shall be made in writing to the Contracting Officer at least fourteen (14) working days in advance of the time required. The request shall state the system involved, area involved, approximate time of outage, and the nature of the work involved. The fact that the Contractor requests an outage for a specific time period does not necessarily mean that the outage will take place. Due to the nature of the operations at Kennedy Space Center, the Contractor probably will not know until the day before the requested date if the outage will take place as scheduled. All outages will take place outside regular working hours. The Contractor will not be entitled to additional payment for working irregular hours due to outages.
- (2) Electrical Work Permits: Prior to beginning work on an electrical system under an approved outage, the Contractor shall obtain an executed Work Permit (form number KSC-26-400NS) from the Institutional Services Contractor, and then execute complex lockout/tag-out procedures for all Work Permit related work as follows:
 - a. The Contractor's employee in charge of the required lockout/tag-out shall be present at the time the Government switches high-, medium-, or low-voltage circuits under Government access control which are to be locked and tagged out by the Contractor. The Contractor shall coordinate with the COTR for the required switching period time and date. Due to KSC operational considerations the switching period time and date may be at any time, and outside of normal working hours or work days.
 - b. Once Government switching is complete the Contractor's employee in charge of the lockout/tag-out shall sign the Work Permit and immediately install the required OSHA compliant lockout / tag-out on the required

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switching device(s). Once installed the Contractor's employee in charge of the lockout/tag-out shall individually note the locations of the locks and tags on the Work Permit form.

c. A lockout/tag-out lock box shall be used for all such lockout / tag-outs. The key(s) from the lock(s) installed by the Contractor's employee in charge of the lockout/tag-out shall be placed in the box and the employee in charge shall place an additional personal lock on the lock box to secure the keys inside. Lock box shall be kept at the work site and all other Contractor employees shall attach their personal lockout/tag-out on this box at any time they are working on the applicable equipment.

d. At the start of the first standard work period following the lockout/tag-out of a Government switched circuit for which a Work Permit is issued, the Contractor's employee in charge of the lockout/tag-out shall complete the required lockout/tag-out (lock box) procedures. Immediately upon completing the lockout/tag-out the Contractor shall verify no voltage is present on all circuit conductors using suitable testing equipment, safe work practices, and all required personal protective equipment. All other circuit safeguards such as grounding shall occur immediately after the voltage test and each safeguard shall be individually recorded on the Work Permit.

(b) Energized Electrical Work and Hazard Analysis

- (1) Live parts to which an employee might be exposed shall be put into an electrically safe work condition before an employee works on or near them, unless the employer can demonstrate that de-energizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations. If live parts are not placed in an electrically safe work condition (i.e., due to increased or additional hazards or infeasibility), work to be performed shall be considered energized electrical work. Safety plans, job hazard analysis, and work practices for work on or in proximity to energized parts shall be in accordance with KNPR 8715.7, KSC Construction Contractor Safety and Health Practices Procedural Requirements.

(2) Electrical Hazard Analysis:

Arc-flash and shock prevention personal protective equipment (PPE) is required for all energized electrical work and where energized or exposed live parts may not be present, but a potential hazard exists including: manhole or cable vault/tray insulated cable inspections, circuit breaker or switch operation, and de-energized voltage checks to electrically safe equipment.

The Contractor shall provide a qualified electrical safety professional to perform an arc-flash and shock hazard analysis in accordance with NFPA 70E for all such electrical work. The analysis shall be submitted with the Contractor's Site

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Specific Safety Plan (SSSP) and referenced in any applicable Job Hazard Analysis (JHA). The safety professional shall perform and review a power system analysis using computer software specifically designed for the purpose to determine short circuit levels and arc flash hazard incident energy at all locations to be worked on by the Contractor. Table 130.7(C)(9) in NFPA 70E may be used in lieu of calculations when all applicable general notes for the table apply. The Government will provide source short circuit levels and clearing times for Government operated electrical source equipment as well as any applicable design information. The analysis shall include a table summarizing the results of the analysis with the following information for each location or piece of equipment:

- i. Protective Device Name
- ii. Protective Device Clearing Time
- iii. Maximum Voltage
- iv. Calculated Bolted Three Phase Fault Level
- v. Calculated Bolted Ground Fault Level
- vi. Calculated Minimum Arcing Fault Level
- vii. Arc-Distance if applicable for the calculation
- viii. Employee Working Distance
- ix. Calculated Arc-Flash Boundary
- x. Calculated Maximum Arc-Flash Incident Energy
- xi. Arc-Flash PPE Category
- xii. Shock Prevention PPE Insulating Class
- xiii. Limited Approach Boundary
- xiv. Restricted Approach Boundary
- xv. Prohibited Approach Boundary

- (3) Electrical Manhole / Vault Confined Space Requirements: Reference KNPR 8715.7, KSC Construction Contractor Safety and Health Practices Procedural Requirements. During the site specific safety plan submittal phase, the Contractor shall complete a hazard evaluation of confined space(s) ensuring all hazards associated with the space or that may be introduced to the space have been

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identified and mitigated. The Contractor's designated safety professional shall coordinate with the COTR to complete a confined space hazard assessment (KSC Form 28-750NS) in accordance with KNPR 1840.19 for each confined space, and to schedule a job-site inspection meeting with KSC Environmental Health and Safety personnel. Within 35 calendar days after this meeting the COTR will provide a confined space hazard assessment to the Contractor. This assessment must be complete prior to any manhole entry and will be used in generating the confined space entry permit(s) required for the project.

The contractor shall provide supplementary lighting for all manhole work.

(c) Excavation Permits:

The Contractor shall request and obtain excavation permit(s) prior to performing any excavation. KSC Form 26-312V3 NS, Utility Locate/Excavation Permit Request, shall be prepared by the Contractor and submitted to the Government for approval at least 15 working days prior to the planned excavation date. The Contractor shall comply with the requirements of the Base Support Contractor's "Utility Locate / Excavation Permit Instruction" ENG-I-MP07 (latest revision), in the preparation, submission and use of the permit(s).

J-B-2 FIRE PROTECTION AND REQUIRED PERMITS

The KSC Fire Department will provide fire suppression, inspection and rescue services to the Contractor as necessary. The Contractor shall:

- (a) Provide approved fire extinguishers of appropriate type for hazards involved.
- (b) Report all fires to the Fire Service at 867-7911 or 867-1911.
- (c) Comply with all requirements of KHB 1710.2C Section 504 (Heat Producing Devices) and NSS 1740.11 "NASA Safety Standard for Fire Protection" Section 702 and Chapter 8 for work performed at the Kennedy Space Center.
- (d) Provide a fire watch in accordance with Federal OSHA Safety and Health Standards 29 CFR 1926.352/1910.252 when required by the welding and burning permitting official.
- (e) Prevent false fire alarms by providing 24-hour advance notice to the Contracting Officer's Technical Representative (COTR) when construction activities in areas protected by fire alarm and/or detection systems may produce airborne particulates (smoke or dust) caused by construction activities such as painting, stripping, cutting drywall or concrete, sandblasting, and/or removing raised floor panels.
- (f) Request permits for all welding and burning operations. Requests for these permits shall be made in writing to the Government at least seven (7) working days in

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advance of the time required.

- (g) Report in the Contractor's Safety and Health Plan in accordance with NFS 1852.223-73 how it intends to comply with the above requirements.

J-B-3 PERMANENTLY INSTALLED SAFETY SYSTEMS

- (a) The Contractor shall protect and in no way interrupt the service of any installed safety systems or personnel safety devices.
- (b) In the event that the Contractor requires entrance into systems serving safety devices, the Contractor shall obtain prior approval from the Contracting Officer. In the event the Contractor determines that it is necessary to temporarily remove or render inoperable any personnel safety devices in order to accomplish contract requirements, the Contractor shall provide alternate means of protection prior to removing or rendering inoperable any permanently installed safety devices or equipment and shall obtain prior approval of the Contracting Officer.

J-B-4 BREATHING AIR COMPATIBILITY

- (a) The contractor shall take precautions to assure that connectors used in contractor-supplied breathing air systems are incompatible with connectors present on either KSC gas systems or on contractor supplied systems that are used to supply non-respirable gases. KSC-STD-Z0008, 'Standard for Design of Ground Life Support Systems and Equipment', establishes requirements for connectors to be used in KSC facility breathing air and non-respirable gas systems. Facility breathing air systems located at KSC/CCAFS are to use a Hansen 3/8 inch quick disconnect as a breathing air distribution interface. KSC facility non-respirable gas systems are to use 1/4 inch quick disconnects for gas distribution interfaces. Although most facility systems were designed in accordance with this standard, there are nonconforming locations at KSC/CCAFS.
- (b) The Contractor may use KSC facility breathing air systems, if available at the work location. The contractor shall perform a pre-work site inspection to identify coupling types in use at the work location before mobilizing or using any breathing air equipment. The contractor shall also submit a written certification to show the contractor's breathing air system has been recently inspected and meets Grade D breathing air standards. Alternately, the contractor may arrange for on-site testing of contractor-supplied breathing air by the Government at least five days prior to start of work. In addition, the contractor shall also provide a work site evaluation for the NASA Safety Office to review before using any breathing air system. The breathing air test and the safety inspection can be coordinated through the Contracting Officer, and will be at no cost to the contractor.
- (c) The contractor shall tag or label connector ends of all lines and flexible hoses of contractor-provided breathing air or non-respirable gas distribution systems. The

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tags or labels will clearly identify the contents of the lines or hoses.

- (d) The contractor shall provide a description of the steps taken to comply with the requirements of this clause in their safety plan submittal.

J-B-5 TRAFFIC RESTRICTIONS

- (a) The Contractor will not move oversized loads and/or slow moving vehicles on established roads within the Kennedy Space Center from 6:30 A.M. to 8:30 A.M. and 3:30 P.M. to 5:30 P.M. on week days. Other than the above restricted hours, the Contractor may move oversize and/or slow moving vehicles to the work site provided all requirements of the Florida State Highway Department have been met.
- (b) Movement of any Contractor vehicle in excess of maximum width, height and length specified by Florida Statutes Chapter 316 shall be accompanied by the Contractor's designated Convoy Commander. The Contractor's Convoy Commander shall be totally responsible for the oversized vehicular movement to include making a physical inspection for possible obstructions along the intended route and obtaining all required special permits.

J-B-6 STORAGE AND PROTECTION OF MATERIAL TO BE RE-USED

All items of material to be removed and re-installed by the Contractor shall be protected during removal and stored in a manner such that the material will not be damaged during removal or storage. Any material designated for re-use, which is not suitable due to the Contractor's damage, will be replaced by the Contractor at no additional cost to the Government.

J-B-7 MAINTENANCE OF GOVERNMENT EQUIPMENT

- (a) Government systems and equipment in the Contractor's work area may require servicing, maintenance, or modification by Government support contractors during the contract performance period. This maintenance activity may include work on systems, including underground utilities, that connect with Contractor installed systems and equipment. The Contractor shall allow the Government support contractors into his work area to perform the maintenance work.
- (b) Existing systems and equipment require periodic maintenance that cannot be readily defined in terms of frequency and duration. This maintenance will be coordinated with the Contractor through the Contracting Officer, and will be performed on a non-interference basis as much as possible. The Contractor shall notify the Contracting Officer regarding any uncoordinated maintenance activity.
- (c) The Contractor shall arrange and conduct a joint pre-operations briefing with Government support contractor personnel on each occasion that the support contractor requires access to the contractor's work area. The Contractor shall take the

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following steps as required to prevent collateral damage to, or interference with, Contractor installed systems and equipment.

- (1) Verify the scope and limits of the support contractor's planned maintenance activity.
- (2) Advise the support contractor regarding the scope of the Contractor's work that may be affected by the maintenance activity, including specific locations and dimensions of planned or installed facilities, systems and equipment. Notify the Contracting Officer immediately regarding any resulting conflicts or interferences.
- (3) Ensure that temporary barriers or protective measures are provided as needed to protect Contractor installed work and preserve job-site safety.

The Contractor shall notify the Contracting Officer immediately regarding any issues that cannot be resolved with the support contractor.

J-B-8 AVIATION OBSTRUCTION LIGHTS

The Contractor will provide at least two Aviation Red Obstruction Lights or two High Intensity White Obstruction Lights on all structures over 100 feet above ground level. All construction cranes/booms shall be lighted regardless of height. Lights must be constructed and installed in accordance with U.S. Department of Transportation, Federal Aviation Administration publication AC 70/7460-1F (as revised), Chapter 4, paragraph 15, subparagraph e. Lights will be operated during all periods of reduced visibility, between sunset and sunrise, and as directed by the Contracting Officer.

J-B-9 INTERFERENCES AND COORDINATION OF WORK

- (a) The Contractor shall coordinate construction layout, systems configuration and work scheduling to avoid interference's between the various construction trades and their installations. Interferences and obstructions resulting from lack of Contractor coordination shall be corrected by the Contractor as approved by the Contracting Officer. All components, fittings and reworking necessary for such corrections shall be provided by the Contractor at no additional cost to the government. Dimensions shown for existing work, and all dimensions required for work that is to connect to existing work, shall be verified by the Contractor by actual field measurement of the existing work. Any work at variance with that specified or shown in the drawings shall not be performed by the Contractor until approved in writing by the Contracting Officer.
- (b) To the extent possible, the as-built dimensions of all new work shall be verified by actual field measurement prior to ordering or fabricating mechanical, electrical, or specialty equipment and materials to be installed. If such field measurement is not possible, then the contract drawings and applicable shop drawings shall be checked

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by the contractor for dimensional accuracy prior to ordering or fabricating equipment and materials to ensure proper fit for field installation.

- (c) The Contractor shall be responsible for correction of all field fitup problems and interferences which could have been avoided by field measurement or drawing checks prior to equipment fabrication.

J-B-10 RESTORATION OF GRASSED AREAS DISTURBED BY CONSTRUCTION

The Contractor shall, prior to completion of the contract, grass all areas disturbed by construction activities by seeding and mulching or, when erosion may occur, by sodding, except where specifically directed otherwise in the drawings and specifications.

J-B-11 TEMPORARY CONSTRUCTION TRAILERS

- (a) The Government will provide a location for temporary office and/or storage facilities if needed for performance of on-site work under this contract. Specific location(s) at or reasonably close to the work site will be identified at the pre-work conference. The contractor is responsible for providing his own telephone service and for making his own connections to KSC utility services, if provided for under Article I.16, KSC On-Site Facilities and Services.
- (b) All temporary facilities must be structurally sound, in roadworthy condition, and shall be installed and anchored in accordance with KSC-PLN-1904, Trailer/Equipment Tie Down Plan for the John F. Kennedy Space Center; or Rules of Department of Highway Safety and Motor Vehicles, Division of Motor Vehicles Chapter 15C-1, whichever is more stringent. Copies of the standards will be made available to the contractor at the pre-work conference. The contractor shall provide written certification of compliance for all temporary facilities to the Contracting Officer within three days of installation. Any facilities that fail to meet these requirements shall be immediately removed from Government property.
- (c) All temporary facilities shall be removed from government property within two weeks following final acceptance of work performed under this contract.

J-B-12 CONFINED SPACE WORK REQUIREMENTS

- (a) Special requirements, coordination, and precautions will apply to any contract work taking place in confined spaces. Each contractor contracted to perform work in confined spaces is required to provide a written program for such work as part of its health and safety plan which is consistent with the requirements of 29 CFR 1910.146. For work in telecommunications manholes, provisions of 29 CFR 1910.268(o) are also applicable. The contractor shall coordinate any such work in confined spaces with the KSC Environmental Health Support Contractor, KSC Fire Services Support Contractor, and any other resident government or contractor organization whose

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- employees may have access to the work location. The provision of Environmental Health services by the government does not prohibit the contractor from providing their own atmospheric testing. Government provided services include environmental health monitoring and consultation support for testing of atmospheres in confined spaces as well as fire rescue and emergency medical services.
- (b) Entry into and work in confined spaces shall be in accordance with the requirements of KNPR 1820.4, “KSC Respiratory Protection Program,” KNPR 1840.19, “KSC Industrial Hygiene Handbook,” and all other applicable clauses of this contract.
 - (c) Confined spaces, which contain water, shall be pumped out by the contractor prior to scheduling a confined space entry check.
 - (d) In addition to the requirements set forth above, the Contractor shall notify and obtain approval from the Power Coordinator, telephone 321-867-7300, and/or from Communications Control, telephone 321-867-4141, respectively, prior to performing work in electrical and/or communications manholes.

J-B-13 TESTING OF CONSTRUCTION MATERIALS

Tests of construction materials indicated to be performed by the Contractor shall be accomplished by the Contractor utilizing the services of an acceptable independent testing laboratory.

J-B-14 AFFIRMATIVE PROCUREMENT

Affirmative Procurement (AP) is the purchase of environmentally friendly products and services (i.e. products made from recycled or recovered materials). Federal agencies, their Contractors and subcontractors are required to maximize the purchase materials on the list of “EPA Designated Guideline Items” with the minimum recycled or recovered materials content whenever practicable according to RCRA 6002 and EO 13101. The requirements of RCRA 6002 include the following:

“The decision not to procure such items shall be based on a determination that such procurement items:

- (A) are not reasonably available within a reasonable period of time
- (B) fail to meet the performance standards set forth in the applicable specifications or fail to meet the reasonable performance standards of the procuring agencies and/or
- (C) are only available at an unreasonable price.

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Any determination under subparagraph (B) shall be made on the basis of the guidelines of the National Institute of Standards and Technology in any case in which such material is covered by such guidelines.”

The Contractor shall provide AP approved items as specified within the contract documents. Submittals for AP items shall be provided for approval in accordance with Shop Drawing provisions. If the Contractor proposes to substitute an item that does not conform with AP requirements, the applicable Shop Drawing shall be accompanied by KSC Form 8-69, Contractor Request to Use Nonconforming Parts or Material (*Deviation/Waiver Request*) identifying the reason for the proposed substitution.

Non-conforming items without approved D/W's will be rejected and the contractor shall be responsible for any costs and schedule impacts associated with replacing such non-conforming items at no additional cost to the Government.

At the conclusion of the project, the Contractor shall provide the Contracting Officer (CO) with a report itemizing all AP items used.

Detailed information on the EPA AP specified/approved products and manufacturers providing these products is available at www.epa.gov/cpg/products.htm.

J-B-15 SPILLS

The Contractor shall make all reasonable and safe efforts to contain and control any spills or releases that may occur. The Contractor shall immediately report (by phone) any occurrence of a pollution incident or spill, first to the Emergency 911 (321-867-7911 from a non 867/861 exchange), then to the Contracting Officer (CO). The Contractor shall document the incident or spill on KSC Form 21-555, "Pollution Incident Report," and submit it to the CO and NASA Environmental Assurance Branch (EAB), TA-B1B, within 24 hours of the incident.

The Contractor shall provide spill response materials to contain and control spills including, but not limited to, containers, absorbent material, shovels, and personal protective equipment. Spill response materials shall be available at all times in which materials/wastes are being handled or transported. Spill response materials shall be compatible with the type of material being handled.

The KSC Spill Cleanup Team will be responsible for the final cleanup and validation of a spill or release.

The Contractor's prompt action to minimize the impacted area and to timely report any occurrence will increase the Spill Cleanup Team's ability to complete the spill cleanup and therefore reduce the Contractor's liability for a larger cleanup.

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J-B-16 WEEKLY STATUS MEETING

The Contractor shall attend a weekly progress/status meeting to be scheduled by the Contracting Officer for the purpose of determining progress status, delaying factors, material delivery schedules, and status of shop drawing submittals. In addition, a representative of each first tier subcontractor may be required to be present for the conference.

J-B-17 SUPERINTENDENT ASSIGNMENT

Full time Superintendent: Pursuant to clause 52.236-6, entitled "Superintendence by the Contractor," the contractor shall assign a superintendent, on the contractor's payroll, who will be 100 percent committed to superintending the work required by this contract. The superintendent shall not fill any other positions in performance of this contract or any other concurrent contract. One or more alternate superintendents, each with full authority to supervise the work, shall be designated in writing and approved by the Contracting Officer. The superintendent or an alternate shall be physically present at each work site at all times during performance of the contract and until the work is completed and accepted.

The individual(s) appointed as superintendent(s) shall complete the OSHA 10 hour Construction Course prior to starting any field work on the project. The class shall be taught by an authorized provider of the course (e.g., United Safety Council, Florida Safety Council) and be attended in person. The appointed superintendent(s) shall provide the course completion certificate to the government stating the required training and testing was satisfactorily completed and the date of completion. The course completion date shall not be greater than 5 years from the start of the contract.

J-B-18 MATERIAL SAFETY DATA SHEETS (MSDS) SUBMITTAL/CHEMICAL INVENTORY REPORTING AND MANAGEMENT

The Contractor shall provide a complete and accurate list, accompanied by the applicable Material Safety Data Sheets (MSDS), of all materials and chemicals listed on the Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-To-Know Act (EPCRA) and Section 112(r) of the Clean Air Act that will be stored onsite and/or used in the execution of this contract, regardless of the quantity. This information shall be provided to the Contracting Officer (CO) prior to the time of delivery of the materials and chemicals to the site. This inventory is to be updated and resubmitted to the CO on a monthly basis. All inventory reporting is to be completed on the Chemical Inventory for Construction Projects at Kennedy Space Center Form (8-313NS). Appropriate labels and MSDS shall be provided for all chemical shipments.

J-B-19 WASTE CHARACTERIZATION

KSC Form 26-551 "Process Waste Questionnaire" (PWQ) shall be prepared and processed for all waste streams generated during the execution of this project in accordance with

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article entitled “**Hazardous Wastes**”.

J-B-20 PERMIT REQUIREMENTS

No on-site work will be allowed until the appropriate State and Federal issuing agencies issue all required permits. The government is responsible for obtaining and providing all required permits except as specified below. Permits required may include, but are not limited to, air construction, dewatering, borrow pit, potable water, sanitary sewer, stormwater, National Pollutant Discharge Elimination System (NPDES) and wetlands. The following permits are known to be required for this project:

FDEP Demolition Permit and NPDES Permit

The Contractor is responsible for obtaining the following permits, if required, before beginning work on the subject systems:

- FDEP/Brevard County Onsite Sewage Treatment and Disposal System Construction/Permit Abandonment
- FDEP/Brevard County Well Construction/Abandonment Permit.

The Contractor shall comply with the terms and conditions of these permits. The Contractor shall provide copies of these permits as well as copies of all documentation submitted as part of the application process to the NASA Environmental Assurance Branch (EAB), TA-B1B through the Contracting Officer (CO) as delineated in contract documents or as directed by the CO.

The Contractor shall not begin construction before receiving all Federal, State, and local construction permits as indicated in this section. Included in adherence thereto is compliance with all conditions of the permit as well as requirements given in the laws, ordinances, and regulations. The Contractor shall be responsible for payment of any fines from government agencies resulting from the Contractor's failure to adhere to all identified permit conditions and agency regulations. These shall include, but are not limited to, material and construction standards, environmental protection, certifications, notifications, and monitoring requirements.

Upon issuance of the Notice to Proceed, the CO shall make copies of all Government provided permits with conditions related thereto available to the Contractor. The Contractor shall keep copies of the permits and related materials such as drawings.

J-B-21 HAND EXCAVATION

Due to numerous existing underground utilities, all excavation in the areas listed below will be dug carefully, using hand tools ONLY. Contractor shall hand dig a pilot trench to locate existing utilities before motorized equipment is used in the drawings listed below. Excavation in areas within 2 feet of all existing utilities shall be by hand.

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Fill in: Drawings 79K39389, 79K39390, 79K39391, 79K39392, 79K39393, 79K39103

J-B-22 USE OF KENNEDY SPACE CENTER BORROW AREAS

The Contractor may use the Kennedy Space Center borrow area to supply required fill. The designated borrow pit area to be used for this contract is 12 miles from the job site. The Contractor shall clear and grub the designated borrow area and stockpile and burn combustible debris after obtaining KSC burn permit. Unsuitable fill removed from the borrow pit shall be stockpiled at the borrow area. Fill will need to be stockpiled and dried to optimum moisture content prior to use on the job site. Fill shall not be stockpiled for drying at the job site unless otherwise permitted by the Contracting Officer. When permitted, fill may be stockpiled for drying at a designated location near the borrow pit providing the following criteria are met:

1. Written estimate of fill required for the job and written estimate of when the fill will be transported to the job site are provided to the Contracting Officer.
2. Stockpiled fill for this contract is segregated from stockpiled fill for any other contract.
3. Contractor provides a plywood sign on a post at the stockpile identifying the contract for which the fill is intended.
4. Fill shall be stockpiled at the borrow area no longer than four weeks after it is excavated.

In accordance with St. Johns River Water Management District (SJRWMD) permit conditions, the maximum allowable excavation depth at the KSC borrow pit area (Jerome Road Borrow Pit) is -5.5 meters (North American Vertical Datum (NAVD) 1988). The Contractor shall excavate to within 0.33 meters of this maximum depth at each excavation footprint before proceeding to a new footprint. The Contractor shall not discharge dewatering effluent off-site (beyond the perimeter road). The Contractor shall not store or dump any material (vegetation, asphalt, gravel, etc.) at the borrow pit other than material mined from the pit.

J-B-23 TRAFFIC CONTROL REQUIREMENTS

(a) Standards:

U.S. Department of Transportation Federal Highway Administration Manual (latest edition), on uniform Traffic Control Devices for Streets and Highways, Part II, Signs for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Emergency Operations, set forth the basic principles and prescribes minimum standards to be followed in the design, application, installation, maintenance and removal of all traffic control devices and all warning devices and barriers which are necessary to protect the public and workmen from hazards within the project limits.

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The standards established in the aforementioned manual constitute the requirements for normal conditions, and additional control devices, warning devices, barriers or other safety devices will be required where unusual, complex or particularly hazardous conditions exist.

(b) Traffic Control Devices, Warning Devices and Barriers:

- (1) The responsibility for installation and maintenance of adequate traffic control devices, warning devices, and barriers, for the protection of the traveling public and workman, as well as to safeguard the work area in general shall rest with the contractor. The required traffic control devices, warning devices and barriers shall be erected by the Contractor prior to creation of any hazardous condition and in conjunction with any necessary rerouting of traffic. The Contractor shall immediately remove, turn, or cover any devices or barriers which do not apply to the existing conditions.
- (2) The Contractor shall make the Contracting Officer aware of any scheduled operation which will affect traffic patterns or safety, sufficiently in advance of commencing such operation to permit his review of the plan for installation of traffic control devices, warning devices, or barriers proposed by the contractor.
- (3) The Contractor shall assign one of his employees the responsibility of maintaining the position and condition of all traffic control devices, warning devices, and barriers through the duration of the contract. The Contracting Officer shall be kept advised at all times as to the identification and means of contacting this employee on a 24 hour basis.
- (4) Maintenance of Devices and Barriers: Traffic Control devices, warning devices, and barriers shall be kept in the correct position, properly directed, clearly visible and clean, at all times. Damaged, defaced, or dirty devices or barriers shall immediately be repaired, replaced, or cleaned as required per the request of the Contracting Officer.

(c) Flagmen:

The Contractor shall provide competent flagmen to direct traffic in situations as may be required by the standards established in the paragraph above.

(d) Traffic Control Plan:

- (1) After contract award but prior to Notice to Proceed, the Contractor shall submit a traffic control plan to the Contracting Officer for approval. No work will be allowed on bridges or right-of-way of roads between the hours of 6:00 AM to 8:00 AM and 3:00 PM to 5:00 PM.

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- (2) The Contractor may request work time during off shift and weekends in order to meet construction schedules.
- (3) The Traffic Control Plan will be updated by the Contractor on a weekly basis in order to provide a current plan for the job and make adjustments to the Contractor's work. The updated Traffic Control Plan shall be presented at the Weekly Status Meeting.

(e) Traffic Flow Requirements:

The Contractor shall keep one lane open at all times during road modifications. Any trench or hole created in a roadway shall be backfilled to finish roadway elevation or effectively covered to support vehicle loads prior to allowing any traffic to flow over it. No roads will be blocked during peak hours of traffic; no road work shall start before 8:00 am or continue past 5:00 pm, Monday through Friday unless otherwise approved by the Contracting Officer.

J-B-24 AIR MONITORING DURING CONSTRUCTION

The Contractor shall not allow any person to store, pump, handle, process, load, unload or use in any process or installation volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the FDEP. To comply, procedures to minimize pollutant emissions shall include the following:

- (a) Tightly cover or close all VOC containers when they are not in use.
- (b) Tightly cover, where possible, all open troughs, basins, baths, tanks, etc. when they are not in use.
- (c) Maintain all piping, valves, fittings, etc. in good operating condition.
- (d) Prevent excessive air turbulence across exposed VOCs.
- (e) Immediately confine and clean up VOC spills and make sure volatile emitting wastes are placed in closed containers for reuse, recycling, or proper disposal in accordance with articles entitled "Hazardous Wastes" and "Spills."

J-B-25 BIOLOGICAL SURVEYS

The Contractor shall notify the Contracting Officer (CO) to request that NASA **EAB** perform a biological survey, fourteen (14) days prior to start of work. The Contractor shall not begin land clearing or site disturbance activities, including exterior lighting and roof work, before receiving written approval from the CO stating that the biological survey is completed and all mitigation action (e.g. Threatened and Endangered (T&E) species relocation/protection, identification and protection of plant species of special concern) to be performed by the Government or Contractor has been completed.

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J-B-26 STORMWATER POLLUTION PREVENTION

The Contractor shall be responsible for providing stormwater pollution prevention measures, including erosion and sediment controls, in accordance with Federal and State Regulations. The pollution prevention measures selected and maintained by the Contractor shall be such that water quality standards are not violated as a result of the Contractor's construction activities. The Contractor shall construct or install temporary and permanent erosion and sediment control best management practices (BMPs) as indicated on the contract drawings and as necessary to minimize environmental damage and maintain compliance with regulatory requirements. The Contractor shall also abide by any and all National Pollutant Discharge Elimination System (NPDES) Construction Stormwater and Environmental Resource Permits obtained for the specific project.

A NPDES permit is required for all activities that disturb greater than one (>1) acre of land. A NPDES permit is not required for activities that disturb less than or equal to one (≤1) acre of land; however, the Contractor shall implement erosion control BMPs during construction.

and as-built conditions as evidenced by the survey, the differences shall be corrected and a new as-built survey made and submitted as before. Drawings shall be provided prior to the final inspection.

J-B-27 CONCRETE WASTEWATER

The following checked paragraphs are applicable to this acquisition:

CONCRETE WASHOUT

The Contractor shall not allow wastewater from standard concrete construction activities (such as on-site material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, forms, directional drilling, etc.) to enter waterways or to be discharged before being treated to remove pollutants.

The Contractor shall dispose of the construction-related concrete wastewater and concrete excess by collecting and placing it in a contractor constructed settling pond where suspended material can be settled out and/or the water can evaporate to separate solids from the water. The location of the settling pond shall be coordinated with and approved by the Contracting Officer (CO). The Contractor shall remove and dispose of the residue left in the pond and restore site to original condition. Disposal of solidified concrete shall be performed in accordance with the solid waste article.

J-B-28 STORAGE TANK REPORTING/SPCC

Onsite temporary storage tanks must be Underwriter's Laboratory (UL) Listed, and American Petroleum Institute (API) or Steel Tank Institute (STI) approved for the product

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stored. These tanks shall be located/sited in a location that will minimize impacts to the environment in the event of a leak (not near swales, stormwater system, surface waters, wetlands, or storm drains or inlets). They shall be equipped with secondary containment to catch drips and leaks from the tank, or be double walled. Construction operations are not covered in the overall KSC Spill Prevention, Control and Countermeasures (SPCC) Plan due to their temporary nature. Each construction Contractor is required to create a project specific SPCC Plan for their activities on KSC if oil is stored in excess of an aggregate aboveground container capacity greater than 1,320 gallons (only containers greater than or equal to 55 gallons are counted). The SPCC Plan must be designed (self certified) by a Contractor Responsible Authority, adhere to the requirements of 40 CFR 112, and be delivered to the Contracting Officer (CO) before bringing any storage tanks that are subject to this clause on site. KSC Form 21-555 KSC Pollution Incident Reporting and Notification Form shall be required for all releases of hazardous materials.

Permanent storage tanks greater than 550 gallons for a regulated substance constructed by the Contractor must be registered with the State of Florida. The Contractor shall fill out the registration form for an Underground Storage Tank (UST) and/or Aboveground Storage Tank (AST) and submit the form to the CO and the NASA Environmental Assurance Branch (EAB), TA-B1B prior to final inspection before tank is placed into service. The EAB, TA-B1B, will sign and send the registration to the Florida Department of Environmental Protection (FDEP). The Contractor shall notify the CO forty-five (45) days prior to installation of any registered tank so that a written notice of tank installation can be provided to the regulatory authority, by the EAB, TA-B1B, at least thirty (30) days prior to tank installation as required. In addition, the EAB shall be notified 5 days before any of the following activities in order to schedule inspections with the Brevard County Natural Resource Management Office (BCNRMO):

1. Delivery of the tank to KSC/CCAFS
2. Completed installation inspection request for BCNRMO allowing the tank to be fueled and placed into service.
3. Final operational inspection request for BCNRMO to verify system is operating

UST registration and regulations are covered in Florida under FAC 62-761. Notifications of installation, upgrading, internal inspections, testing, incidents, discharge, and closure are detailed under 62-761.450. The EAB shall be notified 45 days before initiating the removal of any registered underground storage tank system. An additional notification to EAB is required 5 days before tank removal so a BCNRMO inspection can be scheduled if necessary.

AST registration and regulations are covered in Florida under FAC 62-762. Notifications of installation, upgrading, internal inspections, testing, incidents, discharge, and closure are detailed under 62-762.451. The EAB shall be notified 45 days before initiating the removal of any registered aboveground storage tank system. An additional notification to EAB is required 5 days before tank removal so a BCNRMO inspection can be scheduled.

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J-B-29 TOXIC METALS

Representative samples of painted surfaces within the project area have been identified to contain toxic metals. The Contractor shall assess hazards and brief government of their proposed methods of removal and disposal of building materials identified as having toxic coatings and hazardous materials. The Contractor's hazard assessment shall be conducted by a competent health and safety professional. The Contractor shall notify the Contracting Officer of hazard mitigation activities and abatement procedures 14 days prior to disruption to any suspected area.

J-B-30 PCB MANAGEMENT

Polychlorinated Biphenyls (PCB) wastes may include, but are not limited to, oil-filled transformers, Oil-contaminated transformer concrete pads, light ballasts, capacitors, electric motors, pumps and paint coatings. PCB wastes shall be managed in accordance with 40 CFR 761. PCB waste management and disposal shall be coordinated through the Contracting Officer (CO), a KSC Form 26-551 "Process Waste Questionnaire" (PWQ) and Technical Response Package (TRP) shall be prepared and processed in accordance with article entitled "**Hazardous Wastes**".

Government Assistance – KSC has established procedures for the handling, storage and disposal of PCB contaminated waste streams generated on the Center. To aide with proper compliance of site-specific requirements, the Government will assign a NASA Environmental Point of Contact (EPOC) for each project. The establishment of the NASA provided EPOC in no way relieves the contractor for compliance with requirements defined in 40 CFR 761.

LIQUIDS CONTAMINATED WITH PCBs

PCB containers storing liquid PCBs at concentrations of 50 parts per million (ppm) or greater shall be removed from the generator accumulation site within **24 hours** from the date the PCB item was removed from service. This support shall be coordinated through the Contracting Officer for waste pickup scheduling **before** removal from service. The Contractor shall contact the Contracting Officer for pick-up and removal of all PCB related waste. The Contractor shall not remove any oil filled transformers from KSC. Unless analysis results determine PCB content in oil less than 2 ppm, the contractor shall coordinate any disposal of liquid PCBs through the Contracting officer.

For Equipment containing PCB concentration in OIL >= 500 ppm

LIQUIDS: Drained oil must be stored in a DOT approved container and marked with a PCB label (with the date the equipment was removed from service). Containerized liquid PCB waste must be moved to PCB storage facility **immediately (within 24 hrs)**. Coordinate effort through EPOC - 5 day notice prior to removal from service is required.

CARCASS or CONTAINER: Drained equipment must be marked with a PCB label

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(with the date the equipment was removed from service), stored on an impervious surface, covered from rain, and moved offsite within 30 calendar days.

For Equipment containing PCB concentration in OIL >50 ppm but < 500 ppm

LIQUIDS: Drained oil must be stored in an adequate container on an impervious surface, covered from rain, labeled, and moved offsite within 14 calendar days.

CARCASS or CONTAINER:

Drained equipment must be stored on an impervious surface, covered from rain, labeled with PCB mark, dated and moved offsite as soon as practicable (not to exceed 180 days). If carcass paint is analyzed for PCBs and results < 50 ppm - No storage, marking, or dating requirements are required under TSCA regulations. Provide analysis results to RRMF along with KSC 7-49 form to recycle.

PCB BULK PRODUCT WASTE (SOLIDS)

PCB Bulk Product Waste is defined in 40 CFR 761.3 as waste derived from manufactured products containing PCBs in a non-liquid state at any concentration, where the concentration of PCBs at the time of designation for disposal is greater than or equal to (\geq) 50 ppm. The contractor shall dispose of all coated waste with a PCB concentration over the 50 ppm limit in the Schwartz Road landfill (see Schwartz Road Landfill Article). NASA requires all contractors generating metal-based waste containing PCB contaminated coatings with PCBs \leq 50 ppm to recycle this material (see Recycling and Salvaging Article). If these materials cannot be recycled due to excessive cost in segregation or handling, the contractor shall dispose of this waste in the same manner as PCB Bulk Product Waste.

All protective coatings that contain PCB shall be handled in accordance with the requirements of this section. Where Material Safety Data Sheets for protective coatings are available and indicate the presence of PCBs, sampling is not required. Where the presence of PCBs is not determined before work begins, PCBs shall be assumed to be present.

The following waste generator standards will be used for the accumulation and storage of PCB waste materials:

- a. PCB wastes listed below may be stored temporarily at a waste generator accumulation site for up to thirty (30) days from the date removed from service. The container and labeling shall comply with the TRP. The date the PCB item was removed from service shall be marked on the container label per the TRP.
 - (1) Non-leaking articles and equipment. PCB articles are manufactured articles containing PCBs whose surfaces have been in direct contact with PCBs. These articles include capacitors, transformers, electric motors, and pumps.
 - (2) Leaking articles and equipment placed in non-leaking PCB containers with

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sufficient materials to absorb any liquid PCBs remaining in the item. PCB containers are any devices used to contain PCBs or PCB articles whose surfaces have been in direct contact with PCBs.

- (3) PCB containers storing non-liquid PCB wastes such as contaminated soil and debris.
- b. PCB containers storing liquid PCBs at concentrations of 50 parts per million (ppm) or greater shall be removed from the generator accumulation site to the PCB Storage Building (K7-115) within 24 hours from the date the PCB item was removed from service. Support shall be coordinated through designated KSC Waste Management personnel for waste pickup before removal from service date to allow for waste pickup scheduling and to avoid regulatory violations. The Contractor shall contact KSC Waste Management for pick-up and removal of hazardous/PCB waste. Documentation including the waste type, quantity, locations, and organization responsible for the waste shall be provided on KSC Form 28-809 “Waste Support Request” to KSC Waste Management when requesting waste disposal. The Contractor shall fax the waste support request to KSC Waste Management at fax 867-9466.

The Contractor shall not remove any oil filled transformers from KSC. The Contractor shall only take drained transformers to the Reutilization, Recycling and Marketing Facility (RRMF) (M6-1671) at Ransom Road. Within the six (6) month period prior to delivery to RRMF, transformers shall have an oil analysis showing PCB content. At the request of the Contractor, the CO will arrange for all sampling and testing to determine the proper handling and disposal of the transformers. If the oil sample is greater than 500 ppm, the transformer shall be removed as a hazardous/PCB waste. Within 48 hours of having the transformer ready for disposal, the Contractor shall contact the EPOC assigned to the project to coordinate with KSC Waste Management for pick-up and removal of hazardous/PCB waste. Documentation including the waste type, quantity, locations, and organization responsible for the waste shall be provided on KSC Form 28-809 “Waste Support Request” to KSC Waste Management when requesting waste disposal. The EPOC shall fax the waste support request to KSC Waste Management at fax 867-9466. At the request of the Contractor, the EPOC will arrange for all sampling and testing to determine the proper handling and disposal of the stained or painted concrete. Lab analysis that is older than 6 months will not be considered valid analysis and re-sampling must be completed.

J-B-31 HAZARDOUS WASTES

Hazardous and controlled waste shall be managed in accordance with all applicable statutes, rules, orders, and regulations which may include but are not limited to 40 CFR Parts 260 - 268, 273, 279, 761 and KNPR 8500.1 KSC Environmental Requirements. All hazardous waste generated during the execution of this contract shall be disposed of by the Government. Unless directed by the Contracting officer, in no case shall the Contractor or the Contractor’s representative transport hazardous waste from KSC.

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The Contractor shall be responsible for identifying processes and operations and the location and nature of all potentially hazardous and controlled waste and their containers, as defined in 40 CFR Parts 261, 273, 279, or 761. KSC has established policies and procedures in place to assist the contractor for characterization, handling and storage of wastes generated on KSC. Any request for assistance shall be in writing and submitted to the Contracting officer.

Contractor personnel generating and managing the waste shall have hazardous waste training per 40 CFR 265.16. The Contracting Officer may at any time during the course of the contract performance period require the Contractor to provide individual training records for any employee involved in the performance of this contract, and the contents of the course or courses completed to satisfy the training requirements. Attendance at KSC Training Course QG-211 "Hazardous Waste Management" will satisfy the above training requirements.

The Contractor shall prepare copies of Material Safety Data Sheets (MSDS) for each material utilized on the project and provide copies to the Contracting Officer (CO) thirty (30) days before the start of the waste generation process. No substances shall be delivered to KSC without the appropriate Material Safety Data Sheets.

GOVERNMENT ASSISTANCE

KSC has established procedures for the handling, storage and disposal of hazardous waste. To aide with proper compliance of site-specific requirements, the Government will assign a NASA Environmental Point of Contact (EPOC) for each project. The EPOC shall, upon request, assist with waste hazard determination, packaging, labeling, and disposal requirements for waste generated on KSC. The establishment of the NASA EPOC in no way relieves the contractor for compliance with requirements defined in 40 CFR Parts 261, 273, 279, or 761.

WASTE CONTAINERS

The Government will provide DOT compliant storage containers and labels upon request. The Contractor shall request the storage containers, by providing quantity and type needed, in writing to the Contracting Officer a minimum of one week before the required need date. The containers will be available for pickup by the Contractor at a location designated by the Contracting Officer. For projects that will be generating large quantities of waste (>500 gallon or 75 cu ft), a two week notice must be provided to the CO to ensure availability of waste containers. The Contractor shall be responsible for transporting the containers from storage location to the project site.

SATELLITE WASTE ACCUMULATION AREA (SAA)

The Contractor shall establish an on-site Satellite Waste Accumulation Area within 50 feet (ft) of and within sight of any point where hazardous or controlled wastes may be generated. If a Satellite Waste Accumulation Area must be more than 50 ft from the point of generation, or out of sight of the generator, the Contractor shall provide a written

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request to the CO fourteen (14) days before the start of the waste generating process. The CO will send a notification to the NASA Environmental Assurance Branch (EAB), TA-B1B, for their review and concurrence. The EAB will then request approval for a non-routine Satellite Waste Accumulation Area from Florida Department of Environmental Protection. The Contractor shall not place the Satellite Waste Accumulation Area in service before receiving written approval of the variance from the CO. The Contractor shall store potential or identified hazardous and/or controlled wastes in the appropriate properly labeled containers inside the Satellite Waste Accumulation Area in accordance with KNPR 8500.1 (as revised).

UNKNOWN WASTES

If during the course of the project unidentified waste is discovered by the contractor or subcontractors, the contractor shall immediately contact the Contracting Officer and handle the waste as hazardous. The contractor shall not attempt to move, open or test any unknown commodities.

If a hazardous/nonhazardous waste determination cannot be made by process knowledge and no MSDS is available for the waste stream, the container of waste shall be marked with a Hazardous Waste Determination In Progress (HWDIP) label until chemical analysis is completed. At the request of the Contractor, the CO and EPOC will provide any analytical support required by the TRP. The EPOC will arrange for all sampling and testing of potentially hazardous or controlled waste.

If the material is hazardous, the analysis completion date serves as the accumulation start date (ASD). Waste streams labeled with HWDIP labels are a potentially hazardous waste stream; therefore they must be managed as a hazardous waste. In order to fulfill this requirement, the generator shall manage those containers in a Satellite Waste Accumulation Area or 90-day storage area. HWDIP waste generated in amounts less than 55 gallons may be managed as a satellite container. If HWDIP waste is generated in amounts greater than 55 gallons, the additional volume must be moved within 72 hours to a 90-day storage site.

UNIVERSAL WASTES (UW)

For items meeting the definition of UW, the Contractor shall handle, collect and manage in accordance with 40 CFR 273 and Chapters 62-730 and 62-737 FAC. The EPA established Universal Waste regulations to ease the requirements for managing hazardous wastes that can be recycled. Waste streams currently adopted by the State for management as UW are rechargeable batteries, mercury-containing lamps and devices, capacitors, and certain pesticides.

The Contractor's representative or "Handler" of UW shall be trained for the proper waste handling and emergency response procedures. Attendance at the KSC training course QG-299 "Universal Waste Rule" will satisfy the above. The Contractor shall provide to the CO training records of any "handler" of UW upon request of the CO.

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J-B-32 USED OIL MANAGEMENT

Any lubricant that has been refined from crude oil (or synthetic oil) that has been "used," and as a result of such use is contaminated by physical or chemical impurities, shall be considered Used Oil. Used oil, including hydraulic fluid, shall be managed according to regulations established in 40 CFR 279, Chapter 62-710, FAC and NASA Procedural Document KNPR 8500.1.

J-B-33 RECYCLING AND SALVAGING MATERIALS

The Contractor shall divert all of the following Construction and Demolition (C&D) waste items from the list below from disposal at landfills and incinerators to facilitate their recycling or reuse. The Contractor shall require all subcontractors, vendors, and suppliers to participate in this effort.

GOVERNMENT PROPERTY

All items or materials designated below to be salvaged shall remain the property of the Government and will be cleaned of non-salvable debris, segregated, itemized, delivered, and off-loaded by the Contractor at the disposal area. Scrap metal will be treated as salvage. The Contractor shall maintain adequate property control records for all materials or equipment specified by the contract to be salvaged. These records may be in accordance with the Contractor's system of property control if approved by the CO. The Contractor shall be responsible for adequate storage and protection of salvaged materials and equipment pending delivery to the disposal area. All materials and real property items identified below shall remain property of the Government unless excluded by the contracting documents. The contractor shall utilize on-site recycling and salvaging procedures for the following checked items:

- CONCRETE**
Concrete waste must be taken to the Diverted Aggregate Recycling and Collection Yard (DARCY) located at Schwartz Road Landfill. Follow the guidelines in the KSC DARCY Management Plan, which will be provided to the Contractor at the Pre-Work Conference.

- ASPHALT, LAND CLEARING DEBRIS, DIMENSIONAL LUMBER (NON-PRESSURE TREATED), WOODEN PALLETS, BLAST MEDIA (NON-CONTAMINATED)**
Asphalt, Non-contaminated blast media, Non-pressure treated and unpainted wood, lumber, plywood, green waste and land clearing debris from C&D operations must be taken to the Schwartz Road Landfill. Instructions on where to stockpile these items in the landfill will be given by personnel located inside the scale house at the entrance to the landfill.

- CARDBOARD, ALUMINUM CANS, PLASTIC BEVERAGE BOTTLES, GLASS**

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(NON-INDUSTRIAL), WHITE PAPER / MIXED PAPER

These items require coordination with NASA recycling manager. NASA has recycling containers placed throughout KSC. The contractor shall collect, segregate and transport these materials to the closest receptacle. NASA may provide containers to contractor site for projects generating large volumes of materials in this category.

ELECTRICAL, OFFICE, AND OTHER EQUIPMENT

These items require inspection by RRMF/Environmental Management Branch recycling personnel to provide proper disposition of material. Electrical equipment (transformers / switchgear / panels / disconnects.....) disposition will be made on a case by case basis based on level of contamination and value.

METALS: ALUMINUM, BRASS, COPPER, REBAR, STAINLESS STEEL, STEEL, OTHER FERROUS, OTHER NON-FERROUS, SCRAP METAL

All metals coated with non-liquid PCB paints with levels below 50 parts per million shall be recycled by the contractor. Any metals coated with non-liquid PCB paints with levels above 50 ppm shall utilize the Schwartz Road Landfill after Government approval.

CONTRACTOR PROPERTY

All materials and real property items checked below shall become property of the contractor at the NTP. The Contractor may, at his discretion, assume ownership of and recycle all other Construction and Demolition Debris that has not been identified for salvage in the Contract Documents, or has otherwise been designated as Government property. All recyclable material obtained by the Contractor for recycling shall be removed from the Kennedy Space Center and recycled; it shall not be stockpiled at the Kennedy Space Center. The Contractor shall assume ownership of these recyclable materials once they are transported off of the Kennedy Space Center.

ELECTRICAL, OFFICE, AND OTHER EQUIPMENT

These items require inspection by RRMF/Environmental Management Branch recycling personnel to provide proper disposition of material. Electrical equipment (transformers / switchgear / panels / disconnects.....) disposition will be made on a case by case basis based on level of contamination and value.

METALS: ALUMINUM, BRASS, COPPER, REBAR, STAINLESS STEEL, STEEL, OTHER FERROUS, OTHER NON-FERROUS, SCRAP METAL

All metals coated with non-liquid PCB paints with levels below 50 parts per million shall be recycled by the contractor. Any metals coated with non-liquid PCB paints with levels above 50 ppm shall utilize the Schwartz Road Landfill after Government approval.

REPORTING REQUIREMENT

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The Contractor shall record C&D waste materials on the “Construction & Demolition Projects Report“, KSC Form 7-648 NS (02/07) and submit the form on a monthly basis and keep log on site per direction of the Contracting Officer (CO).

J-B-34 SOLID WASTE

The Contractor shall be responsible for the proper management of all solid waste generated at the Kennedy Space Center from the execution of this contract. The Contractor shall segregate and transport all solid waste to disposal locations designated in the Contract Documents. The Contractor shall police work areas daily for loose trash and debris. The Contractor shall collect and properly dispose of wind-blown debris daily to prevent migration of debris/trash offsite.

Trash items not requiring special handling, or which cannot be resold or recycled, shall be disposed of in receptacles slated for disposal in either the KSC Landfill or the Brevard County Landfill. The Kennedy Space Center has numerous policies and processes in place to properly categorize, handle, store and dispose of waste streams generated during the project. It is the contractor’s responsibility to make every effort to reduce the impact of the project on the environment. This includes utilizing all practical means to reduce the amount of waste that is landfilled or incinerated.

J-B-35 DIVERTED SOLID WASTE

The Contractor shall dispose of the following solid wastes at onsite KSC disposal facilities: Soils, Trees / tree remains, Vegetative material, Non-pressure treated wood, Dimensional non-pressure treated lumber, Pallets (Unserviceable Wood), Blast Media (non-hazardous), and **clean non-coated concrete**. The contractor shall segregate clean, unpainted concrete from other Construction and Demolition Debris and deliver it to the Kennedy Space Center’s Diverted Aggregate Recycling and Collection Yard (DARCY). The DARCY is located west of the Schwartz Road Landfill entrance. The Government shall retain ownership of all material delivered to the DARCY. EPOC shall provide DARCY operating plan upon request.

J-B-36 SCHWARTZ ROAD LANDFILL OPERATIONS

The KSC Landfill is an unlined Class III landfill. Any waste permitted by DEP regulations for disposal in a Class III landfill as defined in Rule 62-701.200(14), FAC can be accepted at the landfill (**excluding friable asbestos**). For the purpose of meeting recycling, waste diversion and reuse goals, KSC has restricted certain solid waste from landfill disposal (See *Article J-B-33, Recycling and Salvaging Materials*) Landfilling of waste shall be the Contractor’s last option for disposal.

The physical dimensions of the waste shall be within the handling capabilities of the landfill disposal equipment. The physical dimensions for the landfill handling capabilities

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are 8 feet in length x 8 feet in width. Only the following items listed will be accepted at the landfill:

- (1) Asphalt: Asphalt removed from parking lots, driveways, and roadways.
- (2) Blast Media: The blast media must be as free from debris as possible and determined nonhazardous for acceptance into the KSC Landfill. The Spent Sandblast Media Disposal Form must accompany the blast media to the landfill and will be reviewed by the landfill operator. Blasting media determined to be a hazardous waste must be managed as hazardous waste.
- (3) Carpeting
- (4) Construction and Demolition Debris: Materials considered not water soluble and non-hazardous in nature, including but not limited to steel, brick, glass, concrete, asphalt, pipe, gypsum wallboard and non-pressure treated or unpainted lumber. This also includes rocks, soils, tree remains and other vegetative matter, which normally result from land clearing or development. Scrap metal from demolition projects should be managed according to guidance provided under article entitled “Recycling and Salvaging Materials”. The landfill may not accept any painted materials that test above the lower Toxicity Characteristic Leaching Procedure (TCLP) detection limits for barium, cadmium, chromium, lead, and mercury. If TCLP results are above the lower TCLP detection limits, the Contractor shall submit a PWQ for evaluation per article entitled “Hazardous Wastes.”
- (5) Fiberglass
- (6) Glass (except light bulbs or lamps).
- (7) Non-Friable Asbestos: Non-friable asbestos, also referred to as Non-Regulated Asbestos Containing Materials (NRACM) is handled on a case-by-case basis. KSC policy allows for the disposal of NRACM only. In order to dispose of non-friable asbestos, the Contractor shall complete and submit the KSC/Schwartz Road Landfill Non-Friable Asbestos form (KSC 28-1084 NS), which can be obtained from the Contracting Officer (CO) or the CO’s designee. The form shall be sent to NASA EAB, TA-B1B. The following scheduling procedures shall be followed before NRACM wastes are accepted at the landfill:
 - a. The waste generator/hauler shall make arrangements with the landfill operator a minimum of 24 hours before disposal of NRACM waste and shall inform the operator of the quantity of the waste and the scheduled date the shipment will arrive at the landfill.
 - b. NRACM will be accepted at the landfill with prior arrangement with the scale house attendant (minimum of 24 hours notification) Tuesday and Thursday, excluding holidays, from 0700 hours to 1100 hours and from 1300 hours to 1500

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hours.

- (8) Pallets (Unserviceable Wood and Plastics): Pallets that are not reusable or recyclable are accepted.
- (9) PCB Bulk Product Waste: Refer to Clause “PCB Management.”
- (10) Wood: Miscellaneous non-pressure treated wood items are accepted.
- (11) Yard Waste (Vegetation): Vegetation from maintenance and land clearing activities is accepted.

J-B-37 FRIABLE ASBESTOS MANAGEMENT

Regulated Asbestos Containing Materials (RACM) must be handled, packaged, and labeled of per EPA 40 CFR 61 and OSHA Construction Standards 29 CFR 1926.1101 prior to disposal. The contractor shall transport and dispose of all RACM at the Brevard County Landfill or similarly permitted disposal facility. The contractor shall provide confirmation of proper disposal to the CO within 7 days from the date the waste was transported from jobsite. No RACM will be authorized for disposal at any KSC waste facility.

J-B-38 ASBESTOS-CONTAINING BUILDING MATERIALS

Asbestos Containing Materials (ACM) are known to be present in facilities and or structures assigned under the scope of this contract. The Government will provide information regarding the location and quantity of known ACM in the facilities under this contract to the Contractor through the Contract Documents.

The contractor shall employ asbestos abatement contractors licensed by the State of Florida in accordance with Florida Statute 469 Asbestos Abatement. This documentation must be available onsite and shall be provided to the Government or Government representative upon request.

The Contractor shall abate all RACM as shown or specified in the contract documents and shall notify the Contracting Officer if any undocumented ACM or suspected ACM is encountered. The Contractor shall provide a written Asbestos Management and Abatement Implementation Plan which is consistent with the requirements of Federal and State regulations. These regulations include the Occupational Health and Safety Administration (OSHA) regulation 29 CFR 1926.1101, the Code of Federal Regulations (CFR) National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 61 Subpart M, the Florida Administrative Code (FAC) requirements FAC 62-257, and the Florida Statute (F.S.) 469 Asbestos Abatement and F.S. 376.60 Asbestos Removal Program Inspection and Notification Fee.

If more than 260 linear feet, 60 square feet or 1 cubic meter of RACM is to be removed, or

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any load-bearing structure is to be demolished regardless of whether or not asbestos is present, the Contractor shall submit to the Florida Department of Environmental Protection (FDEP) a “Notice of Asbestos Renovation and Demolition Form” (DEP Form 62-257.900(1). This notice shall be submitted two (2) weeks before demolition. A copy of the notification shall be provided to the Contracting Officer (CO) and the NASA Environmental Assurance Branch (EAB), TA-B1B. This notice shall be submitted for asbestos abatement and/or demolition of any load-supporting structural member. The State asbestos removal program requirements of F.S. 376.60 and the renovation or demolition notice requirements of the NESHAP 40 CFR Part 61, Subpart M, as embodied in FAC 62-257 are included on this form. If a project will disrupt construction materials in any way, the Contractor shall complete an asbestos survey. If it is unknown if ACM exist, the Contractor shall contact the COTR to complete a Support Request (KSC Form 19-15) to have KSC Environmental Health provide an asbestos survey.

Asbestos materials must be handled, packaged, labeled and disposed of per EPA 40 CFR 61 and OSHA Construction Standards 29 CFR 1926.1101. All regulated asbestos waste shall be disposed of at the Brevard County Landfill located on Adamson Road in Cocoa, Florida. Non-friable asbestos can be disposed of at the KSC Schwartz Road Landfill in accordance with Environmental Procurement Clause “Schwartz Road Landfill Operations.”

J-B-39 TURBIDITY & EROSION CONTROL

The Contractor shall prevent the discharge of sediment into drainage ditches, canals, streams, rivers or lakes due to construction operations. Precautions must be made to eliminate or reduce to the greatest extent possible any discharge of soil outside established project boundaries. Installation and maintenance of silt fences must be completed prior to initial land disturbance, and the screens must be maintained so they remain functional until such time that the newly exposed soils are stabilized with sod or natural vegetation. Approved erosion control devices shall be installed to prevent discharge of sediment into any dry or wet watercourse. Erosion control shall consist of anchored hay bales, mulch and netting, filter cloth barriers or other erosion control methods specified within the contract documents and approved by the Contracting Officer. Stockpiled fill material shall not be stored in a manner which allows runoff into any watercourse.

J-B-40 NOISE AND DUST CONTAINMENT

Special measures (water suppression) shall be taken by the Contractor to limit the noise and dust migration during demolition and construction activities.

J-B-41 LANDSCAPING AND BUILDING

The contractor shall be responsible and bear the expense for repair and replacement of all items damaged during demolition and construction. The Contractor shall take steps to protect and prevent damage to building components, irrigation, landscaping, plants, trees,

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shrubbery, grasses, sidewalks, roads, vehicles, etc. during these operations. Any building components, irrigation, landscaping, plants, trees, shrubbery, grasses, sidewalks, vehicles, etc. damaged by the contractor shall be repaired/replaced to original condition by the contractor at the contractor's expense. Sidewalk sections that are damaged shall be replaced in whole from cold joint to cold joint, typically 5 feet. The Contractor shall be responsible for returning any damaged items to existing condition to the Contracting Officer's satisfaction. Repairs/replacements shall be approved by the Contracting Officer before repair work commences.

J-B-42 OCCUPANCY DURING CONSTRUCTION

Facilities adjacent to the work site will be fully occupied during the construction. Care must be taken as to not disturb or interfere with existing Government operations or employees. During the performance of this contract, joint occupancy will be enforced where other crafts may be in the same work location without any interferences.

J-B-43 CONTINUITY, TEMPORARY UTILITIES AND EXISTING UTILITY SYSTEMS

Facilities adjacent to the work site will be fully occupied by government and government contractor employees during the project. Disruption of services shall be done in such a way to minimize the impact on building occupants. All utilities that are considered part of the demolition and affect the distribution of service into adjacent facilities and areas must be coordinated with the Contracting Officer prior to disconnecting existing utilities. Outages shall be planned and coordinated in accordance with Article J-B-1, Utility Outage, Energized Electrical Work, Electrical Hazard Analysis, and Excavation Permits. This includes utilities such as but not limited to: HVAC, Electric, Fire Alarm, Fire Protection, Water and Plumbing. When utility services are interrupted, the Contractor shall provide temporary generators, HVAC and other temporary utility provisions to maintain continuity of utility services to affected facilities and areas.

J-B-44 CONTRACTOR, GOVERNMENT AND BASE CONTRACTOR PARKING

The Contractor shall sequence work in such a way as to provide parking for contractor workforce and existing government and government contractor vehicles. Construction employees shall only park in these designated areas. The Contractor shall take steps to ensure that government and government contractor employees have reasonable access to parking.

J-B-45 CONTRACTOR ACCESS

Access to existing facilities for coordination of work shall be provided on an as needed basis only with prior approval from the contracting officer. The Contractor shall notify the contracting officer a minimum of 7 days prior to requiring such access.

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J-B-46 PROTECTIVE BARRIERS

Protective barriers shall be erected to protect Government personnel.

J-B-47 WORK AREA ACCESS CONSTRAINTS

Access to the work site for pre-construction activities occurring before the construction work window, such as field measurements and field investigations, must be coordinated with the Contracting Officer at least 7 working days prior to desired access.

J-B-48 FURNITURE DEMOLITION

The Contractor is to assume that 50% of the spaces within the existing buildings to be demolished shall contain loose furniture such as desks, chairs, etc. The contractor shall dispose of these furnishing in accordance with the specifications.

J-B-49 PERSONAL PROPERTY REMOVAL

Personal property being removed per the contract shall be in scrap condition or made into scrap to avoid any future use or re-sale as an item.

J-B-50 CANAVERAL AIR FORCE STATION (CCAFS) DEMOLITION

The demolition contractor shall get a certification from the United States Air Force (USAF) that the medium voltage lines on CCAFS have been cut at a defined demarcation point prior to performing any electrical work on CCAFS.

J-B-51 ABRASIVE BLASTING AND PAINTING

To the maximum extent possible, abrasive blasting and painting shall be performed before materials are delivered to KSC. A National Association of Corrosion Engineers (NACE) inspection report shall be provided to the Contracting Officer (CO) one (1) week prior to delivery of hardware painted offsite. Where field operations at KSC/CCAFS are required by contract documentation, the Contractor shall perform the operations in accordance with the following:

ABRASIVE BLASTING

Operations for paint/coating removal or other corrosion control activities involving the use of abrasive blasting to prepare surfaces shall not be allowed to contaminate soil or surface waters. To ensure this, the Contractor shall do the following:

- a. Provide tarpaulin drop cloths, windscreens, and other means necessary to

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enclose abrasive blasting operations to confine and collect dust, abrasive, agent, paint chips, and other debris.

- b. Collect, sample and dispose of in accordance with “disposal” paragraph all material removed and/or generated, including coating materials and blast media.
- c. Protect storage areas for blast media and blast debris from the natural elements to prevent contamination.

EXTERIOR PAINTING

When painting exterior surfaces, the Contractor shall implement measures in the paint application process to minimize the amount of overspray that is created on a project. Drop cloths or similar containment shall be used to prevent paint from coating ground surfaces.

The Contractor shall implement measures to contain any overspray that may be generated as a result of a painting operation. The Contractor shall also implement measures to prevent rainfall and runoff from contacting items such as painting supplies, paint equipment, empty paint cans, etc., which may have paint residue in or on them.

The contractor shall take precautions to protect all Government hardware from contamination or damage during sandblasting and painting operations. The Contracting Officer or representative shall approve the method of protection. The contractor shall be responsible for any and all claims arising from painting or overspray or overblasting. In addition, the contractor shall be responsible for any repairs to damaged property, and for the collection, removal and disposal of the oversprayed or overblasted materials. The Government will make no additional payments for overspraying or overblasting by the Contractor.

USE OF WATER – WATER BLASTING

The process of preparing certain surfaces, mainly the exteriors of buildings and structures, before the application of surface coatings may incorporate the use of water. These preparation activities include, but are not limited to removing dirt, mold, and mildew before painting (general surface cleaning); using pressurized water to remove coatings (water blasting); and using blast media to remove paint/coatings along with water as a dust inhibitor (wet blasting).

Operations using water shall be performed with either plain potable water or potable water with biodegradable, phosphate-free detergents and/or low concentration ($\leq 5\%$) sodium hypochlorite (bleach), calcium hypochlorite, or hydrogen peroxide.

All material removed and/or generated, including coating materials, water, and blast media, shall be collected for proper disposal. All material removed during water blasting operations will be collected, sampled, and disposed of in accordance with the “disposal”

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paragraph below. Liquids may be separated from the solid debris by screening the material collected with a 40-micron (or finer) filter mesh.

COATINGS CONTAINING HAZARDOUS CONSTITUANTS

The Contractor shall handle and disposed of all waste containing any hazardous materials in accordance with article entitled “Hazardous Wastes.”

DISPOSAL

The Contractor shall dispose of all waste containing nonhazardous materials in accordance with article entitled “Landfill Operations/Solid Waste Removal.”

INSPECTION

All abrasive blasting and painting shall be inspected by a Contractor provided NACE inspector to verify compliance with the contract documentation. The inspector’s reports shall be provided to the Contracting Officer at the end of each week in which the blasting and/or painting has been performed at KSC. The report shall include information that clearly defines the extent (starting and end points) of work performed during each week.

J-B-52 INDOOR AIR QUALITY

The Contractor is responsible for constructing, inspecting, and maintaining containment of the construction work area(s) that will prevent migration of dusts, smokes, fumes, gases, and vapors that are generated during demolition and construction activities into occupied space outside the construction zone. The Government will investigate Indoor Air Quality (IAQ) complaints received from employees in adjacent work areas throughout this project. If the Government identifies IAQ problems that are the result of inadequate containment of the demolition and construction work area(s), the Contractor shall be required to take appropriate control measures, at Contractor’s expense, to mitigate.

J-B-53 ELECTRICAL OUTAGES

Electrical outages for 13.8kV medium voltage and 480V Substation circuits shall be planned and submitted so that outage impacts are kept to a minimum during the progression of the work. Unless pre-approved by the Government, a maximum of one breaker circuit from each substation and a maximum of a single medium voltage circuit shall be out of service during the hours of 6:00 to 18:00 Monday through Friday.

Electrical outages in the Vehicle Assembly Building shall occur outside normal operating hours.

**J-B-54 SPECIAL REQUIREMENTS FOR WORK IN THE VEHICLE
ASSEMBLY BUILDING**

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THE REQUIREMENTS BELOW ARE ONLY APPLICABLE TO WORK WITHIN THE VEHICLE ASSEMBLY BUILDING, AS SHOWN IN DRAWING 79K39405:

(a) ENTERING THE VAB

Access to the Vehicle Assembly Building shall be through C (north) or F (south) gates. All personnel entering the VAB are required to check in with VAB Operations (VAB Ops) in the VAB Operations Center. This may be done in person in Low Bay Cell 8 or by phone at 321-861-5108. You are required to inform VAB Ops of the purpose of your visit, which should include the area to which you are going and the work that will be performed. Only those personnel on official business or working scheduled activities, shown on the KSC Integrated Control Schedule, will be authorized to enter. VAB Ops will inform you of any further requirements and operational or safety clears in the VAB. Do not enter controlled areas without proper authorization.

Individuals visiting the VAB for meetings shall park in the employee parking lot. Non-government vehicles on official business that need to enter the VAB perimeter shall coordinate entry prior to arrival with the VAB Operations Center, or contact the VAB Operations Center upon arrival through the access control monitor at the gate. The VAB Operations Center will only allow access for authorized work. All non-government vehicles entering through the VAB perimeter shall have the name of the company prominently displayed.

Vehicle keys shall remain in the ignition at all times while the vehicle is inside the VAB perimeter. Personnel pickup/drop-off is prohibited inside the VAB perimeter. Vehicle entrance into the VAB building shall be for offloading and loading of equipment/materials or when a vehicle is required to support an approved operation. Vehicles inside the building shall not be left unattended without VAB Operations Center authorization.

No access (vehicular or pedestrian) shall be allowed through the north gate (C-Gate).

(b) VAB SENSITIVITY AND OPERATIONS CRITERIA

The VAB is an operational facility. The facility will be in use and functional during the planned construction period for this project. The contractor shall take care to avoid interfering with the operations and associated safety/security requirements within the VAB.

There will be other construction work underway in the Vehicle Assembly Building Tower E. The contractor shall be aware of these projects when preparing their project schedule and shall take steps to minimize impacts to the other construction efforts.

Pneumatic & electric hand tools: While working on this project in the VAB, only

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pneumatic & electrical hand tools are permitted.

Welding & Burning is prohibited in the VAB High Bays.

Exception to Welding & Burning in the VAB: If a situation arises where the Contractor has no other option but to weld or burn, the Contractor shall submit a written letter to the Contracting Officer requesting a Deviation Waiver.

Abrasive Blasting: Abrasive blasting is not permitted within the VAB. Any paint removal requirements must be accomplished with mechanical means. Abrasive blasting in accordance with J-B-51 is permitted outside the VAB.

(c) COORDINATION REQUIREMENTS FOR THE VAB

The contractor shall coordinate all VAB project efforts with the operations and construction of other entities performing work at Kennedy Space Center (KSC) including, but not limited to NASA, KSC safety and KSC security. The Contractor will be required to prepare and submit an input to the LC-39, area 72 hour/11-day operations schedule (a total of 14 days). This schedule must be prepared on KSC Form 23-250 and provided on a daily basis prior to 1:00 P.M. The schedule must show the Contractor's planned operations in detail for the next 3 days in hourly increments and in shift increments for the following 11 days. All Contractor operations requiring support from KSC, such as outages or fire and safety standby, for hazardous operations, will be shown on the schedule. Copies of KSC Form 23-250 and detailed instructions on its preparation will be provided to the Contractor.

Scheduling Work in the VAB – KSC Integrated Control Schedule (KICS):

All work performed in the VAB shall be scheduled on the KICS through the Contracting Officer prior to starting work. There is a daily scheduling meeting at 7:30 a.m. which typically lasts 30 minutes in the VAB Operations Center Conference Room in Low Bay Cell 8 to review all work on the KICS and make last minute additions or adjustments. For the duration of the project, it is MANDATORY that a contractor representative participate in the daily scheduling meeting. The contractor may participate in the meeting via telecom. In addition to contractor normal company processes, real-time work shall be coordinated through the Contracting Officer for approval from the VAB Operations Center.

(d) SPECIAL HOUSEKEEPING REQUIREMENTS FOR THE VAB

The contractor shall be responsible to maintain daily clean-up activities to ensure no foreign object debris (FOD) enters the VAB or creates any hazard in or around the VAB. The Contractor's superintendent shall conduct a daily walkdown of all construction areas at the end of the workday, document findings and disposition and report on status at weekly status meeting. The contractor may be required, by direction from the contracting officer or COR, to perform additional walk downs, to support VAB operations and ensure the construction area is free from FOD.

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(e) NOISE RESTRICTIONS FOR THE VAB

During certain operations, the government may prohibit activities which generate high levels of noise in the interior of the VAB, such as pneumatic tools and chipping. The duration of restrictions will be as necessary to avoid interference with sensitive operations and may be as short as an hour or may be for the entire work day. The nature and duration of planned sensitive operations is discussed at the daily VAB coordination meeting. The government will provide as much advance notice as possible regarding these noise restrictions, but the schedules vary and the restrictions may be put into effect with as little as one hour notice. It is the responsibility of the contractor to attend the daily meetings and plan accordingly for noise restrictions.

(f) USE OF VAB ELEVATORS

The VAB facility houses elevators in each high bay tower. Contractor use of these elevators shall be coordinated with, and subject to the restrictions/approval of the Contracting Officer. Access above level 5 requires the use of an elevator key which is provided to a limited number of personnel. When using the elevators for moving materials and tools, the contractor shall provide protection for the interior of elevators. The interior protection used shall be approved by the Contracting Officer. The load limit of each elevator is 8,000 lbs.

(g) CONSTRUCTION LAYDOWN AREA AT VAB

Lay down areas are per Drawing 79K39405 and remain on the north side of the perimeter of the VAB. A lay down area for a dumpster will be available at HB3. The contractor shall be responsible for any facility modifications (e.g. relocation of light poles, fences, etc.) necessary for transportation of materials to the area of the VAB and shall restore facilities to their original condition. Prior to site mobilization, the contractor shall perform a laydown area walk down with the contracting officer or COR. During the walkdown the contractor shall take pictures and document the state of the area. The pictures and documentation shall be put into a report and be issued to the COR for use in verifying that the site has been returned to the original condition at contract closeout.

(h) CONTAMINATION CONTROL PLAN AT VAB

Construction contamination debris from all sources associated with this project shall not enter the interior of the VAB or shall be contained by the contractor within the work areas and the laydown area by barriers. The contractor shall provide a debris control plan for approval by the Contracting Officer. The plan shall, at a minimum, identify sources of contamination and debris, means, methods and materials used to meet the requirements, and methods of quality control to ensure the plan is implemented as intended. Approval of the plan shall indicate general acceptance of

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the materials, methods and means of the plan, but shall not preclude additional measures by the contractor to meet the requirement.

(i) VAB CONTAINMENT REQUIREMENTS FOR PREPARATION OF SURFACES FOR PAINTING

Ventilation/dust collection shall be provided within the areas being cleaned for painting. A means of containment and removal of paint/material fall-off must be provided. A means to effectively alert workers to an evacuation requirement must be provided within the enclosure.

(j) CRANE USE IN VAB

In VAB HB-3, the government will make the existing 325 ton overhead crane available on a limited use basis. Each lift shall be scheduled and all submittal and contract lifting plan requirements approved, at least two weeks in advance of need. The duration for each lift and removal shall not exceed one 8 hour shift and shall be performed during normal work period defined in Contract Article F.3. The crane will be provided with an operator. The contractor shall be responsible for providing rigging, attaching the rigging to the equipment, providing spotters and coordinating crane movements with crane operators. The contractor shall submit for approval lifting, rigging and execution plans for use of the 325 ton crane.

(k) VAB CONSTRUCTION COMMUNICATION SYSTEMS AUTHORIZATION

All electronic means of communication used in and around the VAB shall be approved by the contracting officer. The NASA frequency control representative will review any proposed cell phone, radio or walkie talkie system and confirm acceptance of its usage, for the Contracting Officer.

Contractor Cell Phones: Cell phones are permitted in the VAB for job related activities.

Personal Cell Phones: Unless it is an emergency personal cell phones must be used outside the VAB building.

(l) OFFICE SPACE USE IN VAB FOR CONTRACTOR FIELD OFFICE

No office space will be made available to the contractor during construction. The contractor shall provide a construction trailer for this purpose.

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A break area will be provided to the contractor within the VAB. If use of these facilities by the Contractor's employee results in excessive construction grime and debris, the Contractor will, at the direction of the Contracting Officer, clean the facilities at no cost to the Government.