MARCH 13, 2019
CONSTRUCTION OF A NEW EAST HAMPTON MAINTENANCE FACILITY AND MARLBOROUGH RENOVATION
FEDERAL AID PROJECT NO. N/A
STATE PROJECT NO. 0041-0119
TOWNS OF EAST HAMPTON AND MARLBOROUGH

ADDENDUM NO. 2

This Addendum addresses the following questions and answers contained on the "CT DOT QUESTIONS AND ANSWERS WEBSITE FOR ADVERTISED CONSTRUCTION PROJECTS":

Question and Answer Nos. 30, 36, 41

SPECIAL PROVISIONS

NEW SPECIAL PROVISIONS

The following Special Provisions are hereby added to the Contract:

- NOTICE TO CONTRACTOR - POTENTIAL MODIFIED AWARD SCHEDULE
- ITEM NO. 0999002A - DISPOSAL OF BUILDINGS

REVISED SPECIAL PROVISIONS

The following Special Provisions are hereby deleted in their entirety and replaced with the attached like-named Special Provisions:

- NOTICE TO CONTRACTOR - HAZARDOUS MATERIALS INVESTIGATIONS
- NOTICE TO CONTRACTOR - CLOSEOUT DOCUMENTS
- ITEM NO. 0020902A - LEAD COMPLIANCE FOR BUILDING DEMOLITION AND RENOVATION
- ITEM NO.0101143A - HANDLING AND DISPOSAL OF REGULATED ITEMS

The following CSI Special Provision is hereby deleted in its entirety and replaced with the attached like-named Special Provision:

- SECTION 307000 – SANITARY/ DRAINAGE AND UTILITY

Any reference in this contract to ITEM NO. 0999001A - DISPOSAL OF BUILDINGS shall be construed to mean ITEM NO. 0999002A - DISPOSAL OF BUILDINGS.

DELETED SPECIAL PROVISION

The following Special Provision is hereby deleted in its entirety:

- ITEM NO. 0999001A - DISPOSAL OF BUILDINGS

CONTRACT ITEMS
REVISED CONTRACT ITEMS

ITEM NO.	DESCRIPTION	ORIGINAL QUANTITY	REVISED QUANTITY
0101143A	HANDLING AND DISPOSAL OF REGULATED ITEMS	EST. $13,000.00	EST. $20,000.00

PLANS
REVISED PLANS

The following Plan Sheets are hereby deleted and replaced with the like-numbered Plan Sheets:

02.01.A2
05.14.A2
11.09.A2

The report entitled "HazMat Inspection, Marlborough Salt Shed (old) & Jet Hangers, Marlborough, CT, March 11, 2019" is hereby added to the contract.

The Bid Proposal Form has been revised to reflect these changes.

There will be no change in the number of calendar days due to this Addendum.

The foregoing is hereby made a part of the contract.

NOTICE TO CONTRACTOR – POTENTIAL MODIFIED AWARD SCHEDULE

The contractor is hereby given notice that this contract will not be awarded until all State and Federal funding approvals have been received. If funding approvals are not received, this Contract award may be delayed or the Contract may be withdrawn and re-advertised at the discretion of the Department, per section XIII of the Construction Contract Bidding and Award Manual. Any delay to the Contract award or failure to award shall not be the basis for any claims by any bidder.

NOTICE TO CONTRACTOR - HAZARDOUS MATERIALS INVESTIGATIONS

Hazardous materials site investigations have been conducted at the East Hampton Salt Shed & East Hampton Personnel Shelter, in East Hampton, Connecticut as well as the Marlborough Maintenance Facility, Salt Sheds (old & new) and Jet Hangers in Marlborough, Connecticut prior to the scheduled demolition/renovation projects. The scope of inspections were limited to the representative components projected for impact.

Results of the survey identified asbestos-containing materials (ACM), lead-based-paint (LBP), polychlorinated biphenyl (PCB) caulks and miscellaneous Universal Waste (UW) and Connecticut Regulated Waste (CRW) materials/items to be present within the subject renovation/demolition areas.

The Contractor is hereby notified that these hazardous materials requiring special management or disposal procedures will be encountered during various construction activities conducted within the project limits. The Contractor will be required to implement appropriate health and safety measures for all construction activities impacting these materials. These measures shall include, but are not limited to, air monitoring, engineering controls, personal protective equipment and decontamination, equipment decontamination and personnel training. WORKER HEALTH AND SAFETY PROTOCOLS WHICH ADDRESS POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE SPECIFIC HAZARDS ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

The Department, as Generator, will provide an authorized representative to sign all manifests and waste profile documentation required by disposal facilities for disposal of hazardous materials.

The Sections which shall be reviewed by the Contractor include, but are not limited to, the following:

- Item No. 0020801A – Asbestos Abatement
- Item No. 0020902A – Lead Compliance for Building Demolition & Renovation
- Item No. 0101143A – Handling and Disposal of Regulated Items
- Item No. 0101183A – PCB Building Materials Removal
- Item No. 0999002A – Disposal of Buildings

The Contractor is alerted to the fact that a Department environmental consultant may be on site for abatement and related activities, to collect environmental samples (if necessary), and to observe site conditions for the State.

Information pertaining to the results of the limited hazardous materials investigations discussed can be found in the document listed below. This document shall be available for review electronically.

- Pre-Demotion Investigative Survey for Hazardous Building Materials, East Hampton Salt Shed, East Hampton, Connecticut, Project 41-119, June 2018.
- Pre-Demotion Investigative Survey for Hazardous Building Materials, East Hampton Personnel Shelter, East Hampton, Connecticut, Project 41-119, November 2018.
- Pre-Renovation Investigative Survey for Hazardous Building Materials, Marlborough Maintenance Facility, Marlborough, Connecticut, Project 41-119/78-94, November 2018.
- HazMat Inspection, Marlborough Salt Shed (old) & Jet Hangers, Marlborough, CT, March 11, 2019

NOTICE TO CONTRACTOR – CLOSEOUT DOCUMENTS

General: The list of special provisions (including CSI-formatted specifications) in the Table below may not be all-inclusive and does not relieve the Contractor from its responsibility to provide spare parts, operation and maintenance manuals, training, and warranties that are required under other Contract provisions.

Spare Parts: The Contractor shall deliver spare parts on products listed in the Table below to the Project Site.

Operation and Maintenance Manuals: Submit in accordance with Form 817 Article 1.20-1.08.14. The Designer and the Owner (Mr. David A. Hartley, Office of Property and Facilities Services) will review the manuals for conformance to the Contract.

Product Maintenance Manual: The Contractor shall provide complete information in the materials and finishes manual on products listed in the Table below.

Equipment and Systems Maintenance Manuals: The Contractor shall provide complete information in the equipment and systems manual on products listed in the Table below.

Training: The Contractor shall provide training on products listed in the Table below.

Warranties: Submit in accordance with Form 817 Article 1.20-1.06.08. The Designer and the Owner will review the warranties for conformance to the Contract.

The Contractor shall provide special warranties on products and installations listed in the Table.

TABLE

Special Provision (including CSI-formatted Specifications)	Warranties	Spare Parts	Training	Operation and Maintenance Manuals
CSI Section 073129, “Wood Shingles and Shakes”		X		
CSI Section 074213, “Metal Wall Panels”	X			X
CSI Section 075323, “EPDM Membrane Roofing”	X			X
CSI Section 075419, “Polyvinyl Chloride (PVC) Roofing”	X			X
CSI Section 083613, “Sectional Doors”	X		X	X
CSI Section 085113, “Aluminum Windows”	X			X
CSI Section 087100, “Door Hardware”				X
CSI Section 088000, “Glazing”	X			
CSI Section 093000, “Tiling”		X		
CSI Section 094020, Polyacrylate Modified Terrazzo”				X

Special Provision (including CSI-formatted Specifications)	Warranties	Spare Parts	Training	Operation and Maintenance Manuals
CSI Section 095123, “Acoustical Tile Ceilings”		X		
CSI Section 105513, “Metal Lockers”				X
CSI Section 111400, Vehicle Washing Equipment”			X	X
CSI Section 113100, “Appliances”				X
CSI Section 123530, “Casework”				X
CSI Section 132160, “Installation of New Fuel Facility”	X		X	X
CSI Section 132180, “Tank Monitoring System”			X	X
CSI Section 146010, “Hoists and Cranes”	X	X	X	X
CSI Section 220533, “Heat Tracing for Plumbing Piping”	X			X
CSI Section 220553, “Identification for Plumbing Piping and Equipment”				X
CSI Section 221119, “Domestic Water Piping Specialties”		X		X
CSI Section 221123, “Domestic Water Pumps”				X
CSI Section 221223, “Facility Potable-Water Storage Tanks”	X			X
CSI Section 221325, “Oil-Water Separator”	X			X
CSI Section 221513, “General-Service Compressed Air Piping”				X
CSI Section 221519, “General-Service Packaged Air Compressors and Receivers”	X	X	X	X
CSI Section 223400, “Fuel-Fired Domestic Water Heaters”	X		X	X
CSI Section 224213, “Commercial Water Closets and Urinals”		X		X
CSI Section 224216, “Commercial Lavatories and Sinks”		X		X
CSI Section 224223, “Commercial Showers”		X		X
CSI Section 224233, “Wash Fountains”		X		X
CSI Section 224500, “Emergency Plumbing Fixtures”				X
CSI Section 224716, “Pressure Water Coolers”				X
CSI Section 230553, “Identification for HVAC Piping and Equipment”				X
CSI Section 230900, “Instrumentation and Control for HVAC”		X	X	X
CSI Section 231123, “Facility Natural-Gas Piping”				X
CSI Section 232116, “Hydronic Piping Specialties”				X
CSI Section 231123, “Hydronic Pumps”		X	X	X

Special Provision (including CSI-formatted Specifications)	Warranties	Spare Parts	Training	Operation and Maintenance Manuals
CSI Section 233300, “Air Duct Accessories”		X		
CSI Section 233423, “HVAC Power Ventilators”		X	X	X
CSI Section 235223, “Cast-Iron Boilers”	X		X	X
CSI Section 237413, “Package, Outdoor, Central-Station Air Handling Units”	X	X	X	X
CSI Section 238123, “Computer Room Air-Conditioners”	X	X	X	X
CSI Section 238216, “Air Coils”				X
CSI Section 238233, “Convectors”				X
CSI Section 238236, “Finned-Tube Radiation Heaters”				X
CSI Section 238239, “Unit Heaters”			X	X
CSI Section 260572, “Overcurrent Protective Device Short-Circuit Study”			X	
CSI Section 260574, “Overcurrent Protective Device Arc-Flash Study”			X	X
CSI Section 260923, “Lighting Control Devices”				X
CSI Section 262416, “Panelboards”		X		
CSI Section 262813, “Fuses”		X		
CSI Section 263213, “Engine Generators”	X	X	X	X
CSI Section 263600, “Transfer Switches”	X		X	
CSI Section 264313, “Surge Suppression for Low-Voltage Electrical Power Circuits”	X		X	X
CSI Section 265119, “LED Interior Lighting”	X	X		X
CSI Section 265613, “Lighting Poles and Standards”	X			
CSI Section 265619, “LED Exterior Lighting”	X	X		X
CSI Section 275116, “Public Address Systems”			X	X
CSI Section 282300, “Video Surveillance”	X		X	X
CSI Section 283111, “Digital, Addressable Fire-Alarm System”	X	X	X	X
CSI Section 307000, “Sanitary/Drainage and Utility	X			
CSI Section 332100, “Water Supply Wells”				X

ITEM #0020902A – LEAD COMPLIANCE FOR BUILDING DEMOLITION AND RENOVATION

Description:

The work shall be conducted at the East Hampton Salt Shed & Personnel Shelter, East Hampton, Connecticut, and the Marlborough Maintenance Facility, Marlborough Salt Shed (old) Marlborough Jet Hangers, Marlborough, Connecticut.

Work under this item shall include activities impacting various materials containing or covered by lead paint and associated work by persons who are knowledgeable, qualified, and trained in the removal, treatment and handling of lead contaminated materials, including the transportation and disposal of non-hazardous lead construction and demolition solid waste containing or contaminated with lead, the recycling of metallic components covered with lead paint, and the subsequent cleaning of the affected environment. Lead paint includes paint found to contain **any** detectable amount of lead by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF).

All activities shall be performed in accordance with, but not limited to, the current revision of the OSHA Lead in Construction Regulations (29 CFR 1926.62), the USEPA RCRA Hazardous Waste Regulations (40 CFR Parts 260 through 274), and the CTDEEP Hazardous Waste Regulations (22a-209-1 and 22a-449(c).

The lead paint activity shall include the demolition/renovation, removal and/or disposal of building components coated with lead painted surfaces as identified on the Contract Plans and Specifications.

Deviations from these Specifications require the written approval of the Engineer.

Materials:

All materials shall be delivered to the job site in the original packages, containers, or bundles bearing the name of the manufacturer, the brand name and product technical description.

No damaged or deteriorating materials shall be used. If material becomes contaminated with lead, the material shall be decontaminated or disposed of as lead-containing waste material. The cost to decontaminate and dispose of this material shall be at the expense of the Contractor.

Fire retardant polyethylene sheet shall be in roll size to minimize the frequency of joints, with factory label indicating four (4) or six (6) mil thickness.

Six (6) mil polyethylene disposable bags shall have pre-printed OSHA/EPA/DOT labels and shall be transparent.

Tape (or equivalent) capable of sealing joints in adjacent polyethylene sheets and for the attachment of polyethylene sheets to finished or unfinished surfaces must be capable of adhering under both dry and wet conditions.

The cleaning agent detergent shall be lead specific, such as TriSodium Phosphate (TSP).

Any chemical stripper and chemical neutralizer to be utilized shall be compatible with the substrate as well as with each other.

Labels and warning signs shall conform to OSHA 29 CFR 1926.62, USEPA 40 CFR 260 through 274 and USDOT 49 CFR 172 as appropriate.

Any planking, bracing, shoring, barricades and/or temporary sheet piling, necessary to appropriately perform work activities shall conform to all applicable federal, state and local regulations.

Air filtration devices and vacuum units shall be equipped with HEPA filters.

Construction Methods:

(1) Pre-Abatement Submittals and Notices

A. Prior to the start of **any** work that will generate hazardous lead waste above conditionally exempt small quantities, the Contractor shall obtain from the Engineer a temporary EPA Hazardous Waste Generators ID number, in accordance with Item 0202317A – Disposal of Hazardous Materials, unless otherwise directed by the Engineer.

B. Fifteen (15) working days prior to beginning work that impacts lead paint, the Contractor shall submit the following to the Engineer:

1. Copies of all employee certificates, dated within the previous twelve (12) months, relating to OSHA lead awareness and hazard communication training and training in the use of lead-safe work practices.

2. Documentation from the Contractor, typed on company letterhead and signed by the Contractor, certifying that all employees listed therein have received the following:

    a. medical monitoring within the previous twelve (12) months, as required in 29 CFR 1926.62;
    b. biological monitoring within the previous six (6) months, as required in 29 CFR 1926.62;
    c. respirator fit testing within the previous twelve (12) months, as required in 29 CFR 1910.134 (for those who don a tight-fitting face piece respirator).

3. Copies of state-approved certificates for the proposed non-hazardous construction and demolition (C&D) lead debris disposal facility and any concrete/wood or scrap metal recycling facilities.

No activity shall commence until a copy of all required submittals have been received and found acceptable to the Engineer. Those employees added to the Contractor's original list will be allowed to perform work only upon submittal of all required paperwork to, and review by, the Engineer.

Contractor shall provide the Engineer with a minimum of 48 hours notice in advance of scheduling, changing or canceling work activities.

(2) Lead Abatement Provisions

(a) General Requirements:

All employees of the Contractor who perform work impacting lead paint shall be properly trained to perform such duties.

All labor, materials, tools, equipment, services, testing, insurance (with specific coverage for work on lead), and incidentals which are necessary or required to perform the work in accordance with applicable governmental regulations, industry standards and codes, and these Specifications shall be provided by the Contractor. The Contractor shall be prepared to work all shifts and weekends throughout the course of this project.

Prior to beginning work, the Engineer and Contractor shall perform a visual survey of each work area and review conditions at the site for safety reasons. In addition, the Contractor shall instruct all workers in all aspects of personnel protection, work procedures, emergency evacuation procedures and use of equipment including procedures unique to this project.

The Contractor shall:

Shutdown and isolate heating, cooling, and ventilating air systems to prevent contamination and particulate dispersal to the other areas of the building.

Shut down and lock out electrical power, including all receptacles and light fixtures, when feasible. The use or isolation of electrical power will be coordinated with all other ongoing uses of electrical power at the site.

Coordinate all power and fire alarm isolation with the appropriate representatives.

When necessary, provide temporary power and adequate lighting and ensure safe installation of electrical equipment, including ground fault protection and power cables,

in compliance with applicable electrical codes and OSHA requirements. The Contractor is responsible for proper connection and installation of electrical wiring.

Ladders and/or scaffolds to be utilized throughout this project shall be in compliance with OSHA requirements, and of adequate length, strength and sufficient quantity to support the scope of work. Use of ladders/scaffolds shall be in conformance with OSHA 29 CFR 1926 Subpart L and X requirements.

Work performed at heights exceeding six feet (6') shall be performed in accordance with the OSHA Fall Protection Standard 29 CFR 1926 Subpart M including the use of fall arrest systems as applicable.

Electrical service may not be available at the site. Costs for supplying electrical service shall be the responsibility of the Contractor.

Water service may not be available at the site. The Contractor shall supply sufficient water for each shift to operate the wash facility/decontamination shower units in addition to the water needed at the work area.

Data for random lead testing conducted on surfaces throughout the buildings as well as hazardous waste characterization results are available from the Engineer for informational purposes only. Under no circumstances shall this information be the sole means used by the Contractor for determining the extent of lead painted materials. The Contractor shall be responsible for verification of all field conditions affecting performance of the work as described in these Specifications in accordance with OSHA, USEPA, USDOT and CTDEEP standards. Compliance with the applicable requirements is solely the responsibility of the Contractor.

Activity impacting lead painted surfaces shall be performed in a manner which minimizes the spread of lead dust contamination and generation of airborne lead.

The Engineer will provide a Project Monitor to oversee the activities of the Contractor. No activity impacting lead paint shall be performed until the Project Monitor is on-site. Environmental sampling, including ambient air sampling, TCLP waste stream sampling and/or dust wipe sampling, shall be conducted throughout the project as deemed necessary.

(b) Set-Up

The Contractor shall prepare a Regulated Area as follows:

In all areas where airborne exposures may exceed the OSHA PEL, post warning signs meeting the requirements of OSHA 29 CFR 1926.62 at each regulated area.

In addition, signs shall be posted at all approaches to regulated areas so that an employee may read the sign and take the necessary protective steps before entering the area. These signs shall read:

DANGER
LEAD WORK AREA
MAY DAMAGE FERTILITY OR THE UNBORN CHILD
CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM
DO NOT EAT, DRINK, OR SMOKE IN THIS AREA

Establish a Regulated Area, through the use of appropriate barrier tape, etc. and control unauthorized access into the area throughout the lead paint related activity.

Implement appropriate engineering controls such as critical barriers, poly drop cloths, negative pressure, local exhaust ventilation, wet dust suppression methods, etc. to prevent the spread of lead contamination from the Regulated Area.

For exterior work areas, the Contractor shall use a High Efficiency Particulate Air (HEPA) filtered vacuum dust collection system to remove any visible existing paint chips from the ground to a distance of 20' out from the base of the exterior surface scheduled for lead paint activity prior to commencement of work and extend a 6 mil polyethylene sheet drop cloth on the ground adjacent to the exterior surface scheduled for lead paint activity to contain debris/contamination.

The Contractor shall provide handwash facilities in compliance with 29 CFR 1926.51(f) and 29 CFR 1926.62 regardless of airborne lead exposure. This wash facility will consist, at least, of potable water, towels, soap, and a HEPA vacuum.

If air monitoring data by the Contractor or Project Monitor shows that employee exposure to airborne lead exceeds the OSHA PEL (50 $\mu g/m^3$), shower rooms must be utilized. The Shower Room shall be of sufficient capacity to accommodate the number of workers. One shower stall shall be provided for each eight (8) workers. Showers shall be equipped with hot and cold or warm running water through the use of electric hot water heaters supplied by the Contractor. Shower water shall be collected and filtered using best available technology and dumped down an approved sanitary drain. Shower stalls and plumbing shall include sufficient hose length and drain system or an acceptable alternate.

(c) Personal Protection:

The Contractor shall initially determine if any employee performing construction tasks impacting lead paint may be exposed to lead at or above the OSHA Action Level of 30 micrograms per cubic meter (30 $\mu g/m^3$). Assessments shall be based on initial air monitoring results as well as other relevant information. The Contractor may rely on historical air monitoring data obtained within the past 12 months under workplace conditions closely resembling the process, type of material, control methods, work practices and environmental conditions used and prevailing in the Contractors current operations to satisfy the exposure assessment requirements. Monitoring

shall continue as specified in the OSHA standard until a negative exposure assessment is developed.

Until a negative exposure assessment is developed for the required tasks impacting lead paint, the Contractor shall ensure that all workers and authorized person entering the Regulated Area wear protective clothing and respirators in accordance with OSHA 29 CFR 1926.62. Protective clothing shall include impervious coveralls with elastic wrists and ankles, head covering, gloves and foot coverings. Sufficient quantities shall be provided to last throughout the duration of the project.

Protective clothing provided by the Contractor and used during chemical removal operations shall be impervious to caustic materials. Gloves provided by the Contractor and used during chemical removal shall be of neoprene composition with glove extenders.

Respiratory protective equipment shall be provided and selection shall conform to 30 CFR Part 11, 29 CFR Part 1910.134, and 29 CFR Part 1926.62. A formal respiratory protection program must be implemented in accordance with 29 CFR Part 1926.62 and Part 1910.134.

(d) Lead Abatement Procedures

Ensure that the Competent Person is on the job at all times.

Do not begin abatement work until authorized by the Engineer, following a pre-abatement visual inspection by the Project Monitor.

The Contractor shall ensure proper entry and exit procedures for workers and authorized persons who enter and leave the Regulated Area. All workers and authorized persons shall leave the Regulated Area and proceed directly to the wash or shower facilities where they will HEPA vacuum gross debris from work suit, remove and dispose of work suit, wash and dry face and hands, and vacuum clothes. Do not remove lead chips or dust by blowing or shaking of clothing. Wash water shall be collected, filtered, and disposed of in accordance with federal, state and local water discharge standards.

No one shall eat, drink, smoke, chew gum or tobacco, or apply cosmetics while in the Regulated Area.

The following details the extent of each phase of operation designated for this project. Phase areas may be combined or divided at the direction of the Engineer. Proceed through the sequencing of the work phases under the direction of the Engineer.

EAST HAMPTON SALT SHED

Phase 1 – Non-metallic Components To Be Impacted

- **No lead paint has been identified on any non-metallic components. The Engineer has therefore characterized the projected non-metallic waste stream as non-**

hazardous construction and demolition (C&D) solid waste. Building structures waste stream characterized as non-hazardous shall be disposed of as non-hazardous construction and demolition (C&D) solid waste at an approved CTDEEP Solid Waste landfill.

- **No lead paint was identified on the concrete, and as such, those materials shall be recycled as CTDEEP "Clean Fill".**

Phase 2 – Metal Components To Be Impacted

- **Lead paint identified on the exterior metal crash posts/bollards. All demolition work impacting those materials shall be conducted within an established lead control (regulated) area with a remote handwash facility/decontamination system in accordance with OSHA Lead in Construction Standards. Engineering controls and work practices shall be utilized to prevent the spread of lead dust and debris beyond the work area and limit the generation of airborne lead. All steel and metal generated from the demolition of the structure shall be segregated and recycled as scrap metal at an approved facility. The recycling of scrap metal (regardless of lead paint concentration) is exempt from USEPA RCRA and CTDEEP Hazardous Waste Regulation.**

EAST HAMPTON PERSONEL SHELTER

- **No detectable levels of lead paint were identified on any metallic or non-metallic components at the facility.**

- **The Engineer has therefore characterized the projected non-metallic waste stream as non-hazardous construction and demolition (C&D) solid waste. Building structures waste stream characterized as non-hazardous shall be disposed of as non-hazardous construction and demolition (C&D) solid waste at an approved CTDEEP Solid Waste landfill.**

- **No lead paint was identified on the concrete, and as such, those materials shall be recycled as CTDEEP "Clean Fill".**

- **All steel and metal generated from the demolition of the structure shall be segregated and recycled as scrap metal at an approved facility. The recycling of scrap metal (regardless of lead paint concentration) is exempt from USEPA RCRA and CTDEEP Hazardous Waste Regulation.**

MARLBOROUGH MAINTENANCE FACILITY, SALT SHED (OLD) & JET HANGERS

Phase 1 – Non-metallic Components To Be Impacted

- **Lead paint has been identified on Wood Door components, Sheetrock Walls, Block Interior Bay Walls, Brick Exterior Bay Walls & Wood Siding of the Salt Shed (old). Any renovation/demolition work impacting those materials shall be conducted**

within an established lead control (regulated) area with a remote handwash facility/decontamination system in accordance with OSHA Lead in Construction Standards. Engineering controls and work practices shall be utilized to prevent the spread of lead dust and debris beyond the work area and limit the generation of airborne lead. Lead painted debris generated from the renovation/demolition of those materials, shall be containerized and stored on-site with the remainder of the non-metallic building waste materials. At the Maintenance Facility, The Engineer has characterized the projected non-metallic waste stream as non-hazardous construction and demolition (C&D) solid waste. Building structures waste stream characterized as non-hazardous shall be disposed of as non-hazardous construction and demolition (C&D) solid waste at an approved CTDEEP Solid Waste landfill. At the Salt Shed (Old), The Engineer has characterized the projected non-metallic waste stream as non-hazardous construction and demolition (C&D) solid waste. Building structures waste stream characterized as non-hazardous shall be disposed of as non-hazardous construction and demolition (C&D) solid waste at an approved CTDEEP Solid Waste landfill.

- **Any painted brick/concrete/CMU block materials CANNOT be recycled/managed as CTDEEP "clean fill" without being analyzed for lead following the Synthetic Precipitation Leaching Procedure (SPLP) and Total Metal Procedures for comparison to the CTDEEP Remediation Standard Regulations (RSRs). Without such determination, those materials shall be managed as non-hazardous C&D solid waste.**

<u>Phase 2 – Metal Components To Be Impacted</u>

- **Lead paint was identified on the metal door components and exterior steel components and the exterior jet hangers. All demolition work impacting those materials shall be conducted within an established lead control (regulated) area with a remote handwash facility/decontamination system in accordance with OSHA Lead in Construction Standards. Engineering controls and work practices shall be utilized to prevent the spread of lead dust and debris beyond the work area and limit the generation of airborne lead. All steel and metal generated from the demolition of the structure shall be segregated and recycled as scrap metal at an approved facility. The recycling of scrap metal (regardless of lead paint concentration) is exempt from USEPA RCRA and CTDEEP Hazardous Waste Regulation.**

The Contractor shall conduct exposure assessments for the tasks required which impact lead paint in accordance with OSHA 29 CFR 1926.62(d) and shall implement appropriate personal protective equipment until negative exposure assessments are developed.

Utilize appropriate engineering controls (e.g. wet methods) as directed by 29 CFR 1926.62 to control lead emissions and contamination.

Properly contain wastes containing lead paint for appropriate transport/disposal.

Stop all work in the regulated area and take steps to decontaminate non-work areas and eliminate causes of such contamination should lead contamination be discovered in areas outside of the regulated area.

Special Requirements:

1. Demolition:

    a. Demolish in a manner which minimizes the spread of lead contamination and generation of lead dust.

    b. Implement dust suppression controls, such as misters, local exhausts ventilation, etc. to minimize the generation of airborne lead dust.

    c. Segregate work areas from non-work areas through the use or barrier tape, poly criticals, etc.

    d. Clean up immediately after renovation/demolition has been completed

(e) Prohibited Removal Methods:

The use of heat guns in excess of 700 degrees Fahrenheit to remove lead paint is prohibited.

The use of sand, steel grit, water, air, CO_2, baking soda, or any other blasting media to remove lead or lead paint without the use of a HEPA ventilated contained negative pressure enclosure is prohibited.

Power tool assisted grinding, sanding, cutting, or wire brushing of lead paint without the use of cowled HEPA vacuum dust collection systems is prohibited.

Lead paint burning, busting of rivets painted with lead paint, welding of materials painted with lead paint, and torch cutting of materials painted with lead paint is prohibited. Where cutting, welding, busting, or torch cutting of materials is required, pre-remove the lead paint in the area affected.

Use of chemical strippers containing Methylene Chloride is prohibited.

Compressed air shall not be utilized to remove lead paint.

(f) Air Monitoring Requirements

1. The Contractor shall:

a. Provide air monitoring equipment including sample filter cassettes of the type and quantity required to properly monitor operations and personnel exposure surveillance throughout the duration of the project.

b. Conduct initial exposure monitoring to determine if any employee performing construction tasks impacting lead paint may be exposed to lead at or above the OSHA Action Level of 30 micrograms per cubic meter. Monitoring shall continue as specified in the OSHA standard until a negative exposure assessment is developed.

c. Conduct personnel exposure assessment air sampling, as necessary, to assure that workers are using appropriate respiratory protection in accordance with OSHA Standard 1926.62. Documentation of air sampling results must be recorded at the work site within twenty-four (24) hours and shall be available for review until the job is complete.

2. The Project Monitor will:

a. Collect air samples in accordance with the current revision of the NIOSH 7082 or 7702 Method of Air Sampling for Airborne Lead while overseeing the activities of the Contractor. Frequency and duration of the air sampling during abatement will be representative of the actual conditions at the site. The size and configuration of the project will be a factor in the number of samples required to monitor the activities and shall be determined by the Project Monitor.

As determined by AAS, XRF, or equivalent analysis, if air samples collected outside of the Regulated Area during abatement activities indicate airborne lead concentrations greater than original background levels or greater than 30 ug/m^3, whichever is larger, an examination of the Regulated Area perimeter shall be conducted and the integrity of barriers shall be restored. Cleanup of surfaces outside the Regulated Area using HEPA vacuum equipment or wet cleaning techniques shall be done prior to resuming abatement activities.

Abatement outside the initial designated work area(s) will not be paid for by the Engineer. The Contractor will be responsible for all costs incurred from these abatement activities.

(g) Clean-up and Visual Inspection:

Remove and containerize all lead waste material and visible accumulations of debris, paint chips and associated items.

During clean up the Contractor shall utilize rags and sponges wetted with lead-specific detergent and water as well as HEPA filtered vacuum equipment.

The Engineer will conduct a visual inspection of the work areas in order to document that all surfaces have been maintained as free as practicable of accumulations of lead in accordance with OSHA 29 CFR 1926.62(h). If visible accumulations of waste, debris, lead paint chips or dust are found in the work area, the Contractor shall repeat the cleaning, at the Contractor's expense, until the area is in compliance. The visual inspection will detect incomplete work, damage caused by the abatement activity, and inadequate clean up of the work site.

(h) Post-Abatement Work Area Deregulation:

Following the visual inspection, (and clearance testing if appropriate,) any engineering controls implemented may be removed and the Work Area deregulated.

A final visual inspection of the work area shall be conducted by the Competent Person and the Project Monitor to ensure that all visible accumulations of suspect materials have been removed and that no equipment or materials associated with the abatement project remain.

The Contractor shall restore all work areas and auxiliary areas utilized during work to conditions equal to or better than original. Any damage caused during the performance of the work activity shall be repaired by the Contractor at no additional expense to the Engineer.

(I) Waste Disposal/Recycling:

Non-metallic building debris waste materials tested and found to be non-hazardous Construction and Demolition (C&D) solid waste shall be disposed of properly at a CTDEEP approved Solid Waste landfill.

Metallic debris shall be segregated and recycled as scrap metal at an approved metal recycling facility. The Contractor shall submit to the Engineer all documentation necessary to demonstrate the selected recycling facility is able to accept lead-painted scrap metal.

Concrete, brick, etc. coated with <u>any amount of lead paint</u> cannot be crushed, recycled or buried on-site to minimize waste disposal unless tested and found to meet the CT RSR standards as “clean fill”. Only CTDEEP defined “clean fill” can be recycled on-site or sent to a recycling facility.

Hazardous lead debris shall be disposed of in accordance with Item 0202317A “Disposal of Hazardous Material”.

(j) Project Closeout Data:

1. Provide the Engineer, within thirty (30) days of completion of the project site work, a compliance package; which shall include, but not be limited to, the following:

    a. Competent persons (supervisor) job log;

b. OSHA-compliant personnel air sampling data;
c. Completed waste shipment papers for non-hazardous lead construction and demolition (C&D) solid waste and/or concrete/wood/scrap metal recycling.

Method of Measurement:

No measurement will be made for the work in this Section. The completed work shall be paid as a lump sum.

Basis of Payment:

The lump sum price bid for this item shall include: services, materials, equipment, insurance, all permits, notifications, submittals, personal air sampling, personal protection equipment, temporary enclosures, incidentals, fees and labor incidental to activities impacting lead removal, treatment and handling of lead contaminated materials, and the transport and disposal of any non-hazardous lead construction and demolition (C&D) solid waste.

Final payment for lead abatement will not be made until all project closeout data submittals have been completed and provided to the Engineer. Once the completed package has been received in its entirety and accepted by the Engineer, final payment will be made to the Contractor.

Pay Item	Pay Unit
Lead Compliance	Lump Sum

END OF SECTION

ITEM #0101143A - HANDLING AND DISPOSAL OF REGULATED ITEMS

Description:

Work under this item shall include the management (handling and disposal) of regulated items and all associated work by persons who are employed by a CTDEEP permitted Spill Contractor and trained/certified in accordance with OSHA Hazard Communication regulations. Regulated items include hazardous and other materials and wastes, the disposal of which is restricted by Federal and/or State laws and regulations, and which may be a component of equipment or other items located on-site. Regulated items include those listed herein, or additional similar items identified on site by the Engineer. Work under this item does not include asbestos containing materials, lead paint, contaminated or hazardous soils.

Activities shall be performed in accordance with, but not limited to, the current revision of the USEPA & CTDEEP Hazardous Waste Regulations (40 CFR 260-282, 22a-209 and 22a-449(c)), USEPA PCB Regulations (40 CFR 761), USEPA Protection of Stratospheric Ozone (40 CFR 82), OSHA Hazard Communication (29 CFR 1910.1200), OSHA Hazardous Waste & Emergency Response Regulations (29 CFR 1910.120), USDOT Hazardous Materials Regulation (49 CFR 171-180), OSHA, RCRA, CERCLA, CAA, TSCA, and all other laws and regulations.

The work activities include the removal, handling, packing, labeling, transport, manifesting, and recycling or disposal of various regulated items at the Project site prior to beginning planned demolition activities.

The Contractor is solely responsible for verifying actual locations and quantities of the items with hazardous/regulated material/waste constituents and for their proper handling and disposal. The recycling or proper disposal, as appropriate, of all regulated items shall be completed prior to the initiation of any demolition activities.

Materials:

All materials shall be suitable for the management of regulated items and shall meet all applicable federal, state and local regulations. Such materials include, but are not limited to, proper containers, packing materials, labels, signs, shipping papers, personnel protective equipment (PPE) and spill kits.

Construction Methods:

(1) Allowable Disposal/Recycling Facilities

Disposal facilities for RCRA-hazardous, TSCA-hazardous, Connecticut Regulated, and Universal wastes shall be chosen from among those listed below. No other facility shall be used for these types of wastes without the written approval of the Engineer.

Advanced Disposal Services
Greentree Landfill
635 Toby Road
Kersey, PA 15846
Phone: (814) 265-1744 Fax: (814) 265-8745
MSW, C&D, asbestos, PCB remediation waste <50 ppm, petroleum contaminated soils, nonhazardous solid wastes

Advanced Disposal
(managed by Interstate Waste Services)
7095 Glades Pike
Summerset, PA 15501
Phone: (814) 444-0112 Fax: (814) 444-0127
MSW, C&D debris, residual waste, sewer sludge, incinerator ash, asbestos

Allied Waste Niagara Falls Landfill, LLC
5600 Niagara Falls Blvd.
Niagara, NY 14304
Phone: (716) 285-3344 Fax: (716) 285-3398
Non-hazardous waste, industrial solid waste, municipal sewage treatment sludge, contaminated soil & debris, asbestos waste, C&D debris, industrial process sludge

American Lamp Recycling, LLC
26 Industrial Way
Wappingers Falls, NY 12590
Phone: (845) 896-0058 Fax: (845) 896-1520
Mercury containing device, universal waste

Tradebe (Bridgeport United Recycling, Inc.)
50 Cross Street
Bridgeport, CT 06610
Phone: (203) 334-1666 Fax: (203) 334-1439
RCRA & CRW waste oil, fuel, wastewater

Clean Earth of Carteret
24 Middlesex Ave..,
Carteret, NJ 07008
Phone: (732) 541-8909 Fax: (732) 541-8505
Concrete, brick, block, street sweepings, stone, rock, asphalt and petroleum contaminated soil

Clean Earth of Philadelphia, Inc.
3201 South 61 St.,
Philadelphia, PA 19153
Phone: (215) 724-5520 Fax: (215) 724-2939
Petroleum contaminated soil

Clean Earth of North Jersey, Inc. (aka CENJ)
115 Jacobus Ave,
South Kearny, NJ 07105
Phone: (973) 344-4004 Fax: (973) 344-8652
RCRA liquid and solid, asbestos

Clean Earth of Southeast Pennsylvania, Inc.
7 Steel Road,
Morrisville, PA 19067
Phone: (215) 428-1700 Fax: (215) 428-1704
Petroleum contaminated soil

Clean Harbors Environmental Services, Inc.
2247 South Hwy. 71,
Kimball, NE 69145
Phone: (308) 235-1012 Fax: (308) 235-4307
RCRA liquid, solid & sludge

Clean Harbors Environmental Services, Inc.
Cleveland Facility
2900 Rockefeller Ave.,
Cleveland, OH 44115
Phone: (216) 429-2401 Fax: (216) 883-1918
RCRA liquid: aqueous organic & inorganic wastewater

Clean Harbors Environmental Services, Inc.
Spring Grove Facility
4879 Spring Grove Ave.,
Cincinnati, OH 45232
Phone: (513) 681-6242 Fax: (513) 681-0869
RCRA liquid, solid & sludge: aqueous organic & inorganic wastewater, PCB wastewater treatment

Clean Harbors of Baltimore, Inc.
1910 Russell St,
Baltimore, MD 21230
Phone: (410) 244-8200 Fax: (410) 752-2647
RCRA liquid: aqueous organic & inorganic wastewater

Clean Harbors of Braintree, Inc.
1 Hill Avenue,
Braintree, MA 02184
Phone: (781) 380-7134 Fax: (781) 380-7193
RCRA & TSCA liquid & solid

Clean Harbors of Connecticut, Inc.
51 Broderick Road,
Bristol, CT 06010
Phone: (860) 583-8917 Fax: (860) 583-1740
RCRA & CRW liquid

Clean Harbors of Woburn
(Murphy's Waste Oil Services, Inc.)
252 Salem Street,

Woburn, MA 01801
Phone: (781) 935-9066 Fax: (781) 935-8615
RCRA liquid: oil, oil/water mixtures; CRW oil filters, oily soil & debris, F001/F002 contaminated oils, antifreeze

Clinton Landfill
242 Church Street
Clinton, MA 01510
Phone: (978) 365-4110 Fax: (978) 365-4106
Comm-97 soils and other materials subject to a BUD and additional review by MADEP (*2-week lead time for review by MADEP)

Colonie Landfill (Waste Connections, Inc.)
1319 Louden Rd,
Cohoes, New York 12047
Phone: (518) 783-2827 Fax: (518) 786-7331
Non-haz. wastes, special wastes, contaminated soil

Cumberland County Landfill
(aka Community Refuse Services
Managed by Interstate Waste Services)
135 Vaughn Road,
Shippensburg, PA 17257
Phone: (717) 729-2060 Fax: (717) 423-6822
Municipal solid waste, non-hazardous waste

ACV Enviro (aka Cycle Chem & General Chemical Corp.)
217 South First Street,
Elizabeth, NJ 07206
Phone: (908) 355-5800 Fax: (908) 355-0562
RCRA, TSCA liquid and solid

Envirite of PA (US Ecology)
730 Vogelsong Road,
York, PA 17404
Phone: (717) 846-1900 Fax: (717) 854-6757
RCRA hazardous wastes

Environmental Quality Company:
Wayne Disposal Facility
(aka EQ Michigan Disposal Waste Treatment Plant and Wayne Disposal Inc. Site #2)
49350 North I-94 Service Drive
Belleville, MI 48111
Phone: (734) 697-2200 Fax: (734) 699-3499
RCRA & TSCA liquid and solid

US Ecology (Environmental Quality Detroit Inc.)
1923 Frederick Street,
Detroit MI 48211
Phone: (734) 329-8017 Fax: (313) 923-3375
RCRA & CRW liquid wastewater

Environmental Soil Management of New York, LLC (ESMI of New York)
304 Towpath Road,
Fort Edward, NY 12828
Phone: (518) 747-5500 Fax: (518) 747-1181
Petroleum contaminated soil

Environmental Soil Management of NH
67 International Dr.
Loudon, NH 03307
Phone: (603) 783-0228 Fax: (603) 783-0104
Petroleum contaminated soil

Triumvirate (Formerly EnviroSafe Corporation Northeast & Jones Environmental Services)
263 Howard Street,
Lowell, MA 01852
Phone: (978) 453-7772 Fax: (978) 453-7775
RCRA & TSCA liquid and solid

Hazelton Creek Properties, LLC*
(Hazelton Mine Reclamation Project)
280 South Church St.,
Hazelton, PA 18201
Phone: (570) 574-1010 Fax: (570) 457-3395
Fresh, brackish or marine dredge material, coal ash, cement kiln dust, lime kiln dust, co-gen ash, regulated fill
*Please note that if this facility is to be used, each bin letter will require an additional 10 day (or more) waiting period on top of the 15 day lab period designated in the specs to allow for PADEP review.

Heritage Hazardous Waste Landfill (Heritage Environmental Services, LLC)
4370 W County Rd 1275 N
Roachdale, IN 46172
Phone:(765) 435-2704 Fax: (315) 687-3898
Hazardous Wastes, Asbestos

Manchester Landfill
311 Olcutt St.,
Manchester, CT 06040
Phone: (860) 647-3248 Fax: (860) 647-3238
Municipal solid waste, non-hazardous waste, contaminated soil

Northeast Lamp Recycling, Inc.
250 Main Street,
East Windsor, CT 06088
Phone: (860) 292-1992 Fax: (860) 292-1114

CRW solid waste, mercury containing devices & universal waste

Stericycle (Northland Environmental, LLC)
(aka PSC Environmental Systems)
275 Allens Ave.,
Providence RI 02905
Phone: (401) 781-6340 Fax: (401) 781-9710
RCRA liquid and solid

Ontario County Landfill
(Managed by Casella Waste)
3555 Post Farm Road,
Stanley, NY 14561
Phone: (585) 526-4420 Fax: (585) 526-5459
Municipal solid waste, non-hazardous waste solid, special wastes including asbestos, ash from boilers/incinerators, contaminated soil, demo debris

Paradise Heating Oil, Inc.
Quimby Street,
Ossining, NY 10562
Phone: (631) 926-2576 Fax: (718) 294-2226
CRW waste oil liquid

Phoenix Soil, LLC
58 North Washington Street
Plainville, CT 06062
Phone: (860) 747-8888 Fax: (203) 757-4933
Contaminated Soil

Red Technologies Soil
232 Airline Avenue
Portland, CT 06980
Phone: (860) 342-1022 Fax: (860) 342-1042
Temporary Storage & Transfer of contaminated soil

Republic Services Conestoga Landfill
420 Quarry Road
Morgantown, PA 19543
Phone: (610) 286-6844 Fax: (610) 286-7048
MSW, C&D debris, residual waste, contaminated soil, asbestos *Please note that if this facility is to be used, each bin letter will require an additional 10 day (or more) waiting period on top of the 15 day lab period designated in the specs to allow for PADEP review.

Stericycle (Formerly Republic Environmental Systems (aka Philip Services Corporation (PSC) Republic)
2869 Sandstone Dr.,
Hatfield PA 19440
Phone: (215) 822-8995 Fax: (215) 997-1293
RCRA & TSCA industrial solid & sludge, aqueous waste, contaminated soil, PCB waste, oil & petroleum waste, organic waste

Soil Safe, Inc.
378 Route 130, Logan Township,
Bridgeport NJ 08085
Phone: (410) 872-3990 x1120
Fax: (410) 872-9082
Soil contaminated with petroleum or metals, some industrial waste solids

The Southbridge Recycling & Disposal Park
165 Barefoot Rd.
Southbridge, MA 01550
Phone: (508) 765-9723, (603) 235-3597
Fax: (508) 765-6812
MSW, non-hazardous C & D waste, contaminated soil for cover

Stablex Canada, Inc.
760 Industrial Blvd.
Blainville Quebec J7C 3V4
Phone: (450) 430-9230 Fax: (450) 430-4642
RCRA liquid and solid, industrial wastes

Ted Ondrick Company, LLC
58 Industrial Road,
Chicopee, MA 01020
Phone: (413) 592-2566 Fax: (413) 592-7451
Petroleum contaminated soil

Tradebe Treatment & Recycling
136 Gracey Ave.
Meriden, CT 06451
Phone: (203) 238-8114 Fax: (203) 238-6772
RCRA, CRW wastewater, oil, hazardous waste fuels, hazardous and non-hazardous waste water

Tunnel Hill Reclamation
2500 Township Road, 205 Route 2
New Lexington, OH 43764
Phone: (914) 713-0203 Fax: (914) 713-0672
Municipal solid waste, non-hazardous waste, contaminated soils

Waste Management
RCI Fitchburg Landfill
Fitchburg Princeton Road,
Westminister, MA 01473
Phone: (978) 355-6821 Fax: (978) 355-6317
Solid: MSW, non-hazardous waste, C&D, contaminated soil for use as cover material under MADEP COMM-97 policy

Turnkey Landfill (Waste Management of NH) TLR III Refuse Disposal Facility 90 Rochester Neck Road, PO Box 7065 Rochester, NH 03839 Phone: (603) 330-2197 Fax: (603) 330-2130	Solid: MSW, C&D, PCB remediation waste (<50ppm), virgin petroleum contaminated soil, CRW solid waste

The category of material accepted by each facility listed above is for informational purposes only. The Contractor shall verify facility acceptance of each type of regulated item.

(2) Submittals

Thirty (30) days prior to commencement of work involving the management of regulated items, the Contractor shall submit to the Engineer for approval, the following documentation:

1. Copy of Spill Contractor Permit registration issued by the CTDEEP.
2. Hazard communication training for all employees performing this work.
3. Names of the treatment facilities, recycling facilities and/or disposal facilities the Contractor intends to use to receive each type of regulated item.
4. Hazardous Material Transporter USDOT Certificate of Registration for each transporter.
5. Hazardous Waste Transporter Permit for the State of Connecticut, the destination state(s), and all other applicable states for each transporter.

Contractor shall provide the Engineer with a minimum of 48 hours notice in advance of scheduling, changing or canceling work activities.

(3) Regulated Item Management Provisions

(a) General Requirements

The Contractor's OSHA Competent Person shall be in control on the job site at all times during hazardous material management work activities. This person must be capable of identifying existing hazards, possess the authority to implement corrective measures to reduce/eliminate the hazards, comply with applicable Federal, State and Local regulations that mandate work practices, and be capable of performing the work of this contract. All employees who perform regulated material management related work shall be properly trained and qualified to perform such duties.

All labor, materials, tools, equipment, services, testing, insurance, and incidentals which are necessary or required to perform the work in accordance with applicable governmental regulations, industry standards and codes, and these specifications, shall be provided by the Contractor.

Ladders and/or scaffolds shall be in compliance with OSHA requirements, and of adequate length, strength and sufficient quantity to support the scope of work. Use of ladders/scaffolds shall be in conformance with OSHA 29 CFR 1926 Subpart L and X requirements.

Work performed at heights exceeding six feet (6') shall be performed in accordance with the OSHA Fall Protection Standard 29 CFR 1926 Subpart M including the use of fall arrest systems as applicable.

Inventory data from investigative surveys throughout the buildings are included herein and are presented for informational purposes only. Under no circumstances shall this information be the sole means used by the Contractor for determining the quantities or extent of the regulated items to be managed. The Contractor shall be responsible for verification of all field conditions affecting performance of the work. The Contractor shall submit to the Engineer for concurrence any additional items not listed herein that it believes to be regulated items included under this item. However, compliance with applicable requirements is solely the responsibility of the Contractor.

The Engineer will provide a Project Monitor to monitor the activities of the Contractor and inspect the work required. Environmental sampling shall be conducted as deemed necessary by the Engineer. Spill areas shall be cleaned by the Contractor until accepted by the Engineer. The Engineer may sample the spill area to demonstrate Contractor compliance with an acceptable standard.

(b) Personnel Protection

Prior to commencing work, the Contractor shall provide hazard communication training to all employees as necessary in accordance with OSHA 29 CFR 1926.59 and 29 CFR 1910.1200 and instruct all workers in all aspects of personnel protection, work procedures, emergency procedures and use of equipment including procedures unique to this project. Worker health and safety protocols that address potential and/or actual risk of exposure to site specific hazards are solely the responsibility of the Contractor.

The Contractor shall provide respiratory protection that meets the requirements of OSHA as required in 29 CFR 1910.134 and 29 CFR 1926.1000. A formal respiratory protection program, including appropriate medical surveillance, must be implemented in accordance with OSHA standards. The Contractor shall, as necessary, conduct exposure assessment air sampling, analysis and reporting to ensure the workers are afforded appropriate respiratory protection.

The Contractor shall provide and require all workers to wear appropriate personnel protective equipment, including protective clothing and respiratory protection, as required, within regulated work areas which exceed OSHA Personnel Exposure Limits (PELs) or when handling hazardous materials.

(c) Regulated Item Management Work Procedures

The Contractor shall not begin work until the Project Monitor is on-site.

Prior to beginning work on-site, the Contractor shall prepare waste characterization profile forms for each type of waste stream to be generated and forward such forms to the Engineer for review, approval and signature. Upon approval, the Contractor shall forward such forms to the appropriate disposal facilities for acceptance.

The Contractor shall utilize all appropriate engineering controls and safety and protective equipment while performing the work in accordance with OSHA, USEPA, USDOT, CTDEEP and Connecticut Department of Public Health DPH regulations.

The Contractor shall employ work practices so as to minimize the disturbance of the constituents in the regulated items, and prevent breakage and spills. In the event of a spill, the Contractor shall cordon off the area and notify the Engineer. The Contractor is responsible to have spills and the effected areas decontaminated to the acceptance of the Engineer by personnel trained in hazardous waste operator emergency response.

The Contractor shall carefully and properly remove, handle, pack, label and manifest all of the regulated items in waste containers specified and suitable to contain the waste in accordance with all federal and state regulations.

Prior to transportation and recycling and/or disposal, all proper USEPA, OSHA, CTDEEP and USDOT labels and placards shall be affixed to the waste containers and hazardous materials shipping papers such as waste manifests/bills of lading shall be completed.

Prior to construction activity which would disturb such materials, properly remove, handle, pack, label, transport, manifest and recycle or dispose of the regulated items from those listed below:

NOTE: The specification shall also cover the removal, transportation, and disposal of all residual contents (including residual product, sludges, slurry material, and any rinseate) from the three (3) underground storage tanks (fuel oil & waste water), two (2) USTs located at the Marlborough site and one (1) UST at the East Hampton site.

The following hazardous/ regulated materials, wastes and items have been identified.

East Hampton Salt Shed

- **Connecticut Regulated Waste (CRW) – PCB/DEHP ballasts**
- **Universal waste (UW) – Electronic ballasts, Hg lamps**

See Table 6 (1 page) from the Pre-Demolition Investigative Survey for the Inventory of HAZMAT Regulated item.

- **Note: The MgCl tank at the East Hampton Salt Shed site is scheduled to be relocated and not demolished.**

East Hampton Personnel Shelter

- **Connecticut Regulated Waste (CRW) – PCB/DEHP ballasts**
- **Universal waste (UW) – Electronic ballasts, Hg/Halogen/HID lamps, Printed Circuit Boards, non-ionizing smoke detectors**

- **Low Level Radioactive Waste (LLRW) – ionizing smoke detectors**

See Table 6 (1 page) from the Pre-Demolition Investigative Survey for the Inventory of HAZMAT Regulated item.

Marlborough Maintenance Facility, Salt Shed (new) & Salt Shed (old)

- **Connecticut Regulated Waste (CRW) – 2,000 gallon diesel AST (see Drawing D-003) & PCB/DEHP ballasts**
- **Universal waste (UW) – Electronic ballasts, Hg/Halogen/HID lamps, Printed Circuit Boards/Panels/Sensors, Batteries, electronic/Hg thermostats, fire alarm strobes**
- **Ignitable - 500 gallon unleaded gasoline AST (see Drawing D-003)**
- **CFCs – Air Conditioners, Water Fountains**

See Table 6 (2 pages) from the Pre-Demolition Investigative Survey and from HazMat Investigation letter dated 3/11/19 (1 page) for the Inventory of HAZMAT Regulated items.

Upon discovery of any previously unidentified regulated items during renovation activities, the Contractor shall immediately notify the Engineer and work shall cease in that area until the Engineer can determine the extent of any impact and proper handling procedures are implemented.

Upon discovery of any previously unidentified regulated items during renovation activities, the Contractor shall immediately notify the Engineer and work shall cease in that area until the Engineer can determine the extent of any impact and proper handling procedures are implemented.

(d) Waste Disposal

Efforts shall be made to recycle the constituents of the regulated items rather than dispose of them in accordance with the waste minimization efforts required under RCRA.

RCRA hazardous waste shall not be stored on the job site in excess of 90 calendar days from the accumulation start date.

Connecticut Regulated Waste shall not be transported to a RCRA or TSCA permitted facility for disposal, unless otherwise allowed by the Engineer in writing.

All non-RCRA hazardous waste materials, regulated waste materials and recyclable waste items shall be manifested separately from RCRA and TSCA hazardous waste, and documented properly on non-hazardous waste manifests, waste shipment records, bills of lading or other appropriate shipping papers for transportation to the recycling and/or disposal facility.

The Contractor shall prepare each lab pack list and shipping document (manifests, waste shipment records, bills of lading, etc.) with all of the required information completed (including types of waste, proper shipping name, categories, packing numbers, amounts of waste, etc.) in accordance with applicable federal and state regulations. The document will be signed by an

authorized agent representing ConnDOT as the Generator for each load that is packed to leave the site.

The Contractor shall forward the appropriate original copies of shipping papers to the Engineer the same day the regulated items leave the project site.

All vehicles departing the site transporting hazardous materials shall display proper USDOT placards, as appropriate for the type of waste being transported.

(e) Project Closeout Documents:

Within thirty (30) days after completion of the on-site project work, the Contractor shall submit to the Engineer copies of the following completed documents:

1. Hazardous Waste Manifests
2. Waste Shipment Records/Bills of Lading
3. Recycling Receipts

Documents 1. through 3. must include the signature of an authorized disposal facility representative acknowledging receipt of hazardous materials.

Method of Measurement:

The work of "Handling and Disposal of Regulated Items" shall be provided for in accordance with Article 1.04.05 – Extra Work.

Basis of Payment:

The work of "Handling and Disposal of Regulated Items" shall be paid for in accordance with Article 1.04.05 – Extra Work, which price shall include the management, removal, handling, packing, labeling, transport, manifesting, recycling or disposal of the regulated constituents in the specific equipment/items scheduled for impact at the project site, and all equipment, materials, tools and labor incidental to the work.

Final payment will not be made until completed copies of all Manifest(s), Waste Shipment Records, Bills of Lading and/or Recycling Receipts have been provided to the Engineer. Once completed and facility-signed copies have been received in their entirety, the Engineer will make the final payment.

Pay Item	Pay Unit
Handling and Disposal of Regulated Items	Estimate

END OF SECTION

ITEM #0999002A - DISPOSAL OF BUILDINGS

Article 9.99.01 - Description:

The work shall be conducted at the Marlborough Salt Shed (Old), Marlborough Jet Hangers, East Hampton Salt Shed & Personnel Shelter, East Hampton, Connecticut.

Work under this item shall include all activities related to the deconstruction/demolition and recycling/disposal of structures as detailed in this specification. Upon award of the Contract, the Contractor shall accept title and ownership of such structures as detailed herein, as well as all risk of loss and any and all liability in connection therewith. The Contractor shall not rent or otherwise use such structures without written permission from the Engineer.

The Commissioner reserves the right to delete from the contract the removal of any of the buildings listed in the contract documents.

The work shall be performed by an experienced firm that has successfully completed deconstruction/demolition work similar to that indicated herein. Such firm shall be Registered for Demolition Business by the Department of Emergency Services and Public Protection (CTDESPP) in accordance with CGS 29-402, and shall perform work under the supervision of a competent person as defined under OSHA 29 CFR 1926.850 - Demolition. In addition, employees performing on-site deconstruction/demolition related activity shall have attended an OSHA 10-hour Occupational Safety and Health Training Course in Construction Safety & Health, or equivalent.

The State does not engage to protect any of the buildings against damage, in any form including loss of fixtures or equipment, or vandalism in the period between the bidder's inspection of the building and the time such building is formally released to him as described herein. The Contractor shall take this into account in placing his bid.

The Contractor shall not perform any deconstruction/demolition work until such time that all applicable hazardous material abatement has been completed, as detailed in Items 0020801A – Asbestos Abatement, 0020902A – Lead Compliance for Demolition and/or 0101143A – Handling and Disposal of Regulated Items.

All activities shall be performed in accordance with the State of Connecticut Demolition Code (CGS 29-401 through 415), the Connecticut State Building Code including Supplements and Amendments, OSHA Demolition Standard (29 CFR 1926.850), CTDEEP Solid Waste Management Standards (22a-209-1 through 13), CTDEEP Air Regulations (22a-174-1 through 36), CTDPH Public Health Code Regulations and Technical Standards for Subsurface Sewage Disposal Systems (19-13-B100a, B103 & B104), OSHA Construction Standards (29 CFR 1926), EPA Clean Air Act (CAA) National Ambient Air Quality Standards (NAAQS), ANSI A10.6-1990 – Safety Requirements for Demolition, NFPA 241-1993 – Safeguarding Construction, Alteration and Demolition Operations, and the State of Connecticut Office of Policy and

Management Establishment of High Performance Building Construction Standards for State-Funded Buildings (16a-38k-1 through 7).

The Engineer will supply the Contractor with utility service disconnect notices and/or historical reviews from the State Historical Preservation Office, as applicable. Should such disconnect notices not be available, the Contractor shall arrange for the discontinuance of all utility services and obtain the necessary documentation from the utility provider.

Article 9.99.02 - Materials:

Sheeting for covering excavated materials and/or construction debris determined to be contaminated shall be polyethylene sheet having a minimum thickness of 6 mils.

Sedimentation control bales (Hay bales) shall conform to the requirements of Article 2.18.

Sedimentation Control System (Geotextile silt fencing) shall conform to the requirements of Article 2.19.

Granular Fill shall conform to the requirements of Article 2.13.

Article 9.99.03 - Construction Methods:

(1) Pre-Demolition Submittals and Permits:

(a) The Contractor shall, in accordance with CGS 29-406, apply for and obtain from the local building department, demolition permits for each structure to be deconstructed/demolished/recycled/disposed of. The Contractor shall pay all associated fees. The Contractor is also hereby notified that the local authority may impose a waiting period of up to one hundred-eighty (180) days before granting any demolition permit. It is the Contractor's responsibility to schedule activities to accommodate for such waiting periods and these waiting periods will not be allowed as the basis of delay claims by the Contractor.

(b) For each structure to be deconstructed/demolished, if an CTDPH Asbestos Abatement Notification Form was not submitted to the CTDPH and Notification for Demolition & Renovation was not submitted to EPA, the Contractor shall submit both forms not less than 10 business days prior to the commencement of deconstruction/demolition activities in accordance with CTDPH 19a-332a-3 & EPA 40 CFR 61.145 (b). The Contractor shall pay all associated fees.

(c) In accordance with CGS 29-407, prior to commencing deconstruction/demolition activity, Contractor shall notify each adjoining property owner by certified mail that such deconstruction/demolition operations are planned.

(d) In accordance with CGS 4b-64, for structures that are more than fifty years old, the Contractor shall post a sign stating the intent to demolish the structures in a conspicuous place on the property not less than 30 days before the demolition. The Contractor also shall publish notice of intent to demolish such structures three times in a newspaper of general circulation in the municipality in which the structures are located not more than 120 days and not less than 30 days prior to deconstruction/demolition.

(e) At least fifteen (15) working days prior to the start of any deconstruction/demolition work, the Contractor shall submit the following to the Engineer for review and approval:

1. A copy of the Contractors CTDESPP Registration for Demolition Business
2. A copy of the approved demolition permit(s)
3. Copies of the CTDPH Demolition/Notification Form and EPA Demolition & Renovation Form (as applicable)
4. A copy of the letters to adjoining property owners
5. Copies of utility disconnect letters
6. Copies of on-site employee OSHA 10-hour Construction Safety & Health training certificates, or equivalent
7. Proposed protective/safety measures to be implemented with regards to personnel protective equipment (PPE) for employees as well as protection of adjacent properties, subsurface structural, electrical or mechanical equipment, etc.
8. Proposed dust control measures
9. Proposed demolition C&D bulky waste disposal facility
10. Proposed steel/scrap metal recycling facility
11. Proposed concrete, brick, stone batch processing/recycling facility
12. Proposed bituminous disposal/recycling facility
13. Any other proposed C&D waste stream recycling facility
14. Proposed septage waste facility (as applicable)
15. Certification from a licensed exterminator that the structures are free from rodent and insect infestations (as applicable)
16. A copy of the CTDEEP Nuisance Wildlife Control Operator license (as applicable)
17. Copies of the Site Postings and Legal Notices Published pursuant to CGS 4b-64 (as applicable)
18. Proposed Construction Waste Management Plan (CWMP)

(f) If, in lieu of deconstructing/demolishing a building, the Contractor intends to move a building off of the site or to have it moved, the Contractor shall submit to the Engineer at least fifteen (15) working days in advance of the move the proposed method of operation, proposed future location of the building, and documentation of permission to relocate the building, including all required permits from the municipality and/or the State.

(2) Disposal of Buildings Provisions:

The Contractor shall completely deconstruct/demolish the structures, and remove/recycle/dispose of the demolition debris. Furthermore, the Contractor shall backfill the foundation and subgrade

areas, abandon utilities (including public water service and public sewer service), and properly abandon septic tank systems as detailed below or as directed by the Engineer.

East Hampton Salt Shed, East Hampton, Connecticut

The property consists of a one-story salt shed with concrete foundation walls & asphalt floor, wood shingle siding and metal roof. No AST/UST, no municipal water/sewer, no septic, nor drinking water wells service the site. No lead paint was identified on the concrete materials to be removed; therefore those materials may be recycled as CTDEEP "Clean Fill".

East Hampton Personnel Shelter, East Hampton, Connecticut

The property consists of a small one-story wooden personnel shed with concrete slab base, plywood floor, and sheetrock walls. No AST/UST, no municipal water/sewer, no septic, nor drinking water wells service the site. No lead paint was identified on the concrete materials to be removed; therefore those materials may be recycled as CTDEEP "Clean Fill".

Marlborough Salt Shed (Old), Marlborough, Connecticut (See Drawing D-003)

The property consists of a one-story salt shed with concrete foundation walls/asphalt floor, wood shingle siding and asphalt roof. No AST/UST, no municipal water/sewer, no septic, nor drinking water wells service the site. A tar coating (non-ACM) was identified on the concrete foundation walls and CANNOT be recycled/managed as CTDEEP "clean fill". The walls shall be managed as non-hazardous C&D solid waste.

Marlborough Jet Hangers, Marlborough, Connecticut (See Drawing D-003)

The property consists of a one-story metal structural steel structure. No AST/UST, no municipal water/sewer, no septic, nor drinking water wells service the site. All steel and metal generated from the demolition of the structure shall be segregated and recycled as scrap metal at an approved facility. The recycling of scrap metal (regardless of lead paint concentration) is exempt from USEPA RCRA and CTDEEP Hazardous Waste Regulation.

The Contractor shall provide adequate safety measures and suitable protection for the public. This shall include, but not be limited to, erecting a fence or barricade not less than 8 feet high, along the street line the entire length of the structure, with each end returning back to the building prior to starting deconstruction/demolition in accordance with CGS 29-408.

The Contractor shall erect and maintain a sidewalk shed meeting the requirements of CGS 29-409 for structures that are within 6 feet of a street line or an area used as a public way, 12 feet or more in height, or when the distance between the street line or public area and such structures is more than 6 feet but less than ½ the total height of the structures to be deconstructed/demolished.

The Contractor shall retain the services of a licensed exterminator to determine the extent of rodent and insect infestation and if found, retain the exterminator to rid the structure of rodent and insect infestation. Any nuisance wildlife shall be removed by a CTDEEP licensed Nuisance Wildlife Control Operator (NWCO), retained by the Contractor, in accordance with CGS 26-47, prior to structure deconstruction/demolition.

The Contractor shall prevent damage to any existing utilities that are to remain in service during deconstruction/demolition. The Contractor shall not interrupt existing utilities serving adjacent facilities, except when authorized in writing by authorities having jurisdiction and the Engineer.

Use of explosives or blasting for deconstruction/demolition purposes will not be permitted.

No burning or flame/torch cutting will be permitted.

Any items not designated for salvage in the documents that are of salvageable value to the Contractor may be removed as work progresses. The Contractor shall transport its salvaged items from site as they are removed. Storage or sale of such items will not be permitted on site. No requests for additional time will be considered based on delays caused by the Contractor's salvage work.

The Contractor shall use the methods of deconstruction/demolition required to complete the work in accordance with all codes, ordinances and requirements of governing authorities. Deconstruction/demolition practices shall be acceptable to the Engineer, shall assure the safety of persons, equipment and structures which are to remain, and shall provide adequate protection of the environment. The Contractor shall schedule demolition activities to minimize delays, storage of debris, and construction traffic on-site.

Deconstruction/demolition shall proceed in a systematic manner, from top of structures to ground. The Contractor shall complete demolition work above each floor or tier before disturbing supporting members on lower levels. Structural framing members shall be removed and lowered to ground by means of hoists or other suitable methods. Deconstruction/demolition equipment shall be located throughout the site/structure and shall remove materials so as not to impose excessive loads on supporting walls, floors and framing. Walls fronting on streets that will remain open shall be demolished inward, toward the middle of the building. Load bearing walls fronting on streets, shall be razed one story at a time. All floors above the third floor shall be demolished with the use of adequate chutes. No storage of rubble on the upper floors of any building or on the site shall be allowed. Concrete, masonry and stone walls shall be demolished in small sections.

For the East Hampton Personnel Shed, the Contractor shall remove the superstructure down to slab elevation and <u>leave concrete floor slab in place,</u> flush with surrounding asphalt parking lot.

If hazardous materials are encountered during demolition operations, the Contractor shall immediately notify the Engineer. The Contractor shall also comply with applicable laws and regulations regarding removal, handling, disposal, and protection against exposure and environmental pollution.

Deconstruction/demolition operations and removal of debris shall not interfere with roads, streets, walks, and other adjacent occupied and used facilities. Shoring, bracing, barricades, fencing and other devices shall be used as necessary to protect adjacent properties and the public. Damage to adjacent facilities caused by demolition operations shall be promptly repaired. The Contractor shall not close or obstruct streets, walks, or other occupied or used facilities without permission from the Engineer and local authorities.

The Contractor shall implement a fugitive dust suppression program in accordance with the Contract to prevent the off-site migration of particulate matter and/or dust resulting from demolition activities. It shall be the Contractor's responsibility to supervise fugitive dust control measures and to monitor airborne particulate matter. The Contractor shall employ reasonable fugitive dust suppression techniques and shall visually observe the amounts of particulate and/or fugitive dust generated.

If the control of fugitive dust and/or particulate matter is not acceptable to the Engineer, the Contractor shall implement corrective measures, including using water or calcium chloride for dust control, temporary enclosures, and other methods to limit and control dust and dirt migration. The contractor shall not create hazardous or objectionable conditions, such as ice, flooding, water runoff and pollution when using water for dust control. Calcium Chloride for dust control shall conform to the requirements of Article 9.42. Water for dust control shall conform to the requirements of Article 9.43.

The Engineer will conduct ambient air monitoring for contaminants such as total lead, total dust, total fibers, silica, microbial spores, etc. for comparison to applicable standards. If any standard is exceeded, Contractor shall immediately cease operations and modify the engineering controls being used to maintain levels below the applicable standard.

Except as otherwise specified, the Contractor shall break up, demolish and remove from site for disposal/recycling/reuse:

1. All above ground building structures
2. All surface debris, brick, stone, concrete, walks and curbs
3. All miscellaneous structures, fences and debris to produce a clean site

Accumulated debris, rubbish, wood, plaster, roofing, wallboard, and other materials resulting from deconstruction/demolition and related operations shall be removed from the site daily as generated.

Land clearing shall be in accordance with Article 2.01. Land clearing debris generated during the demolition process shall be managed for beneficial reuse in accordance with the CTDEEP

Brush & Stump Management Guidelines by companies registered under the CTDEEP Recycling General Permit. The Contractor shall coordinate with the Engineer as to whether any chipping of untreated wood can be reused on-site or must be managed off site.

Steel and scrap metal generated during the demolition process shall be recycled as scrap metal at an approved scrap metal recycling facility. Aboveground and underground storage tanks (AST's/UST's) shall be cleaned prior to recycling. Disposal of any contents of the AST's/UST's shall be in accordance with Item 0101143A.

Materials that have not been characterized as hazardous shall be recycled off site or disposed of at a landfill. Transport materials removed from demolished structures and dispose/recycle off site as C&D solid waste in accordance with the CTDEEP solid waste management standards. The Contractor shall recycle as much C&D solid waste as practical, following waste management guidelines such as the US Green Building Council (USGBC) Leadership in Energy & Environmental Design (LEED) Green Building Rating System, in cases where it reduces the overall project costs, does not violate applicable regulations or restrictions, or contributes to compliance with the CTOPM High Performance Building Construction Standards. Burning of combustible materials from demolished structures shall not be permitted on site.

The Contractor shall dispose or recycle materials off-site in accordance with the Specifications and all Federal, State and local regulations. A copy of the shipping paper for each load of material shipped off-site for disposal/recycling, including the weight of the load as measured at the disposal/recycling facility shall be returned to the Engineer.

In accordance with CGS 29-413, the Contractor shall not allow any basement, cellar, hole or similar structure to remain uncovered or opened as a result of deconstruction/demolition activity.

Any foundation and subgrade areas (e.g. basement) shall be backfilled to grade with surplus suitable excavated "clean fill" materials (unpainted brick, stone, concrete) from the project and graded with clean native soil. Any additional material required to bring the subsurface area to grade shall be granular fill in accordance with Article 2.13. Prior to placement of fill materials, areas to be filled shall be free of standing water, frost, frozen material, trash and debris. Construction debris, excluding clean fill, shall not be used as fill within the project limits and shall be properly disposed of in accordance with all regulations. After fill placement and compaction, the Contractor shall grade surface to meet adjacent contours and provide flow to surface drainage structures. Grading shall not create any depressions that can retain water, create any diversions to surface flow, or block the intended flow of surface water.

(3) Construction Waste Management:

In accordance with Section 16a-38k-4(d)(5) of the State of Connecticut Office of Policy and Management's Establishment of High Performance Building Construction Standards for State-Funded Buildings, and in accordance with guidelines such as the US Green Building Council (USGBC) Leadership in Energy & Environmental Design (LEED) Green Building Rating System, the Contractor shall divert as much non-hazardous construction and demolition (C&D)

waste from disposal in landfill and incinerators as practical. The minimum acceptable level of recycling and/or reuse/salvaging shall be at least 75% by weight of the non-hazardous C&D waste to be generated by the deconstruction/demolition process.

Contractor shall prepare, and submit to the Engineer for approval, a proposed Construction Waste Management Plan (CWMP) which will, at a minimum:

- Identify the types of materials to be diverted from landfill disposal and incineration
- Identify whether the materials will be sorted on-site or co-mingled
- Identify the proposed recycling facilities to be used for each type of materials to be diverted
- Project the total weight, by type, of the C&D materials to be recycled/salvaged/reused as well as disposed of in landfill, and then provide the estimated recycling rate (75% by wt. minimum).
- Specify what records/waste shipping papers/etc. the Contractor will maintain and submit to the Engineer as documentation of the types and amounts of C&D materials recycled/reused/landfilled and the actual recycling rate achieved.

The proposed CWMP and actual implementation shall divert a minimum of 75% by weight of non-hazardous C&D debris from disposal in landfills and incinerators, as well as redirect recyclable recovered resources back to the manufacturing process and/or appropriate sites. Note that excavated soil and land-clearing debris do not count toward the 75% calculation; however, diversion may include donation of materials to charitable organizations and salvage/reuse of materials on site.

Examples of the types of materials to be included in the CWMP include, but are not limited to:

1. Steel/Scrap Metal
2. Clean Concrete
3. Clean Brick
4. Cured Asphalt
5. Asphalt Roofing Products
6. Clean Wood
7. Acoustical Tile
8. Clean Gypsum Wallboard
9. Carpet
10. Porcelin Fixtures
11. Furniture & Furnishings

Identification of suitable haulers and recyclers to handle the designated materials shall be the responsibility of the Contractor.

Contractor shall maintain detailed records, by material type and weight, in order to track all materials during the project that are diverted from disposal in landfills and incinerators, redirected (recyclable recovered resources) back to the manufacturing process, and/or

salvaged/reused at the project site, as well as those ultimately disposed of in landfills, and provide the Engineer such records, along with the calculated actual recycling rate.

(4) Sanitary Sewer Line Capping:

For sites connected to sanitary sewer, the Contractor shall cap all connections to sanitary sewer lines at the property line and shall perform this work under the supervision and approval of the Engineer and the Sewer Authority having jurisdiction of the property. All sewer lines shall be capped using a method acceptable to the Sewer Authority including the use of vitrified clay, concrete or cast iron disk, placed in the hub and the entire end sealed or encased in concrete. The Contractor shall coordinate its activities with the representative of the Sewer Authority and have such representative inspect and approve of the sewer line cap. Where excavations are required in the street for the purpose of capping sewer lines, the Contractor shall backfill and repair the affected street area in a manner acceptable to the Engineer. Any damage to sewer laterals or other sewer lines that are to remain in service shall be repaired by the Contractor at its own expense.

(5) Septic System Abandonment:

As applicable, septic tanks and hollow leaching structures shall be properly abandoned by the Contractor in accordance with the Connecticut Public Health Code Technical Standard for Septic Tank Abandonment 19-13-B103 V. A. 7. Abandonment shall be performed in such a manner as to eliminate the danger of the structures inadvertently collapsing. The chambers shall be emptied of all septage wastes. The structures shall be filled with clean sand or gravel, or the structures shall be crushed and the area backfilled.

(6) Post-Demolition Submittals:

The Contractor shall provide the Engineer, within 30 days of completion of the demolition work, a compliance package; which shall include, but not be limited to, the following:

1. Shipping papers from the CTDEEP solid waste disposal facility indicating receipt and acceptance of C&D solid waste demolition debris, which clearly indicates the weight of C&D solid waste disposed of and the name/location of the disposal facility.
2. Shipping papers from the approved scrap metal recycling facility indicating receipt and acceptance of scrap metal debris, which clearly indicates the weight of scrap metal recycled and the name/location of the recycling facility.
3. Shipping papers from the approved concrete, brick, stone, asphalt shingle, etc. batch processing/recycling facilities indicating receipt and acceptance of the recycled debris, which clearly indicates the type/weight of the materials recycled and the name/location of the recycling facility.
4. Calculations on the weight of each type of debris reused on-site as clean-fill, otherwise reused on-site, or elsewhere recovered and diverted from landfill.
5. Calculated actual C&D waste recycling/reuse rate, on a percent by weight basis.

6. If the Contractor does not achieve the specified requirement of diverting at least 75% by weight of the non-hazardous C&D demolition waste from landfill/incineration, the Contractor shall submit written documentation detailing its good faith efforts that were made to satisfy the requirement.

Article 9.99.04 - Method of Measurement: is supplemented with the following:

The Contractor shall submit a lump sum bid price for the disposal of all buildings on the project included with the proposal. The lump sum bid price shall also include all other related necessary work and material associated with the deconstruction/demolition and recycling/reuse/disposal of the structures, such as permits, excavation, recycling, disposal, backfill, saw cutting, dust suppression, septic tank abandonment, water and sewer line capping, paving, sedimentation control system, granular fill, fencing etc.

Article 9.99.05 - Basis of Payment: is supplemented with the following:

The work will be paid by the State or paid for by the Contractor at the contract lump sum for the "Disposal of Buildings" as adjusted in accordance with the provisions of the above paragraph, which price shall include all materials, equipment, tools, labor and work incidental thereto.

The Contract lump sum shall also include all other related necessary work and material associated with the deconstruction/demolition and recycling/reuse/disposal of the structures, such as permits, excavation, recycling, disposal, backfill, saw cutting, dust suppression, septic tank abandonment, water and sewer line capping, paving, sedimentation control system, granular fill, fencing, etc.

Failure of the Contractor at the completion of all contract work to have met the specified requirement for diverting C&D demolition waste from landfill/incineration will result in the reduction in contract payments to the Contractor of 5% of the total lump sum bid for Item 0999002A, unless the Contractor can adequately document or substantiate its good faith efforts made to meet the required percentage to the satisfaction of the Engineer.

Final payment will not be made until all post-demolition submittals have been provided to the Engineer. Once completed documents have been received in their entirety, the Engineer will review and make the final payment to the Contractor.

Pay Item	Pay Unit
Disposal of Buildings	Lump Sum

END OF SECTION

SECTION 307000 – SANITARY/ DRAINAGE AND UTILITY

PART 1 - GENERAL

1.1 SUMMARY:

A. Section Includes:

1. 2” Copper Pipe (Type K)
2. 6” Polyvinyl Chloride Pipe (Sanitary Sewer)
3. Manhole (Sanitary Sewer)
4. Manhole Over 10’ Deep (Sanitary Sewer)
5. Manhole (Sanitary) with 4’ sump
6. Manhole (Sanitary) Over 10’ Deep with 4’ sump
7. Impervious Polyethylene Geomembrane Liner

1.2 ACTION SUBMITTALS:

A. Submit the following in accordance with Form 817 Article 1.20-1.05.02 and NOTICE TO CONTRACTOR – SUBMITTALS.

1. Product Data: For each type of product indicated.
2. Product Sample: Impervious Polyethylene Geomembrane Liner

1.3 QUALITY ASSURANCE SUBMITTALS:

1. Submit Hydrostatic Test Reports, Purging and Disinfecting Reports, and Water Samples as specified in “Construction Methods”.
2. Quality Assurance: For Comply with NSF 61, "Drinking Water System Components--Health Effects, Sections 1 through 9,” for potable domestic water piping and components. Provide listing/approval stamp, label, or other marking on piping and specialties made to specified standards.

1.4 DELIVERY, STORAGE, AND HANDLING:

A. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture. Protect stored piping from moisture and dirt.

1.5 UTILITY COORDINATION:

A. Connection to existing sanitary sewer manhole shall be coordinated with the Town of East Hampton Water and Sewer Commission. The East Hampton Water and Sewer

Commission charge of +/- $26,000 shall be included in the contract bid price for service connection to the town sanitary sewer system. Contractor is responsible for timely permit coordination with the Town of East Hampton Water and Sewer Commission. The expected permits associated with this work are the DEEP sand/oil interceptor permit and the drain layer permit application. All bidders will include the above amount in Item No. 1700001A – Service Connections (Estimated Cost) along with costs for work by other utilities.

1.6 WARRANTY:

A. Refer to Form 817 Article 1.20-1.06.08 and NOTICE TO CONTRACTOR – CLOSEOUT DOCUMENTS for additional information.

B. Impervious Polyethylene Geomembrane Liner
   1. Warranty and Guarantee: The manufacturer/installer shall provide a written guaranty to the Owner. As a minimum, the warranty shall stipulate that the material will be free from defects, and be able to withstand normal weathering and use from the date of installation for a period of twenty (20) years.

PART 2 - PRODUCTS

2.1 MATERIALS:

A. 2" COPPER PIPE, TYPE K:

   1. All pipe and fittings shall comply with the requirements of CSI Division 22 Section 221116, "Domestic Water Piping."
   2. Service piping: Water service lines shall be type "K", soft seamless copper tubing with no soldered joints underground, conforming to ASTM B88-76. Approved manufacturers include Halstead, Cambridge, Cerro, Mueller and Wolverine.
   3. Identification: Detectable warning tape shall be acid- and alkali-resistant polyethylene film warning tape manufactured for marking and identifying underground utilities, minimum 3 inches wide and 4 mils thick. Warning tapes shall be solid blue film with continuously printed black-letter caption "CAUTION - WATER LINE BURIED BELOW."
   4. Bedding: Bedding material shall comply with the requirements of Form 817, Article M.08.03-1.

B. 6" POLYVINYL CHLORIDE PIPE (SANITARY SEWER):

   1. PVC Pipe and Fittings: Solid-Wall PVC Pipe: ASTM D 2665, drain, waste, and vent. PVC Socket Fittings: ASTM D 2665, socket type, made to ASTM D 3311, drain, waste, and vent patterns. Steel Pipe Sleeves: ASTM A 53, Type E, Grade B, Schedule 40, galvanized, plain ends.

2. Bedding: Bedding material shall comply with the requirements of Form 817, Article M.08.03-1.

C. MANHOLE (SANITARY SEWER):

1. All materials shall comply with the requirements of Section 5.07 of Form 817 supplemented and amended as follows:
   a. Manhole covers and frames shall be water-resistant, bolted, 36” in diameter, rated for HS-20 loading requirements, and painted black.
   b. Manhole frames: Steel frame
   c. Manhole covers: Shall be marked with ¾” raised letters “SEWER”.
      1) In paved areas, manhole covers shall be steel.
      2) In all other areas fiberglass reinforced composite covers shall be used. Provide model No. FL90/HD as manufactured by Fiberlite or an approved equal.
   d. Include the following accessories: Lifting plate with 30 inch long lifting tool.
   e. Stainless steel bolts.

D. MANHOLE OVER 10’ DEEP (SANITARY SEWER):

1. All materials shall comply with the requirements of Section 5.07 of Form 817 supplemented and amended as follows:
   a. Manhole covers and frames shall be water-resistant, bolted, 36” in diameter, rated for HS-20 loading requirements, and painted black.
   b. Manhole frames: Steel frame
   c. Manhole covers: Shall be marked with ¾” raised letters “SEWER”.
      1) In paved areas, manhole covers shall be steel.
      2) In all other areas fiberglass reinforced composite covers shall be used. Provide model No. FL90/HD as manufactured by Fiberlite or an approved equal.
   d. Include the following accessories: Lifting plate with 30 inch long lifting tool.
   e. Stainless steel bolts.

E. MANHOLE (SANITARY) WITH 4’ SUMP:

1. All materials shall comply with the requirements of Section 5.07 of Form 817 supplemented and amended as follows:
   a. Manhole covers and frames shall be water-resistant, bolted, 36” in diameter, rated for HS-20 loading requirements, and painted black.
   b. Manhole frames: Steel frame
   c. Manhole covers: Shall be marked with ¾” raised letters “SEWER”.
      1) In paved areas, manhole covers shall be steel.

2) In all other areas fiberglass reinforced composite covers shall be used. Provide model No. FL90/HD as manufactured by Fiberlite or an approved equal.

d. Include the following accessories: Lifting plate with 30 inch long lifting tool.

e. Stainless steel bolts.

F. MANHOLE (SANITARY) OVER 10’ DEEP WITH 4’ SUMP:

1. All materials shall comply with the requirements of Section 5.07 of Form 817 supplemented and amended as follows:
   a. Manhole covers and frames shall be water-resistant, bolted, 36” in diameter, rated for HS-20 loading requirements, and painted black.
   b. Manhole frames: Steel frame
   c. Manhole covers: Shall be marked with ¾” raised letters “SEWER”.
      1) In paved areas, manhole covers shall be steel.
      2) In all other areas fiberglass reinforced composite covers shall be used. Provide model No. FL90/HD as manufactured by Fiberlite or an approved equal.
   d. Include the following accessories: Lifting plate with 30 inch long lifting tool.
   e. Stainless steel bolts.

G. IMPERVIOUS POLYETHYLENE GEOMEMBRANE LINER:

1. Geomembrane Liner:
   a. The membrane liner shall be comprised of a 30 Mil Impervious Polyethylene Geomembrane material manufactured of new, first-quality products designed and manufactured specifically for the purpose of liquid containment in hydraulic structures.
   b. The liner materials shall be produced as to be free of holes, blisters, undispersed raw materials or any sign of contamination by foreign matter. Any such defect shall be repaired using the extrusion fusion welding technique in accordance with the manufacturer's recommendations.
   c. The lining material shall be manufactured a minimum of 22.5 feet (6.8 meters) seamless widths. Label on the roll shall identify the thickness, length, and manufacturer's roll number.
   d. The water quality pond lining system shall consist of a high quality formulation of high density polyethylene containing approximately 97.5% polymer and 2.5% of carbon black, anti-oxidants and heat stabilizers. The liner shall be designed specifically for exposed conditions.
   e. The lining system shall be resistant to acids, alkalis, salts, alcohols, amines, oils and other hydrocarbons.
2. Sand Bedding and Cover: The materials used for the sand bedding layer shall be sand or sandy soil, all of which passes a 3/8" sieve and not more than 10% passes a no. 200 sieve.

PART 3 - EXECUTION

3.1 EXECUTION:

A. 2” COPPER PIPE, TYPE K:

1. Excavation: Comply with Article 2.05.03, Form 817 and the Supplemental Specifications.

2. Piping: Bury piping with depth of cover over top at least 4.5 feet. Couplings shall be installed in accordance with manufacturer’s recommendations. Install components with pressure rating equal to or greater than system operating pressure. Install piping in locations and to the details shown on the plans, free of sags or bends that exceed the manufacturer’s recommendation or industry standard. Install fittings for changes in direction and branch connections. At horizontal and vertical changes in direction, use restrained-joint piping, thrust blocks, anchors, tie rods and clamps, and other supports. Extend water service piping and connect to building water-piping systems at building slab in locations and pipe sizes indicated on the plans.

3. Piping Inspections: Do not cover or put piping into operation until it has been inspected and approved by authorities having jurisdiction. During installation, notify authorities having jurisdiction at least 24 hours before inspection must be made. Arrange final inspection for authorities having jurisdiction to observe tests specified below and to ensure compliance with requirements. If authorities having jurisdiction find that piping will not pass tests or inspections, make required corrections and arrange for re-inspection. Prepare inspection reports and have them signed by authorities having jurisdiction.

4. Piping Tests: Conduct piping tests before joints are covered and after thrust blocks have hardened sufficiently. Fill pipeline 24 hours before testing and apply test pressure to stabilize system. Use only potable water.

5. Hydrostatic Tests: Test at not less than 1-1/2 times working pressure for 2 hours. Increase pressure in 50-psig (350-kPa) increments and inspect each joint between increments. Hold at test pressure for one hour; decrease to 0 psig (0 kPa). Slowly increase again to test pressure and hold for one more hour. Maximum allowable leakage is 2 quarts (1.89 L) per hour per 100 joints. Remake leaking joints with new materials and repeat test until leakage is within above limits. Prepare reports for testing activities.

6. Disinfection and Flushing: Clean and disinfect water distribution piping as follows:
   a. Purge new water distribution piping systems.

b. Use purging and disinfecting procedure prescribed by authorities having jurisdiction or, if method is not prescribed by authorities, use procedure described in AWWA C651 or as described below:
   1) Fill system or part of system with water/chlorine solution containing at least 50 ppm of chlorine. Isolate system or part thereof and allow to stand for 24 hours.
   2) Drain system or part of system of previous solution and refill with water/chlorine solution containing at least 200 ppm of chlorine; isolate and allow to stand for 3 hours.
   3) Following allowed standing time, flush system with clean, potable water until chlorine does not remain in water coming from system.
   4) Submit water samples in sterile bottles to authorities having jurisdiction. Repeat procedure if bacteriological or physical examination shows evidence of contamination.

7. Report(s): Prepare reports for purging and disinfecting activities.

B. 6" POLYVINYL CHLORIDE PIPE (SANITARY SEWER):

1. General: Do not store plastic pipe and fittings in direct sunlight. Protect pipe, pipe fittings, and seals from dirt and damage. Support during storage to prevent sagging and bending.

2. Excavation: Excavation and backfilling shall be performed as described herein and in accordance with Article 2.05.03 of Form 817.

3. Bedding: Placement of bedding material shall comply with Form 817 Section 6.51.

4. PVC Pipe: Basic piping joint construction is specified in CSI Division 22 Section 220500, "Common Work Results for Plumbing". Where specific joint construction is not indicated, follow piping manufacturer's written instructions. Install piping in accordance with ASTM D 2321. Make changes in direction using appropriate branches, bends, and long sweep bends. Do not change direction of flow more than 90 degrees. Use proper size of standard increasers and reducers if pipes of different sizes are connected. Reducing size of piping in direction of flow is prohibited. Join PVC piping with solvent-cemented joints in accordance with ASTM D 2855, with solvent cement conforming to ASTM D 2564 and primer conforming to ASTM F656. Maintain swab or drag in piping, and pull past each joint as it is completed. Place plug in end of incomplete piping at end of day and when work stops. Install sleeves for piping passing under building foundations.

5. Cleaning: Clean interior of piping. Remove dirt and debris as work progresses. Flush with potable water.

6. Testing: Test sanitary drainage and vent piping according to procedures of authorities having jurisdiction or, in absence of published procedures, as follows:

a. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. If testing is performed in segments, submit separate report for each test, complete with diagram of portion of piping tested.
b. Leave uncovered and unconcealed new, altered, extended, or replaced drainage and vent piping until it has been tested and approved. Expose work that was covered or concealed before it was tested.
c. Roughing-in Plumbing Test Procedure: Test drainage and vent piping except outside leaders on completion of roughing-in. Close openings in piping system and fill with water to point of overflow, but not less than 10-foot head of water. From 15 minutes before inspection starts to completion of inspection, water level must not drop. Inspect joints for leaks.
d. Finished Plumbing Test Procedure: After plumbing fixtures have been set and traps filled with water, test connections and prove they are gastight and watertight. Plug vent-stack openings on roof and building drains where they leave building. Introduce air into piping system equal to pressure of 1-inch wg. Use U-tube or manometer inserted in trap of water closet to measure this pressure. Air pressure must remain constant without introducing additional air throughout period of inspection. Inspect plumbing fixture connections for gas and water leaks.
e. Repair leaks and defects with new materials and retest piping, or portion thereof, until satisfactory results are obtained.
f. Prepare reports for tests and required corrective action.

C. MANHOLE (SANITARY SEWER):

1. Comply with methods outlined in Section 5.07 of Form 817.
2. Installation of manhole frames and grates shall conform to manufacturer's recommendations.

D. MANHOLE OVER 10' DEEP (SANITARY SEWER):

1. Comply with methods outlined in Section 5.07 of Form 817.
2. Installation of manhole frames and grates shall conform to manufacturer's recommendations.

E. MANHOLE (SANITARY) WITH 4' SUMP:

1. Comply with methods outlined in Section 5.07 of Form 817.
2. Installation of manhole frames and grates shall conform to manufacturer's recommendations.

F. MANHOLE (SANITARY) OVER 10' DEEP WITH 4' SUMP:

1. Comply with methods outlined in Section 5.07 of Form 817.
2. Installation of manhole frames and grates shall conform to manufacturer's recommendations.

G. IMPERVIOUS POLYETHYLENE GEOMEMBRANE LINER:

1. Area Subgrade Preparation: Surfaces to be lined should be smooth and free of all rocks, stones, sticks, roots, sharp objects, or debris of any kind. The surface shall provide a firm, unyielding foundation for the membrane with no sudden, sharp or abrupt changes or break in grade. No standing water or excessive moisture shall be allowed. The Contractor shall certify in writing that the surface on which the membrane is to be installed is acceptable before commencing work.
2. The Contractor shall install a minimum of 4" thick sand layer below and above the proposed liner. The purpose of the sand layer is to provide that liner with a flat, smooth bearing surface. Fill all voids below liner.
3. The installation of the IPG Liner must be done by the manufacturer using the manufacturer's extrusion or hot wedge equipment and installation methods. All supervisors overseeing the liner installation must have ten million square feet of supervisory liner experience. All field technicians must have over one million square feet of seaming experience.
4. Field Seams: Individual panels of liner material shall be laid out and overlapped by a maximum of four inches for extrusion weld prior to welding or five inches for hot wedges weld prior to welding. Extreme care shall be taken by the installer in the preparation of the area to be welded. The area to be welded shall be cleaned and prepared according to the procedures specified by the material manufacturer. All sheeting shall be welded together by means of integrating the extruded bead with the lining material. The composition of the extruded bead shall be identical to the lining material, or all sheeting shall be welded together using the hot wedge welding system.
5. The welding equipment used shall be capable of continuously monitoring and controlling the temperatures in the zone of contact where the machine is actually fusing the lining material so as to ensure that changes in environmental conditions will not affect the integrity of the weld.
6. No "fish mouths" shall be allowed within the seam area. Where "fish mouths" occur, the material shall be cut, overlapped, and an overlap extrusion weld shall be applied.
7. The Contractor shall deliver and install one 4" layer of sand cover material over the entire surface of the liner. The Contractor shall take the necessary precautions to protect the Liner during installation of cover material. The use of tracked equipment within the liner limits will be prohibited. Any damage to the liner caused due to the placement of the cover material or any other construction related activity will be repaired by the Contractor at no additional cost to the Owner.
8. Field Seam Testing/Quality Control:
   a. The installer shall employ on-site physical nondestructive testing on all welds.
   b. A quality control technician shall inspect each seam. Any area showing a defect shall be marked and repaired in accordance with HDPE repair procedures.

c. A test weld three (3) feet long from each welding machine shall be run each day prior to line welding and under the same conditions as exist for the liner welding. The test weld shall be marked with date, ambient temperature, and welding machine number. Samples of weld ¼" to ½" wide shall be cut from the test weld and pulled by hand in peel. The weld should not peel. Seams should exhibit a film tear bond. The weld sample shall be kept subsequent testing on laboratory tensionmeter equipment in accordance with the applicable ASTM standard. Random weld samples may be removed from the installed welded sheeting at a frequency to be agreed (e.g., 1/500' of weld).

END OF SECTION 307000

March 11, 2018

Mr. Adam Fox, P.E.
Principal Engineer
Environmental Compliance Section
Bureau of Engineering and Construction
State of Connecticut Department of Transportation
2800 Berlin Turnpike, P.O. Box 317546
Newington, CT 06131-7546

Attention: Jason Coite, P.E. / Mandy Socolosky

Subject: On-Call Asbestos, Lead, Air Quality & Demolition Compliance
Agreement No. 04.27-01(15)
HazMat Inspection – Marlborough Salt Shed (old & new) & Jet Hangers, Marlborough, CT
ConnDOT Assignment No. 514-5751
ConnDOT Project No. 41-119
TRC Project No. 222165.5751.0710

Dear Mr. Fox:

TRC performed a survey for hazardous building materials associated with the renovation/demolition of Marlborough Salt Shed (old & new) & Jet Hangers in Marlborough, Connecticut. Results of the survey identified lead paint to be present on the structural steel components of Jet Hangers and the wood clapboard on the Salt Shed (old). Results of TCLP waste stream sampling and analysis for leachable lead from the non-metallic waste stream of the Salt Shed (old), characterized the waste as non-hazardous construction and demolition (C&D) solid waste and can be disposed at an approved CTDEEP Solid Waste Landfill. All steel and metal generated from the demolition any structure shall be segregated and recycled as scrap metal at an approved facility. The recycling of scrap metal (regardless of lead paint concentration) is exempt from USEPA RCRA and CTDEEP Hazardous Waste Regulation. On the Salt Shed (old), asphalt shingles, roof vapor barrier and tar coating on concrete walls were sampled and no detectable levels of asbestos were identified. Also, foundation tar at the Jet Hangers was sampled and no detectable levels of asbestos were identified. Potential universal waste (UW) & Connecticut Regulated Waste (CRW) luminaire light fixtures were identified attached to the exterior & interior of the Salt Shed (new) and on the light pole adjacent to the Salt Shed (old). Further, two (2) above ground storage tanks (1 – 2,000 gallon diesel & 1 – 500 gallon unleaded gas) will need proper handling and disposal once they are brought onsite at the Marlborough Maintenance Facility. Associated laboratory data, TRC Mobile Data Solutions Report, project descriptions and site maps are attached.

If you have any questions, please call TRC at (860) 298-9692.

Very Truly Yours,

TRC

Stephen R. Arienti, CHMM
Senior Project Scientist – Project Manager

Reviewed By

Erik R. Plimpton, P.E., CHMM, CMC
Vice President - Program Manager

Lead Based Paint Measurement Summary Table

Device(s) : Niton XLP301-A (Serial #7587) X Ray Fluorescence (XRF) Spectrum Analyzer
Client : ConnDOT
Site : Marlborough Salt Shed (old) & Jet Hangers
Project # : 222165.5751.0720
Date(s) : 3/8/2019
Inspector : Pat Schaffner

Number	Interior/ Exterior	Floor	Room	Side	Structure	Feature	Material	Color	Condition	Reading (mg/cm^2)	Precision (mg/cm^2)	Depth Index	Duration (sec)	Date/Time
1			Self Calibration										180.9	3/8/2019 8:33
2			3.6 Calibration							4.0	0.3	1.4	6.0	3/8/2019 9:08
3			1.6 Calibration							1.6	0.1	1.2	6.7	3/8/2019 9:09
4			0.7 Calibration							0.6	0.1	1.0	6.2	3/8/2019 9:09
5	Exterior		Salt Shed (old)	C	Wall		Wood	Tan/beige	Defective	**0.5**	**0.1**	1.5	5.0	3/8/2019 9:14
6	Exterior		Salt Shed (old)	C	Wall		Wood	Tan/beige	Defective	**0.6**	**0.1**	1.4	13.4	3/8/2019 9:15
7	Exterior		Salt Shed (old)	D	Wall		Wood	Tan/beige	Defective	**2.9**	**0.2**	1.7	11.6	3/8/2019 9:19
8	Exterior		Salt Shed (old)	A	Wall		Wood	Tan/beige	Defective	**3.7**	**0.3**	2.0	8.0	3/8/2019 9:22
9	Exterior		Jet Hanger		Column		Metal	Green	Defective	**0.9**	**0.1**	2.0	22.0	3/8/2019 9:29
10	Exterior		Jet Hanger		Column		Metal	Green	Defective	**0.6**	**0.1**	2.3	7.4	3/8/2019 9:30
11	Exterior		Jet Hanger		Column		Metal	Green	Defective	**6.9**	**0.9**	2.3	11.6	3/8/2019 9:31
12	Exterior		Jet Hanger		Column		Metal	Green	Defective	**1.6**	**0.2**	2.3	10.6	3/8/2019 9:33
13			3.6 Calibration							3.7	0.3	1.3	4.8	3/8/2019 9:47
14			0.3 Calibration							0.3	0.1	1.1	6.3	3/8/2019 9:48
15			1.0 Calibration							1.1	0.1	1.1	9.7	3/8/2019 9:50

Lead paint includes paint found to contain **any detectable** amount of lead
by Atomic Absorption Spectrophotometry (AAS) or X-Ray Fluorescence (XRF).

Side A = Street side; Sides B,C,D follow clockwise

80 Lupes Drive
Stratford, CT 06615

Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet1@cetlabs.com

Client: Mr. Stephen Arienti
TRC Environmental Consultants
21 Griffin Rd., North
Windsor, CT 06095

Analytical Report

CET# 9030193

Report Date:March 11, 2019
Project: CT DOT, 64 South Main St, Marlborough
Project Number: 289951-0001-0000

Connecticut Laboratory Certificate: PH 0116
Massachusetts Laboratory Certificate: M-CT903
Rhode Island Laboratory Certificate: 199

New York NELAP Accreditation: 11982
Pennsylvania Certificate: 68-02927

SAMPLE SUMMARY

The sample(s) were received at 22.1°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
3819	9030193-01	Solid	3/08/2019	03/08/2019

Analyte: TCLP Lead [EPA 6020A] **Analyst: SS**

Prep: EPA 3005A-1311 **Matrix: Extract**

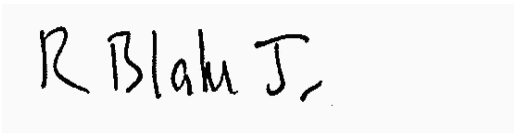
Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9030193-01	3819	2.1	0.013	mg/L	1	B9C1116	03/11/2019	03/11/2019 15:28	

All questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

David Ditta
Laboratory Director

This technical report was reviewed by Robert Blake



Project Manager

Report Comments:

Sample Result Flags:
E- The result is estimated, above the calibration range.
H- The surrogate recovery is above the control limits.
L- The surrogate recovery is below the control limits.
B- The compound was detected in the laboratory blank.
P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
D- The RPD between the sample and the sample duplicate is high. Sample Homogeneity may be a problem.
+- The Surrogate was diluted out.
*C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
*C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
*F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
*F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
*I- Analyte exceeds method limits from second source standard in Initial Calibration Verification (ICV). No directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

For Percent Solids, if any of the following prep methods (3050B, 3540C, 3545A, 3550C, 5035 and 9013A) were used for samples pertaining to this report, the percent solids procedure is within that prep method.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at or above the specified reporting limit
Reporting Limit (RL) is the limit of detection for an analyte after any adjustment made for dilution or percent moisture.
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.

CET # : 9030193
Project: CT DOT, 64 South Main St, Marlborough
Project Number: 289951-0001-0000

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 6020A in Water	
Lead	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2020

9030193

CET

TRC

21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

TCLP CHAIN OF CUSTODY

ASAP TURN

Edition: November 2013
Supersede Previous Edition

LAB ID #.

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
289951-0001-0000	CT DOT MARLBOROUGH CT 64 SOUTH MAIN ST		■ 24hr ☐ 48hr ☐ 3day ☐ 5day ☐ 24hr ☐ 48hr ☐ 3day ☐ 5day

INSPECTOR: (SIGNATURE)	(PRINTED)
Patty Schaffner	PATRICK SCHAFFNER

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	RCRA Pb	RCRA Pb, AS, CR, CD	8 RCRA Metals	TCLP Pb	SPLP Pb		MATERIAL
					OLD							
3819	3-8-19				SALT SHED (#2)				X			SALT SHED STRUCTURE
												22.1 (N)

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
Patty Schaffner	3-8-19	M Lacey 3/8/19 1600			
(Printed) PATRICK SCHAFFNER	Time: 1350	(Printed)	(Printed)	Time:	(Printed)

RESULTS TO STEVE ARIENTI SARIENTI@TRCSOLUTIONS.COM

Industrial Hygiene Laboratory
21 Griffin Road North
Windsor, CT 06095
(860) 298-6308

TRC
Results you can rely on

BULK ASBESTOS ANALYSIS REPORT

CLIENT: CT Department of Transportation

Lab Log #:	0053448
Project #:	222165.5751.0720
Date Received:	03/08/2019
Date Analyzed:	03/08/2019

Site: Maintenance Facility, 64 S. Main Street, Marlborough, CT

POLARIZED LIGHT MICROSCOPY by EPA 600/R-93/116

Sample No.	Color	Homogenous	Multi-Layered	Layer No.	Other Matrix Materials	Asbestos %	Asbestos Type
01	Black (tar coating)	Yes	No	- -	- - -	ND	None
02	Black (tar coating)	Yes	No	- -	- - -	ND	None
03	Black (tar)	Yes	No	- -	- - -	ND	None
04	Black (tar)	Yes	No	- -	- - -	ND	None

Reporting limit- asbestos present at 1%
ND - asbestos was not detected
Trace - asbestos was observed at level of less than 1%
NA/PS - Not Analyzed / Positive Stop
SNA- Sample Not Analyzed- See Chain of Custody for details

Note: Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. In those cases, EPA recommends, and certain states (e.g. NY) require, that negative results be confirmed by quantitative transmission electron microscopy.

The Laboratory at TRC follows the EPA's Interim Method for the Determination of Asbestos in Bulk Insulation 1982 (EPA 600/M4-82-020) Bulk Analysis Code 18/A01 and the EPA recommended Method for the Determination of Asbestos in Bulk Building Materials July 1993, R.L. Perkins and B.W. Harvey, (EPA/600/R-93/116) Bulk Analysis Code 18/A03, which utilize polarized light microscopy (PLM). Our analysts have completed an accredited course in asbestos identification. TRC's Laboratory is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP), for Bulk Asbestos Fiber Analysis, NVLAP Code 18/A01, effective through June 30, 2019. TRC is accredited by the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC in the Industrial Hygiene Program (IHLAP) for PLM effective through October 1, 2019. Asbestos content is determined by visual estimate unless otherwise indicated. Quality Control is performed in-house on at least 10% of samples and QC data related to the samples is available upon written request from client.

Analyzed by: K. Williamson
Kathleen Williamson, Laboratory Manager

Reviewed by: Cathryn Lemire
Cathryn Lemire, Approved Signatory

Date Issued
03/12/2019

TRC LABORATORY ASBESTOS ANALYTICAL ACCREDITATIONS

NVLAP Lab Code 101424-0 RI #AAL-007 TX #300354 CO# AL-15020
AIHA-LAP,LLC #100122 VT #AL014538 LA#05011 PHIL# 461
CT #PH-0426 VA #3333 000283 PA#68-03387
ME LA-0075, LB-0071 AZ #A20944
MA #AA000052 HI #L-09-004
NY #10980 NJ #CT004
WV# LT000411 CA #2907

TRC

21 GRIFFIN ROAD NORTH
WINDSOR, CONNECTICUT 06095
TELEPHONE (860) 298-9692
FAX (860) 298-6380

ASBESTOS BULK SAMPLING CHAIN OF CUSTODY

Edition: October 2009
Supersede Previous Edition

LAB ID #. 53448

PROJECT NUMBER	PROJECT NAME	PARAMETERS	TURNAROUND TIME
222165. 5751. 0720 (project # not available) See Steve A	ConnDOT — Marlborough Maintenance Facility, 64 S Main St, Marlborough, CT		PLM: x 8hr 24hr 48hr 3day
			TEM: x 24hr 48hr 3day 5day
SIGNATURE	INSPECTOR		
	Jonathan Gentile,Pat Schaffner		

FIELD SAMPLE NUMBER	DATE	TIME	TYPE COMP	TYPE GRAB	SAMPLE LOCATION	PLM EPA 600/R93/116 (POSITIVE STOP)	PLM EPA 600/R93/116 (w/ gravimetric reduction) (POSITIVE STOP)	ANALYZE BY LAYER	POINT COUNT (IF >1% & <10%)	TEM NY NOB 198.4 (IF PLM SERIES NEG)	MATERIAL
01	3/8/2019	09:14		X	D Side Foundation Wall (Old Shed)	X				X (SA)	VB1 - Thin Black Tar Vapor Barrier Coating
02	3/8/2019	09:14		X	D Side Foundation Wall (Old Shed)	X				(SA)	VB1 - Thin Black Tar Vapor Barrier Coating
03	3/8/2019	09:46		X	Jet Hangar Base	X				X (SA)	FT1 - Foundation Tar
04	3/8/2019	09:46		X	Jet Hangar Base	X					FT1 - Foundation Tar

Relinquished by: (Signature)	Date:	Received by: (Signature)	Relinquished by: (Signature)	Date:	Received by: (Signature)
	3-9-19	3/8/19			
(Printed) PATRICK SCHAFFNER	Time:	(Printed) 1130 K Williamson	(Printed)	Time:	(Printed)
Remarks:		Condition of Samples: Acceptable: Yes ✓ No ____ Comments:			Page 1 of 1

TABLE 6

INVENTORY OF ADDITIONAL HAZARDOUS/REGULATED MATERIALS, WASTES AND ITEMS IDENTIFIED

CONNDOT

MARLBOROUGH SALT SHEDS (OLD & NEW), 64 S MAIN ST, MARLBOROUGH, CT

Quantity	Size	Material / Item	General Location	Potential Hazard
4		Compact Fluorescent (Lamps)	Old Salt Shed	Universal Waste (UW)
1		HID Lights (Lamps) on Light Pole	Old Salt Shed	Universal Waste (UW)
1		Halogen Lamp Ballast (CR01) associated with Light Pole	Old Salt Shed	Connecticut Regulated Waste (CRW CR01)
16		Halogen Lamp Ballast (CR01)	New Salt Shed	Connecticut Regulated Waste (CRW CR01)
16		Halogen Lights (Lamps)	New Salt Shed	Universal Waste (UW)
1	2,000 gal	Diesel AST	Southeast Yard (Future Location)	Connecticut Regulated Waste (CRW CR02/03)
1	500 gal	Unleaded Gas AST	Southeast Yard (Future Location)	I

CRW Connecticut Regulated Waste: PCBs (CR01), Oils (CR02/CR03), waste chemical liquids – antifreeze, latex & solvent paints, sludges, etc. (CR04), waste chemical solids (CR05)
UW Universal Waste (batteries, thermostat ampoules, fluorescent lamps, used electronics)
IH Inhalation hazard (silicas, etc.)
I Ignitable - may contain ingredients which are ignitable (materials which have a flashpoint <140^{o}F) (D001)
C Corrosive - may contain ingredients which are alkaline or acidic (materials with a PH<2 or >12.5) (D002)
T Toxic - may contain ingredients which are harmful if swallowed or which release vapors that can cause irritation
R Reactive – may contain ingredients which are unstable, react violently with water or are explosive (D003)

ConnDOT, Marlborough Maintenance Facility , Hartford, , Marlborough, 06447, CT, US, S Main St, 64

Created	2019-03-08 09:12:59 EST by Jonathan Gentile
Updated	2019-03-11 19:04:38 EDT by Stephen Arienti
Location	41.6253444878772, -72.4527913984586
Status	Survey Complete

Job Information

Site Name	Marlborough Maintenance Facility
Address	64 S Main St Marlborough, CT 06447
TRC Project Number	222165.5751.0720
Project Manager	Erik Plimpton
Inspector(s)	Jonathan Gentile, Pat Schaffner
Client	ConnDOT
Type of Asbestos Survey	Reno/Demo
Additional Analysis for NOB Materials (Calc)	TEM NY NOB 198.4
PLM Turnaround Time (TAT)	8-hour
TEM Turnaround Time (TAT)	NA
Date	2019-03-08
General Notes	Pre-Demo survey of Old Salt Shed and Jet Hanger Steel
Overview Photo	

D Side

C Side

Jet Hanger Structure

Old Salt Shed Int

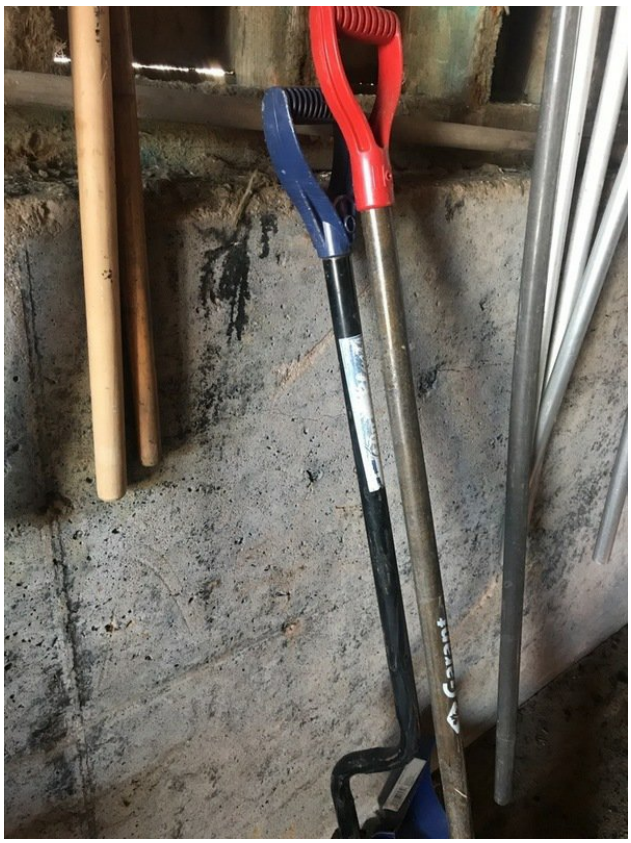
New Salt Shed

Surveys Performed	Asbestos, XRF, Hazardous Materials Inventory, TCLP Sampling

Asbestos Section

(2), VB, 1, Thin Black Tar Vapor Barrier Coating , 2

Representative Photos



VB1 on Int

VB1 on Ext

01, D Side Foundation Wall

Sample Number	01
Sample Location	D Side Foundation Wall
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2019-03-08
Time	09:14

02, D Side Foundation Wall

Sample Number	02
Sample Location	D Side Foundation Wall
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2019-03-08
Time	09:14

Material Information

Sampled or Assumed?	Sampled
Material Acronym	VB, 1
Material Description	Thin Black Tar Vapor Barrier Coating
Is Material a Non-Friable Organically Bound (NOB)	Yes
Homogeneous Area	Foundation Walls
Total Approximate Quantity	1200 SF
Notes	VB1 on both Int & Ext Foundation Walls
Total Count	(2)
Total Count (number only)	2

(2), FT1, Foundation Tar , 2

Representative Photos

03, Jet Hangar Base

Sample Number	03
Sample Location	Jet Hangar Base
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2019-03-08
Time	09:46

04, Jet Hangar Base

Sample Number	04
Sample Location	Jet Hangar Base
Analyze by Layer	No
Asbestos Bulk Analysis	PLM EPA 600/R93/116
Grab or Composite	Grab
Date	2019-03-08
Time	09:46

Material Information

Sampled or Assumed?	Sampled
Material Acronym	FT1
Material Description	Foundation Tar
Is Material a Non-Friable Organically Bound (NOB)	Yes

Homogeneous Area	Base of I Beams of Jet Hangar
Total Approximate Quantity	16 SF
Total Count	(2)
Total Count (number only)	2

XRF Section

Niton XRF Model No.	25555
XRF Survey Completed	Yes
XRF Data Downloaded	Yes
XRF Shots >1.0 on non-metallic building materials	Yes
Date Data Downloaded	2019-03-08

HAZMAT Inventory Section

Old Salt Shed

Inventory Area Description	Old Salt Shed

Universal Waste (UW), Compact Fluorescent (Lamps)

HAZMAT Item Description	Universal Waste (UW), Compact Fluorescent (Lamps)
HAZMAT Item Quantity	4

Universal Waste (UW), HID Lights (Lamps)

HAZMAT Item Description	Universal Waste (UW), HID Lights (Lamps)
HAZMAT Item Quantity	1
HAZMAT Item Photo	

New Salt Shed

Inventory Area Description	New Salt Shed

Connecticut Regulated Waste (CRW CR01-CR05), Halogen Lamp Ballast (CR01)

HAZMAT Item Description	Connecticut Regulated Waste (CRW CR01-CR05), Halogen Lamp Ballast (CR01)
HAZMAT Item Quantity	16

Universal Waste (UW), Halogen Lights (Lamps)

HAZMAT Item Description	Universal Waste (UW), Halogen Lights (Lamps)
HAZMAT Item Quantity	16

General Information

Signature

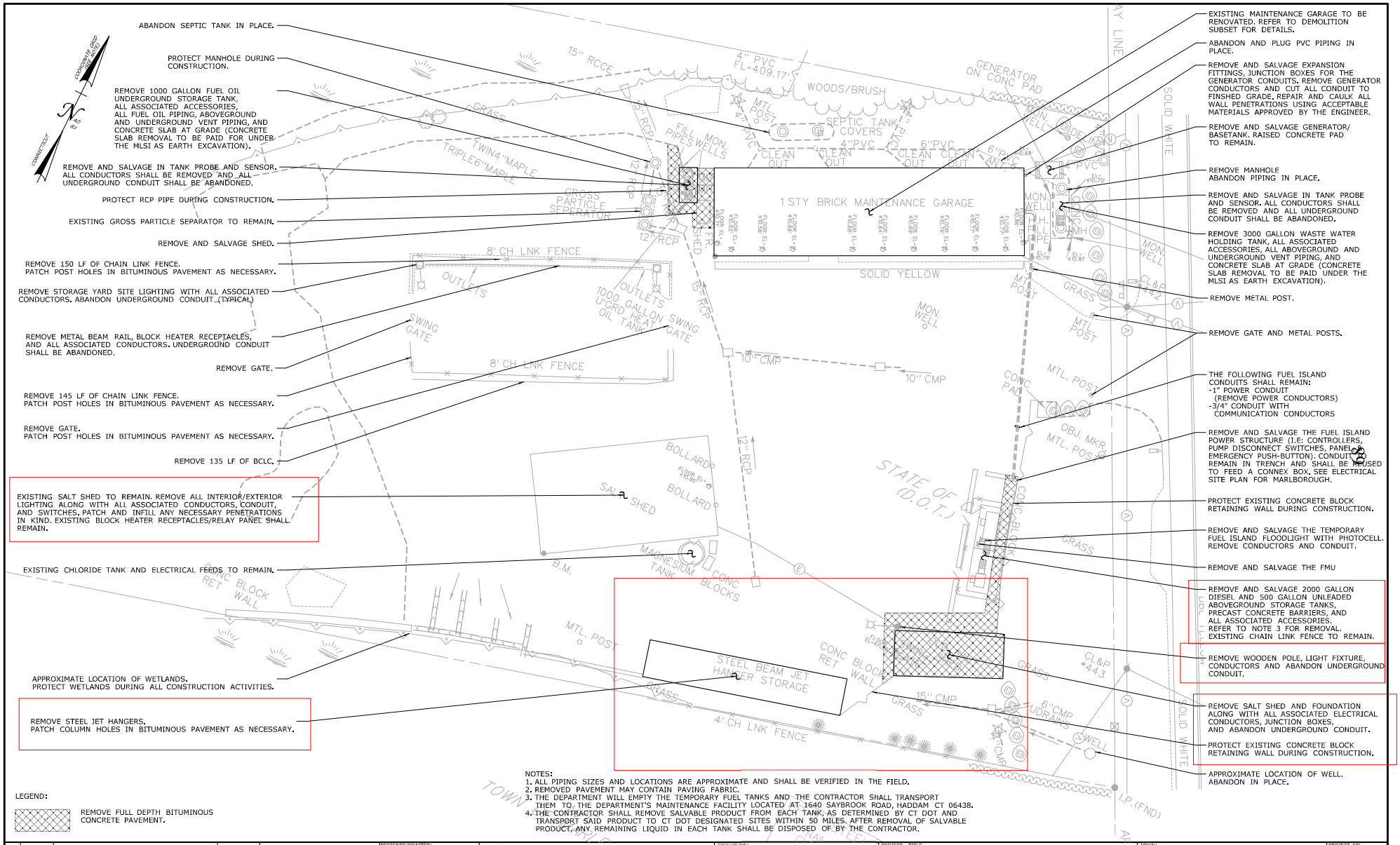
Signed 2019-03-08 14:14:13 EST

Asbestos Samples Submitted to TRC Lab	Yes
Date Submitted to Lab	2019-03-08
TCLP/SPLP Samples Submitted to Lab	Yes
TCLP/SPLP Samples Submitted To:	CET
Date Submitted to Lab	2019-03-08
App Name	WinBSI HBM Survey 1.0

Generate Report Documentation

Select one or more documents below to be generated. Once completed in the cloud, they will be sent to the listed email address. Please report any difficulties or errors to Justin Coleman.

What documents should be generated?	Asbestos chain-of-custody
Where should the document(s) be sent?	sarienti@trcsolutions.com
Generate Documents	N/A



NOTES:
1. ALL PIPING SIZES AND LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.
2. REMOVED PAVEMENT MAY CONTAIN PAVING FABRIC.
3. THE DEPARTMENT WILL EMPTY THE TEMPORARY FUEL TANKS AND THE CONTRACTOR SHALL TRANSPORT THEM TO THE DEPARTMENT'S MAINTENANCE FACILITY LOCATED AT 1640 SAYBROOK ROAD, HADDAM CT 06438.
4. THE CONTRACTOR SHALL REMOVE SALVABLE PRODUCT FROM EACH TANK, AS DETERMINED BY CT DOT AND TRANSPORT SAID PRODUCT TO CT DOT DESIGNATED SITES WITHIN 50 MILES. AFTER REMOVAL OF SALVABLE PRODUCT, ANY REMAINING LIQUID IN EACH TANK SHALL BE DISPOSED OF BY THE CONTRACTOR.

REV.	DATE	REVISION DESCRIPTION	SHEET NO.

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Plotted Date: 11/28/2018

DESIGNER/DRAFTER: MVC
CHECKED BY: ME
SCALE IN FEET 0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

Filename: ...\FD_MSH_CIV_0041_0119_D003.dgn

SIGNATURE/ BLOCK:
OFFICE OF ENGINEERING
APPROVED BY:

PROJECT TITLE:
CONSTRUCTION OF A NEW EAST HAMPTON MAINTENANCE FACILITY AND MARLBOROUGH RENOVATION

TOWN: MARLBOROUGH

DRAWING TITLE:
SITE DEMOLITION PLAN

PROJECT NO. 41-119
DRAWING NO. D-003
SHEET NO. 04.03