SECTION 13289 – LEAD TESTING AND MONITORING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

A. This Section describes Contractor's responsibility for compliance while conducting work which disturbs lead-containing paints (LCP) for the 1st, 2nd, and 3rd Level Roadway Rehabilitation, Daniel K. Inouye International Airport. Related sections are:

1. Section 01715 – EXISTING CONDITIONS – ASBESTOS/LEAD/HAZARDOUS MATERIAL SURVEY for general requirements and the hazardous material survey

2. Section 13283 – LEAD PAINT CONTROL MEASURES for requirements of work which disturbs lead paints.

B. Implement appropriate engineering controls and safety measures to prevent site workers, other trades, the public, and the environment from exposure to hazardous materials.

C. Costs incurred due to Contractor inability to control hazards shall be borne by Contractor, including but not limited to, investigations, medical, legal, regulatory and public relations, clean-up, monitoring, and reporting.

D. An independent industrial hygiene (IH) firm, retained by the contractor, will conduct the monitoring during the Contractor's work which disturbs LCP.

1.03 GENERAL REQUIREMENTS

Testing and workers' breathing zone monitoring shall be conducted by the Contractor for the purpose of:

A. Verifying compliance with the applicable codes, regulations and laws regarding LCP abatement.

B. Ensuring that the legally-required documentation is collected in a timely manner.

C. Providing engineering controls during project.

1.04 TESTING/ AIR MONITORING/ INDUSTRIAL HYGIENE SUPERVISION AND AIR MONITORING

A. Industrial hygiene supervision and boundary air monitoring shall be performed by an independent IH firm retained by the Contractor. The laboratory used for sample analysis shall be proficient in:

1. The National Institute for Occupational Safety and Health (NIOSH) Proficiency Analytical Testing (PAT) program.

2. The National Institute of Standards and Technology, National Voluntary Laboratory Accreditation Program (NVLAP) for bulk asbestos or the Environmental Protection Agency (EPA) Research Triangle Institute (RTI) program for bulk asbestos analysis.

B. Air monitoring and project supervision will be conducted under the direction of an Industrial Hygienist (IH) who has minimum 5 years of experience in hazard abatement project management. On-site monitoring may be conducted by a competent and qualified IH Technician with experience in lead abatement, provided activities are conducted under the supervision of the IH.

C. Aforementioned air monitoring and project supervision shall not remove the Contractor's responsibility for his/her worker protection and required documentations.

1.05 COORDINATION

A. Refer to Section 13282 – LEAD PAINT CONTROL MEASURES for testing/air monitoring requirements and all applicable Federal, State, and local regulations.

1.06 PRE-CONSTRUCTION CONFERENCE

A. Hold conference prior to construction, and the pre-construction meeting shall be conducted and recorded by the Contractor.

1. The Contractor, Project Designer and or the Project Monitor and Building Representative(s) shall attend. When the Abatement Contractor is retained by a General Contractor, a representative of the Abatement Contractor shall also attend.

2. Agenda:

a. Review final schedule for project.

b. Verify legal requirements and special conditions and constraints.

c. Verify compliance with pre-construction requirements.

d. Obtain copies of all mandatory notifications.

e. Inspect sample respiratory equipment and other abatement equipment.

f. Review procedures and responsibilities.

g. Clarify the scope of work and its best impact on the users of the building.

PART 2 – PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 COMPETENT PERSON RESPONSIBILITIES

A. Contractor's Competent Person shall prepare a Lead Hazard Control Plan per Section 13282 – LEAD PAINT CONTROL MEASURES paragraph 1.04 B. State and training certifications shall be valid and reflect the anticipated workers on site.

B. If required by the landfill, Competent Person shall provide proof of waste characterization and disposal documents. In the event that the waste is determined to be hazardous, inform DOT-A, obtain EPA ID number, and request equitable adjustment to the contract.

C. Refer to Section 13282 – LEAD PAINT CONTROL MEASURES, and paragraph 3.02 below, for additional responsibilities.

3.02 CONTRACTOR RESPONSIBILITIES

A. Submit complete work plans for review and concurrence by DOT-A. Refer to Section 13282 – LEAD PAINT CONTROL MEASURES for requirements of the work plan.

B. Provide the daily personal air monitoring and necessary records for all of the Contractor's employees for the duration of the project as required by OSHA (29 CFR 1926.62) and all other applicable laws.

C. Contractor shall obtain the OSHA required reports for personnel air monitoring as part of the contract.

D. Contractor shall be responsible for daily personal air samples that shall be collected on at least 25% of the Contractor's personnel performing removal work on similar tasks and for the duration of the project. Submit within 5 working days of sampling to DOT-A.

E. Contractor is solely responsible for protecting their workers, airport personnel, and the public from any work activities at the work site and property regardless of the testing and monitoring conducted by the IH.

F. Costs involving investigations, air monitoring, legal, medical, regulatory and public relations, testing, and reporting due to Contractor inability to control hazards shall be borne by Contractor, and shall be deducted from the final contract payment.

G. Accommodate additional testing performed by the IH; however, this shall not remove Contractor's responsibility of monitoring required by law and contract specifications.

H. For final cleanup and decontamination following gross removal, remove the final polyethylene sheeting, or drop cloth, but leave the coverings for critical barriers, such as doors, windows, air ducts, etc., until successful clearance is obtained.

I. Lead Clearance by Visual Inspection

1. IH retained by the Contractor and the Contractor's Competent Person shall conduct visual inspection.

2. No visible emissions of lead paint debris or dust.

3.03 MONITORING AND INSPECTION BY COMPETENT PERSON

A. Duties of the Competent Person

1. Photographic Record of Project: Record work with representative photos. Photos shall become the property of the State and are to be accompanied by a detailed log.

2. Project Log: Competent Person shall be on site at all times and maintain daily field logs detailing key activities during lead paint-related work and submit a summary of project activities to DOT-A within 10 days of completion. Incorporate daily field reports with other project data into a final closeout report.

3. Visual Inspection of Controlled Areas: Conduct inspections of controlled areas, during the actual work performance, to document the work practices employed. Verify that scheduled abatement or mitigation work is completed, and the area was properly and promptly cleaned and ready for other trades involved in the project.

4. Change Order: If changes are necessary once construction begins, review request for change and make a recommendation for approval. Per Section 13282 – LEAD PAINT CONTROL MEASURES paragraph 3.18, removal activities and disposal of wastes will not be measured or paid separately, except for the hazardous waste determined by the waste characterization.

B. Site Monitoring by Competent Person

1. Onsite personnel air monitoring as required by OSHA, and the project specifications

2. Monitoring of decontamination procedures at control area entry/exit and of cleanup after each shift

3. Monitoring of controlled area maintenance and waste handling

4. Interface with IH, Designer of Records, representatives of regulatory agencies, and DOT-A

5. Ensure workers are trained, engineering controls in place, and proper respiratory protection is utilized by personnel within control areas

6. Relay to DOT-A any discrepancies in Contractor's action with provisions of project specifications

3.04 TESTING/AIR MONITORING

A. IH retained by the Contractor shall have authority to stop work or to exercise engineering controls during the project.

B. IH may conduct additional testing and air monitoring at his/her discretion.

C. Monitoring activities will be documented and submitted to DOT-A with test results, interpretations, follow-up actions, and final resolutions.

3.05 SAMPLE DESIGN

The following is a typical sampling design per control area during the construction. Number of sample quantities and volume may vary.

A. Work Area Samples: Low volume samples of a maximum of 480 liters each shall be taken in the work area. Ambient air samples shall be taken outside of work area to assess and ensure that engineering controls are effective and that the persons entering the work area are properly protected from airborne hazards. If monitoring results inside and outside the controlled area indicate airborne concentrations is greater than 30 $\mu g/m^3$ air for lead, Contractor shall correct the condition(s) causing the increase and ensure that Contractor maintains the ambient conditions to below the action levels.

B. Barrier Samples: As applicable, two samples may be taken per barrier.

C. Environmental Samples: Each removal area shall be controlled so that airborne dust cannot escape into trade, staff, and public access areas. Per the IH's discretion, high volume or low volume samples per controlled area will be taken.

PART 4 – MEASUREMENT AND PAYMENT

4.01 BASIS OF MEASUREMENT AND PAYMENT

Work involving worker monitoring, waste characterization, and OSHA and EPA compliance shall not be measured or paid for separately but shall be considered incidental to the lump sum price bid for the item of which it is a part in the Bid Schedule.

END OF SECTION