READ THIS FIRST

This Project Spec Document may need additional modifications to suit your project. It is recommended that you proofread each section, paying attention to any “Notes” boxes such as this one--you should remove these “Notes” sections as you go. Also, do a search for all bracket characters “ [ ] “ as they are used to show you areas containing options or project specific details (you can use Microsoft Word’s Find feature {Ctrl-F} to jump to an open bracket “ [ “ character quickly). Again, these bracket characters should be removed.

It is important that every paragraph be numbered to allow for easy referencing. If you use the document’s built in styles and formatting your outline should be fine (turn on the formatting toolbar by going to View > Toolbars > Formatting). Most paragraphs will use the style “Numbered Material” and can be promoted (Shift) or demoted (Shift-Tab).

You should not have to manually enter extra spaces, carriage returns or outline characters such as A, B, C, or 1.01, 1.02; the formatting will do this for you. The entire document is 11 pt. Arial. If you paste items in, you may need to reapply the “Numbered Material” format.

NOTE: This section must be reviewed by the Port Construction Services Regulated Materials Group. Contact: Brian Nichols / (206) 787-7903 / [Nichols.B@portseattle.org](mailto:Nichols.B@portseattle.org)

1. GENERAL
   1. SUMMARY OF WORK

Delete the last sentence of Paragraph A regarding Contractor Work Authorizations if this is not an open order contract.

* + 1. The Contractor shall establish, provide, and maintain lead controls for the duration of the work conducted during this Contract. The tasks to be completed under this Contract are generally not considered lead abatement projects. However, the Contractor may encounter lead-containing coatings and lead-containing materials during painting, general construction and demolition. Also, the Contractor may be tasked by way of a Contractor Work Authorization to remove lead-containing materials.
    2. The intent of this section is to require the Contractor to establish procedures and controls to prevent airborne lead emissions during painting, general construction and demolition; comply with Washington Administrative Code (WAC) 296-155-176; and manage lead waste in accordance with WAC 173-303, Dangerous Waste Regulations. The work may include:
       1. Painting on surfaces that have been treated with lead-containing coatings. This includes preparation of the surfaces to accept new paint.
       2. Limited demolition of concrete, concrete block, steel, sheetrock, plaster and other items that may consist of lead or be coated with paints that contain lead.
       3. Waste designation including samples collected in accordance with ASTM Standard E 1908 and subsequent Toxic Characteristic Leaching Procedure analysis (EPA Method 1311) conducted by a laboratory certified by the Washington State Department of Ecology
       4. Disposal of lead waste in accordance with WAC 173-303, Dangerous Waste Regulations
       5. Providing personnel that have received training as defined in WAC 296-155-17625

Delete Item 6 if the contract does not include residential or child occupied properties (typical).

* + - 1. For any work involving disturbance of lead based paints on residential or child occupied properties, the Contractor will provide personnel that have received training as defined in WAC 365-230-200 and 40 CFR Part 745, Subpart E (Ref. 8), and provide the occupants with a copy of the EPA document “The Lead-Safe Certified Guide to Renovate Right”.
  1. GOVERNING CODES, STANDARDS, AND REFERENCES
     1. The Contractor is responsible for monitoring work activities and determining conditions that require conformance with specified regulatory requirements and standards. The following rules, requirements, and standards may apply to the work:
        1. United States Occupational Safety and Health Administration (OSHA)
           1. 29 CFR 1910 - Occupational Safety and Health Standards
           2. 29 CFR 1910.134 - Respiratory Protection
           3. 29 CFR 1910.1200 - Hazard Communication
           4. 29 CFR 1926.55 - Gases, Vapors, Fumes, Dusts, and Mists
           5. 29 CFR 1926.57 - Ventilation
           6. 29 CFR 1926.62 - Lead in Construction Standard
        2. United States Environmental Protection Agency (EPA)
           1. 40 CFR 260 - Hazardous Waste Management Systems: General
           2. 40 CFR 261 - Identification and Listing of Hazardous Waste
           3. 40 CFR 262 - Standards Applicable to Generators of Hazardous Waste
           4. 40 CFR 263 - Standards Applicable to Transporters of Hazardous Waste
           5. 40 CFR 268 - Land Disposal Restrictions
           6. 40 CFR Part 745, Subpart L - Lead Based Paint Activities
           7. 40 CFR Part 745, Subpart E (Ref. 8) - Lead Renovation, Repair, and Painting Program
           8. EPA Publication SW-846 - *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*
           9. EPA Publication EPA-740-K-10-001 - *Lead Safe Certified Guide to Renovate Right*
        3. Department of Transportation
           1. 49 CFR Subchapter C - Hazardous Materials Regulations
        4. National Institute for Occupational Safety and Health (NIOSH)
           1. NIOSH/OSHA Booklet 3142 - *Lead in Construction*
        5. American Society for Testing and Materials
           1. Standard E 1908 - *Standard Guide for Sample Selection of Debris Waste from a Building Renovation or Lead Abatement Project for Toxicity Characteristic Leaching Procedure (TCLP) Testing for Leachable Lead (Pb)*
        6. Washington State Regulations that are codified in the Washington Administrative Code (WAC) and govern lead work and lead waste management include but are not limited to:
           1. WAC 296-62 - General Occupational Health Standards
           2. WAC 296-24 - Safety Standards for Construction Work
           3. WAC 296-155-176 - Lead
           4. WAC 296-841 - Airborne Contaminants
           5. WAC 173-303 - Dangerous Waste Regulations
           6. WAC 365-230 - Accreditation of Firms And Individuals Conducting Lead-Based Paint Activities
  2. DEFINITIONS
     1. Definitions relevant to lead:
        1. Action Level (Lead): Employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8 hour period.
        2. Air Monitoring: The process of measuring the concentration of lead in a specific volume of air in a stated period of time. Air samples shall be collected and analyzed in accordance with the methods specified by the National Institute for Occupational Safety and Health (NIOSH) and as required by WAC-296-155-176.
        3. Area Monitoring: Sampling of lead concentrations within the lead control area, inside the physical boundaries, which is representative of the airborne lead concentrations that may reach the breathing zone of personnel potentially exposed to lead.
        4. Dangerous Waste: Solid wastes designated as dangerous wastes in accordance with WAC 173-303, Dangerous Waste Regulations. Dangerous waste is the State of Washington equivalent to hazardous waste under the Federal Resource Conservation and Recovery Act (RCRA).
        5. DOT: Department of Transportation
        6. Eight Hour Time Weighted Average (TWA): Airborne concentration of lead averaged over an 8 hour workday, to which an employee is exposed.
        7. Hazardous Waste: Solid waste designated in accordance with 40 CFR Part 261 as hazardous, and regulated as hazardous waste by the United States Environmental Protection Agency.
        8. Lead: Metallic lead, inorganic lead compounds, and organic lead compounds
        9. Permissible Exposure Limit (PEL - Lead): A lead concentration of 50 micrograms per cubic meter of air as an 8 hour time weighted average.
        10. Personal Monitoring: Sampling of lead concentrations within the breathing zone of an employee to determine the 8 hour time weighted average concentration in accordance with WAC 296 155 176 and 296-841. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a hemisphere, forward of the shoulders, with a radius of 6 to 9 inches and the center at the nose or mouth of an employee.
        11. Industrial Hygienist: The Industrial Hygienist shall be subject to approval as specified under Paragraph 1.05 of this section and shall have one of the following certifications:
            1. Certified Industrial Hygienist certified by the American Board of Industrial Hygiene with prior experience in the health and safety aspects of a lead hazard control work project.
            2. Professional Engineer or Certified Safety Professional with a minimum of three (3) years prior experience in industrial hygiene relating to lead hazard control work.
        12. Waste Designation: The process of determining whether waste is regulated under WAC 173-303, Dangerous Waste Regulations.
  3. QUALITY ASSURANCE
     1. The Contractor shall submit a Lead Controls Work Plan pursuant to Paragraph 1.05 of this section. The Work Plan shall establish procedures and controls to: prevent airborne lead emissions during general construction and demolition, comply with (WAC) 296-155-176 (Lead) and 296-841 (Airborne Contaminants), and manage waste in accordance with WAC 173-303, Dangerous Waste Regulations. The Work Plan will be submitted to the Port for review and approval prior to the start of any lead work.
     2. The Port will perform periodic observation of the site work to ensure that it is being performed in a manner consistent with the approved Work Plan and this section. The Port’s representative will have the authority to issue a “Stop Work” order for health and safety concerns or non-compliance with regulations or this section.
  4. SUBMITTALS
     1. The Contractor shall provide complete submittals in accordance with Section 01 33 00 and as specified below.
     2. Preconstruction Submittals: Provide a site-specific Lead Work Plan which demonstrates the methods by which impact, handling and disposal of lead-containing materials will be performed. The Port realizes that this project may or may not involve actual “lead abatement”; instead, the project work may involve demolition, alteration, and/or painting of building components that are coated with paint of varying lead concentrations. Therefore, a statement is required that identifies how the Contractor will be complying with the specifications and regulations as they pertain to lead. At a minimum the Work Plan shall include:
        1. A general description of work practices, engineering controls, air monitoring, and decontamination for work involving lead-containing coatings Describe whether the job will involve removing paint that contains lead (i.e., abatement), or demolition of materials containing or coated with lead.
        2. Qualifications, certifications, training certificates and role of each Contractor’s personnel
        3. Qualifications of the proposed testing laboratory (to perform analysis of air and waste characterization samples)
        4. Site inspection process, logs and documents
        5. Respirator fit testing records for personnel performing lead work
        6. Lead Air Monitoring Program
           1. The Air Monitoring Program shall include the proposed sampling plan, sampling procedures, and field quality control procedures of the firm conducting the air monitoring.
        7. Procedures for personnel and equipment cleanup and decontamination
        8. Lead Waste Management and Disposal Plan, including:
           1. Waste minimization efforts
           2. Container selection and labeling
           3. Qualifications and certificates of lead waste transporter
           4. Qualifications and certifications of lead waste disposal facilities
           5. Documentation of final lead waste transportation and disposition
     3. Construction Phase Submittals
        1. Daily Work Records: Submit the following information to the Engineer daily. This information shall be submitted prior to the start of work on the next scheduled work shift.
           1. Air and bulk sample data sheets and laboratory analytical results, including chain of custody
           2. Supervisor daily inspection report, including scope of work completed, engineering controls used, hours worked, and equipment and materials used.
     4. Post-Construction Closeout Submittals
        1. Project Overview: Provide a basic project summary identifying the scope and summarizing the work performed by the Contractor. Provide enough information to have a basic understanding of the project and include project and contact names and ID numbers; Contractor’s company name; where, when, and what type of work was completed; and a discussion of significant problems encountered during the course of the work. The written summary shall include a description of all changes or modifications to the Contractor’s Pre-Construction Work Plan.
        2. Certification: Provide written certification from the Contractor’s Project Manager or Supervisor that the Contractor has fully inspected the work area and completed work in strict accordance with the Specifications.
        3. Air Monitoring: Submit documentation of all Contractor air monitoring results relative to regulatory compliance. Include copies of all air monitoring data sheets, chain-of-custody documentation and analytical reports for sampling conducted at the site.
        4. Project Record Documents: Provide project records including documentation of all contract changes, and copies of work site entry log books, safety logs, sign-in sheets, and supervisor daily field reports. Provide copies of project meetings for pre-construction, construction period, and project closeout meetings.
        5. Disposal Manifests: Submit copies of all lead waste disposal transportation and disposal manifests including signed receipts from the landfill, and chain-of-custody forms. Lead dangerous waste or hazardous waste disposal documentation shall be signed by a representative from Port of Seattle Aviation Environmental Programs.
        6. Submit copies of inspections or visits by regulatory agencies. Include copies of any citations or notices received by the Contractor from regulatory agencies during the course of the project.

1. MATERIALS AND EQUIPMENT
   1. MATERIAL REQUIREMENTS
      1. Containers
         1. All wastes that designate as Hazardous Waste or Dangerous Waste shall be packaged in sealed containers with appropriate UN Performance Package Ratings.
         2. All drums and containers must be in shipping condition with gaskets intact.
      2. Labels
         1. All containers holding hazardous wastes will be labeled in accordance with WAC 173-303-190.
2. EXECUTION
   1. WORK AREA PREPARATION
      1. Perform the following preliminary steps to prepare the Work Areas prior to demolition of lead coatings and lead-containing materials.
         1. Establish a control area that includes a perimeter sufficient to perform the demolition work around each building or area that contains lead or lead-containing materials and/or renovation work that is expected to disturb lead-containing paint. The control area shall also consist of the pathway for transport of any lead-contaminated material to a stockpile or storage receptacle, if the demolition debris is not immediately transported from the site. Provide and display caution signs, in clearly visible areas, at entrances indicating that hazardous material work is being conducted, that state that unauthorized persons should not enter. Signs shall comply with WAC 296-155-176.
         2. Emergency Procedures: Establish and post written emergency procedures within each work area, including emergency contact names and contact phone numbers, plans for medical emergencies, plans for temporary loss of electrical power or water, and procedures for an emergency. The Contractor is responsible for establishing and posting contingency procedures for all workers on site.
         3. Health and Safety Briefing: Conduct a health and safety briefing prior to the start of work and weekly to discuss the Health and Safety Plan, hazardous materials, hazardous work and other related items per the specified Health and Safety Plan. More frequent briefings should be performed as required by project activities or changes in the work.
         4. Utilities: Request and coordinate the use and shut down of all utilities. Request and coordinate the use and shutdown of electric service to the work area and install temporary electric supply with ground fault interrupt protection.
         5. Prepare all storm drains, floor and area drains and drainage routes using the methods described in the approved Work Plan to prevent contaminated runoff.
         6. Lead Waste Accumulation Area: Prepare the lead-waste storage area as described in the approved Work Plan.
         7. Decontamination Areas: Prepare the decontamination areas for use at all entrances and exits from the Work Area as described in the approved Work Plan.
   2. WORK PROCEDURE
      1. General Procedures: Perform all work and comply with the safety and health provisions in the site-specific Health and Safety Plan. The work includes all measures necessary to adequately protect workers, authorized personnel, Port staff and the public from lead exposures during the demolition/renovation process and surface preparation activities.
      2. Coordination of work of all trades: Coordinate the work of all trades to assure that work is performed in accordance with the applicable regulations and that the control limits are maintained at all times both inside and outside the control area.
      3. Access to work Area: Access to work areas shall be through decontamination areas. Only the Contractor, subcontractors, authorized Port personnel, and project consultants shall have access to the Work Area.
      4. Means of Egress: Establish and maintain emergency and fire exits from the work area.
      5. Prevent dust generation at all times to the maximum extent practicable.
      6. The use of water shall be restricted to the smallest quantity necessary to minimize dust and to avoid the potential of contaminant migration through run-off or ponding. In no case shall liquids generated during building demolition/renovation come into contact with uncontaminated soils, drains, surfaces or conduits which may constitute a release to the environment.
      7. Demolition Procedures: Perform demolition in areas of lead-containing paints and lead-containing materials in accordance with the approved Health and Safety Plan. Use procedures and equipment to limit occupational and environmental exposure to lead when lead-containing paint is impacted or when lead-containing building components are demolished. The procedures employed by the Contractor shall not create the potential for contaminating surrounding areas or materials with lead-containing coatings or dust. Dust generation shall be kept to a minimum. Dry scraping, dry sanding, or dry grinding on lead-containing paints or lead contaminated surfaces will not be permitted without a full enclosure.
      8. Personnel and equipment decontamination shall occur whenever workers or equipment leave the work site as described in the approved Work Plan. Decontamination waste shall be packaged, stored, labeled and disposed according to all applicable requirements at the cost of the Contractor.
      9. The Port may inspect the Contractor's operations and work areas daily for job site cleanliness and conformance with the specifications.
      10. While performing the work, the Contractor may be subject to on-site inspection by L&I/DOSH, OSHA, EPA/Ecology inspectors and/or local building or health officials. If found to be in violation of pertinent regulations, the Contractor shall cease all work immediately and may not resume work until the violation is resolved. Standby time required to resolve the violation shall be at the Contractor's expense. Complete sets of equipment (such as respirators and disposable clothing) that may be required for entry to the control area shall be made available at all times by the Contractor to the Port and/or agency inspectors for inspection of the control area. Such requests will only be made during working hours.
   3. LEAD CONTROLS AND AIR MONITORING
      1. Lead Controls
         1. Restrict the spread of dust and debris from being distributed over the work area.
         2. Prevent dust generation at all times to the maximum extent practicable. The use of water shall be restricted to the smallest quantity necessary to minimize dust and to avoid potential run-off or ponding.
         3. Dry scraping, dry sanding, or dry grinding on lead-containing paints, lead-containing materials or lead-contaminated surfaces will not be permitted without a full enclosure.
      2. Air Monitoring
         1. Monitoring of airborne concentrations of lead shall be in accordance with WAC 296-155-176, WAC 296-841, and as specified herein. Air monitoring, testing, and reporting shall be performed in accordance with an Air Monitoring Plan prepared and signed by the Contractor’s Industrial Hygienist. The Plan shall include personal monitoring in accordance with regulatory requirements and area monitoring outside the lead control area.
            1. Submit results of air monitoring samples, signed by the Contractor’s Industrial Hygienist, within 24 hours after the air samples were taken.
            2. Notify the Engineer immediately of the corrective action taken if the exposure to lead is at or in excess of the lead action level (30 micrograms per cubic meter) outside of the lead control area.
            3. If the area air monitoring results are above the lead action level, the Engineer shall have the option of stopping all work until the work procedures and lead hazard controls are revised to the Engineer’s satisfaction.
   4. CLEAN-UP, TESTING AND DISPOSAL
      1. Cleanup
         1. Maintain surfaces of the lead control area free of accumulation of paint chips and dust. Restrict the spread of dust and debris; keep waste from being distributed over the work area. The use of compressed air to clean up the area is strictly prohibited. At the end of each shift, clean the area of visible lead paint and dust contamination by vacuuming with a HEPA filtered vacuum cleaner, wet mopping the area, or cleanup by other appropriate means.
         2. All abated lead waste shall be stored in sealed steel containers with appropriate UN Performance Package Ratings.
         3. Demolition debris that is found to designate as Dangerous Waste per WAC 173-303 can be stored in closed top roll off containers. Tops must be closed when not adding waste to the container.
      2. Testing of Lead Waste and Demolition Debris
         1. The Contractor is responsible for sampling and testing any abated lead waste or lead demolition debris.
         2. Sampling of abated lead and lead demolition debris shall be in accordance with the most current version of ASTM Standard E 1908 - Standard Guide for Sample Selection of Debris Waste from a Building Renovation or Lead Abatement Project for Toxicity Characteristic Leaching Procedure (TCLP) Testing for Leachable Lead (Pb).
         3. If any lead waste is found to designate as Dangerous Waste per WAC 173-303, the Contractor must immediately notify the Engineer.
      3. Disposal of Lead Demolition Waste
         1. Lead-containing waste that does not designate as Dangerous Waste per WAC 173-303 must be managed at a permitted disposal facility.
         2. The following requirements shall be met for the disposal of any lead-containing Dangerous Waste:
            1. The Contractor shall submit the name, address, and EPA Identification Number of the transporter and disposal facility to the Port of Seattle Aviation Environmental Department prior to shipment of any hazardous waste.
            2. A representative from the Port of Seattle Aviation Environmental Department must be present for any Dangerous Waste shipment and will sign all hazardous waste manifests, waste material profiles, land disposal restriction forms and any other documents requiring generator signature. Contractor shall give notice of any Dangerous Waste shipments to the Port of Aviation Environmental Department at (206) 787-5525 at least 2 business days prior to shipment.
            3. Any lead-containing Dangerous Waste for disposal must be packaged in appropriate UN performance packages or roll off containers according to all DOT specifications.
3. MEASUREMENT AND PAYMENT
   1. PAYMENT

Choose “Schedule of Unit Prices” or “Lump Sum price bid for the Project” at the end of Paragraph A below.

* + 1. No separate measurement or payment will be made for the Work required by this section. The cost for this portion of the Work will be considered incidental to, and included in the payments made for the applicable bid items in the Schedule of Unit Prices or Lump Sum price bid for the Project.

End of Section

Revision History:

03/23/2015 Conversion to 2004 CSI Numbering System