

March 19, 2019

ADDENDUM #3

NOTICE TO ALL BIDDERS FOR CITY OF WINCHESTER

ITB #201901 – Strothers Lane Ground Storage Tank Replacement

This Addendum forms a part of the Contract Documents and modifies the original bidding documents for ITB #201901 dated January 2019. Bidders shall acknowledge receipt of the Addendum in the space provided on the Bid Form and return a signed copy with your bid.

This Addendum must be signed and returned to the Finance Department – Purchasing Division, 1st Floor Rouss City Hall, 15 North Cameron Street, Winchester, VA 22601 by **3:00pm local time on March 26, 2019** with your BID.

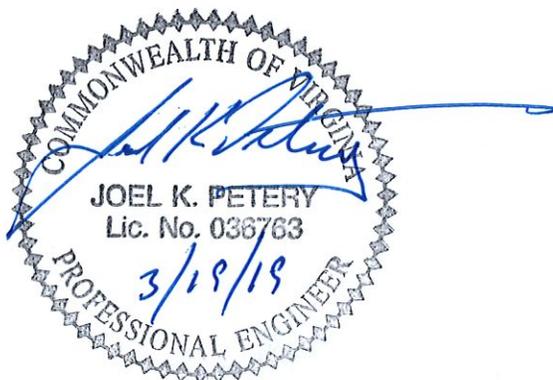
Receipt of Addendum #1 to Invitation to Bid #201901 is acknowledged by my signature below:

Company Name: _____

Authorized Representative: _____

Address: _____

Telephone: _____ FAX: _____



This Addendum consists of 24 total pages. The following information shall modify and clarify the Contract Documents:

CHANGES TO PREVIOUS ADDENDA

1. **Delete** Section 02052 - Lead Containing Paint Abatement in its entirety and **Add** Section 02052 - Lead Containing Paint Abatement attached
2. Drawing C1, note 4 **Delete** "SEE BID ITEM 5" and **Add** "SEE BID ITEM 4"

CHANGES TO TABLE OF CONTENTS

1. None

CHANGES TO BID FORM

1. **Delete** Bid Form in its entirety and **Add** attached Bid Form

CHANGES TO THE CONTRACT

1. None

CHANGES TO THE SPECIFICATIONS

1. **Delete** Section 01025 Measurement and Payment in its entirety and **Add** attached Section 01025 Measurement and Payment.

CHANGES TO THE DRAWINGS

1. Drawing G1 **Add:**

ROCK EXCAVATION NOTES:

1. ROCK EXCAVATION IS DEFINED AS REMOVAL OF IGNEOUS, METAMORPHIC OR SEDIMENTARY ROCK OR STONE, BOULDERS OVER TWO (2) CUBIC YARDS IN VOLUME IN OPEN AREAS AND (1) CUBIC YARD IN VOLUME IN TRENCHES; THAT CANNOT BE REMOVED BY RIPPERS OR OTHER MECHANICAL METHODS AND, THEREFORE, REQUIRES DRILLING AND BLASTING. THE WORD "TRENCHES" SHALL MEAN EXCAVATIONS HAVING VERTICAL SIDES WHOSE DEPTH EXCEEDS ITS WIDTH, MADE FOR UTILITY PIPES, ELECTRICAL OR COMMUNICATIONS CONDUITS, AND RELATED USES.

2. THE FOLLOWING MATERIAL WILL NOT BE MEASURED OR ALLOWED FOR PAYMENT AS ROCK EXCAVATION
 - A. SOFT, WEATHERED OR DISINTEGRATED ROCK WHICH CAN BE REMOVED BY NORMAL EXCAVATION EQUIPMENT, INCLUDING BULLDOZERS WITH RIPPERS AND LARGE TRACK HOES WITH OR WITHOUT HYDRAULIC RAMS.
 - B. LOOSE OR PREVIOUSLY BLASTED ROCK
 - C. BROKEN STONE IN ROCK FILLS
 - D. ANY ROCK WHICH MAY FALL INTO THE EXCAVATED TRENCH FROM OUTSIDE THE LIMITS OF EXCAVATION
 - E. BOULDERS WHICH CAN BE REMOVED WITHOUT DRILLING OR BLASTING
 - F. CONCRETE, ASPHALT OR MASONRY PAVEMENTS, WALKS AND GUTTERS

3. LIMITS OF ROCK EXCAVATION
 - A. FOR STRUCTURES THE LIMITS SHALL BE BOUNDED BY THE BOTTOM OF THE DRAINAGE COARSE MATERIAL AND THE ORIGINAL SURFACE OF ROCK; AND VERTICAL PLANES LOCATED 12" OUTSIDE THE FOOTING
 - B. FOR TRENCHES, THE LIMITS FOR TRENCHES ARE DEFINED AS SHOWN.

2. Drawing M2, **Revise** TOW Elevation from 875.5 to 874.5
3. Drawing M3, Section C, **Delete** "304 Stainless Steel" and Add "316 Stainless Steel"
4. Drawing M5, Detail 7/M2 Add Note 3 "3. PROVIDE AN INTERMEDIATE PLATFORM AT APPROX. EL 849.0. PLATFORM SHALL BE DESIGNED BY TANK MANUFACTURER"
5. Drawing E3, Note 1 **Add** "All bonding shall be done by using air terminals on the top of the tank dome with PVC conduit adhered to the exterior tank wall."

ATTACHMENTS

BID FORM
Strothers Lane Ground Storage Tank Replacement
ITB# 201901

This Bid is submitted to:

City of Winchester, Virginia
Finance Department - Purchasing Division
Rouss City Hall
15 North Cameron Street
Winchester, Virginia 22601

In submitting this Bid, bidder acknowledges that the bidder has examined copies of the following Contract Documents:

BIDDING DOCUMENTS

- Invitation to Bid
- Instructions to Bidders
- Bid Form
- Contractor Qualification Data Sheet
- Bid Bond
- Non-Collusion Affidavit
- Contract
- Performance Bond
- Labor and Material Payment Bond
- Notice of Intent to Award
- Notice of Award
- Notice to Proceed
- City of Winchester Required General Terms and Conditions
- General Conditions
- Supplement to General Conditions
- Special Terms and Conditions

TECHNICAL SPECIFICATIONS

<u>Division</u>	<u>Section</u>	<u>Title</u>
1		<u>GENERAL REQUIREMENTS</u>
	01010	Summary of Work
	01025	Measurement and Payment
	01070	Abbreviations
	01090	Reference Standards
	01200	Project Meetings

<u>Division</u>	<u>Section</u>	<u>Title</u>
	01300	Submittals
	01400	Quality Control
	01510	Temporary Utilities
	01520	Maintenance of Utility Operations During Construction
	01530	Protection of Existing Facilities
	01540	Demolition and Removal of Existing Structures and Equipment
	01550	Site Access and Storage
	01700	Project Closeout
2		<u>SITWORK</u>
	02050	Demolition
	02052	Lead Containing Paint Abatement
	02200	Earthwork
	02202	Excavation by Blasting
	02276	Erosion and Sediment Control
	02510	Paving and Surfacing
	02604	Utility Structures
	02710	Storm Drains
	02831	Steel Fencing
	02910	Final Grading and Landscaping
3		<u>CONCRETE</u>
	03100	Concrete Formwork
	03200	Reinforcing Steel
	03230	Stressing Tendons
	03250	Concrete Accessories
	03290	Joints in Concrete
	03300	Cast-in-Place Concrete
	03350	Concrete Finishes
	03360	Shotcrete
	03370	Concrete Curing
	03400	Precast Concrete
	03452	Architectural Precast Concrete Utility Buildings
	03600	Grout
5		<u>METALS</u>
	05050	Metal Fastening
7		<u>THERMAL AND MOISTURE PROTECTION</u>
	07900	Joint Fillers, Sealants and Caulking

<u>Division</u>	<u>Section</u>	<u>Title</u>
9		<u>FINISHES</u>
	09900	Painting
11		<u>EQUIPMENT</u>
	11000	Equipment, General Provisions
	11730	Submersible Mixers
13		<u>SPECIAL CONSTRUCTION</u>
	13206	Prestressed Concrete Tank
	13212	Water Storage Tank Disinfection
15		<u>MECHANICAL</u>
	15000	Basic Mechanical Requirements
	15006	Ductile iron Pipe
	15095	Valves, General
	15100	Valve Operators and Electric Valve Actuators
	15101	Butterfly Valves
	15105	Check Valves
	15108	Gate Valves
16		<u>ELECTRICAL</u>
	16000	Basic Electrical Requirements
	16111	Conduit
	16118	Underground Electrical
	16123	Low Voltage Wire and Cable
	16130	Boxes
	16170	Grounding and Bonding
	16190	Supporting Devices
	16195	Electrical Identification
	16440	Disconnect Switches
	16470	Panelboards
	16500	Lighting
	16670	Lightning Protection
	16902	Electrical Controls and Relays
	16903	Control Panels and Enclosures
	16940	Ultrasonic Liquid Level Measurement
	16941	Chlorine Analyzers

DRAWINGS

- Cover
- G1 Index General Notes, Symbols, and Abbreviations
- C1 Demolition and Erosion and Sediment Control Plan
- C2 Site Plan
- C3 Profiles
- C4 Valve Building Plans and Elevations
- C5 Notes and Details
- C6 Erosion and Sediment Control Notes and Details
- C7 City Standard Details
- M1 Ground Storage Tank - Bottom and Top Plan
- M2 Ground Storage Tank – Sections I
- M3 Ground Storage Tank – Sections II
- M4 Valve Building - Plans and Sections
- M5 Typical Details I
- M6 Typical Details II
- E-1 Legend
- E-2 Power One-Line Diagram and Notes Electrical Site Plan
- E-3 Electrical Site Plan
- E-4 Valve Building Plan, Elevation, and Details
- E-5 Details and Schedules

ADDENDA:

<u>NUMBER</u>	<u>DESCRIPTION</u>	<u>DATE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Receipt of all of above is hereby acknowledged.

CONTRACTOR: _____

BY (SIGNATURE): _____

NAME AND TITLE: _____

DATE: _____

BID ITEMS/QUANTITIES

- (a) The Contractor shall provide all unit prices or lump sum prices for all bid items on the Bid Form herein. **If a unit price or lump sum price is omitted or left blank the bid and bidder shall be non-responsive.** The bid forms designate which prices are for *Install* only work, complete and in place, (i.e. assumes equipment and/ or materials will be supplied by the City). All other bid prices are for Furnish and Install work, complete and in place.
- (b) The quantities shown for unit bid items are based upon the best information available at time of preparation of these bid documents, and are established for the purpose of obtaining a bid price. No adjustments to the bid prices based on changes to quantities will be considered. All bid prices will be held throughout the duration of the contract regardless of any increase or decrease in bid quantity.
- (c) Emergency work shall be negotiated with a maximum allowable amount of 50% over the bid price by item. This excludes all lump sum bid items.
- (d) All other bid items not listed or described in the Contract Documents will be negotiated between the City and the Contractor before the time of need. Once a negotiated price is established, it will be used for the remainder of the contract.

The undersigned Bidder proposes to complete all work in accordance with the Contract Documents for the following unit prices:

City of Winchester
Strothers Lane Ground Storage Tank Replacement – ITB #201901
BID TABLE

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT COST	TOTAL COST
General Construction					
1	General Construction of the Work as Shown and Specified Under Divisions 1 Through 16	1	Lump Sum		
Additional Excavation					
2	Additional Excavation of Unsuitable Materials, Including Disposal [Only as directed by City]	2500	Cubic Yard		
Additional Backfill With VDOT 21B Stone					
3	Additional Backfill of Excavated Areas [Only as directed by City]	2500	Cubic Yard		
Excavation & Disposal of Oil Impregnated Sand					
4	As required	750	Ton		
Rock Excavation					
5	As required	50	Cubic Yard		
Allowance					
6	For SCADA programming by M.C. Dean	1	Lump Sum	\$20,910.00	\$20,910.00
TOTAL FOR ALL – BASE BID					

TOTAL BASE BID: \$ _____

IN WORDS:

CONTRACTOR: _____

BY: (SIGNATURE) _____

NAME AND TITLE: _____

DATE: _____

ADDRESS: _____

TELEPHONE: _____

CURRENT VIRGINIA CONTRACTOR REGISTRATION NUMBER: _____

NOTE: REQUIRED BID GUARANTEE MUST BE ENCLOSED WITH THIS BID PROPOSAL.

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SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 -- GENERAL

1.01 THE REQUIREMENT

- A. Items listed in this Section, beginning with Article 1.4, refer to and are the same pay items listed in the Bid Form. They constitute all pay items for completing the Work. No direct or separate payment will be made for providing miscellaneous temporary or accessory works, plant services, field offices, layout surveys, Project signs, sanitary requirements, testing, safety devices, submittals and record drawings, water supplies, power and fuel, traffic maintenance, removal of waste, security, coordination with OWNER's operations, bonds, insurance, or all other requirements of the General Conditions, Supplementary Conditions, General Requirements, and other requirements of the Contract Documents. Compensation for all services, items, and products shall be included in prices stipulated for lump sum and unit price pay items listed in this Section and included in the Contract.
- B. Each lump sum and unit bid price shall be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

1.02 ENGINEER'S ESTIMATE OF QUANTITIES

- A. ENGINEER's estimated quantities for unit price items, as listed in the Bid Form, are approximate only and are included solely for the purpose of comparing Bids. OWNER does not expressly or by implication agree that the nature of materials encountered below ground surface or actual quantities of material encountered or required shall correspond with quantities on the Bid Form, and reserves the right to increase or decrease quantities or to eliminate quantities as OWNER may deem necessary. CONTRACTOR shall not be entitled to adjustment in a unit bid price as a result of change in an estimated quantity and agrees to accept the unit prices bid as complete and total compensation for additions or deductions caused by changes or alterations in the Work directed by OWNER.

1.03 RELATED PROVISIONS

- A. Payments to CONTRACTOR: Refer to General Conditions, Supplementary Conditions, and Agreement.
- B. Changes in Contract Price: Refer to General Conditions and Supplementary Conditions.
- C. Schedule of Values: Refer to General Conditions, Supplementary Conditions.

1.04 BID ITEMS

- A. Item 1 – For Contract Work:
1. Measurement and Payment: The Lump Sum payment for Item 1 will be full compensation for completing the Work, as shown and specified in the Contract Documents and as summarized in Section 01110 – Summary of Work, including but not limited to all excavation of both soil and rock required to meet grades as shown on the Drawings, haul-off, disposal, demolition and temporary facilities, with the exception of the additional work items that CONTRACTOR may be ordered by ENGINEER to perform which are as listed in Items 2& 3 below.
- B. Item 2 – Additional Excavation
1. Measurement: The quantity of additional excavation including disposal of unsuitable materials will be measured for payment on the basis of lines and grades ordered by ENGINEER in writing, or as volume within limits described below, whichever is applicable.
 - a. Excavation as required for structures or facilities will be measured for payment to subgrade directed for such excavation and, unless otherwise shown, to vertical planes one foot outside foundation limits of structure to be built therein.
 - b. Measurement of actual quantities will be made by ENGINEER. CONTRACTOR may, at his expense, verify quantities.
 2. Payment: Unit price for Item 2 will be full compensation for all additional excavation, including disposal, complete as directed by ENGINEER and not specifically included under other items.
- C. Item 3 - Additional Backfill with VDOT 21A Stone
1. Measurement: The quantity of additional crushed stone consisting of VDOT No. 21A Stone that will be paid under this item will be the computed number of cubic yards placed and compacted within limits shown, specified or directed by ENGINEER in writing.
 2. Payment: Unit price for Item 3 will be full compensation for providing, placing, compacting, and testing all additional crushed stone or gravel complete as shown, specified, or directed by ENGINEER in writing
- D. Item 4 - Excavation and Disposal of Oil Impregnated Sand
1. Measurement: The quantity for excavation and disposal of oil impregnated sand will be the tonnage actually disposed at a qualified disposal facility as indicated by delivery tickets and verified by the Engineer.
 2. Payment: The Unit price for Item 4 will be full compensation for excavating hauling and disposal of Oil Impregnated Sand at a qualified disposal facility
- E. Item 5 – Rock Excavation
1. Measurement: The quantity of Rock Excavation including disposal will be the computed number of cubic yards as measured by the ENGINEER
 2. Payment: Unit price for Item 5 will be full compensation for all Rock Excavation, including disposal, complete as defined on the drawings.
- F. Item 6 – Allowance
1. Measurement and Payment: The Lump Sum payment for Item 6 will be full compensation for SCADA Programming Work.

PART 2 – PRODUCTS

(NOT USED)

PART 3 – EXECUTION

(NOT USED)

- END OF SECTION -

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SECTION 02052

LEAD CONTAINING PAINT ABATEMENT

PART 1 - GENERAL

1.01 THE REQUIREMENT

A. Scope:

1. CONTRACTOR shall provide all labor, equipment, tools, materials, and permits required to remove and dispose of lead-containing paint as required to complete the Work.
2. This specification details minimum acceptable requirements for demolition activities affecting materials and structures coated with lead-containing paint. All work under this Contract shall be performed using methods demonstrated to prevent lead emissions outside the lead control area when used in accordance with manufacturer's recommendations. Contract work shall be performed to minimize the creation of airborne dust and vapors; minimize the quantity of hazardous waste generated; protect the health and welfare of all site personnel and the public; and, avoid adverse environmental impacts.

B. Related Divisions and Sections:

1. Section 02050, Demolition.

C. Lead Paint Locations:

1. Lead paint is known to exist in areas required for work under this Contract. Strothers Lane Tank Final Evaluation Report is provided as a reference document for Contractor's use in recognizing the extent of lead based paint to be removed and disposed of under the project. This report may not define the extent of all lead-containing material. CONTRACTOR shall use the above information as a guide but shall not hold the OWNER liable for potential omissions and errors.

1.02 DEFINITIONS

- A. Abatement: Abatement of lead-containing paint involves demolition of materials and structures coated with lead-containing paint or lead-containing structures and materials.
- B. Action Level: The Occupational Safety and Health Act (OSHA) Construction Standard 29 CFR 1926.62 defines the action level as the employee exposure, without regard to use of respirators, to airborne concentrations of lead equal to or above 30 micrograms per cubic meter of air (30 $\mu\text{g}/\text{m}^3$), 8-hour time-weighted average.
- C. Physical Boundary: Area physically roped or partitioned off around a lead control area to limit unauthorized entry of personnel. As used in this section, "outside boundary" shall mean the same as "outside lead control area."
- D. Certified Industrial Hygienist (CIH): As used in this Section, refers to an Industrial Hygienist employed by CONTRACTOR and certified by the American Board of Industrial Hygiene in comprehensive practice.

- E. Competent Person: Means one who is capable of identifying existing and predictable lead hazards in the surroundings or working conditions and who has authorization to take prompt corrective action to eliminate them.
- F. Decontamination Area: Area for removal of contaminated personal protective equipment (PPE).
- G. Eight-Hour Time Weighted Average (TWA): Airborne concentration of lead averaged over an 8-hour workday to which an employee is exposed.
- H. Lead - Metallic lead, inorganic lead compounds, and organic lead soaps. Excluded from this definition are other organic lead compounds.
- I. Lead-Containing Material: Any component, paint or surface coating material containing detectable concentrations of lead by weight in the dry solid (16 CFR 1303).
- J. Lead Waste: Miscellaneous waste, dust or debris generated during removal of lead-containing materials, cleanup of a lead control area, or decontamination activities.
- K. Trigger Activities: Activities that involve the disturbance of lead-containing materials will trigger requirements under the OSHA Lead In Construction standard for conducting personnel exposure assessment sampling, training, medical monitoring, respiratory protection and other requirements as specified in 29 CFR 1926.62. Examples of trigger activities include abrasive blasting, welding, cutting, torch burning, manual demolition of structures, manual scraping, manual sanding, heat gun application, rivet busting, and power tool cleaning.

1.03 QUALITY ASSURANCE

- A. Standards: The publications listed below form a part of this Specification to the extent referenced. CONTRACTOR asserts by submission of a bid on this Contract that all persons assigned to work on this Contract are familiar with and will adhere to all standards referenced.
 - 1. American National Standards Institute (ANSI):
 - a. ANSI Z88.2 - 1980 Respiratory Protection.
 - 2. Code of Federal Regulations (CFR):
 - a. 29 CFR 1910 – Occupational Safety and Health Standards.
 - b. 29 CFR 1926 - Safety and Health Regulations for Construction.
 - c. 40 CFR 50 - National Primary & Secondary Ambient Air Quality Standards.
 - d. 40 CFR 60 - Standards of Performance for New Stationary Sources.
 - e. 40 CFR 117 - Determination of Reportable Quantities of Hazardous Substances.
 - f. 40 CFR 171 - Standards for Transportation of Hazardous Materials.
 - g. 40 CFR 172 - Hazardous Materials Tables and Hazardous Materials Communications Regulations.
 - h. 40 CFR 173 - General Requirements for Shipments and Packaging.
 - i. 40 CFR 178 - Shipping Container Specifications.
 - j. 40 CFR 260 - Hazardous Wastes Management Systems General.
 - k. 40 CFR 261 - Identification and Listing of Hazardous Waste.
 - l. 40 CFR 262 - Generators of Hazardous Wastes.
 - m. 40 CFR 263 - Transporters of Hazardous Wastes.

- n. 40 CFR 264/265 - Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities.
 - o. 40 CFR 268 - Land Disposal Restrictions.
 - p. 40 CFR 302 - Designation, Reportable Quantities and Notification.
 - q. 40 CFR 745-225 - U.S. Department of Health and Human Services National Institute for Occupational Safety & Health (NIOSH).
 - r. 40 CFR 745 -Lead; Identification of Dangerous Levels of Lead
 - 3. U.S. Environmental Protection Agency (EPA):
 - a. Method 7082 - Test Methods for Evaluating Solid Wastes.
 - b. SW-846 - Test Methods for Evaluating Soil Waste Physical/Chemical Methods.
 - c. EPA Method 3050 Acid Digestion of Sediments, Sludge, and Soils.
 - 4. Underwriters Laboratory Inc. (UL):
 - a. UL 586 - 1990 High-Efficiency, Particulate, Air Filter Units.
 - 5. National Institute of Building Sciences (NIBS):
 - a. Guideline Specifications for Reducing Lead-Based Paint Hazards.
 - 6. American Society for Testing & Materials (ASTM):
 - a. ASTM D3335 - Test Method for Low Concentration for Lead, Cadmium and Cobalt in Paint by Atomic Absorption Spectroscopy; Compilation of ASTM Standard Guides, Test Methods and Practices on Lead-Based Paint Abatement.
 - 7. Steel Structures Painting Council (SSPC):
 - a. SSPC GUIDE 6 (CON) - Guide for Containing Debris Generated During Lead Removal Operations.
 - b. SSPC GUIDE 7 (DIS) - Guide for the Disposal of Lead-Contaminated Surface Preparation Debris.
 - c. SSPC SP-11 - Surface Preparation Specification Power Tool Cleaning to Bare Metal.
- B. Qualifications:
- 1. CONTRACTOR shall have on staff and assigned to this Contract a Lead Paint Abatement Supervisor who will supervise all lead paint activities, and who is a Competent Person, as defined in 29 CFR 1926(b) with at least 5 years experience in construction trades, and who has served as a Competent Person on at least three projects of comparable scope to this project. This shall be documented by providing the name of the Competent Person to the OWNER.
 - 2. As applicable for lead removal work, CONTRACTOR/Subcontractor must have a Lead Contractors license or equivalent qualifications based on prior experience.
- C. Health and Safety Compliance: In addition to the detailed requirements of this Specification, CONTRACTOR shall comply with all applicable laws, ordinances, rules, and regulations of federal, state, and local authorities pertaining to removal, handling, storage, transportation, and disposal of lead waste materials. CONTRACTOR shall also comply with the applicable requirements of 29 CFR 1926.62. All matters regarding interpretation of standards shall be submitted in writing to the OWNER for resolution before starting work. Where specifications, requirements, and the referenced documents vary, the most stringent requirement shall apply.
- D. Appropriate Waste Containers: Containers for the storage of all waste shall be DOT-approved and shall be provided by CONTRACTOR.

1.04 SUBMITTALS

- A. CONTRACTOR shall submit the following to the OWNER:
1. Testing Laboratory Qualifications for Air Samples: Submit the name, address, and telephone number of the testing laboratory selected to perform the analyses of all air monitoring. The testing laboratory shall be accredited by the American Industrial Hygiene Association (AIHA) and be accredited by the Environmental Lead Laboratory Accreditation Program (ELAPP). Provide AIHA and ELAPP documentation along with date of accreditation/reaccreditation.
 2. Independent CIH: Submit the name of the Independent CIH selected to conduct personnel and area/environmental air sampling, and document evidence that the Independent CIH is currently certified in comprehensive practice by the American Board of Industrial Hygiene, including certification number and date. Contractor shall submit certification that the Independent CIH is in no way affiliated with CONTRACTOR. A qualified technician under direct supervision of the Independent CIH may perform Independent CIH tasks specified herein. The Independent CIH shall include a list of tasks to be performed by the technician under the supervision of the Independent CIH and the name and qualifications of technician. The use of an Independent CIH and technician shall not relieve CONTRACTOR of responsibility for ensuring a safe working environment.
 3. Lead Control Plan: CONTRACTOR shall submit a detailed job-specific plan of work procedures to be used during activities affecting lead-containing paint and materials. The plan shall include interface of trades, sequencing of lead-related work, collected wastewater and paint debris disposal plan, air sampling plan, proposed respirators, protective equipment, and a detailed description of the method of emissions control which will be used to ensure that airborne lead concentrations of 30 $\mu\text{g}/\text{m}^3$ of air are not exceeded outside the lead control area. The plan shall be prepared in accordance with 29 CFR 1926.62 and signed by a CIH meeting the qualifications set forth in Article 2052.04.A.2. above. The Competent Person shall be responsible for oversight of the plan during construction.
Additionally, the Plan shall include:
 - a. A description of each activity in which lead is emitted; e.g. equipment used, material involved, controls in place, crew size, employee job responsibilities, operating procedures and maintenance practices.
 - b. A description of the specific means that will be employed to achieve compliance and, where controls are required, plans and studies used to determine methods selected for controlling exposure to lead.
 - c. A report of the technology considered in meeting the PEL.
 - d. A detailed schedule for implementation of the program.
 - e. A work practice program which includes a protective work clothing plan, a housekeeping plan, and a hygienic practices plan.
 - f. An administrative control schedule, as applicable.
 - g. The schedule for a compliance-monitoring program to be made by the Independent CIH.
 4. Hazardous Waste Management Plan as defined and detailed in Article 1.4.E.
 5. Equipment List: Identify the equipment that will be used to control, remove, collect and containerize the lead and lead wastes generated during demolition activities, and the procedures that will be followed to clean the lead control area.
 6. Training: For all activities that result in airborne lead concentration equal to, or

in excess of the Lead Action Level, or for those activities that take place within a Lead Control Area, CONTRACTOR shall submit for this Contract a sufficient number of properly trained and experienced lead-trained workers each of whom shall have completed training as a lead worker as per 29 CFR 1926.62 subpart (I); have completed respirator training per 29 CFR 1910.134; have completed initial medical monitoring and have blood lead levels below 35 micrograms per deciliter ($\mu\text{g}/\text{dl}$): if the worker's blood lead level (BLL) is in excess of 35 $\mu\text{g}/\text{dl}$, the worker shall show medical approval for this work.

7. Contractor shall submit a signed notarized statement disclosing all OSHA and EPA citations on projects in the past 3 years.
- B. Field Test Reports and Records: CONTRACTOR shall maintain and provide the following documentation:
1. All air monitoring results, area clearance surface wipe results, and daily reports shall be provided to the OWNER within three working days of the date the samples are taken, signed by the testing technician performing the air monitoring and surface sampling and the employee that analyzed the sample. All laboratory results shall be accompanied by complete chain-of-custody documentation.
- C. Hazardous Waste Disposal Documentation: Completed and signed hazardous waste manifests from treatment or disposal facility shall be provided to the OWNER within 10 days of disposal.
- D. Hazard Communication Program: CONTRACTOR shall submit proof of the establishment and implementation of a Hazard Communication Program as required by 29 CFR 1910.1200.
- E. Hazardous Waste Management: The Hazardous Waste Management Plan shall comply with applicable requirements of federal, state, and local hazardous waste regulations and address:
1. Identification of hazardous wastes associated with the work as defined in 40 CFR 261.
 2. Estimated quantities of wastes to be generated and disposed of.
 3. Names and qualifications of each vendor that will be transporting, storing, testing, and disposing of the wastes. Include the disposal facility location and a 24-hour phone contact. Furnish copies of EPA, state and local hazardous waste permit applications, permits, and EPA identification numbers prior to start of operations.
 4. Names and qualifications (experience and training) of personnel who will be responsible for on-site management of hazardous wastes prior to start of operations.
 5. List of waste handling equipment to be used in performing the work, to include cleaning, volume reduction, and transport equipment.
 6. Spill prevention, containment, and cleanup contingency measures to be implemented.
 7. Details of on-site hazardous waste storage, removal, and disposal. Hazardous wastes shall be collected and containerized daily. CONTRACTOR shall inspect storage areas weekly, and the inspections documented.

PART 2 – PRODUCTS – (NOT USED)

PART 3 – EXECUTION

3.01 GENERAL

- A. CONTRACTOR shall submit any required equipment shutdown plans to the OWNER 14 days prior to starting the work.
- C. CONTRACTOR shall inform the OWNER in writing of proposed access restrictions to other personnel (i.e., areas or items of equipment which will not be accessible during the proposed work), giving the estimated time frames and dates of such proposed access restrictions.

3.02 MATERIALS

- A. General Equipment:
 - 1. Respirators: Select respirators approved by the National Institute for Occupational Safety and Health (NIOSH) for use in areas containing lead-contaminated dust and fumes. Provide personnel within the lead control area with adequate and appropriate respiratory protection until the Competent Person establishes the workplace exposure concentration for the specific operation. Once the concentration has been determined, CONTRACTOR may modify respiratory protection as outlined in 29 CFR 1926.62 and the Lead Control Plan.
 - 2. Special Protective Clothing: Furnish personnel who have a potential to be exposed to lead-contaminated dust or fumes with appropriate disposable protective whole body clothing, head covering, gloves, and foot coverings. Tape sleeves at the wrist and secure foot coverings at the ankles. Furnish appropriate disposable plastic or rubber gloves to protect hands.
 - 3. Rental Equipment Notification: If rental equipment is to be used during lead-containing paint handling and disposal, notify the rental agency in writing concerning the intended use of the equipment. All data demonstrating compliance with the performance requirements of Article 1.6.B must be presented to and approved by the OWNER prior to use.
 - 4. Filter Certifications: HEPA Filters used in filtered vacuuming equipment must meet or exceed UL 586 requirements and cutting tools manufacturers specifications and recommendations.

3.03 PROCESS AND PROCEDURES

- A. Protection of Existing Work to Remain: All removal work must be conducted without damage to, or contamination of adjacent areas, equipment or surfaces within the Lead Control Area or contamination of existing work or previously cleaned surfaces. CONTRACTOR shall correct all such damage or contamination immediately at CONTRACTOR'S expense.
- C. Hygiene Facilities and Practices: CONTRACTOR shall provide clean change areas for employees engaged in lead work. The change areas shall be equipped with separate storage facilities for protective work clothing and equipment and for street clothes to prevent cross-contamination.

1. CONTRACTOR shall assure that employees do not leave the immediate work area wearing any protective clothing or equipment that is required to be worn during the work shift.
- D. Warning Signs and Labels: Provide conspicuous warning signs at approaches to lead control areas. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area. Signs shall comply with the requirements of 29 CFR 1926.62.
1. The warning signs shall be posted at each control area and at all approaches to the control area so that employees and/or public may read signs before entry and take necessary protective action.
- E. Air Monitoring: Monitoring of airborne concentrations of lead and other toxic metals, as applicable, shall be in accordance with 29 CFR 1926.62 and as specified herein. A CIH or the qualified technician working under the direct supervision of the Independent CIH shall perform air monitoring, testing, and reporting.
1. Obtain personal air monitoring samples from employees who are anticipated to have the greater risk of exposure as determined by the CIH or Competent Person. In addition, obtain a minimum of two air-monitoring samples outside the lead control area on a daily basis for the duration of the lead work.
 2. Obtain final air monitoring samples when the lead abatement work is complete. The results must be less than the action level of 30 $\mu\text{g}/\text{m}^3$. Should any of the final samples indicate a higher value, CONTRACTOR shall take appropriate actions to re-clean the area and shall repeat the sampling and analysis at CONTRACTOR'S expense.
 3. Submit results of air monitoring samples to the OWNER within three days after the air samples are taken, at or within 24 hours from receipt of analytical results, which are in excess of the action level of 30 $\mu\text{g}/\text{m}^3$.
- F. Monitoring Employees: Personal air monitoring shall be carried out during every work shift on at least one employee for each task for the entire shift. Complete documentation on the shift, date, employee hours, hours of abatement work, hours of monitoring and task performed should be provided with each sample and shall accompany the laboratory transmission and be returned by the laboratory with results. The task performed shall be fully described on the sample submission. If the area air monitoring indicates an emission level in excess of 30 $\mu\text{g}/\text{m}^3$ of air outside the lead control area, lead work shall be stopped. CONTRACTOR shall take immediate corrective action to reduce area emission levels below 30 $\mu\text{g}/\text{m}^3$ of air, and CONTRACTOR shall clean adjacent areas at no cost to OWNER.
- G. After Final Clean-Up (Clearance Examination): Perform a clearance examination (i.e., visual evaluation and sampling) to determine if levels of lead above EPA standards remain following cleaning. After final clean up of the abatement area has been performed, the CIH (or qualified technician under the supervision of the CIH) shall perform a visual evaluation to ensure that the control and work area is free of accumulations of dirt, dust or debris.

3.04 CLEANUP AND DISPOSAL

- A. Cleanup: Maintain all surfaces, including protective tarps and coverings within the lead control area, free of accumulations of paint chips, dust and debris. Restrict the spread of dust and debris; keep waste from being distributed over the work area. Do not dry sweep or use compressed air to cleanup the area. Perform housekeeping at

the end of each shift, and when paint removal operations have been completed, by cleaning the lead control area of visible paint chips using a HEPA-filtered vacuum.

- B. Testing of Lead Waste: Contractor may test lead waste in accordance with 40 CFR 261 for hazardous waste or directly dispose as hazardous waste. If Testing, submit a minimum of four randomly collected samples to a certified ELAPP laboratory to determine if it is hazardous waste. Test all samples for the eight toxicity characteristic leaching procedure (TCLP) metals.
- C. Collection of Debris: Collect lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing, separating waste by type (i.e., contaminated clothing, used containers, drop cloths, and surface materials should be separated).
 - 1. Do not fill any container or roll-off in excess of the capacity marked on the container. Cover all containers immediately after filling.
 - 2. Store removed lead waste, lead-contaminated clothing and equipment, dust, and debris in U.S. Department of Transportation (DOT)-approved container systems. Label each container to identify the waste and the date wastes were first put into the container and ensure that labels remain intact and legible.
 - 3. No water mixed with or contaminated by hazardous or toxic debris may be released into any drain or sewer. CONTRACTOR shall be liable for any fines, penalties or remediation costs.
 - 4. Disposal shall be at a site approved by the U.S. Environmental Protection Agency (and the State) to accept lead waste. Notify the OWNER at least 14 days prior to removal of the containers to inspect the containers and the hazardous waste manifest. As necessary, dispose of lead wastes to ensure containers do not remain on the job site longer than 90 calendar days from the initial loading date affixed to the container.
 - 5. Handle, label, store, transport, and dispose of lead or lead-contaminated waste in accordance with 40 CFR 261, 40 CFR 263, 40 CFR 264, and 40 CFR 265. Comply with land disposal restriction notification requirements as required by 40 CFR 268.
- D. Non-hazardous Waste: Store non-hazardous waste separate from hazardous wastes. Provide all necessary containers, transportation, and disposal in accordance with federal, state and local regulations.
- E. Disposal Documentation: Submit written evidence that the receiving lead waste treatment, storage, or disposal facility (TSD) is approved to accept lead waste by the federal and district or local regulatory agencies. Submit one copy of the complete manifest, signed and dated by the initial transporter in accordance with 40 CFR 262.

- END OF SECTION -