PURCHASING DIVISION
ROOM 210 CITY HALL
142 EAST MAIN STREET
MERIDEN, CONNECTICUT 06450-8022

RAWLE DUMMETT **PHONE 203-630-4115**
PURCHASING OFFICER

ADDENDUM #01

TO THE PROPOSAL FOR:

FOR: City of Meriden

DUE DATE: December 17, 2024 @ 11:00 AM

The purpose of this Addendum is to extend the Due Date, add an UPDATED Bid Form and Newer Drawings & include the sign in sheet from Site Visit:

NEW DUE DATE: December 20, 2024 @ 11:00 AM

Please acknowledge receipt of all addenda in your Proposal Submission.

Proposal Delivery - Proposals may be dropped off prior to December 20, 2024 either in person or by courier service. At this time the City does not have the infrastructure to accept electronic proposals and therefore proposals will only be accepted as directed in the RFP documents.

Rawle Dummett
Purchasing Officer
Dated: December 5, 2024

Project Specifications
Volume 1 of 1

Hazardous Building Materials Abatement and Demolition
116 Cook Avenue
Meriden, Connecticut

Project No. B025-01

Contracting Agency:

City of Meriden
142 East Main Street
Meriden, CT 06450

December 2024

Tighe&Bond
213 Court Street
Middletown, CT 06457

HAZARDOUS BUILDING MATERIALS ABATEMENT

AND DEMOLITION OF 116 COOK AVENUE

MERIDEN, CT

CITY PROJECT No. B025-01

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HAZARDOUS BUILDING MATERIALS ABATEMENT
AND DEMOLITION OF 116 COOK AVENUE
MERIDEN, CT
CITY PROJECT No. B025-01

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SECTION 00410

BID FORM

B025-01 Hazardous Building Material Abatement and Demolition – 116 Cook Avenue

The undersigned,_____

doing business in the City/Town of _____,

in the State of _____, herewith, after reading thoroughly the Specifications, Bidder proposes to furnish all labor and materials required for Abatement of Hazardous Building Materials at 116 Cook Avenue, Meriden, CT in accordance with the accompanying Bidding Documents prepared by Tighe & Bond, Inc., for the Contract Price specified below, subject to additions and deductions according to the terms of the Bidding Documents.

Base Bid Items

Base Bid Item Number	Item Name and Unit Prices Written in Words and Figures	Estimated Quantity	Total Amount of Items (in figures)
1	Mobilization and demobilization, per lump sum, the price of: _____ ($)	lump sum* = *Not to exceed 5% of the total Bid price	$_____
2	Temporary barriers, construction facilities, and soil and erosion control measures for project duration, per lump sum, the price of: _____ ($)	lump sum =	$_____

Base Bid Item Number	Item Name and Unit Prices Written in Words and Figures	Estimated Quantity	Total Amount of Items (in figures)
3	Utility disconnect and abandonment, per lump sum, the price of: _____ ($)	lump sum =	$_____
4	Demolish and dispose of standing building components, first floor slab, lower-level interior partition walls, roofing materials, and all debris at, inside, and around the buildings as mixed friable asbestos, PCB Waste (<50 ppm) or a combination thereof, per lump sum, the price of: _____ ($)	lump sum =	$_____
5	Segregate, clean, manage, and dispose of painted wood beams and ceiling decking within Wings A and D as lead hazardous waste, per ton, the price of: _____ ($) *400 tons will be used for comparison purposes	Per ton* =	$_____
6	Demolish and dispose of building foundation, walls, basement floor, footings, and other components and all debris at, inside, and around the foundations as PCB Waste <50 ppm, per lump sum, the price of: _____ ($)	lump sum =	$_____

Base Bid Item Number	Item Name and Unit Prices Written in Words and Figures	Estimated Quantity	Total Amount of Items (in figures)
7	Provide, place, and compact approved fill material within the building footprint/foundation cavity, per ton, the price of: _____ ($) *1,000 tons will be used for comparison purposes	Per ton* =	$_____
8	Provide, place, and compact a minimum of four inches of topsoil and seed within the building footprint and nearby disturbed area, per lump sum, the price of: _____ ($)	lump sum =	$_____

UNIT PRICES MUST BE FILLED IN ON TABLE 1 AND RETURNED WITH THIS BID FORM.

TOTAL BASE BID Work: _____

($_____)

Available Start Date: _____

SUBCONTRACTOR LIST

List any work to be performed by subcontractors, the name of the subcontractor and indicate if they are WBE or MBE, use separate sheets if necessary.

Work	Subcontractor	WBE/MBE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Receipt of Addenda is Acknowledged:
No: _____ Dated: _____

No: _____ Dated: _____

NAME OF BIDDER

_____

ADDRESS

_____

BY:

_____

Print or type name Title

SIGNATURE _____ DATE _____

TELEPHONE _____ FAX: _____ E-Mail _____

PLEASE NOTE: All spaces must be filled in with figures or words or your bid may be automatically rejected.

SECTION 01110

SUMMARY OF WORK

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Work of the Contract is shown and described in Drawings and Project Manual entitled:

HAZARDOUS BUILDIING MATERIAL ABATEMENT AND DEMOLITION
OF 116 COOK AVENUE, MERIDEN CT

City Project No. B025-01

The City of Meriden
December 2024

Tighe & Bond, Inc.
Middletown, Connecticut

2. The Base Bid Work includes the following major items:

a. Installation and maintenance of sediment and erosion and stormwater control measures in preparation for abatement, cleanup, and demolition activities.

b. Deactivation, disconnection, and capping of utilities or confirmation thereof.

c. Abate, demolish, and dispose of entire standing building components, first floor slab, first floor interior partition walls, roofing materials, and all debris at, inside, and around the buildings as mixed friable asbestos, lead, and PCB Waste (< 50 ppm) or a combination thereof.

1) Segregate, clean, and manage painted wood beams and ceiling decks from Wings A and D for disposal as lead hazardous waste.

d. Remove for scrap all non-hazardous metal building components and other metal materials on the property.

e. Complete removal of building foundations, basement floor, footings, etc. for disposal as PCB Waste (< 50 ppm).

f. Remove and dispose/recycle non-hazardous site debris, piping, equipment, and refuse as general construction debris.

g. Backfill and grade foundation opening.

B. Significant Related Requirements

1. City of Meriden Contracting Documents

2. Technical Specifications

3. Drawings

1.2 SUBMITTALS

A. Action Submittals

1. Submit copies of all Action Submittals for approval of specific work as detailed in the Technical Specifications, prior to initiating the Work.

B. Informational Submittals

1. Submit copies of permits or approvals required for the Work, prior to initiating the Work.

1.3 PROJECT/SITE CONDITIONS

A. Permits and Notifications

1. Obtain the permits and approvals listed below:

a. City of Meriden demolition permit

b. Asbestos abatement notifications as required by the State of Connecticut Department of Public Health and US Environmental Protection Agency

c. Waste transportation and disposal permits, notifications, and approvals necessary to complete the Work

d. Permits and licenses of a temporary nature necessary to perform the Work

e. Permits and approvals necessary for utility disconnects and abandonment

f. Permits for disposal of construction wastes including disposal of cleared and grubbed materials

g. Other permits or licenses required for the Contractor's operations or required elsewhere in the Contract Documents and not included herein.

2. Obtain required time extensions to permits obtained by the Contractor, if construction authorized by permits has not been completed by the expiration date noted on these permits.

3. Permits require that a representative of the permitting authority or the Owner be present on-site during construction or given the opportunity to observe conditions prior to backfilling or otherwise proceeding with construction. Notify the Owner, Engineer, and the permitting authority prior to performing Work that is governed by the permit.

4. Obtain permits and approvals from appropriate jurisdictional agencies and property owners for use of premises not furnished by the Owner, and for all off-site areas.

5. Submit copies of permits prior to performance of Work authorized by permits.

B. Existing Conditions

1. Use of Premises and Off-site Work

a. The Work shall occur on the Owner's property within the limits of Work shown on the Drawings.

b. Obtain permits and approvals for use of any land and access thereto that is deemed necessary for the Work, where such land is not available for use by the Owner, including land for temporary construction facilities, access and egress, or for storage of materials.

c. Obtain permits and written approvals from appropriate jurisdictional agencies for the use of premises not available for use by the Owner, including all offsite staging areas, borrow pits and waste areas. Submit copies of all permits and approvals to the Owner prior to using areas.

d. Provide for the disposal of waste materials off-site in accordance with all applicable laws.

e. Adhere to the limits of Work as indicated, to minimize obstruction to traffic and inconvenience to the Owner, adjacent business operations, and general public in the vicinity of the Work, and to protect people and property. Keep fire hydrants on or adjacent to the Work accessible to firefighting equipment at all times.

f. Maintain public access to businesses including driveways and parking lots at all times during the Work.

PART 2 PRODUCTS

2.1 MATERIALS FURNISHED BY OWNER

A. The Owner will not furnish any materials, labor, or equipment under this Contract.

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01140

WORK RESTRICTIONS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Work Schedule
2. Construction Constraints
3. Vehicle Access
4. Available Work Area
5. Site Usage Plan

B. Related Requirements

1. Section 01310 - Coordination
2. Section 01325 - Scheduling of Construction

1.2 SUBMITTALS

A. Incorporate the requirements of this Section in the project schedule submitted under Section 01325.

B. Action Submittals

1. Submit site usage plan within 15 days of the Notice to Proceed.

1.3 WORK SCHEDULE

A. Conduct the Work during daylight hours on Monday through Friday, and within the time between 7:00 a.m. and 5:00 p.m. No work is to be done on Owner's holidays, Saturdays, Sundays or outside of the work hours described above.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 CONSTRUCTION CONSTRAINTS

A. The following are constraints for the Work. Incorporate these constraints into the schedule required to be submitted under Section 01325.

1. All project milestones must be completed within the timeframes indicated in Section 01325.
2. Contractor is responsible for securing access to or otherwise providing all water and electricity needed to complete the work. Contractor is also responsible for contacting the appropriate utility companies to coordinate temporary and permanent utility shutdowns, as necessary.
3. Contractor is responsible for assuring safe access to the site and work areas.

4. Contractor is responsible for securing the site and maintaining site safety throughout the duration of the project.

3.2 AVAILABLE WORK AREA

A. All work will be conducted by the Contractor within the Owner's property boundaries with the potential exception of required utility abandonment work, soil erosion control measures and miscellaneous work as shown on the project Drawings. No construction vehicles or activities will be permitted outside the property boundaries.

3.3 SITE USAGE PLAN

A. Submit a site usage plan showing all proposed staging areas, locations of all office and storage trailers, and material laydown areas. The site usage plan should be a drawing showing the proposed locations and shall include on-site traffic modifications and temporary utilities as may be applicable.

END OF SECTION

SECTION 01220

UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

A. A unit price is an amount proposed by Bidders as a price per unit of measurement for materials or services that will be added to or deducted from the Contract Sum by Change Order in the event the project Scope of Work is altered.

B. Unit prices shall include costs of all materials, all direct or indirect expenses of the Contractor or Sub-Contractors, profit, insurance, bonding, and any applicable taxes.

PART 2 - EXECUTION

2.1 UNIT PRICE SCHEDULE

A. Unit Prices in accordance with the following schedule will apply to this Contract. Unit prices include labor, disposal, and all necessary costs and fees.

Item No. 1 – Demolition, Segregation, and Processing of Building Materials as Mixed Friable Asbestos / CTDEEP Regulated PCB Waste (<50 PPM)

$_____ per square foot.

Item No. 2 – Transportation and Disposal of Mixed Friable Asbestos / CTDEEP Regulated PCB Waste (<50 PPM)

$_____ per ton.

Item No. 3 – Segregation, Processing, Management, Transportation and Disposal of Building Materials as Lead Hazardous Waste

$_____ per ton.

Item No. 4 – Segregation, Processing, Management, Transportation and Disposal of Building Materials as Lead Hazardous Waste

$_____ per cubic yard.

Item No. 5– Removal of Paint from brick or concrete as CTDEEP Regulated PCB Waste (within containment)

$_____ per square foot.

Item No. 6 – Decontamination of Concrete Slab (Asbestos / PCBs)

$_____ per square foot.

Item No. 7 – Preparation of a small containment (for removal of >3 LF/SF, but <10 SF/25LF) with decontamination unit (including remobilization, if necessary)

$_____ per containment.

Item No. 8 – Preparation of a medium-containment (for removal of >10 LF/25SF, but <500 LF/1,500 SF) with decontamination unit (including remobilization, if necessary)

$_____ per containment.

Item No. 9 – Preparation of a large-containment (for removal of >500 LF/1,500 SF) with decontamination unit (including remobilization, if necessary)

$_____ per containment.

Item No. 10 – Clean Fill Installation including compaction, Ordinary Borrow

$_____ per cubic yard.

Item No. 11 – Transportation and Disposal of Mixed Friable Asbestos / CTDEEP Regulated PCB Waste (<50 PPM)

$_____ per ton.

Item No. 12 – Transportation and Disposal of Mixed Friable Asbestos / EPA Regulated / PCB Bulk Product Waste (≥50 PPM)

$_____ per ton.

Item No. 13 – Excavate, manage, and dispose of PCB contaminated soil as EPA regulated PCB Remediation Waste ≥ 50 ppm.

$_____ per Ton.

Item No. 14 – Excavate, manage, and dispose of non-hazardous contaminated soil.

$_____ per Ton.

Item No. 14 – Excavate, manage, and dispose of RCRA hazardous soil (assume metals contamination).

$_____ per Ton.

Item No. 15 – Remove, manage, and dispose of Fluorescent Light Bulbs .

$_____ per Unit.

Item No. 16 – Remove, manage, and dispose of Fluorescent Light Ballasts .

$_____ per Unit.

Item No. 17 – Segregation, Processing, Management, Transportation and Disposal of Clean Concrete Demolition Debris

$_____ per ton.

END OF SECTION 01220

SECTION 01290

APPLICATION AND CERTIFICATE FOR PAYMENT

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Definition and description of measurement and payment to be used for the Work

2. Payment procedures

B. Related Requirements

1. Section 01295 - Schedule of Values

1.2 GENERAL

A. The following paragraphs describe payment procedures for the work to be done under the respective items in the Bid Form.

B. Each lump sum and unit price will be deemed to include an amount considered by the Contractor to be adequate to cover the Contractor's overhead and profit for each separately identified item.

C. Except as provided for in Section 01295, no separate measurement or payment will be made for Work called for in Division 0 or Division 1 of the Contract Specifications, unless specifically covered under the Bid items listed below. All costs associated with this Work will be considered incidental to the Contract Bid price.

D. Division 2 through Division 13 Work will be measured and paid for at the Contractor's unit Bid price or lump sum Bid price as indicated on the Bid form. Those payable Work items, and related prices as Bid, will be the basis for all compensation to the Contractor for Work performed under this Contract. Work not specifically included as a Bid item, but which is required to properly and satisfactorily complete the Work is considered ancillary and incidental to the Bid item Work, and payment for such Work is considered to be included in the values as Bid for payable items. Compensation (including credit to Owner) for all unit Bid price Work will be made based on the measured quantity of Work under the appropriate Bid items.

1.3 LUMP SUM ITEMS

A. Each lump sum price stated in the Bid form shall constitute full compensation for all labor, equipment, and materials necessary and required to complete the work specified under that particular item, and also all costs for doing related work as set forth in the Contract Documents or implied in carrying out their intent.

1. Measurement

a. There will be no measurement of quantities for lump sum items. Periodic partial payments for this Work, included under the Agreement, shall be based on the percent completion of each work item listed in the Schedule

of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer.

2. Payment

a. The lump sum payment for each work item listed in the Schedule of Values provided under Section 01295 estimated by the Contractor and approved by the Engineer shall be full compensation for furnishing all labor, materials, tools, equipment, waste disposal, and other services necessary for completion of the work item, in its entirety as detailed in the Contract Documents.

1.4 UNIT PRICE ITEMS

A. Each unit price stated in the Bid form and in Section 01220 Unit Prices shall constitute full compensation for all labor, equipment and materials necessary and required to complete the Work specified under that particular item, and also all costs for doing related work as set forth in the Contract Documents or implied in carrying out their intent.

B. Payment of the unit price items will only be made for the actual quantity of Work performed in accordance with the Contract Documents.

1.5 PAYMENT PROCEDURES

A. Informal submittal: Unless otherwise directed by the Engineer:

1. Make an informal submittal of request for payment to the Engineer by the 20th of each month by filling in pertinent portions of AIA Document G702, Application and Certificate for Payment, plus continuation sheet or sheets.

2. Revise the preliminary submittal as approved by the Engineer and incorporate the approved payments into the formal submittal.

B. Formal submittal: Unless otherwise directed by the Engineer:

1. Make formal submittal of request for payment by filling in the agreed data on AIA Document G702, Application and Certificate for Payment, plus continuation sheet or sheets.

2. Sign and notarize the Application for Payment.

3. Submit the original of the Application for Payment, plus six identical copies of the continuation sheet or sheets, to the Engineer.

4. The Engineer will compare the formal submittal with the approved informal submittal and, if acceptable, will sign the Contractor's Application for Payment, and present the Application to the Owner.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 01295

SCHEDULE OF VALUES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Schedule of Values

1.2 SUBMITTALS

A. Action Submittals

1. Submit the Schedule of Values for approval within 10 days after the Effective Date of the Agreement.

1.3 SCHEDULE OF VALUES

A. Schedule of Values shall be a detailed breakdown of the lump sum and unit price Work items showing values allocated to the various elements of the Work.

B. The format of the Schedule of Values shall be submitted on AIA G703, Application and Certificate for Payment, Continuation Sheet. The Engineer may require additional detailed documentation to support the values in the form of executed purchase orders, subcontracts, or other agreements.

C. The Engineer will determine the level of breakdown and detail required. The breakdown shall include at a minimum the items listed on the Bid Form. The final document will be the basis of payment requests for the duration of the Contract. No progress payment will be made until the Schedule of Values is approved by the Engineer.

D. An unbalanced Schedule of Values providing overpayment on items of work performed first will not be accepted.

E. At the Contractor's option, items for mobilization and demobilization may be included in the Schedule of Values. The combined value shall not exceed 5 percent of the Contract Price, and the values for mobilization and demobilization shall be equal. Payment for mobilization will be included in the first payment request after the Contractor has initiated full-time construction activity. Payment for demobilization will be included in the first payment request after Substantial Completion has been reached and all equipment has been removed from the Site.

F. At the Contractor's option, an item for bonds and insurance may be included in the Schedule of Values. If included, requests for payment including values for bonds and insurance shall be accompanied by matching invoices.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01310

COORDINATION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Project Management

2. Coordination

3. Project Meetings

B. Related Requirements

1. Section 01140 - Work Restrictions

2. Section 01325 - Scheduling of Construction

1.2 SUBMITTALS

A. Incorporate the requirements of this Section, as well as Work which may impact the Owner, or the operations of any adjacent facility or utility, in the project schedule submitted under Section 01325.

B. Informational Submittals

1. At the pre-construction conference, supply to the Owner the cell phone number of a responsible person who may be contacted during off-hours for emergencies 24 hours a day, seven days a week.

2. Prepare a contact list of phone numbers, including cell phone numbers, and emails for all Project personnel and submit to the Engineer at the pre-construction conference. Include Contractor, Owner, Engineer, and City personnel including police, fire, and ambulance.

1.3 PROJECT MANAGEMENT

A. Retain a full-time on-site Superintendent, satisfactory to the Owner and Engineer. The Superintendent shall not be changed except with the consent of the Owner and Engineer. The Superintendent shall be in full charge of the Work conducted at the Site.

B. Designate a full-time Project Manager, satisfactory to the Owner and Engineer. The Project Manager shall not be changed except with the consent of the Owner and Engineer. The Project Manager will be responsible for managerial operations including but not limited to coordinating labor and equipment, preparing submittals, documenting waste disposal activities, preparing progress meeting agenda and minutes. The Project Manager shall be the first point of contact for Engineer and Owner.

C. Complete the Work in a continuous uninterrupted operation. Use sufficient personnel and adequate equipment to complete the Work within the Contract Time.

1.4 COORDINATION

A. The Contractor is responsible for coordinating initial access to the building and any communication with utility companies that the Contractor may request service from including disconnections, abandonment, and documentation of such.

B. The Contractor is responsible for submitting the Asbestos Abatement Notification form to the Connecticut Department of Health (CT DPH) and associated notification to the US EPA and obtaining any permits required to complete the work. All coordination efforts required to submit the notice and obtain permits is the responsibility of the Contractor.

C. The Contractor is responsible for coordinating all trucking and waste disposal work including the preparation of all waste profiles and manifests. Engineer will review and provide comment, as needed before asking the City to sign waste disposal documents.

D. Coordinate with appropriate utility companies, as well as with the Owner, where the Work crosses or is adjacent to existing utilities.

E. Coordinate with Eversource for removal of any transformers, utility lines, and poles located at the Site that are required to be removed as part of the demolition.

F. Do not interfere with the operation of the existing facilities.

G. Perform all coordination necessary to complete the Work.

1.5 PROJECT MEETINGS

A. Pre-Construction Conference

1. The Contractor shall be prepared to discuss the following subjects at the Pre-Construction Conference. Documentation for these items is required to be submitted within the time frames included in individual specification sections.

a. Project scheduling

b. Sequencing of critical path Work items

c. Shop Drawing procedures

d. Project changes and clarification procedures

e. Use of sites, access to Work areas, office and storage areas, security, and temporary facilities

f. Contractor safety plan and representative

g. Progress payments and procedures

h. Required documentation

i. Project personnel contact list

B. Progress Meetings

1. Progress meetings will be held once per week and at other times as requested by the Owner or as required by the Progress of the Work.

2. The Contractor's Superintendent shall attend all progress meetings.

3. At a minimum, progress meetings will review Work progress, schedule, Shop Drawing submission schedule, Applications for Payment, and other matters needing discussion and resolution.

4. Review the schedule with all parties to be affected by upcoming work.

5. Prepare meeting agenda and minutes for each meeting and circulate to the City and Engineer for review and comment. Agenda are to be distributed at least 2 days prior and minutes must be prepared within 2 days after each meeting.

6. Review the monthly construction report required under Section 01325.

C. Attend requested meetings with the City, Engineer, and/or others to discuss the progress of the Work and address any concerns.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 GENERAL

A. Submit the required Asbestos Abatement Notification form to the CT DPH and associated notification to the US EPA a minimum of 10 days prior to any asbestos abatement operations.

B. Notify Call Before You Dig at 1-800-922-4455 at least 72 hours prior to any digging, trenching, rock removal, demolition, borings, backfill, grading, landscaping, or any other earth moving operations.

3.2 COORDINATION WITH THE OWNER'S OPERATIONS

A. Notify the Owner and Engineer, in writing, a minimum of 1 week in advance of commencing Work on site. Work on site shall not occur until all necessary permits are obtained.

B. Notify the Owner and Engineer, in writing, a minimum of 1 week before commencing any work which may affect the Owner's operations.

C. Perform all construction activities so as to avoid interference with Owner's operations and the work of others including off-site businesses and residences.

D. The Owner has the authority to order the Work stopped. Any costs and/or delays associated with these work stoppages due to the Contractor's operation shall be borne by the Contractor.

3.3 SEQUENCE OF CONSTRUCTION

A. Completing the Work will require a specific sequence of construction. The Contractor will be allowed reasonable flexibility in scheduling the construction activities. Provide a detailed construction schedule as required in Section 01325.

END OF SECTION

SECTION 01325

SCHEDULING OF CONSTRUCTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Progress Schedule

B. Related Requirements

1. Section 01140 - Work Restrictions

2. Section 01310 - Coordination

1.2 PROGRESS SCHEDULE

A. Graphically show the order and interdependence of activities, sequence of Work, how the start of a given activity depends on completion of preceding activities, and how completion of an activity may restrain the start of subsequent activities.

B. The Work shall be planned by the Contractor and his Project field superintendent in coordination with all Subcontractors and Suppliers whose Work is shown on the Progress Schedule.

C. Include, at a minimum, the following activities on the Progress Schedule:

1. Submittal and approval of Permits and Work Plans

2. Project mobilization

3. Site fencing, soil erosion and sedimentation control measures

4. Hazardous materials removal

5. Building demolition

6. Site surface demolition

7. Site utility demolition

8. Backfill foundation opening

9. Substantial completion and inspection

10. Punchlist

11. Final cleanup

12. Other activities that may be critical to the Progress Schedule

13. All activities of the Owner and the Engineer which affect progress and/or affect required dates for completion of the Work

D. Take into consideration submittal and permit approval time, the delivery times of equipment and materials, Subcontractors' Work, availability and abilities of workmen, waste hauling and disposal, weather conditions, any restrictions in operations at the Work site, and all other items that may affect completion of the Work within the Contract Time.

E. The Progress Schedule shall reflect the requirements, constraints, and restrictions outlined in Sections 01310 and 01140.

F. Show information in such detail that duration times of activities will range from one to 15 days. The selection and number of activities shall be subject to the approval of the Owner and Engineer.

G. The Progress Schedule should show a description of each activity, and activity duration in calendar days.

1.3 SUBMITTALS

A. Informational Submittals

1. Submit an electronic copy of the preliminary Progress Schedule within 10 days after the Effective Date of the Agreement. Progress Schedule must be approved by the Owner and Engineer before the first progress payment will be made.

2. Revised analyses - Within 10 days after receipt of the review comments, submit the revised Progress Schedule in accordance with those comments.

1.4 PERIODIC REPORTS

A. At the first scheduled progress meeting of each month, present a construction report which details the Work performed during the preceding period. The report shall include the following at a minimum:

1. Actual progress of Work and a revised Progress Schedule, showing impacts by the Work progress.

2. Activities completed during the reporting period as basis for periodic request for payment. Payment made will be based on the total value of such activities completed or partially completed after verification by the Engineer.

3. State the percentage of the Work actually completed and scheduled as of the report date, and the progress along the critical path in terms of days ahead of or behind the dates defined in the Progress Schedule.

4. If the Work is behind the dates set forth in the Progress Schedule, also report progress along other paths with negative slack.

5. Include a narrative which includes:

a. A description of problem areas, anticipated and current

b. Delaying factors and their impact

c. An explanation of corrective actions taken or proposed

6. Show the date of latest revision.

END OF SECTION

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Action Submittals

2. Informational Submittals

1.2 DEFINITIONS

A. Action Submittals – includes written and graphic information submitted by Contractor that requires Engineer's approval.

B. Informational Submittals – includes information submitted by Contractor that does not require Engineer's approval. The Engineer will acknowledge receipt of such documents and provide comments when the submittals lack the detail required by the Contract Documents.

1.3 ACTION SUBMITTALS

A. Work Plans as specified in individual Sections.

B. Schedule of Values: In accordance with Section 01295.

C. Site Usage Plan: In accordance with Section 01140.

1.4 INFORMATIONAL SUBMITTALS

A. Schedule of Submittals

1. Submit a preliminary Schedule of Submittals within 10 days of the Effective Date of the Agreement.

B. Application for Payment

1. Submit applications for payment in accordance with Section 01290, Application and Certificate for Payment.

2. Submit schedule of stored materials when requesting payment for materials not yet installed.

C. Contract Closeout Submittals: In accordance with Section 01770.

D. Submit construction progress schedules and schedule updates in accordance with Section 01325.

E. Statement of Qualifications: Submit evidence of qualification, certification, or registration as required in Contract Documents to verify qualifications of professional land surveyor, engineer, materials testing laboratory, specialty subcontractor, trade, specialist, consultant, installer, and other professionals.

F. Submittals Required by Laws, Regulations, and Governing Agencies

1. Submit promptly, notifications, reports, certifications, payrolls, and other required information as may be required, directly to the applicable federal, state, or local governing agency or their representative.

2. Transmit to Engineer for Owner's records, one copy of correspondence and transmittals (including enclosures and attachments) between Contractor and governing agency.

G. Test and Inspection Reports

1. Submit test and inspection reports as required by individual Specification sections.

2. Reports shall include identification of product and Specification, project name, date and time of test, type of test, location, test results, interpretation of test results, and other information as required in individual Specification sections.

H. Health & Safety Plans: When specified in individual Specification sections, prepare and submit a Health and Safety Plan modified or supplemented to include job-specific considerations.

I. Erosion Control Plan: When specified in Contract Documents or required by local ordinances or regulations, prepare and submit copies of erosion control plans.

J. Traffic Control Plan: When specified in Contract Documents or required by local ordinances or regulations, prepare and submit copies of traffic control plans.

1.5 PROCEDURES

A. Coordination

1. Prepare and deliver submittals in sufficient time, so that the Work will not be delayed, other related work can be properly coordinated, and there is adequate time for review and resubmission, if required.

2. Provide no less than 10 days for review of submittals from the time received by the Engineer. For submittals that require more than 10 days to review, due to complexity and detail, Engineer will notify Contractor of the circumstances and identify the anticipated date when the submittal will be returned.

3. Re-submittals will be subject to same review time.

4. No extension of time will be authorized due to failure to provide approvable submittals sufficiently in advance of the Work.

B. Review product data and samples prior to submission and verify and determine:

1. Field measurements

2. Conformance with the Contract Documents. Advise the Engineer in writing of any deviations from the requirements of the Contract Documents.

3. Delete or strike out information that is not applicable to the Work.

C. Submit one electronic copy of each submittal for the Owner and Engineer.

D. Numbering: Submissions shall be accompanied by a transmittal form referencing the project name and applicable Specification section. Submittals shall be numbered sequentially, with the applicable Specification section and a hyphen preceding the number. (*e.g.* Submittal number 02120-01). Resubmittals shall bear the same transmittal number with a revision number commencing with "1" (*e.g.* Submittal number 11330-01-1).

E. Provide a copy of the Submittal Certification Form (copy attached at the end of this section) which shall be attached to every copy of each submittal. Apply the Contractor's stamp and initials or signature certifying that the submission has been thoroughly reviewed for completeness, compliance with the Contract Documents, coordination with adjacent construction and dimensional compatibility. Items submitted without the stamp or that are incomplete will be returned by the Engineer for rework and resubmission.

F. Distribute copies of reviewed submittals along with the Engineer's transmittal to concerned parties with instructions to promptly report any inability to comply with the provisions or integrate the requirements with interfacing work.

G. Partial and Incomplete Submittals

1. Submittals shall be delivered as a complete package by Specification section, unless otherwise reviewed and approved by the Engineer. It is the intent that all information, materials, and samples associated with each Specification section be included as a single submittal for the Engineer's review.

2. Engineer will return entire submittals if preliminary review deems it incomplete including:

   a. Missing or incomplete Submittal Certification Form

   b. Insufficient number of copies

   c. Missing content

3. Partial submittals may be considered, at Engineer's option, only when necessary to expedite the Project.

4. Partial submittals shall be clearly identified as such on the transmittal to identify missing components.

H. Submittals not required by the Specification will be returned without review or action code.

I. Resubmission

1. Make corrections and modifications required by the Engineer and resubmit until approved.

2. Clearly identify changes made to submittals and indicate other changes that have been made other than those requested by the Engineer.

3. A maximum of two re-submissions of each shop drawing will be reviewed, checked and commented upon without charge to the Contractor (total of 3 submittals). Any additional submissions which are required by the Engineer to

fulfill the stipulations of the Contract Documents will be charged to the Contractor using the Engineer's standard billing rates.

J. Distribution

1. Distribute approved Shop Drawings and approved product data to the Project Site and elsewhere as required to communicate the information to Suppliers, Subcontractors, and field personnel.

1.6 ENGINEER'S REVIEW

A. The Engineer will review submittals for design, general methods of construction and detailing. The Engineer's review and approval of submittals shall not be construed as a complete check nor does it relieve the Contractor from responsibility for any departures or deviations from the requirements of the Contract Documents unless he has, in writing, called the Engineer's attention to such deviations at the time of submission. It will not extend to means, methods, technique, sequences, or procedures of construction (except where specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto.

B. The Engineer's review of the submittals shall not relieve the Contractor from the responsibility for proper fitting of the Work, or the responsibility of furnishing any work required by the Contract Documents which may not be indicated on the submittals. The Contractor shall be solely responsible for any quantities shown on the submittals.

C. If the Contractor considers any correction indicated on the submittals to constitute a change to the Contract Documents, the Contractor shall provide written notice to the Engineer at least 7 working days prior to release for manufacture or initiation of the work.

D. When the submittals have been completed to the satisfaction of the Engineer, the Contractor shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the Engineer.

E. Action submittals as defined in paragraph 1.2 will be reviewed and returned under one of the following codes:

1. Approved (Action Code 1) is assigned when there are no notations or comments on the submittal. Equipment or materials may be released for manufacture, provided that it complies with requirements of the Contract Documents.

2. Approved as Noted (Action Code 2) is assigned when there are notations or comments on the submittal, but the equipment or materials may still be released for manufacture. All notations and comments must be incorporated in the final product. Resubmission is not necessary.

3. Revise and Resubmit (Action Code 3) is assigned when there are notations and comments requiring a resubmittal of the package. Work cannot proceed until the submittal is revised and resubmitted for review.

4. Not Approved (Action Code 4) is assigned when the submittal contains non-specified items or does not meet the requirements of the Contract Documents. It may also be assigned when there is a significant amount of missing material required for the Engineer to perform a complete review. The entire package

must be resubmitted, revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the requirements of the Contract Documents.

F. Informational submittals as defined in paragraph 1.2 do not require approval by the Engineer. Such submittals will be returned under one of the following codes:

1. Receipt Acknowledged (Action Code 5) is assigned when the submittal is provided for documentation purposes and is acknowledged as received. Comments may be noted using this action code.

2. Revise and Resubmit (Action Code 6) is assigned when there are notations and comments requiring a resubmittal of the package.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SUBMITTAL CERTIFICATION FORM

PROJECT:_____
ENGINEER:_____ ENGINEER'S PROJECT NO.:_____
CONTRACTOR:_____ CONTRACTOR'S PROJECT NO.:_____

TRANSMITTAL NO.:_____ SUBMITTAL NO.:_____
SPECIFICATION NO.:_____ DRAWING NO:_____
DESCRIPTION:_____
MANUFACTURER:_____

The above referenced submittal has been reviewed by the undersigned and I/we certify that the materials and/or equipment meets or exceeds the project specification requirements; that field measurements, dimensions, quantities, specified performance criteria, installation requirements, materials, catalog numbers and related materials have been verified; that all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the work has been determined and verified; that review includes all information related to the contractor's sole responsibility for means, methods, techniques, sequences, and procedures of construction and safety; and item has been coordinated with the overall project with:

☐ NO DEVIATIONS

☐ A COMPLETE LIST OF DEVIATIONS AS FOLLOWS:

_____
_____
_____
_____
_____
_____

SUBMITTED BY:_____ DATE:_____

GENERAL CONTRACTOR'S STAMP

SECTION 01350

HEALTH & SAFETY PLAN

PART 1 GENERAL

1.1 SUMMARY

A. The Contractor must:

1. Develop a site-specific Health and Safety Plan (HASP) specifically addressing the potential hazards that may be encountered at the work site. The HASP must include the information described in this specification (as applicable) and meet all applicable OSHA requirements.

2. Furnish all labor, equipment, materials, and employee training for effective implementation of the HASP and worker health and safety protection of all Contractor personnel.

3. Furnish all labor, equipment, materials, and employee training to effectively complete any required air monitoring and/or decontamination.

4. Review the requirements and data provided for the project and supplement the HASP with any additional measures deemed necessary to fully comply with applicable regulatory requirements and to adequately protect personnel on the site.

5. Maintain a copy of the HASP at the worksite, accessible to employees working at the site.

6. Post the emergency response plan section of the HASP, inclusive of emergency alerting and response procedures and directions to the nearest hospital, in a visible location for all workers to see.

B. Related Sections

1. 02220 – Demolition

2. 13281 – Asbestos Abatement

3. 13282 – Lead-Based Paint Management

4. 13283 – Hazardous Materials Abatement

5. 13284 – PCB-Contaminated Building Materials Abatement

1.2 SITE-SPECIFIC PROJECT CONDITIONS

A. The Contractor must review and understand all existing information as it relates to potential exposure to subsurface site contaminants, environmental data and reports made available to Contractor.

B. The Contractor must review and understand all existing information as it relates to potential exposure to hazardous structure/building materials (i.e., asbestos, polychlorinated biphenyls (PCBs), lead paint, and oil/hazardous materials containers). Site-specific information with respect to potential exposures to hazardous

structure/building materials are included in applicable technical specifications contained herein.

C. The nature of the materials present at the site may require use of special protective clothing and the possible use of respiratory protective equipment, which is intended to help minimize worker exposure to known or suspected site hazards.

1. Levels of personal protection are established in reference standards and generally described for Levels C and D herein.

2. The Contractor must be responsible for determining if a higher level of personnel protection is required based on the criteria outlined in the Contractor's HASP. In the event that the Contractor determines that a level of protection higher than Level D is required, the Contractor's personnel must take the necessary steps outlined in the Contractor's HASP.

3. The Contractor must notify the Engineer and Owner in writing prior to implementing any upgrades in personal protection. The Engineer will review the Contractor's notification and determine the need to notify other applicable agencies.

1.3 REFERENCES

A. OSHA 29 CFR Part 1910 (General Industry standards)

B. OSHA 29 CFR Part 1926 (Construction Standards)

C. OSHA Regulation 29 CFR §1910.120 (HAZWOPER)

D. OSHA Regulation 29 CFR §1926.65 (HAZWOPER)

E. Applicable state regulations

F. OSHA Regulation 29 CFR §1926.62 (Lead)

G. OSHA Regulation 29 CFR §1926.1101 (Asbestos)

1.4 DEFINITIONS

A. CHMM: Certified Hazardous Materials Manager, as certified by the Institute of Hazardous Materials Management.

B. CIH: Certified Industrial Hygienist, as certified by the American Board of Industrial Hygiene®.

C. CSP: Certified Safety Professional, as certified by the Board of Certified Safety Professionals.

D. Site Safety and Health Official (SSHO): The individual located at a job site who is responsible to the Contractor and has the authority and knowledge necessary to implement the HASP and verify compliance with applicable safety and health requirements.

E. HAZWOPER: Hazardous waste operations and emergency response (HAZWOPER) standards, per the Occupational Safety and Health Administration's (OSHA's) 29 CFR §1910.120 and 29 CFR §1926.65 regulations.

F. Regulated clean-up site: A site regulated under OSHA's HAZWOPER standards contained in 29 CFR §1910.120 and 29 CFR §1926.65, inclusive of the following:

1. Clean-up operations required by a governmental body, whether federal, state, local or other involving hazardous substances that are conducted at uncontrolled hazardous waste sites,

2. Corrective actions involving clean-up operations at sites covered by the Resource Conservation and Recovery Act of 1976 (RCRA), and

3. Voluntary clean-up operations at sites recognized by federal, state, local or other governmental bodies as uncontrolled hazardous waste sites.

G. Uncontrolled Hazardous Waste Site: An area identified as an uncontrolled hazardous waste site by a governmental body, whether federal, state, local or other where an accumulation of hazardous substances creates a potential threat to the health and safety of individuals or the environment or both.

1.5 SUBMITTALS

A. On-site Work must not begin until the HASP has been submitted by the Contractor and accepted by the Owner/Engineer.

B. Informational Submittals

1. Submit the following within thirty (30) days after the Effective Date of the Agreement.

a. A site-specific HASP, including the information described in this Specification as applicable.

1) The HASP must be reviewed, approved, and signed by a CSP, CIH, or CHMM.

2) The Engineer's review is only to determine if the HASP is consistent with the minimum requirements of this specification. Engineer has no control over contractor's health & safety and the means and methods of health & safety implementation. Engineer also does not perform health & safety monitoring of Contractor's Work.

3) The review will not determine the adequacy of the HASP to address all potential hazards, as that remains the sole responsibility of the Contractor.

b. Documentation of qualifications and experience of the SSHO.

c. Applicable health and safety training records.

2. Submit health and safety certification and training records, including:

a. Current certifications of employee's HAZWOPER training, and

b. Current certification of HAZWOPER supervisor training for project supervisors.

1.6 CONTRACTOR'S RESPONSIBILITIES

A. The Contractor is solely responsible for the health and safety of workers employed by the Contractor, any subcontractor, vendors/manufacturers, site visitors and anyone directly or indirectly employed by any of them.

B. Provide a designated SSHO for the project.

C. Pre-arrange emergency medical care services at a nearby hospital or medical clinic, including establishment of an emergency notification process and emergency routes of travel.

D. Conduct pre-entry and weekly safety meetings with all site personnel, documenting attendance and topics covered.

E. Develop and implement the site-specific HASP, inclusive of the elements in contained in this specification.

F. For projects where contaminated media are known, likely, or suspected to be encountered:

1. Monitor air quality in and around the work area using appropriate air monitoring equipment.

2. Develop and implement a respiratory protection program per 29 CFR §1910.134 and 29 CFR §1926.103 for all workers authorized to wear respirators.

3. Record all air quality readings and maintain records on site.

4. Stop work and/or upgrade respiratory protection or personal protective equipment levels if action levels established in the HASP are exceeded.

5. Ensure that the degree and type of respiratory protection provided is protective for the monitored concentrations and individual chemical parameters.

6. Lawfully dispose of all personal protective equipment that cannot be decontaminated.

G. Work under this contract is being performed on a "Regulated clean-up site", as defined in 29 CFR §1910.120, 29 CFR §1926.65, and Article 1.4 F, above.

H. The site-specific HASP must include all elements required by OSHA's HAZWOPER standard, as contained in 29 CFR §1910.120(b) and 29 CFR §1926.65(b) and the elements in this specification.

I. Train all workers assigned to areas where contaminated media are likely to be encountered in accordance with 29 CFR §1910.120(e) and 29 CFR §1926.65(e).

J. Develop and implement a medical surveillance program per 29 CFR §1910.120(f) and 29 CFR §1926.65(f) for applicable employees.

K. Provide a Lead Exposure Control Plan in accordance with 29 CFR §1926.62(e)(2).

1.7 HEALTH & SAFETY PLAN (HASP) REQUIREMENTS

A. The HASP must comply with the requirements of 29 CFR §1910.120(b)(4) and 29 CFR §1926.65(b)(4).

B. The following items must be included/addressed in the HASP:

1. A safety and health risk or hazard analysis for each site task and operation in the workplan.

    a. A physical hazard evaluation and hazard control plan must be included covering, but not limited to the following, as applicable:

        1) Equipment operation

        2) Confined space entry

        3) Slips, trips, and falls

        4) Building collapse

        5) Falling debris

        6) Encountering unmarked utilities

        7) Cold and heat stress

        8) Hot work (cutting and welding)

        9) Drum and container handling

        10) Trench and/or excavation entry

2. Employee training assignments to assure compliance with 29 CFR §1910.120(e) and 29 CFR §1926.65(e).

3. Personal protective equipment to be used for each site task and operation in the workplan.

    a. Inclusive of a personal protective equipment program to comply with 29 CFR §1910.120(g)(5) and 29 CFR §1926.65(g)(5).

4. Medical surveillance requirements to comply with 29 CFR §1910.120(f) and 29 CFR §1926.65(f).

5. The frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment to be used.

    a. The action level (AL) and Permissible Exposure Limit (PEL) for each contaminant must be listed along with the type of monitoring instrument that will be used.

    b. The frequency of the monitoring must also be included (i.e. continuous, daily, weekly, monthly).

6. Site control measures to comply with 29 CFR §1910.120(d) and 29 CFR §1926.65(d).

7. Decontamination procedures to comply with 29 CFR §1910.120(k) and 29 CFR §1926.65(k).

8. An emergency response plan for the safe and effective response to emergencies, including the necessary PPE and other equipment to comply with 29 CFR §1910.120(l) and 29 CFR §1926.65(l);

   a. Including, but not limited to the following:

      1) A map indicating the route to a nearby hospital or medical clinic for emergency medical care

      2) Procedures for emergency medical treatment and first aid

      3) The names of three (3) Emergency Response Contractors, experienced in the removal and disposal of oils and hazardous chemicals, that the Contractor intends to use in the event of an emergency

      4) Site evacuation routes and procedures

      5) Emergency alerting and response procedures

9. Confined space entry procedures to comply with 29 CFR §1910.146 and 29 CFR 1926, Subpart AA.

10. A spill containment program to comply with 29 CFR §1910.120(j) and 29 CFR §1926.65(j).

PART 2 PRODUCTS

2.1 AIR MONITORING EQUIPMENT

A. If organic vapors or total hydrocarbons are known, likely, or suspected to be encountered during the work:

   1. Provide and maintain a portable photo-ionization detector (PID) or flame-ionization detector (FID) capable of detecting organic vapors or total hydrocarbons. Equipment must be sensitive to the 0.5 parts per million (PPM) level.

B. If hazardous atmospheres (oxygen, hydrogen sulfide, carbon monoxide, methane, etc.) are known, likely, or suspected to be encountered during the work:

   1. Provide and maintain an applicable multi-gas analyzer to measure concentrations in applicable work environments (i.e. confined spaces, trenches, tunnels, buildings, etc.).

C. If there is a potential for the accumulation of explosive gas:

   1. Provide and maintain an explosimeter (LEL meter).

D. If there is a potential for exposure to any other airborne contamination, Contractor must determine what monitoring may be required.

E. If there is a potential for visible dust emissions or the site, dust monitoring must be considered.

1. The Contractor is responsible for monitoring fugitive dust emissions in accordance with applicable local, state, and federal regulations.

2. Equipment must be sensitive to particulate matter less than 10 micrometer in size (PM_{10}) at a level of 100 micrograms per cubic meter ($\mu g/m^3$).

3. Contractor must outline the dust monitoring program in their HASP, including applicable action levels.

F. All air monitoring equipment must remain the property of the Contractor.

G. All air monitoring equipment readings must be recorded and be available for federal, state, and/or local regulatory personnel to review.

2.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

A. All PPE must conform to the OSHA requirements, as indicated in the previous Reference Standards Section. Various PPE to be furnished by the Contractor under different levels of protection for their own personnel and subcontractor's personnel include, but are not limited to, the following:

1. Level D Protection:

   a. Coveralls or Tyvek

   b. Gloves

   c. Safety boots/shoes

   d. Safety glasses

   e. Hearing protection (for high noise operations)

   f. Hard hat with optional face shield

2. Level C Protection:

   a. Air-purifying respirator

   b. Chemical protective overalls or Coveralls (e.g., Saran coated Tyvek)

   c. Gloves, inner (disposable, surgical type)

   d. Gloves, outer (Neoprene, Nitrile, Viton or Butyl)

   e. Boots, chemical protective, steel toe and shank (Neoprene or Nitrile)

   f. Booties, chemical protective (disposable PVC)

   g. Hard hat

   h. Face shield (if necessary)

3. Levels B and A represent increased levels of personal protection and are described in the Reference Standards.

4. Contractor is fully responsible for all PPE selection (including the various stages of protection), proper use, maintenance, and continuous monitoring.

PART 3 EXECUTION

3.1 HEALTH AND SAFETY PLANNING AND IMPLEMENTATION

A. Implement the HASP throughout the execution of all applicable work.

B. The Contractor must perform all monitoring as detailed in the HASP.

C. Contractor(s) must implement routine health and safety meetings and any follow-up supplemental briefings.

D. Provide applicable health and safety training for all personnel who may come in contact with or be exposed to various dangerous, hazardous, or changing site conditions.

E. Personnel who have not received applicable training and who are not equipped with the required PPE, must not be permitted access to the site by the Contractor during the course of the work that may result in potential exposures to unsafe or hazardous site conditions.

F. All personnel, including personnel for subcontractors, who must maintain 40-hour OSHA training, must provide certificates of completion for the applicable 8-hour OSHA refresher course.

3.2 DUST CONTROL AND MONITORING

A. Implement fugitive dust suppression to prevent unacceptable levels of dust resulting from the work. Dust suppression methods must be subject to review by the Engineer. Supervise fugitive dust control measures and monitor airborne particulate matter as required.

B. The Contractor must periodically monitor dust conditions. The dust monitoring results must be compared to a permissible concentration for PM_{10} of 150 $\mu g/m^3$. If a time-weighted average exceeds this dust action level or if visible dust is observed outside the immediate work area, the Contractor must implement dust control measures. Dust monitoring records must be provided to Engineer.

C. Additional dust control and monitoring requirements may be necessary based on the contaminants present at the Site. The Contractor must determine what additional control measures and monitoring requirements are necessary.

3.3 PERSONNEL AND EQUIPMENT DECONTAMINATION

A. All equipment must be provided to the work site free of contamination. Engineer may prohibit from the site any equipment which in his opinion has not been thoroughly decontaminated prior to arrival. Any decontamination of Contractor's equipment prior to arrival at the site must be at the expense of Contractor. Contractor is

prohibited from decontaminating equipment on the project site which is not thoroughly decontaminated prior to arrival.

B. The Contractor must furnish labor, materials, tools, and equipment for decontamination of all personnel, equipment and supplies which are used to handle contaminated materials.

C. Properly store and dispose of contaminated PPE and all other generated decontamination waste.

3.4 INCIDENT REPORTING

A. The Contractor must comply with all accident and/or incident reporting requirements, including the following:

1. Should any unforeseen safety-related factor, hazard, or condition become evident during the course of the work, the Contractor must immediately take action to establish, maintain, and secure the site and working conditions. This must be followed by immediate notice to the Owner and Engineer.

2. If injury to any person on-site occurs, the Contractor must immediately report the incident to the Owner and Engineer. Corrective actions must be implemented.

END OF SECTION

SECTION 01520

CONSTRUCTION FACILITIES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Field office

2. Temporary sanitary and first-aid facilities

3. Site Sign

1.2 QUALITY ASSURANCE

A. Maintain temporary construction facilities in proper and safe condition throughout the progress of the Work.

1.3 FIELD OFFICE

A. Provide and maintain for the duration of the Work at a location approved by the Owner and the Engineer, a separate field office trailer or equivalent, for the exclusive use of the Resident Project Representatives. The plans and construction of the office shall be approved by the Engineer and shall be not less than 450 square feet without approval.

B. Trailer shall be equipped with two exterior doors, and at least 3 screened and lockable windows. The trailer shall be weather tight and insulated in the walls, floor, and ceiling. Electrical and wireless internet service shall be provided to the trailer. Doors shall be equipped with locks and two keys shall be supplied for the Engineer's use.

C. Each office shall be equipped with the following:

1. 2, flat top, 30″ x 60″ desks with a minimum of 3 drawers each

2. 2, standard desk armchairs on rollers

3. 1, table at least 3 feet wide x 6 feet long with sufficient chairs to seat 6

4. Overhead lighting (75 foot candles minimum)

5. CO_2 fire extinguisher

6. 1, large waste baskets, 1 broom, and dustpan

7. Bathroom with toilet and sink

D. Thermostatically controlled heating units or central system of adequate capacity to maintain 70°F under all cold weather conditions. Thermostatically controlled refrigerant type air conditioners of adequate capacity to maintain a maximum temperature of not more than 68°F under all hot weather conditions.

E. Maintain the office during construction of the Work. The cost for operation of the field office shall be the responsibility of the Contractor.

F. Remove all field offices and temporary facilities from the site after the completion of the Work. The premises shall be restored to a condition equivalent to that which existed prior to installation of the facilities, as determined by the Engineer.

1.4 TEMPORARY SANITARY AND FIRST AID FACILITIES

A. Provide suitably enclosed chemical or self-contained toilets for the use of the labor force employed on the Work. Toilets shall be located near the Work sites and secluded from observation insofar as possible. Toilets shall be serviced weekly, kept clean and supplied throughout the course of the Work.

B. Contractor shall enforce proper use of sanitary facilities.

C. Provide a first aid station at the site.

1.5 SITE SIGN

A. Erect the site sign at the location designated by Owner and Engineer.

1. Refer to "State of Connecticut DECD Bidding, Contracting & Construction Guidelines for State Programs" for site sign specifications.

2. Install sign where designated to inform public and persons seeking entrance to Project. Do not permit installation of unauthorized signs.

a. Engage an experienced sign painter to apply graphics for Project identification sign.

b. Secure sign with 4 bolts per post.

c. Paint sign panel and applied graphics with exterior-grade alkyd gloss enamel over exterior primer.

3. Install posts vertically to a minimum depth of 3 feet. Install top of sign level at a minimum distance of 8 feet above grade.

B. Maintain sign throughout construction.

C. Remove and dispose of sign at completion of construction, when directed by the Engineer.

PART 2 PRODUCTS

2.1 SITE SIGN MATERIALS

A. General: Provide new materials. Undamaged, previously used materials in serviceable condition may be used if approved by the Engineer. Provide materials suitable for use intended.

1. Sign Panel: Plywood, APA rated A-B grade – Exterior, 3/4 inch thick.

a. Minimum Size: 4-feet by 8-feet.

2. Posts: Pressure-treated, southern yellow pine.

a. Size: 4-inch by 4-inch.

3. Fasteners: Galvanized steel nuts, bolts, and washers.

a. Size: 5/16 inch.

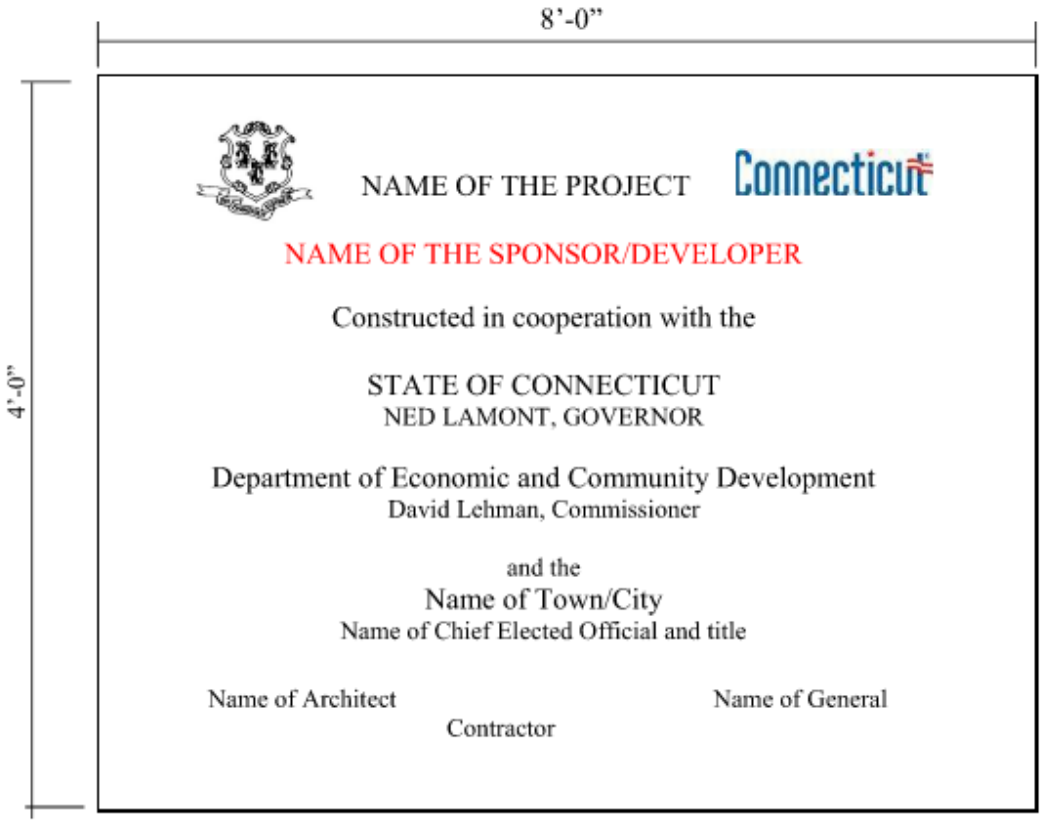
4. Finish: Good grade of outdoor enamel paint.

a. Two coats of white oil base undercoat primer on all sides.

b. One finish coat of white on sign face.

5. Design of sign face is shown below and is subject to approval by owner.

DEPARTMENT OF ECONOMIC & COMMUNITY DEVELOPMENT
PROJECT SIGN



SIGN PANEL: ¾" MDO-EXT-APA PLYWOOD SUPPORTED WITH (2) 4X4 TREATED WOOD COLUMNS AND SECURED 4' INTO GRADE. TOP OF SIGN AT 8'-0" ABOVE GRADE.

COLORS: ALL LETTERS AND SYMBOLS ARE TO BE ROYAL BLUE. THE BACKGROUND WILL BE WHITE ENAMEL. BACK OF PLYWOOD AND SUPPORT STRUCTURE SHALL BE PAINTED MATTE BLACK.

TYPEFACE: HELVETICA MEDIUM

LOCATION: SIGN MUST BE LOCATED TO BE CLEARLY VISIBLE TO THE PUBLIC.

TIMING: INSTALL AT THE START OF CONSTRUCTION AND REMOVE AT CONSTRUCTION COMPLETION.

STATE SEAL & DECD LOGO: ATTACHED

END OF SECTION

SECTION 01570

TEMPORARY CONTROLS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Dust control
2. Drainage and erosion control
3. Haybales and siltation fence
4. Sediment trapping devices

1.2 SUBMITTALS

A. Informational Submittals

1. Construction Sequencing Plan
2. Materials proposed for use in dust control

B. Action Submittals

1. Product Data, Cutsheets, Material Certifications for all products proposed for use in the execution of the Work:

a. Haybales, siltation fence, straw waddles, mulch, and sediment trapping devices

1.3 REQUIREMENTS AND RESTRICTIONS

A. Control and abate siltation, sedimentation, erosion and pollution of all waters, and underground water systems, throughout the life of the contract.

B. Do not refuel equipment or machinery within twenty-five (25) feet of any watercourse or storm drainage system.

C. Do not place materials resulting from construction activities in, or contribute to, the degradation of an adjacent wetland or watercourse. Dispose of any material in accordance with these Specifications and the Connecticut General Statutes, including but not limited to, Sections 22a-207 through 22a-209.

D. Submit, in writing, a construction sequencing plan to be reviewed and approved by the Engineer and Owner prior to the commencement of any construction.

E. When dewatering surface runoff is necessary, do not discharge pumps directly into any drainage system. Prior to dewatering, submit to the Owner and the Engineer, for their review, a written proposal for specific methods and devices to be used. Detail the methods and devices to be used, including but not limited to, pumping the water into a temporary sedimentation bowl, installation of sump pits, providing surge protection at the inlet and outlet of pumps, or floating the intake of the pump, or other methods to minimize and retain the suspended solids.

F. Do not dump oil, chemicals or other deleterious materials on the ground. Provide a means of catching, retaining, and properly disposing of drained oil, removed oil filters, or other deleterious material. All spills of such materials shall be reported immediately to the CTDEEP.

G. Do not apply herbicides or pesticides to the Site.

H. Inspect temporary and permanent erosion and sedimentation controls immediately after each rainfall and daily during prolonged rainfall. Maintain all erosion and sedimentation control devices in a functional condition in accordance with the Contract Documents, manufacturer's guidelines and the latest edition of the "Connecticut Guidelines for Soil Erosion and Sediment Control", as amended. In the event that such devices are not maintained in accordance with these documents, and the failures are not corrected within 48 hours after receipt of written notice, the Owner may proceed to remedy the failures specified in the notice. The cost thereof will be deducted from monies due the Contractor under the contract or under any other contract.

PART 2 PRODUCTS

2.1 HAYBALES AND STRAW WADDLES

A. Haybales and straw waddles required for siltation control shall be of the type normally used for siltation or erosion control or construction projects.

2.2 FILTER FABRIC

A. Filter fabric siltation fencing shall be a woven filter fabric having a weight of at least 2.5 ounces per square yard, a thickness of at least 17 mils, a coefficient of permeability of not less than 0.0009 centimeters per second and allows a water flow rate of a minimum 40 gallons per minute per square yard. The material shall have a high sediment filtration capacity, high slurry flow and minimum clogging characteristics. The material shall be equal to FW-300 as manufactured by Mirafi, Inc., Charlotte, North Carolina; Amoco 2130 by Nilex, Inc., Centennial, CO; MISF 180 by Mutual Industries, PA; or equal.

2.3 SEDIMENT TRAPPING DEVICES

A. Sediment trapping devices shall be Siltsack®, Dandy Bag II®, or equal.

PART 3 EXECUTION

3.1 DUST CONTROL

A. Control dust during the Work.

B. Prevent dust from becoming a nuisance or hazard. During demolition and other activities all work areas are to be policed and controlled to prevent spreading of the material.

C. Control dust during the work on-site using calcium chloride and/or water.

D. During the Work on-site, all paved road and driveway surfaces shall be scraped and broomed free of accumulated materials on a daily basis. The surfaces shall be hosed down or otherwise treated to eliminate active or potential dust conditions and the natural road or wearing surface shall be exposed.

E. Ensure that the existing equipment, facilities, and occupied space adjacent to or nearby areas of the work do not come in contact with dust or debris as a result of demolition, excavation or surface preparation for coatings.

3.2 DRAINAGE AND EROSION CONTROL

A. Control erosion and siltation during the Work through haybales, siltation fencing, diversion and control of storm water run-off, ponding areas and similar methods.

B. Provide and maintain sediment trapping systems.

C. Discharge surface runoff from any disturbances to the site into silt containment basins. Utilize siltation prevention measures including haybale and geotextile fences before discharge to drainage systems.

D. Install sediment trapping devices in catch basins located in existing paved areas with sediment trapping devices to minimize the transport of sediment through the subsurface stormwater collection system.

3.3 SILTSACK®

A. Install SILTSACK® in all drainage inlet structures and drywells on site and along the roadway and as otherwise directed.

B. Install the SILTSACK® by removing the grate and placing the sack in the opening. Hold approximately 6 inches of the sack outside the frame. This is where the lifting straps are located. Replace the grate to hold the sack in place.

C. Remove the SILTSACK® by taking two pieces of 1" diameter rebar and placing them through the lifting loops on each side of the sack to facilitate the lifting of the SILTSACK®.

D. Empty the SILTSACK® when the restraint cord is no longer visible. Place it where the contents will be collected. Place the rebar through the lift straps (connected to the bottom of the sack) and lift, turning the SILTSACK® inside out and emptying the contents. Clean out and rinse. Return the SILTSACK® to its original shape and replace in the basin.

3.4 HAYBALES AND SILTATION FENCE

A. Install haybales by anchoring bales butted together to existing ground with at least 2 stakes per bale. The stake shall be a minimum of 1-inch square cross section and shall be long enough to penetrate 12 inches into the ground. Replace deteriorated haybales. Remove and dispose of the haybales following the successful growth of vegetation in the areas disturbed by the construction. Haybales shall not be removed until their removal is approved by the Engineer.

B. Install a filter fabric siltation fence in addition to the staked haybales, prior to construction and remove after full surface restoration has been achieved. Install the siltation fence parallel and immediately adjacent to the haybales as shown on the Drawings. Install as follows:

1. Hand shovel excavate a small trench on the upstream side of the desired fence line location.

2. Unroll the siltation fence system, position the post in the back of the trench (downhill side), and hammer the post at least 1½ feet into the ground.

3. Lay the bottom 6 inches of the fabric into the trench to prevent undermining by storm water run-off.

4. Backfill the trench and compact.

3.5 CLEANING

A. Remove any sediment that builds up around the haybales or catch basins.

B. Clean sediment trapping devices periodically during the Work. Devices shall be cleaned on a weekly basis, or more frequently if the devices become clogged.

C. Clean catch basins that collect sediment as a result of the Work.

END OF SECTION

SECTION 01725

PRESERVATION AND RESTORATION OF PROJECT FEATURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Protection and replacement of trees, shrubs, signs, property markers, fences, and related project features.

2. Taking precautions, providing programs, and taking actions necessary to protect public and private property and facilities that are outside the demolition scope from damage.

1.2 DEFINITIONS

A. Underground Structures

1. Underground structures are defined to include, but not be limited to, sewer, water, gas, and other piping, and manholes, chambers, electrical and signal conduits, tunnels and other existing subsurface work located within or adjacent to the limits of the Work.

2. Underground structures known to the Engineer are shown on the Drawings to the extent that locations are available. This information is shown for the assistance of the Contractor in accordance with the best information available, but is not guaranteed to be correct or complete. The Contractor shall be responsible for checking on the actual locations of water, sewer, gas electric and telephone service connection lines to avoid potential interferences.

B. Surface Structures

1. Surface structures are defined as existing buildings, structures, and other facilities above the ground surface. Included with such structures are their foundations or any extension below the surface. Surface structures include, but are not limited to, buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks and all other facilities that are visible above the ground surface.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 REPAIR/RESTORATION

A. Trees, shrubs, and similar items shall not be removed except where indicated on the drawings or as necessary to access the required work, as approved by the Engineer. Items to be removed shall be clearly marked as directed by the Engineer. If objects not to be removed are damaged or removed, they shall be repaired or replaced to their original condition.

B. Trees and shrubs on private property, which are removed or damaged by the Contractor shall be replaced in kind.

C. Signs, fences, property markers, walls, guard rails and other public or private property that are outside the demolition scope shall be replaced in kind if damaged. Supports and protective devices required shall be provided.

D. Underground and Surface Structures

1. In the event of damage, injury or loss to existing utilities and structures that were not indicated to be removed or abandoned, whether shown on the Drawings or not, make all reasonable efforts to facilitate repairs and to mitigate the impact of such events upon the utility or structure owner's normal operations. Restore the existing utility or structure to the condition required by the owner of the utility or structure or at least to the condition found immediately prior to the Work. In the event that the utility owner elects to make the repairs, provide all reasonable access and assistance, and reimburse the utility owner for the cost of repairs. If utility service is interrupted due to damage to facilities, alternate facilities shall be provided.

2. All other existing surface facilities, including but not limited to, guard rails, posts, guard cables, signs, poles, markers and curbs which are temporarily removed to facilitate the Work shall be replaced and restored to their original condition at the Contractor's expense unless otherwise indicated in other sections of these specifications.

3. Wherever water, sewer, gas or petroleum mains, electric or telephone lines, cables or other utilities and structures are encountered and may be in any way interfered with, inform the Engineer and the appropriate utility company. Cooperate with the Engineer and utility company in the protection, removal, relocation, and replacement of structures and facilities.

4. Prior to proceeding with any demolition or construction, notify in writing owners of utilities and structures within the vicinity of the proposed Work.

5. Work affecting water distribution systems, which will take fire hydrants out of service, must be coordinated with the local fire department. The Contractor shall be prepared to restore fire flows in the event of an emergency or to provide for temporary fire flow service in accordance with the requirements of the local fire department.

6. Materials used for relocation or replacement of utilities and structures shall be of an equivalent material, type, class, grade and construction as the existing or as approved by the respective owners thereof, unless otherwise shown or specified.

7. When any survey monument or property marker, whether of stone, concrete, wood or metal, is in the line of any trench or other demolition or construction work and may have to be removed, notify the Engineer in advance of removal. Under no circumstances shall any monument or marker be removed or disturbed by the Contractor or by any of his Subcontractors, employees or agents, without the permission of the Engineer. Monuments or markers removed or disturbed shall be reset by a land surveyor licensed in the State where the Work is located

at the Contractor's expense. Should any monuments or markers be destroyed through accident, neglect or as a result of the Work under this Contract, the Contractor shall, at his own expense, employ a land surveyor licensed in the State where the Work is located to re-establish the monument or marker.

3.2 PROTECTION

A. The construction of certain portions of the project may require excavation within the root systems of trees. Roots with a diameter of 2 inches or more within the excavation shall not be cut. If necessary, excavation shall be made with small powered equipment or by hand to comply with this requirement. It may be necessary to excavate from more than one direction to avoid damage to the roots.

B. The trunks of trees that are to remain and are within the swing radius of the excavating machine bucket when fully extended shall be wrapped with burlap and 2 inch by 4 inch protective wood slats (8 inch spacing maximum) wired around the circumference of the trees to protect them from damage.

C. Tree limbs shall not be cut except upon written approval of the Owner and the Engineer. Tree limbs cut shall be painted with approved forestry paint manufactured specifically for that purpose.

D. Underground and Surface Structures

1. Sustain in their places and protect from direct or indirect injury underground and surface structures designated to remain within or adjacent to the limits of the Work. Such sustaining and supporting shall be done carefully and as required by the party owning or controlling such structure. Before proceeding with the work of sustaining and supporting such structure, satisfy the Engineer that the methods and procedures to be used have been approved by the party owning same.

2. Pay utility service company charges related to the temporary support of utility poles if required to complete the Work.

3. Assume risks associated with the presence of underground and surface structures within or adjacent to the limits of the Work. The Contractor shall be responsible for damage and expense for direct or indirect injury caused by his Work to any structure. Immediately repair damage caused by the Work to the satisfaction of the owner of the damaged structure.

END OF SECTION

SECTION 01770

CLOSEOUT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Documentation required for the transfer of the completed Work to Owner.

2. Final cleaning and site restoration

1.2 DEFINITION

A. Closeout is defined to include general requirements near the end of Contract Time, in preparation for final acceptance, final payment, normal termination of contract, occupancy by Owner and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in sections of Division 2 through 13. Time of closeout is directly related to "Substantial Completion".

1.3 SUBMITTALS

A. Closeout Submittals

1. Warranties and Bonds

2. Evidence of payment and release of liens

3. List of Subcontractors, service organizations, and principal vendors

4. Consent of surety as to release of final payment and retainage

1.4 SUBSTANTIAL COMPLETION

A. Within ten (10) days following receipt of Contractor's request for substantial completion inspection, the Engineer will either proceed with inspection or advise Contractor of prerequisites not fulfilled.

B. Following initial inspection, the Engineer will either authorize Certificate of Substantial Completion, or advise Contractor of Work which must be performed prior to issuance of certificate; and repeat inspection when requested and assured that work has been substantially complete. Results of completed inspection will form initial "punch-list" for final acceptance.

C. Should the Engineer consider that Work is substantially complete, the Contractor shall prepare, and submit to Owner a list of items to be completed or corrected, as determined by the inspection.

D. The Engineer will authorize the Certificate of Substantial Completion.

E. Complete work listed for completion or correction, within designated time.

F. Should the Engineer order that work list is not substantially complete, he shall notify Contractor in writing stating reasons.

G. Complete work, and send second written notice to Engineer certifying that Project, or designated portion of Project, is substantially complete.

H. Engineer will re-inspect work.

1.5 PREREQUISITES TO FINAL ACCEPTANCE

A. In addition to the requirements of the General Conditions, submit prior to requesting Engineer's final inspection for certification of final acceptance and final payment, as required by General Conditions, complete the following and list known exceptions (if any) in request:

1. Submit certified copy of Engineer's final punch-list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance.

2. Submit record drawings, specific warranties, workmanship/maintenance bonds, maintenance agreements, final certifications and similar record documents as specified herein.

1.6 FINAL ACCEPTANCE

A. Within ten (10) days following receipt of contractor's notice that the work has been completed, including "punch list" items from earlier inspections, Engineer will re-inspect the work. Upon completion of re-inspection Engineer will either notify Contractor in writing of work not completed or obligations not fulfilled as required for final acceptance of request Contractor submit evidence of payments, release of liens and final application for payment as an indication of final acceptance.

B. Contractor shall take immediate steps to remedy the stated deficiencies, and send second written notice to Engineer certifying that work is complete and Engineer will re-inspect work.

C. Should Engineer be required to perform second inspections because of failure to work to comply with original certifications of Contractor, The Owner will compensate Engineer for additional services, and deduct amount paid from final payment to Contractor. Engineer’s compensation will be at a maximum rate of two hundred and twenty-five dollars ($225) per hour.

1.7 PROJECT CLOSEOUT DOCUMENTS

A. Closeout Documents

1. Submit to the Engineer, final completed copies of the Waste Shipment Records (WSR), signed by all transporters and the designated disposal site owner/operator.

2. Submit to the Engineer copies of all Contractor's logs and all worker certifications.

3. Submit to the Engineer copies of all OSHA personal air monitoring results.

4. **Final payment will be withheld until receipt of all the above documentations to Owner’s/Engineer’s satisfaction.**

1.8 FINAL PAYMENT

A. Refer to General Conditions, for procedures relating to final inspection and payment.

B. The Contract shall be considered complete and final payment made, only when:

1. All provisions of the Contract Documents have been strictly adhered to.

2. The project and premises have been left in good order, including removal of all temporary construction, wastes, Contractor-owned and extraneous materials.

1.9 RECORD DRAWINGS

A. During progress of work maintain two sets of contract drawings, shop drawings, and any special drawings with mark-up of actual installation which vary substantially from the work as originally shown.

B. When shop drawings are marked-up, mark cross-reference on contract drawings at corresponding location.

C. Mark-up important additional information which was either shown schematically or omitted from original drawings. Give particular attention to information on work concealed, which would be difficult to identify or measure and record at a later date.

D. Note alternative numbers, change order numbers and similar identification.

E. Require each person preparing mark-up to initial and date mark-up.

1.10 RECORD SPECIFICATION

A. During progress of the work, maintain two copies of specifications, including addenda, change orders and similar modifications issued in printed form during construction, and mark-up variations (of substance) in actual work in comparison with text of specifications and modifications as issued. Give particular attention to substitutions, selection of options, and similar information on work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation. Note related record drawing information and product data, where applicable.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 CLEANING

A. Clean job site and all work areas to the Engineers satisfaction.

B. Remove and entirely dispose of material or debris from the site or that has washed, flowed or has been placed in existing watercourses, ditches, gutters, drains, pipe, or structures, for work done under the Contract work limits. Leave ditches, channels, drains, pipes, structures, and watercourses in a clean and neat condition upon completion of the Work.

C. Restore or replace any public or private property damaged or removed during the course of the Work. Property shall be returned to a condition at least equal to that existing immediately prior to the beginning of operations. Complete all highway or driveway, walk, and landscaping work using suitable materials, equipment and methods. Perform restoration of existing property, signs or structures promptly as work progresses; do not leave restoration work until the end of the Contract Time.

END OF SECTION

SECTION 02110

CONTAMINATED SOIL EXCAVATION

PART 1 GENERAL

1.1 SUMMARY

A. Contaminated subsurface soil is known to be present within the project limits including areas adjacent to and abutting the building foundations. Contractor must make all reasonable efforts to minimize disturbance and comingling of these soils with demolition wastes. Excavation of contaminated soil for remedial purposes is not specifically part of the project at this time.

B. Section Includes

1. Excavation, handling, stockpiling, and temporary storage of Polluted and Contaminated Soil

2. Movement and placement of Contaminated Soil into a temporary controlled stockpile area

3. Other work involving the handling of contaminated materials which may be required including but not limited to miscellaneous facility component removal, removal of obstructions, excavation support systems, and any incidental work related thereto.

C. Related Sections

1. Section 01350 - Health & Safety Plan

2. Section 02120 - Transportation and Disposal of Contaminated Materials

3. Section 02315 – Excavation, Backfill, and Compaction

1.2 REFERENCES

A. Regulations of Connecticut State Agencies (R.C.S.A) Sections 22a-133k-1 though 22a-133k-3

B. 40 CFR Part 261, Identification and Listing of Hazardous Waste

C. 40 CFR Part 268, Land Disposal Restrictions

1.3 DEFINITIONS

A. Natural Soil: Soil in which all substances naturally occurring therein are present in concentrations not exceeding the concentrations of such substance occurring naturally in the environment and in which soil no other substance is analytically detectable.

B. Polluted Soil: Means soil affected by a release of a substance at a concentration above the analytical detection limit for such substance but at concentrations below Residential Direct Exposure Criteria or GA Pollutant Mobility Criteria, as these terms are defined in section 22a-133k-1 of the Regulations of Connecticut State Agencies.

C. Contaminated Soil: Means soils or fills affected by a known or suspected release and determined, or reasonably expected to contain substances exceeding Residential Direct

Exposure Criteria or GA Pollutant Mobility Criteria, as these terms are defined in section 22a-133k-1 of the Regulations of Connecticut State Agencies.

D. Clean Fill: Means (1) natural soil and (2) rock, ceramics, uncontaminated brick and concrete.

E. Special Handling: Methods used to excavate, collect, grade, load, move, transport, stockpile, dispose, or otherwise manage a contaminated material or contaminated soil are such that (1) the spillage, loss, co-mingling, or uncontrolled deposition of such material is minimized, (2) personal exposure to contaminants present in such a material are minimized, (3) the adverse impacts to the community and the surrounding environment from contaminants present in such material are minimized, (4) all applicable regulatory requirements applicable to such activity are satisfied.

1.4 QUALITY ASSURANCE

A. All Excavation, Trenching, and related Earth Retention Systems shall comply with the requirements of OSHA excavation safety standards (29 CFR Part 1926 Subpart P) and other State requirements. Where conflict between OSHA and State regulations exists, the more stringent requirements shall apply.

B. All contaminated material excavated or otherwise collected, consolidated and managed during the course of the work will require Special Handling in accordance with these specifications, Contractor Health and Safety Plan, and all applicable permits, approvals, authorizations, and Regulations.

C. Perform the handling of contaminated materials with equipment and techniques in accordance with the performance requirements defined in this specification.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 GENERAL

A. Provide all employees and subcontractor(s) with personal protective equipment and protective clothing consistent with the levels of protection for this work as indicated in Contractor's Health and Safety Plan.

B. Perform all contaminated material handling operations in accordance with standard engineering practices applicable to such activity, according to CTDEEP regulations, and according to the provisions of Contractor Health and Safety Plan. Utilize methods which consider the health and safety of all Contractor and subcontractor personnel, support personnel, Engineer and his representatives, and the surrounding environment.

C. All site health and safety controls shall be fully established and in operation prior to beginning any contaminated material handling activity. Site controls shall include but not be limited to work zones properly barricaded, decontamination facilities, air monitoring, and all support equipment and supplies including personal protective equipment. Comply with the requirements of Section 01350, Health and Safety Plan.

D. Minimize the spread of contaminated materials during handling. Transport vehicles used to move Contaminated Soil at the Project Site shall be free from leaks. Trucks

or other conveyances deemed unacceptable for use by Engineer shall not be used for the movement of contaminated materials.

E. Keep work areas, including but not limited to, areas adjacent to excavations, roadways leading to and from excavation areas, driveways, parking areas, and public roadways free of contaminated materials. If such materials are deposited, spilled, or spread, such material shall be removed promptly, and properly disposed of to the satisfaction of Engineer no later than the end of each working day or as requested by Engineer.

F. Owner is the generator and will sign all manifests and bills of lading. Except for materials required to be transported under manifest, transport all Contaminated Soil material under bills of lading (prepared by Contractor) regardless of the chemical quality of the soils.

3.2 EXCAVATION OF CONTAMINATED MATERIALS

A. Perform excavation in accordance with the requirements of Section 02315, Excavation, Backfill, and Compaction, and this section.

B. Excavate known or potentially contaminated soil to the necessary depth and horizontal limits to facilitate the Work and/or as directed by Engineer.

C. Engineer will assess field conditions to determine if additional excavation is required to achieve remedial objectives. This evaluation may require Engineer to work in close proximity to Contractor's excavation equipment and may require frequent pauses in the work. Contractor shall work in a cooperative manner at all times during these operations to ensure the safety of Engineer, and to allow for thorough field evaluations to be conducted.

1. When contaminated material excavation is undertaken, Engineer will make the final determination as to the limits of excavation required to achieve remediation objectives. Such limits may be greater than or less than the limits identified in 3.2A and shall be based upon actual conditions encountered at the time of excavation.

2. If required, Engineer will define those areas beyond the limits originally indicated where additional contaminated material excavation shall be required based upon field observations.

D. Minimize the spread and loss of contaminated materials during excavation activities.

1. Following excavation, transport contaminated materials directly to the temporary controlled stockpile area for stockpiling. Excavated contaminated materials shall not be placed directly on the ground.

E. Employ methods necessary to isolate contaminated materials from non-contaminated soils to the degree practicable.

F. Segregate construction debris from excavated contaminated materials at the point of excavation, prior to the movement of contaminated materials from excavation areas. Engineer may evaluate debris during excavation to determine if such material can be designated uncontaminated general demolition material.

G. Open excavations represent a substantial hazard. Contractor shall implement measures as appropriate to secure open excavations while awaiting Engineer's

confirmation test results from soils (refer to Item 3.5) or any other period when excavations remain open.

H. Implement measures to divert surface water around excavation sites to prevent water from directly entering into open excavations.

3.3 BACKFILL

A. Backfill excavations in accordance with Section 02315, Excavation, Backfill, and Compaction.

B. Backfill excavations as soon as possible after Engineer has indicated that test results confirm remediation objectives have been achieved and backfilling may proceed.

3.4 UNFORESEEN CONTAMINATED MATERIALS

A. In the event that unforeseen contaminated materials are encountered during the course of the work, permit the Engineer sufficient time to devise an appropriate course of action based upon the conditions present.

1. Until such appropriate course of action is devised, Contractor shall secure the work area in question such that it does not pose a health and safety risk.

2. Engineer will provide Contractor with a scope of work and performance requirements for the collection, consolidation, removal or excavation of unforeseen contaminated material. Contractor shall then undertake contaminated material remediation with equipment and techniques established by Contractor in accordance with said scope of work and performance requirements.

B. Contaminated material remediation shall be performed in accordance with scope of work outlined in Item 3.4.A.2 and in accordance with this specification.

3.5 CONFIRMATION TESTING BY ENGINEER

A. At such time the Engineer is satisfied that the limits of contaminated material have been reached, Engineer may perform confirmation sampling to confirm remediation objectives have been achieved.

B. Contractor is hereby notified that laboratory turnaround time for the analysis of confirmation samples may be up to 7 working days from date of collection. No claim for delay will be considered based upon Contractor failing to accommodate the laboratory turnaround time as defined herein.

C. Engineer will inform Contractor if test results confirm remediation objectives have been achieved and backfilling may proceed.

D. If additional contaminated material excavation or removal is required, Engineer will define those areas beyond the limits originally indicated where additional contaminated material excavation or removal shall be required.

3.6 STORAGE OF EXCAVATED MATERIALS

A. Excavated contaminated material shall be temporarily stockpiled on-site. Stockpile contaminated soils in an area designated by the Engineer in such a manner to protect existing site surface, materials and structures from contamination, runoff and erosion.

Place the contaminated soil on a minimum of 6 mil polyethylene sheeting and at the end of each day the stockpiled soil shall be covered with 6 mil polyethylene sheeting and secure the covering to prevent the stockpile from becoming uncovered due to winds.

3.7 DUST CONTROL

A. Implement fugitive dust suppression to prevent unacceptable levels of dust resulting from handling operations associated with contaminated materials. Dust suppression methods shall be subject to approval from Engineer. Supervise fugitive dust control measures and monitor airborne particulate matter as required.

END OF SECTION

SECTION 02120

TRANSPORTATION AND DISPOSAL OF CONTAMINATED MATERIALS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Transportation and disposal of Contaminated materials collected, consolidated, and generated during performance of the Work.

2. Coordination, loading, transportation and disposal of contaminated materials.

B. Related Sections

1. Section 01350 – Health & Safety Plan

2. Section 02110 – Contaminated Soil Excavation

3. Division 13

1.2 DEFINITIONS

A. Disposal: The discharge, deposit, injection, dumping, spilling, leaking, incineration or placing of any contaminated material or otherwise hazardous substance into or on any land or water so that such hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

B. Generator: Any person, by site, whose act or process produces hazardous waste, or whose act first causes an oil or hazardous material to become subject to regulation.

C. Regulated Waste: Non-Resource Conservation and Recovery Act (RCRA) hazardous wastes such as oils, petroleum products or residuals, chemical liquids, chemical gases or vapors, non-Toxic Substances Control Act (TSCA) polychlorinated biphenyls (PCBs), waste chemical solids, including materials, and other contaminated material wastes not defined as RCRA Hazardous, TSCA-regulated, or Special Waste.

D. Manifest: An approved form used as a shipping document to identify the quantity, composition, and the origin, routing, and destination of regulated or hazardous waste from the site of generation to the point of disposal, treatment, storage, or use.

E. Shipping Paper: An invoice, bill of lading, or other shipping document serving a similar purpose; other than a hazardous waste manifest used to document the conveyance of materials between different locations, including regulated wastes when applicable.

F. Treatment: Any method, technique or process, including neutralization, incineration, stabilization or solidification, designed to change the physical, chemical or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste less hazardous, non-hazardous, safer to transport, amenable to storage, or reduced in volume, except such method or technique as may be included as an integral part of a manufacturing process at the point of generation.

G. TSCA/RCRA Landfill: This type of landfill is permitted to accept material that contains PCB remediation waste with concentrations up to 500 ppm, acceptable for landfill disposal as defined in 40 CFR Part 761; material that is classified as either a RCRA characteristic waste or RCRA listed waste as defined in 40 CFR Part 261 but meets the treatment standards established in 40 CFR Part 268 - Land Disposal Restrictions; and all other material classified as a hazardous waste in CGS Section 22a-114 to 22a-134z Hazardous Waste Regulations. This type of landfill shall be approved to operate under a Federal Part B operating permit and shall be permitted to accept material with PCB concentrations up to 500 ppm under TSCA. The landfill shall be designed with a double composite liner meeting minimum RCRA design requirements. The landfill shall operate a leachate collection system and shall also operate a leak detection well system. The landfill shall be capable of stabilizing materials for meeting requirements of the USEPA's present rules required under the 1984 amendments to RCRA, banning the land disposal of hazardous material.

H. RCRA Landfill: This type of landfill is permitted to accept non-TSCA PCB contaminated material with concentrations < 50 ppm; material that is classified as either a RCRA characteristic waste or RCRA listed waste as defined in 40 CFR Part 261 but meets the treatment standards established in 40 CFR Part 268 - Land Disposal Restrictions and all other material classified as a hazardous material in CGS Section 22a-114 to 22a-134z Hazardous Waste Regulations. This type of landfill shall be approved to operate under a Federal Part B operating permit. The landfill shall be designed with a double composite liner meeting minimum RCRA design requirements. The landfill will operate a leachate collection system and will also operate a leak detection well system. The landfill shall be capable of stabilizing materials for meeting requirements of the land ban.

I. Non-RCRA Out-of-State Lined Landfill: This type of landfill shall be state approved or permitted to accept material that is defined as a hazardous material in CGS Section 22a-114 to 22a-134z Hazardous Waste Regulations, but is not classified as either a RCRA characteristic waste or RCRA listed waste as defined in 40 CFR Part 261; material containing non-TSCA PCBs below 50 ppm; and all other material not permitted or unsuitable for in-state disposal or recycling.

J. Out-of-State Recycling Facility: This type of facility shall be state approved or permitted to accept material that is defined as a hazardous material in CGS Section 22a-114 to 22a-134z Hazardous Waste Regulations, but is not classified as either a RCRA characteristic waste or RCRA listed waste as defined in 40 CFR Part 261; material containing non-TSCA PCBs below the facility's permitted level; and all other material not permitted or unsuitable for in-state disposal or recycling.

K. In-State Recycling Facility: This type of facility shall be approved by the State of Connecticut to accept material that is classified as petroleum contaminated material, that would be classified as a hazardous material in CGS Section 22a-114 to 22a-134z Hazardous Waste Regulations if not managed under in CGS Section 22a-114 to 22a-134z Hazardous Waste Regulations; and is not classified as a RCRA characteristic waste or RCRA listed waste as defined in 40 CFR Part 261.

L. Landfill Facility (Reuse as Cover Material): This type of facility shall be approved by the State in which the landfill is located to accept material that is classified as polluted material, that would be classified as a hazardous material in CGS Section 22a-114 to

22a-134z Hazardous Waste Regulations if not managed under in CGS Section 22a-114 to 22a-134z Hazardous Waste Regulations; and is not classified as a RCRA characteristic waste or RCRA listed waste as defined in 40 CFR Part 261.

1.3 SUBMITTALS

A. Submit all pertinent information relating to the transport and disposal of materials specified herein, within 14 days after issuance of the Notice to Proceed and prior to transport and disposal. The information submitted shall be in one package and shall include the following, as a minimum:

1. Information for proposed treatment/disposal facility or facilities including the following:

a. General Information

1) Facility Name

2) Facility Address

3) Name of Contact Person

4) Title of Contact Person

5) Telephone Number of Contact Person

6) Permit Number

b. The facility shall specify the volume of material that can be accepted from the Project on a weekly and a total basis.

c. The facility shall provide written confirmation that they are permitted to accept and will accept the classified contaminated materials, the general quality and quantity described by these specifications.

d. The facility shall provide a listing of all current and valid permits, licenses, letters of approval, and other authorizations to operate that they hold, pertaining to the receipt and treatment/disposal of the contaminated materials described by these specifications.

2. Connecticut Department of Transportation Transporter Identification Number and expiration date.

3. Name and address of all hazardous material transporters to be used to transport materials including proof of permit, license, or authorization to transport hazardous material in all affected states.

B. Upon receipt of final approval from treatment/disposal facility to accept contaminated materials, submit copy of said approval.

C. Within ten (10) working days after the off-site transportation of contaminated materials, submit copies of all paperwork related to transportation of contaminated materials. Such paperwork may include, but not be limited to receipts, weight tickets, and disposal certificates.

1. Provide certified tare and gross weight slips for each load received at the designated treatment/disposal facility which shall be attached to copy of related manifest or bill of lading.

D. Prior to receiving progress payment, submit documentation certifying that all materials were transported to, accepted, and disposed of, at the selected treatment/disposal facility. The documentation shall include the following, as a minimum.

1. Documentation for each load from the site to the disposal facility, including all manifests and any other applicable transfer documentation.

2. All documentation for each load shall be tracked by the original manifest or bill of lading document number assigned at the project site at time of signature by Generator or their designated representative.

1.4 REGULATORY REQUIREMENTS

A. Obtain all Federal, State and local permits, approvals, or authorizations required for the transport and disposal of contaminated materials. Adhere to all requirements of such permits, approvals, or authorizations.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 GENERAL

A. Sample, test, or analyze contaminated material as needed for approval of final disposal. Provide Engineer with a sampling and analysis plan for approval prior to submitting any waste characterization samples for laboratory analysis.

B. Contaminated materials to be disposed of include, but are not limited to:

1. Mixed friable asbestos and Connecticut Department of Energy and Environmental Protection (CTDEEP) Regulated PCB building demolition waste

2. Asbestos containing building materials

3. Universal wastes

4. Other contaminated materials generated during abatement, decontamination, and demolition activities.

C. All contaminated materials abated, consolidated, or otherwise managed during the course of the work will require special handling in accordance with these specifications, the Contractor's Health and Safety Plan, and all applicable permits, approvals, authorizations, and regulations.

D. All Contractor personnel shall wear personal protective equipment and protective clothing consistent with the levels of protection for this Work as indicated in the Site Health and Safety Plan.

E. Contractor shall propose treatment/disposal facilities to receive contaminated materials from the Project which are established, fully operational, and in full compliance with all applicable Federal, State, and local regulations.

F. Remove all contaminated materials from the project site and legally dispose of them at facilities approved by Owner or Engineer.

3.2 DISPOSAL COORDINATION AND TRANSPORT

A. Contractor is solely responsible for coordinating treatment/disposal facility approval, scheduling, loading, transport, and ultimate disposal of contaminated materials at treatment/disposal facility. No claim for delay will be considered based upon the selected facility failing to meet Contractor's production schedule. No payments will be made for rejected loads.

3.3 MANIFESTS AND SHIPPING PAPERS

A. Owner is designated as the "Generator" and will sign all Manifests and Shipping Papers. Manifests and Shipping Papers shall be prepared by Contractor seventy two (72) hours in advance of shipment of contaminated materials. Authorized Owner's representative will sign as "Generator" as each load of contaminated material leaves the Project Site. Contractor shall forward appropriate original copies of Manifests or Bills of Lading to Engineer on the same day the contaminated materials leave the Project Site.

3.4 TRANSPORT OF CONTAMINATED MATERIAL

A. Transport contaminated materials off-site after all treatment/disposal facility documentation has been completed and the material accepted by said facility.

B. Transport contaminated materials from the site to treatment/disposal facility in accordance with all United States Department of Transportation (DOT), USEPA, Connecticut regulations and other regulations of all affected states.

C. The Hauler(s) shall be licensed in all states affected by transport.

D. Provide to Engineer copies of all weight slips, both tare and gross, for every load weighed and disposed of at the accepted disposal facility. The slips shall be tracked by the original manifest document number that was assigned by Engineer at the site. Owner will only make progress payments upon receipt of these weight slips.

E. Minimize the potential for development of free liquid during transport. Do not load excessively wet materials for transport. If free liquid does develop during transport, Contractor shall be responsible for proper collection and disposal of same.

F. All waste generated during the Work shall be removed from the Project Site in accordance with the requirements of this section.

END OF SECTION

SECTION 02200

SITE PREPARATION

PART 1 GENERAL

1.1 SUMMARY

A. Section includes

1. Clearing and grubbing

1.2 SUBMITTALS

A. Submit construction methods and equipment that will be utilized for the clearing, grubbing, and waste material disposal specified within this Section.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 CLEARING AND GRUBBING

A. Remove all non-hazardous site debris and refuse as general construction debris from the Site.

B. Except as otherwise directed, cut, grub, remove and dispose of all trees, stumps, brush, shrubs, roots, and any other objectionable material within the limits of the Work on the site and where required to construct the work.

C. Protect trees or groups of trees, if any, designated by the Engineer to remain, from damage by all construction operations by erecting suitable barriers, or by other approved means. Conduct clearing operations to prevent falling trees from damaging trees designated to remain.

1. All damage done to the trees by the Contractor's operation shall be trimmed and painted where cut as directed or as necessary to provide adequate vertical clearance for construction activities. The dressing or paint shall be applied no later than two days after the cuts are made.

2. Use all necessary precautions to prevent injury to other desirable growth in all areas. Contractor shall assume full responsibility for any damage.

D. Protect areas outside the limits of clearing from damage. No equipment or materials shall be stored in these areas.

E. No stumps, trees, limbs, or brush shall be buried in fills or embankments.

3.2 DISPOSAL OF MATERIALS

A. Dispose of all non-hazardous site debris off-site in a legal manner

B. Remove all tree trunks, limbs, roots, stumps, brush, foliage, other vegetation, and objectionable material from the site and dispose of in a legal manner.

C. Burning or direct burial of cleared and grubbed materials on-site will not be permitted.

END OF SECTION

SECTION 02222

BUILDING DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Demolition of designated structures and contents and removal of materials from Site.

2. Demolition and removal of the standing portion of the Site buildings including foundations, basements, footings, and slabs.

3. Identifying, disconnecting and removal of all utility services.

4. Prepare and file all necessary permit applications for demolition and utility removal.

B. Related Sections

1. Section 01350 - Health & Safety Plan

2. Section 13281 - Asbestos Abatement

3. Section 13282 – Lead-Based Paint Management

4. Section 13283 - Hazardous Materials Abatement

5. Section 13284 - PCB-Contaminated Building Materials Abatement

1.2 QUALITY ASSURANCE

A. Regulatory Requirements

1. Conform to City of Meriden code for demolition of structures, safety of adjacent structures, dust control, runoff control, and disposal.

2. Obtain required permits from authorities and provide copies to Owner and Engineer prior to start of work.

3. Notify affected utility companies before starting work and comply with their requirements. Provide Engineer with copies of all notices.

4. Do not close or obstruct roadways, sidewalks, or hydrants without permits.

5. Conform to applicable regulatory procedures when managing hazardous or contaminated materials.

1.3 SITE CONDITIONS

A. The building's interior is highly deteriorated with many areas deemed unsafe for entry.

B. Inspect the premises, prior to submittal of proposal, for verification of existing conditions, which will affect this Work.

C. The Owner and Engineer assume no responsibility for the actual condition of the structures or the Contractor's health and safety.

1.4 SUBMITTALS

A. Demolition Plan - Means and methods proposed for building demolition. This submittal should be sufficient to demonstrate a thorough understanding of the Work to be completed and the means that will be implemented to safely complete the demolition within the Contract Time and in consideration of the known hazardous building materials and other contamination within the building.

B. Waste Management Plan - Indicate an understanding of the types of wastes to be generated and the proposed disposal or recycling locations. Include back-up disposal facilities.

C. Project schedule including critical path items that affect the building demolition. This submittal can overlap with Progress Schedule described in Section 01325 – Scheduling of Construction.

D. Copies of any authorizations and permits required to perform the Work, including disposal/recycling facility permits and approvals.

E. The following records and disposal documentation must be maintained and kept current throughout the Project. These documents will be maintained in chronological order in a 3-ring binder with appropriate tabbed dividers. Contractor will be reviewed for completeness at each progress meeting and in advance of all payment applications. Requests for periodic payments may be rejected, in whole or in part, if documentation is not current.

1. Records of the amounts of waste generated, by waste type

2. Evidence of lawful disposal or recycling of all wastes generated

3. Documentation of underground structures and utilities

4. Copies of any analytical results generated as a result of waste stream characterization

5. Weight tickets for all scrap metal generated for credit.

1.5 REGULATORY REQUIREMENTS

A. Contractor is solely responsible for obtaining permits or approvals which may be required to perform the work of this section, including all costs, fees and taxes required or levied.

B. Notify and obtain such permits or approvals from agencies having jurisdiction over demolition prior to starting work.

C. Comply with all applicable federal, state, and local environmental, safety and health requirements regarding the demolition of structures and other site features and recycling or disposal of demolition debris, as applicable.

D. Conform to all requirements identified in Section 01350 – Health and Safety Plan.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify site conditions before proceeding with demolition work. Field check the accuracy of the Drawings and inspect structures and utilities prior to start of work and notify the Engineer in writing, of any undocumented hazardous conditions and/or discrepancies. Primary structures and other site features are shown on the Drawings; other smaller structures, including, but not limited to, concrete walks and pads, miscellaneous signs, lamp posts, railings, and fencing may not be shown on the Drawings, but may exist within the Limit of Work and shall be demolished.

1. Unknown Site Conditions - The information provided on the Drawings and in the Specifications is believed accurate. Field verify all information. Bear full responsibility for obtaining all locations of underground structures, utilities and their connections. Maintain services to buildings outside the limits of work.

2. Interior Elements - Interior features including but not necessarily limited to structural elements, walls, partitions, equipment, piping or other building facilities are not shown on the drawings and must be visually inspected. Inspect and appraise all features and facilities to be demolished or removed for salvage. Investigate to assure the condition of the work to be demolished and take all precautions necessary to ensure safety of people and property.

3.2 PREPARATION

A. The building is in dilapidated condition and has been condemned by the City of Meriden. All work shall be done in a safe manner and in accordance with the Health and Safety Plan, State, and local requirements.

B. Remove and/or stabilize all hazards necessary to safely enter the building, prior to commencing work inside the building. Where hazards cannot be stabilized, selectively demolish parts of the structure to gain safe access.

C. Mark all restricted access areas within and around the building with caution tape, sawhorses, safety fence or other types of barricades as necessary. Similarly, all holes through the floors or weak sections of the floor shall be covered and clearly marked.

D. Remove hazardous materials prior to structure demolition when possible and in accordance with applicable Sections in Division 13.

E. Identify, terminate, and disconnect utilities serving the individual structures to be demolished, prior to demolition in accordance with Section 02280.

F. Provide and maintain temporary barriers and security devices at locations approved by Engineer or required by other authorities.

G. Protect existing paved areas, appurtenances, structures, etc., which are not to be demolished.

H. Identify and mark locations of all utilities.

3.3 HAZARDOUS MATERIALS

A. Hazardous building materials that will be encountered during demolition include ut may not be limited to asbestos, PCBs, Lead-based paints, and other universal and other regulated wastes. Specific materials are identified in the Division 13 specifications.

B. Lead Paint

1. A number of state, federal and local agencies regulate work which involves lead paint. Paint coatings on the structures to be demolished that contain lead could present a hazard to workers and requires regulatory compliance with 29 CFR 1926.62 "Lead in Construction."

2. Of specific concern is the cutting of steel components using torch methods. If the Contractor intends to torch cut painted steel, lead paint must be removed from the area to be cut with a chemical stripper or other means prior to cutting. Sufficient paint must be removed from the area to prevent volatilization of lead during the heating of the steel. Other means of controlling worker exposure to lead will be acceptable provided that they are addressed in the Lead Exposure Control Plan outlined in Section 01350 and that they meet the requirements of 29 CFR 1926.62.

3. Where activities may generate leaded dust or impact a leaded surface, regulate work area so that dust migration is contained properly within the regulated area. Once the work is complete, properly clean up and dispose of leaded dust and materials.

3.4 DEMOLITION

A. Demolish the buildings, underground utilities and related appurtenances by methods that will not cause damage to surrounding structures, underground and overhead utilities, or other existing items and structures that are to remain in place.

B. Promptly and properly manage all debris in accordance with Section 02120 and Division 13 as part of the demolition progresses. Construct and/or prepare material staging/stockpile areas at locations approved by the Engineer.

C. Manage and segregate all scrap metal for recycling.

1. Segregate non-contaminated / non-PCB containing scrap metal from known PCB containing metal and transport such metals to the appropriate approved recycling facilities.

2. Segregate and scrap metal by material type (i.e. steel and copper) to the extent practicable.

D. Buildings

1. Demolish the standing portion of all buildings within the Limit of Work as indicated on the Drawings. Equipment, piping and interior facilities are not shown on the Drawings but shall be demolished.

2. Barricade work area as necessary to protect workers and general public from falling debris.

3. Do not leave unstable structures unattended. Plan the workday so that all structures are stable at the end of each workday.

E. Foundations, Basement, and Slabs

1. Remove building foundations, basement floors, footings and slabs where present

2. Remove the first-floor concrete slab on grade.

3. Remove foundation walls of D Wing crawlspace

F. Remove all roofs, walls, floors, columns, equipment, debris and other materials in structures identified to be demolished.

3.5 DISPOSAL

A. At regular intervals, remove from the site all debris, rubbish, and other materials resulting from demolition operations and legally dispose of off the Site. Storage or sale of demolished materials to be removed will not be permitted on the Site.

B. Legally dispose of or recycle all materials from demolition including all contaminated or PCB-containing metal as well as equipment and other materials that are within the buildings in accordance with Division 13. Disposal sites shall be permitted to accept the waste stream by the applicable State Agency. Perform the loading of demolition materials in a manner that prevents materials and activities from generating excessive dust and ensures minimum interference with roads, sidewalks, and streets both onsite and offsite.

C. Provide evidence that the demolition materials including all contaminated or PCB-containing metal have been received at a legal disposal, recycle, reuse or salvage location. Such proof may include truck weigh slips from an approved disposal facility or documentation of transfer of title. Transport all materials off site in accordance with applicable Department of Transportation Regulations. All materials leaving the site shall become the property of the Contractor.

3.6 SITE RESTORATION

A. Document the location of any structures that remain in place through construction photographs and by obtaining swing ties to and elevations of any structures to be buried. Progress payments may be withheld if current documentation is not maintained.

3.7 DUST CONTROL

A. Contractor shall implement fugitive dust suppression to prevent unacceptable levels of dust resulting from demolition operations or other activities required by the Contract Documents. It shall be the Contractor's responsibility to supervise fugitive dust control measures and to monitor airborne particulate matter.

1. Comply with applicable provisions of Section 01350 – Health and Safety Plan.

2. Prevent dust from becoming a nuisance or hazard. During demolition, stockpiles are to be policed and controlled to prevent spreading of the material and generation of dust.

3. Control dust during the work on-site using calcium chloride and/or water. Cover stockpiles as necessary.

4. During the Work, all paved road and driveway surfaces shall be scraped and broomed free of soil and debris on a daily basis. The surfaces shall be hosed down or otherwise treated to eliminate active or potential dust conditions and the natural road or wearing surface shall be exposed.

5. Ensure that the existing equipment, facilities, occupied space, and roadways adjacent to or nearby areas of the work do not come in contact with dust or debris as a result of demolition.

6. Ensure that all exiting equipment and trucks drive over anti-tracking pads before leaving the site.

7. Submit for approval, materials proposed for use for dust control, prior to start of the Work.

8. The Engineer will conduct total particulate (dust) air monitoring using visual observations and real time monitors located up and down wind of the work areas to document the contractor's use of appropriate dust controls and their effectiveness.

    a. Monitoring equipment will be capable of measuring particulate matter less than 10 micrometers in size (PM10) and capable of integrating data over a period of 15 minutes (or less) for comparison to the airborne particulate action level.

    b. If the downwind PM10 particulate level is greater than 150 micrograms per cubic meter ($\mu g/m^3$) for a 15-minute period or if airborne dust is observed leaving the work area, the Contractor must implement additional dust suppression techniques, including water spray, calcium chloride spray, stockpile or surface soil covering, surface sweeping, etc.

    c. If, after implementation of additional dust suppression techniques, downwind PM10 particulate levels are greater than 150 $\mu g/m^3$, work will be stopped and a re-evaluation of activities initiated.

        1) No claim for delay will be considered for work stoppage based upon the results of Engineer's active dust monitoring results.

END OF SECTION

SECTION 02280

SITE UTILITY ABANDONMENT

PART 1 GENERAL

1.1 SUMMARY

A. This section specifies the work to be performed by Contractor for abandonment of utilities at the Project Site.

B. Section Includes

1. Removal and abandonment of utilities, pipe, manholes and catch basins.

2. Abandonment of above- and below-grade utilities and related facilities including but not necessarily limited to electric, tel-data, CATV, conduits, utility structures, sewerage structures and piping, grease traps, drainage structures and piping, gas, and water, fire protection, etc. on, or serving the Project Area.

C. Contractor shall coordinate work between all Subcontractors, sections, and trades required for the proper completion of the work.

D. Contractor is responsible for the health and safety of all Subcontractor workers during progress of the work.

1.2 SUBMITTALS

A. The contractor shall submit a utility abandonment plan that incorporates any abandonment procedures required by the owner and the respective utility company, of each utility prior to performing the work of utility termination, cutting, capping, and/or plugging.

B. Material specifications and shop drawings for all materials and equipment furnished under this section, prior to performing the work of utility abandonment.

C. As-built drawings showing locations of all terminated/cut/capped/plugged utilities and service disconnections at or before project close-out.

PART 2 PRODUCTS

2.1 MATERIALS

A. Comply with the material specifications required by the owner of each utility. Where such material specifications may conflict with this Specification, utility owner's requirements shall prevail.

B. Borrow Material: Conform to applicable Specifications.

C. Portland Cement: ASTM C 150, Type II.

D. Mortar Aggregate: ASTM C 144, standard masonry type, clean, dry, free of deleterious materials.

E. Concrete: Design of mix in accordance with ASTM C-94, ASTM C-150, Type II Portland Cement, washed and graded sand, and aggregate with maximum size of 1-inch; or pre-packaged concrete mix with maximum aggregate size of 1-inch, ASTM C 387. Minimum 28-day compressive strength of 4000 psi.

F. Masonry Mix: Washed and graded mason sand, lime, and Portland Cement, ASTM C 270; or pre-packaged, dry, sand/lime/cement mortar mixture, ASTM C 387. Minimum 28-day compressive strength of 1200 psi.

G. Solid Concrete Masonry Unit: ASTM C55, sized per pipe diameter to minimize requirements for cutting.

PART 3 EXECUTION

3.1 GENERAL

A. Notify Call Before You Dig (CBYD) and obtain CBYD tracking number.

B. Notify utility owners in reasonable advance of the work and request the utility owner to mark out the ground surface above the underground facilities and structures. Notify the Engineer in writing of any refusal or failure to mark out such underground utilities after reasonable notice.

C. Contractor is solely responsible for providing coordination and obtaining permits with owners of the various utilities serving, or present at, the Project Site as required to complete termination and demolition work. Coordinate as required for termination of service, temporary termination of service, relocation of facilities, abandonment of facilities, demolition of facilities, cutting, capping, and bracing. Comply at all times with the procedures for terminations of utility services as required by the owner of each utility serving, or present at, the Project Site.

D. When utilities are encountered that are not indicated on the drawings, notify Engineer before proceeding with work in such area.

3.2 UTILITY TERMINATION

A. Terminate utilities serving the Project Site. Terminate, cut, cap, or plug utilities in accordance with each utility owner's requirements, including, but not necessarily limited to, scheduling of inspections by utility company personnel, permits, licenses, approvals, insurance, or bonds.

3.3 DEMOLITION

A. Do not demolish any utility until termination has been verified.

B. Unless identified on the Drawings to remain, remove and dispose of all overhead and underground utilities and related systems and appurtenances on the Project Site, including but not necessarily limited to water, electric, sanitary sewer, storm sewer, miscellaneous drainage, heating facilities, communications, exterior lighting supplies; utility poles, light standards, utility foundations, supports and ancillary equipment; hydrants and other similar supply facilities, valves and meters; site drainage and catch basins and related structures; sanitary sewerage piping, manholes, pumps, and related facilities; and other miscellaneous plumbing, piping and conveyances.

3.4 BACKFILL

A. Replace soil material excavated for utility removal, termination or abandonment in accordance with applicable Specifications.

1. Backfilling to grade is required with Compacted Granular Fill.

2. Imported Compacted Granular Fill material is required.

B. Provide OSHA-compliant barriers or smooth edges of all excavations to produce a stable slope, with smooth grade transitions and no vertical cuts from top of slope to lower limits of the excavation in compliance with the requirements of OSHA. Maximum slope into any excavated area under ideal soil conditions shall be 1 to 2, vertical: horizontal.

3.5 PROTECTION

A. Contractor shall take measures to protect from damage those utilities, or portions thereof, which are designated to remain. Provide protection as required such as marking, blocking, bracing, stabilizing, supporting, and retaining.

B. Utilities to remain damaged by Contractor shall be repaired/replaced to the satisfaction of the utility owner at Contractor's expense.

3.6 DOCUMENTATION

A. Contractor shall provide as-built documentation for each utility termination, including location, depth, and method and material of construction for termination. Such as-built documentation shall be on the appropriate site plans.

B. Contractor shall physically mark the location of each subsurface utility termination with a surveyor's stake, with such stake identifying the utility type and depth below grade. Where the use of stakes at a utility termination location may be inappropriate, Contractor shall provide staking at an adjacent location(s) and include appropriate offset dimensions or other suitable demarcation.

END OF SECTION

SECTION 02315

EXCAVATION, BACKFILL, AND COMPACTION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Excavation, backfill and compaction

B. Related Sections

1. Section 01570 - Temporary Controls

2. Section 02222 – Demolition

3. Section 02280 – Site Utility Abandonment

4. Section 02320 - Borrow Materials

1.2 REFERENCES

A. ASTM D1557-07 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3))

B. ASTM D1556-07 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method

C. ASTM D2487-06e1 - Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)

D. ASTM D6938-08a - Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

E. 29 CFR Part 1926 Subpart P - OSHA Excavation Regulations 1926.650 through 1926.652 including Appendices A through F

1.3 DEFINITIONS

A. Benching - A method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.

B. Earth Retention Systems - Any structural system, such as sheeting and bracing or cofferdams, designed to retain in-situ soils in place and prevent the collapse of the sides of an excavation in order to protect employees and adjacent structures.

C. Excavation - Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

D. Protective System - A method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include earth retention systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.

E. Registered Professional Engineer - A person who is registered as a professional engineer in the state where the work is to be performed. However, a professional engineer, registered in any state is deemed to be a "registered professional engineer" within the meaning of this standard when approving designs for "manufactured protective systems" or "tabulated data" to be used in interstate commerce.

F. Shield System - A structure that is designed to withstand the forces imposed on it by a cave-in and thereby protects employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Additionally, shields can be either pre-manufactured or job-built in accordance with 29 CFR 1926.652(c)(3) or (c)(4). Shields used in trenches are usually referred to as "trench boxes" or "trench shields."

G. Sloping - A method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.

H. Trench - A narrow excavation (in relation to its length) made below the surface of the ground, of at least three feet in depth. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 m).

1.4 SUBMITTALS

A. Drawings and calculations for each Earth Retention System required in the Work. The submittal shall be in sufficient detail to disclose the method of operation for each of the various stages of construction required for the completion of the Earth Retention Systems.

1. Submit calculations and drawings for Earth Retention Systems prepared, signed, and stamped by a Professional Engineer registered in the state where the work is performed.

B. Performance data for the compaction equipment to be utilized

C. Modified Proctor Test (ASTM D1557) results and soil classification (ASTM D2487) for all proposed backfill materials at the frequency specified below:

1. For suitable soil materials removed during Excavation, perform one test for every 1,000 cubic yards of similar soil type. Similarity of soil types will be as determined by the Engineer.

2. For borrow materials; perform tests at frequency specified in Section 02320, Borrow Materials.

D. Compaction test results (i.e. ASTM D6938 or ASTM D1556) at a frequency of one test for every 100 cubic yards of material backfilled or at a minimum of one test per lift. The Contractor shall plan his operations to allow adequate time for laboratory tests and to permit taking of field density tests during compaction.

1. Methods and equipment proposed for compaction shall be subject to prior review by the Engineer. Compaction generally shall be done with vibrating equipment. Static rolling without vibration may be required by the Engineer on sensitive soils that become unstable under vibration. Displacement of, or

damage to existing utilities or structure shall be avoided. Any utility or structure damaged thereby shall be replaced or repaired as directed by the Engineer.

2. Additional compaction testing may be required when there is evidence of a change in the quality of moisture control or the effectiveness of compaction.

   a. Any costs associated with correcting and retesting as a result of a failure to meet compaction requirements shall be borne by the Contractor.

3. If all compaction test results within the initial 25% of the total anticipated number of tests indicate compacted field densities equal to or greater than the project requirements, the Engineer may reduce frequency of compaction testing. In no case will the frequency be reduced to less than one test for every 500 cubic yards of material backfilled.

4. The Contractor is cautioned that compaction testing by nuclear methods may not be effective where trenches are so narrow that trench walls impact the attenuation of the gamma radiation, when adjacent to concrete that impacts the accuracy of determining moisture content, or where oversize particles (i.e. large cobbles or coarse gravels) are present. In these cases, other field density testing methods may be required.

1.5 QUALITY ASSURANCE - NOT USED

1.6 PROJECT CONDITIONS

A. Notify Call Before You Dig and obtain project identification numbers.

B. Notify utility owners in reasonable advance of the work and request the utility owner to stake out on the ground surface the underground facilities and structures. Notify the Engineer in writing of any refusal or failure to stake out such underground utilities after reasonable notice.

C. Make explorations and excavations as needed to determine the location of existing underground structures, pipes, house connection services, and other underground facilities.

PART 2 PRODUCTS

2.1 SOIL MATERIALS

A. Fill material is subject to the approval of the Engineer and maybe either material removed from excavations or borrow from off site. Fill material, whether from the excavations or from borrow, shall be of such nature that after it has been placed and properly compacted, it will make a dense, stable fill.

B. Satisfactory fill materials shall include materials classified by ASTM D 2487 as GW, GP, GM, GP-GM, GW-GM, GC, GP-GC, SW, and SP. Additional requirements are included in Section 02320.

C. Satisfactory fill materials shall not contain trash, refuse, vegetation, masses of roots, individual roots more than 18 inches long or more than 1/2 inch in diameter, or stones over 6 inches in diameter. Unless otherwise stated in the Contract Documents, organic matter shall not exceed minor quantities and shall be well distributed.

D. Satisfactory fill materials shall not contain frozen materials nor shall backfill be placed on frozen material.

E. Excavated surface and/or pavement materials such as gravel or trap rock that are salvaged may be used as a sub-grade material, if processed to the required gradation and compacted to the required degree of compaction. In no case shall salvaged materials be substituted for the required gravel base.

PART 3 EXECUTION

3.1 PREPARATION

A. Public Safety and Convenience

1. Take precautions for preventing injuries to persons or damage to property in or about the Work.

2. Provide safe access for the Owner and Engineer at site during construction.

3. Do not obstruct site drainage, natural watercourses or other provisions made for drainage.

3.2 CONSTRUCTION

A. Earth Retention Systems

1. Provide Earth Retention Systems necessary for safety of personnel and protection of the Work, adjacent work, utilities and structures.

2. Maintain Earth Retention Systems for the duration of the Work.

3. Remove earth retention system, unless designated to be left in place, in a manner that will not endanger the construction or other structures. Backfill and properly compact all voids left or caused by the withdrawal of sheeting.

a. Remove earth retention systems, which have been designated by the Engineer to be left in place, to a depth of 3 feet below the established grade.

B. Excavation

1. Perform excavation to the lines and grades indicated on the Drawings. Backfill unauthorized over-excavation in accordance with the provisions of this Section.

2. Excavate with equipment selected to minimize damage to existing utilities or other facilities. Hand excavate, as necessary, to locate utilities or avoid damage.

3. Sawcut the existing pavement in the vicinity of the excavation prior to the start of excavation in paved areas, so as to prevent damage to the paving outside the requirements of construction.

4. Perform excavation in such a manner as to prevent disturbance of the final subgrade. The Engineer or Owner may require the final six inches of excavation be performed by hand, with the use of a smooth-faced bucket, or other means acceptable to the Engineer or Owner, at no additional cost if subgrade disturbance is considered excessive as judged by the Engineer or Owner.

5. During excavation, material satisfactory for backfill shall be stockpiled in an orderly manner at a distance from the sides of the excavation equal to at least one half the depth of the excavation, but in no case closer than 2 feet.

    a. Excavated material not required or not suitable for backfill shall be removed from the site.

    b. Perform grading to prevent surface water from flowing into the excavation.

    c. Pile excavated material in a manner that will endanger neither the safety of personnel in the excavation nor the Work itself. Avoid obstructing sidewalks and driveways.

    d. Hydrants under pressure, valve pit covers, valve boxes, manholes, curb stop boxes, fire and police call boxes, or other utility controls shall be left unobstructed and accessible until the Work is completed.

6. Grade or create berms or swales to direct surface water from excavations to appropriate structures designed to accommodate storm water. If no structures exist, direct water to areas that minimize impacts to adjacent structures and properties.

7. Make pipe trenches as narrow as practicable and keep the sides of the trenches undisturbed until backfilling has been completed. Provide a clear distance of 12 inches on each side of the pipe.

8. Perform the excavation in such a manner as to prevent disturbance of the final subgrade. If excessive subgrade disturbance is occurring, as judged by the Owner or Engineer, then the final 6 inches of the excavation shall be performed by hand, with the use of a smooth-faced bucket, or other means acceptable to the Engineer or Owner.

    a. Grade the excavation bottom to provide uniform bearing and support for the bottom quadrant of each section of pipe.

    b. Excavate bell holes at each joint to prevent point bearing.

    c. Remove stones greater than 6 inches in any dimension from the bottom of the trench to prevent point bearing.

C. Backfill and Compaction

1. Unless otherwise specified or indicated on the Drawings, use satisfactory material removed during excavation for backfilling trenches. The Engineer may require stockpiling, drying, blending and reuse of materials from sources on the Project.

2. Spread and compact the material promptly after it has been deposited. When, in the Engineer's judgment, equipment is inadequate to spread and compact the material properly, reduce the rate of placing of the fill or employ additional equipment.

3. Backfilling and compaction methods shall attain 95% of maximum dry density at optimum moisture content as determined in accordance with ASTM D1557.

4. Do not place stone or rock fragment larger than six inches in greatest dimension in the backfill.

5. Maximum loose lift height for backfilling existing or borrow material shall be 12 inches, unless satisfactory compaction is demonstrated otherwise to the Engineer through field-testing. In no case shall loose lift height for backfilling exceed 3 feet.

6. Do not drop large masses of backfill material into the trench endangering the pipe or adjacent utilities.

7. Backfill from the bottom of the trench to the centerline of the pipe with the specified material. This initial backfill is to be placed in layers of no more than 6 inches and thoroughly tamped under and around the pipe. This initial backfilling shall be deposited in the trench for its full width on both sides of the pipe, fittings, and appurtenances simultaneously.

8. Where excavation is made through permanent pavements, curbs, paved driveways, or paved sidewalks, or where such structures are undercut by the excavation, place the entire backfill to sub-grade with granular materials and compact in 6 inch layers. Use approved mechanical tampers for the full depth of the trench. If required, sprinkle the backfill material with water before tamping so as to improve compaction. Any trenches improperly backfilled, or where settlement occurs, shall be reopened to the depth required to correct the problem, and shall then be refilled and properly compacted with the surface restored to required grade at no additional expense.

9. The Contractor shall not place backfill against or on structures until they have attained sufficient strengths to support the loads to which they will be subjected, without distortion, cracking, or other damage. As soon as possible after the structures are adequate, they shall be backfilled with suitable backfill material.

10. Place and compact backfill around manholes, vaults, pumping stations, gate boxes or other structures in six inch layers, from a point one foot over the pipe. Exercise care to protect and prevent damage to the structures.

3.3 PROTECTION

A. Protection of Existing Structures

1. All existing foundations, conduits, wall, pipes, wires, poles, fences, property line markers and other items which the Engineer decides must be preserved in place without being temporarily or permanently relocated, shall be carefully supported and protected from damage by the Contractor. Should such items be damaged, they shall be restored by the Contractor to at least as good condition as that in which they were found immediately before the Work began.

B. Accommodation of Traffic

1. Streets and drives shall not be unnecessarily obstructed. The Contractor shall take such measures at his own expense to keep the street or road open and safe for two-way traffic unless otherwise indicated.

2. Construct and maintain such adequate and proper bridges over excavations as may be necessary or as directed for the safe accommodation of pedestrians and

vehicles. Provide substantial barricades at crossings of trenches, or along the trench to protect the traveling public.

3. Where deemed necessary, such additional passageways as may be directed shall be maintained free of such obstructions. All material piles, open excavations, equipment, and pipe which may serve as obstructions to traffic shall be protected by proper lights, signage, or guards as necessary.

4. All traffic controls shall be in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways, latest edition.

END OF SECTION

SECTION 02320

BORROW MATERIALS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Ordinary Borrow

B. Related Sections

1. Section 02315 – Excavation, Backfill, Compaction and Dewatering

1.2 REFERENCES

A. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.

B. ASTM C117 - Standard Test Method for Materials Finer than 75 μm (No. 200) Sieve in Mineral Aggregates by Washing.

C. ASTM D1557 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb./ft^3).

D. ASTM D2434 - Standard Test Method for Permeability of Granular Soils (Constant Head).

E. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

F. ASTM D2922 - Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

G. ASTM D3017 – Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

H. AASHTO – Standard Specification for Transportation Materials and Methods of Sampling and Testing, 1986 Edition as amended.

I. State of Connecticut Department of Transportation "Standard Specifications for Roads, Bridges, and Incidental Construction Form 818".

1.3 SUBMITTALS

A. Representative Samples of borrow materials taken from the source. Tag, label, and package the Samples as requested by Engineer. Provide access to the borrow site for field evaluation and inspection.

B. Provide sieve analysis (ASTM C136) and permeability analysis (ASTM D2434) from certified soils testing laboratory for all borrow materials. Take and test a sample, at no additional cost to the Owner for each 1,500 CY of borrow material placed.

C. Provide modified proctor analysis (ASTM D1557) from certified soils testing laboratory for all borrow materials.

1. Take and test a sample of low permeability soil for each 5,000 cy of material placed, or as directed by the Engineer.

2. All other borrow materials shall be tested once unless more frequent testing is deemed necessary by the Engineer or Owner due to material variation.

D. The Owner's Project Representative reserves the right to require more frequent testing than that which is specified above should the borrow characteristics change.

E. Prior to the start of work, submit to the Owner's Project Representative performance data for all compaction equipment to be utilized.

F. A Certificate of Clean Fill must be provided to Engineer and Owner for approval prior to delivery of any and all fill material including but not limited to, mineral soil, borrow material, structural fill, processed fill material, loam, or top soil to be placed on site during the course of the Work. The Certificate must include laboratory analytical reports for all material to be used at the site on a basis of one sample per every 500 cubic yards or lesser portions thereof. Analytical reports must demonstrate that the proposed material does not contain detectable concentrations of contaminants including but not limited to; petroleum hydrocarbons, semi volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), pesticides, and/or herbicides and that metals listed in the Connecticut Remediation Standard Regulations do not exceed minimal concentrations deemed allowable by Engineer and Owner. No fill material shall be placed on site until Contractor has received approval from Engineer and/or Owner. Engineer and Owner reserves the right to collect and analyze samples from any proposed fill material prior to or after delivery to the site and to allow use of off-specification material at their sole discretion.

The Certificate must clearly state the following and be signed by an authorized signatory employed by the Contractor:

1. Volume of material to be used
2. Process by which the material was obtained
3. Location of origin and summary of current and past site uses of the location of origin
4. Statement from Contractor that the analytical reports included with the Certificate represent the specific material to be used at the site
5. Statement that the Contractor does not know or have reason to believe that the proposed fill material contains foreign materials or contaminants.

1.4 QUALITY ASSURANCE

A. No borrow shall be placed prior to the approval of Samples by the Engineer.

B. Use adequate numbers of skilled workmen who are trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and methods required for proper performance of the work in this Section.

C. Use equipment of adequate size, capacity, and quantity to accomplish the work of this Section in a timely manner.

D. Comply with the directions of Owner's Project Representative and the requirements of governmental agencies having jurisdiction.

1.5 PROJECT/SITE CONDITIONS

A. Existing Conditions

1. Comply with any environmental requirements and restrictions.

2. Keep all public and private roadway surfaces clean during hauling operations and promptly and thoroughly remove any borrow or other debris that may be brought upon the surface before it becomes compacted by traffic. Frequently clean and keep clean the wheels of all vehicles used for hauling to avoid bringing any dirt upon the paved surfaces.

PART 2 PRODUCTS

2.1 SOIL MATERIALS

A. Fill material is subject to the approval of the Owner's Project Representative and may be either material removed from excavations or borrow from off site. Fill material, whether from the excavations or from borrow, shall be of such nature that after it has been placed and properly compacted, it will make a dense, stable fill.

B. Satisfactory materials shall include materials classified by ASTM D 2487 as GW, GP, GM, GP-GM, GW-GM, GC, GP-GC, SW, and SP.

C. Satisfactory materials shall not contain trash, refuse, vegetation, masses of roots, individual roots more than 18 inches long or more than 1/2 inch in diameter, or stones over 6 inches in diameter. Organic matter shall not exceed minor quantities and shall be well distributed.

D. Satisfactory materials shall not contain frozen materials nor shall backfill be placed on frozen material.

E. Excavated surface and/or pavement materials such as gravel or trap rock that are salvaged may be used as a sub-grade material. In no case will salvaged materials be substituted for the required gravel base.

2.2 ORDINARY BORROW

A. Ordinary borrow shall consist of a material satisfactory to Owner's Project Representative and not specified as gravel borrow, sand borrow, special borrow material or other particular kind of borrow. This material shall have the physical characteristics of soils designated as type GW, GP, GM, SW, SP or SM, under USCS. It shall have properties such that it may be readily spread and compacted for the formation of embankments. The borrow shall not include rocks with a major dimension greater than 8 inches.

PART 3 EXECUTION

3.1 INSTALLATION

A. Prior to the placement of borrow material, site preparation shall be completed as required by the Contract Documents and approved by the Engineer.

B. Ensure that all materials are properly stockpiled on site to prevent contamination by other materials.

C. Place borrow material over the entire area in uniform lifts and compact in accordance with Section 02315.

D. Utilize on-site soils prior to using off-site borrow provided on-site soils meet the requirements of the specifications.

E. Utilize gravel borrow as defined by "Standard Specifications for Roads, Bridges, and Incidental Construction Form 818" in all locations where a surface treatment has not been specified but requires a firm finish surface.

F. Borrow shall be used as a replacement for unsuitable materials where poor soil conditions are encountered during the progress of the work, where approved by the Engineer. Borrow type will be determined by the Engineer. Borrow material used as a replacement for unsuitable soil is not intended to be an aid to dewatering.

G. Shape borrow used for pipe foundation material so that it supports the pipe properly and will not damage the pipe, bells, collars, or the pipe fittings.

H. Place all borrow to keep it free of other materials and to prevent segregation.

END OF SECTION

SECTION 02920

LAWNS AND GRASSES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Restoration of all vegetated areas disturbed during construction including:

a. Lawn areas

b. Grass surfaces

2. New loam and seed areas

3. Loam, starter fertilizer, lime, lawn seed

4. Mulch

B. Related Sections

1. Section 02200 – Site Preparation

2. Section 02921 – Vegetative Support Material

1.2 REFERENCES

A. ASTM D5539 – Standard Specification for Seed Starter Mix

1.3 QUALITY ASSURANCE

A. Place seed only between the periods from April 15th to June 1st, and from August 15th to October 1st, unless otherwise approved by the Engineer.

1.4 SUBMITTALS

A. Submit the following for approval:

1. Lawn seed mixture including percent by weight of each seed type, and manufacturer/supplier name.

2. Suitable laboratory analysis of the soil to determine the quantity of fertilizer and lime to be applied.

3. Lime and starter fertilizer application rates based on laboratory soil tests.

B. A Certificate of Clean Fill must be provided to Engineer and Owner for approval prior to delivery of any and all fill material including but not limited to, mineral soil, borrow material, structural fill, processed fill material, loam, or top soil to be placed on site during the course of the Work. The Certificate must include laboratory analytical reports for all material to be used at the site on a basis of one sample per every 500 cubic yards or lesser portions thereof. Analytical reports must demonstrate that the proposed material does not contain detectable concentrations of contaminants including but not limited to; petroleum hydrocarbons, semi volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), pesticides, and/or herbicides and that metals listed in the Connecticut Remediation Standard Regulations do not exceed minimal concentrations deemed allowable by Engineer and Owner. No fill material shall be placed on site until Contractor has received approval from Engineer and/or Owner. Engineer and Owner reserves the right to collect and analyze samples from any proposed fill material prior to or after delivery to the site and to allow use of off-specification material at their sole discretion.

The Certificate must clearly state the following and be signed by an authorized signatory employed by the Contractor:

1. Volume of material to be used
2. Process by which the material was obtained
3. Location of origin and summary of current and past site uses of the location of origin
4. Statement from Contractor that the analytical reports included with the Certificate represent the specific material to be used at the site
5. Statement that the Contractor does not know or have reason to believe that the proposed fill material contains foreign materials or contaminants.

PART 2 PRODUCTS

2.1 MATERIALS

A. Loam

1. Loam shall consist of fertile, friable, natural topsoil typical of the locality without admixture of subsoil, refuse or other foreign materials and shall be obtained from a well-drained arable site. It shall be such a mixture of sand, silt and clay particles as to exhibit sandy and clayey properties in and about equal proportions. It shall be reasonably free of stumps, roots, heavy or stiff clay, stones larger than 1-inch in diameter, lumps, coarse sand, noxious weeds, sticks, brush or other litter. Topsoil as delivered to the site or stockpiled shall have pH between 6.0 and 7.0 and shall contain not less than 5 percent or more than 8 percent organic matter as determined by loss of ignition of moisture-free samples dried at 100 degrees Celsius. The topsoil shall meet the following mechanical analysis:

	PERCENTAGE FINER
1-in screen opening	100
No. 10 mesh	95 to 100
No. 270 mesh	35 to 75
0.002 mm*	5 to 25

* Clay size fraction determined by pipette or hydrometer analysis.

2. Place a minimum of 4 inches of loam.

B. Starter Fertilizer

1. Starter fertilizer shall bear the manufacturer's name and guaranteed statement of analysis and shall be applied in accordance with the manufacturer's directions.

2. Starter fertilizer shall be Scott's Starter Fertilizer, or equal, with timed nitrogen release to prevent burning.

C. Lime

1. Lime shall be an agricultural type ground limestone.

2. Lime shall be pelletized type for prolonged time release to soil.

D. Lawn Seed

1. Seed shall be of the previous year's crop.
2. Required ranges:
   a. Purity > 90%
   b. Germination > 80%
   c. Crop < 0.5%
   d. Weed < 0.3%
   e. Noxious Weed – 0%
   f. Inert < 8%
3. The standard seed mixture shall be applied at a minimum rate of 175 lbs./acre, 4 lbs./1,000 sf.

OPEN FIELD MIX	% WEIGHT
Red Fescue (Creeping)	60%
Red Top	10%
Crown Vetch	30%

4. All seed shall comply with State and Federal seed laws.

5. A sworn certificate indicating each variety of seed, weed content, germination of seed, net weight, date of shipment and manufacturer's name shall accompany each seed shipment. Responsibility for satisfactory results rests entirely on the Contractor.

E. Mulch

1. Shall be a specially processed 100 percent Virgin wood fiber mulch containing no growth or germination-inhibiting factors. Wood fiber mulch shall be Second Nature Regenerated wood fiber as by Central Fiber Corporation, Wellsville, KS or equal. It shall be manufactured in such a manner that after addition and agitation in slurry tanks with water, the fibers in the material become uniformly suspended to form a homogenous slurry. When sprayed on the ground, the material shall allow absorption and percolation of moisture. Each package of the wood fiber shall be marked by the manufacturer to show the air dry weight content and not contain in excess of 10 percent moisture.

PART 3 EXECUTION

3.1 PREPARATION

A. Salvage all existing loam from soil disturbance areas and stockpile at an acceptable on-site location. Under no circumstances shall existing topsoil be removed from the Project site.

B. The ground surface shall be fine graded and raked to prepare the surface of the loam for lime, fertilizer and seed.

C. Perform a laboratory soil test on the proposed loam before placing any lime, fertilizer, or seed. This work shall be in accordance with ASTM D5539.

D. Loam surface that has been raked smooth and prepared for sod installation shall be watered as directed by grower for plant species supplied.

3.2 LAWN AREAS

A. Apply fertilizer and lime to the surface of the ground in accordance with the manufacturers' instructions and based on the results of the certified soils test.

B. Place the seed using a drop or rotary spreader at the rate recommended by the seed manufacturer for the intended use of the lawn or grass area being restored.

C. After spreading the seed, lightly rake the surface to work the seed in. The surface shall then be rolled.

D. All seed on banks and slopes of three to one (3:1) and greater shall be netted and staked.

E. As sodding is completed in any one section, roll the entire section by making four passes with a hand roller weighing not more than 100 lbs/ft of width.

3.3 MAINTENANCE

A. Maintain loamed and seeded areas by mulching, covering, netting, watering and fencing until an acceptable stand of vegetation is approved by the Engineer.

B. The dressed and seeded areas shall be sprinkled with water as necessary from time to time. Signs and barricades should be placed to protect the seeded areas. After the grass has started to grow, all areas and parts of areas that fail to show a uniform stand of grass shall be seeded repeatedly until all areas are covered with a satisfactory growth of grass.

3.4 RESTORATION

A. In locations where the Work passes through existing grass, weed brush or tree-surfaced areas that are not covered by a specific lawn repair item, surface restoration shall be as follows:

1. After completion of backfilling, the existing loam and organic ground cover materials that were salvaged during excavation shall be returned to the top of the trench.

2. After natural settlement and compaction has taken place, the trench surface shall be harrowed, dragged and raked as necessary to produce a smooth and level surface.

3. The area is then to be sowed with “orchard grass” or “rye grass” or other such materials to hold the soil and produce a growth similar to that existing prior to construction.

3.5 GUARANTEE PERIOD AND FINAL ACCEPTANCE

A. At the end of the guaranteed period, inspection will be made by the Engineer upon written request submitted at least 10 days before the anticipated date. Seeded areas not demonstrating satisfactory stands as outlined above, as determined by the Engineer, shall be renovated, reseeded and maintained meeting all requirements as specified herein.

B. After all necessary corrective work has been completed, the Engineer shall certify in writing the final acceptance of the seeded areas.

END OF SECTION

SECTION 02921

VEGETATIVE SUPPORT MATERIAL

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Topsoil

1.2 SUBMITTALS

A. Provide representative samples of borrow materials taken from the source. Tag, label, and package the samples as requested by the Engineer. Provide access to the borrow site for field evaluation and inspection.

B. Provide analytical test results at the rate specified. Results shall indicate whether sample was taken from the upper or lower 6 inches of the vegetative support materials. All samples shall be representative and analyzed for the following:

pH
Nitrogen
Phosphorus
Potash
Grain size
Organic content

C. A Certificate of Clean Fill must be provided to Engineer and Owner for approval prior to delivery of any and all fill material including but not limited to, mineral soil, borrow material, structural fill, processed fill material, loam, or top soil to be placed on site during the course of the Work. The Certificate must include laboratory analytical reports for all material to be used at the site on a basis of one sample per every 500 cubic yards or lesser portions thereof. Analytical reports must demonstrate that the proposed material does not contain detectable concentrations of contaminants including but not limited to; petroleum hydrocarbons, semi volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), pesticides, and/or herbicides and that metals listed in the Connecticut Remediation Standard Regulations do not exceed minimal concentrations deemed allowable by Engineer and Owner. No fill material shall be placed on site until Contractor has received approval from Engineer and/or Owner. Engineer and Owner reserves the right to collect and analyze samples from any proposed fill material prior to or after delivery to the site and to allow use of off-specification material at their sole discretion.

The Certificate must clearly state the following and be signed by an authorized signatory employed by the Contractor:

1. Volume of material to be used
2. Process by which the material was obtained

3. Location of origin and summary of current and past site uses of the location of origin
4. Statement from Contractor that the analytical reports included with the Certificate represent the specific material to be used at the site
5. Statement that the Contractor does not know or have reason to believe that the proposed fill material contains foreign materials or contaminants.

PART 2 PRODUCTS

2.1 MATERIALS

A. Vegetative Support Material

1. Vegetative support material shall consist of fertile, friable, natural topsoil typical of the locality without admixture of subsoil, refuse or other foreign materials and shall be obtained from a well-drained arable site. It shall be such a mixture of sand, silt and clay particles as to exhibit sandy and clayey properties in and about equal proportions. It shall be reasonably free of stumps, roots, heavy or stiff clay, stones larger than 1-inch in diameter, lumps, coarse sand, noxious weeds, sticks, brush or other litter. Topsoil as delivered to the site or stockpiled shall have pH between 6.0 and 7.0 and shall contain not less than 5 percent or more than 8 percent organic matter as determined by loss of ignition of moisture-free samples dried at 100 degrees Celsius. The topsoil shall meet the following mechanical analysis:

	PERCENTAGE FINER
1-in screen opening	100
No. 10 mesh	95 to 100
No. 270 mesh	35 to 75
0.002 mm*	5 to 25

* Clay size fraction determined by pipette or hydrometer analysis.

2. Prior to stripping, the topsoil shall have demonstrated; by the occurrence upon it of healthy crops, grass or other vegetative growth; that it is reasonably well drained and that it does not contain toxic amounts of either acid or alkaline elements.

2.2 EQUIPMENT

A. Earth Moving Equipment

B. Adequate types and number of equipment shall be used to ensure that the vegetative support material is spread evenly and at the proper depth to all areas intended to be covered without damaging underlying soil layers or structures.

PART 3 EXECUTION

3.1 INSTALLATION

A. Vegetative support material shall be placed over approved areas to a depth sufficiently greater than required so that after natural settlement and light rolling, the complete work will conform to the lines, grades and elevations indicated. No loam shall be spread in water or while frozen or muddy.

B. The vegetative support material shall be hauled, deposited, spread, compacted, tracked and raked to the lines and grades shown on the Plans or as directed by the Engineer. After the vegetative support material has been spread, it shall be carefully prepared for seeding by spading or harrowing and raking. All large, stiff clods, lumps, stones, brush, roots, stumps, litter, and other foreign material shall be removed.

C. The compaction shall be equivalent to that produced by a hand roller weighing from 75 to 100 pounds per foot of width. The compaction may be obtained by rolling, dragging or any method that produces satisfactory results. All depressions caused by settlement or rolling shall be filled with additional materials and the surfaces shall be regraded and rolled until it presents a reasonably smooth and even finish and is up to the required grade.

D. During hauling operations, all public and private roadway surfaces shall be kept clean and any topsoil or other dirt which may be brought upon the surface shall be removed promptly and thoroughly before it becomes compacted by traffic. If necessary, the wheels of all vehicles used for hauling shall be cleaned frequently and kept clean to avoid bringing any dirt upon the surface.

3.2 QUALITY CONTROL

A. The responsibility for satisfactory results on work carried out under this item rests entirely on the Contractor regardless of the prior approval of the materials and methods on the part of the Engineer.

B. The Contractor shall provide laboratory test results for the vegetative support material intended for use as specified herein, at a frequency of 1 round per 1,000 cy of material.

C. The Engineer shall randomly sample the borrow material and have a certified analytical laboratory perform testing as described herein. The testing shall be a verification of the results submitted by the Contractor and shall be entirely at the Contractor's expense.

END OF SECTION

SECTION 13281

ASBESTOS ABATEMENT

PART 1 GENERAL

1.1 GENERAL PROVISIONS

A. The work covered in this section includes the minimum procedures that must be employed during abatement of asbestos-containing materials (ACM).

1. ACM, defined as materials containing greater or equal to than ($\geq$) one percent (1%) asbestos, have been identified which will be impacted by the demolition and require abatement.

B. Refer to other Sections of these Specifications to determine the type and extent of work therein affecting the work of this Section, whether or not such work is specifically mentioned herein.

1.2 RELATED INFORMATION

A. Related Sections

1. Section 01350, Health and Safety
2. Section 02222, Building Demolition
3. Section 13282, Lead-Based Paint Management
4. Section 13283, Hazardous Materials Management
5. Section 13284, PCB-Contaminated Building Materials Abatement

B. Related Drawings

1. HBM-101 Demolition and Abatement Plan – First Floor
2. HBM-102 Demolition and Abatement Plan – Second Floor
3. HBM-103 Demolition and Abatement Plan - Third Floor
4. HBM-104 Demolition and Abatement Plan – Fourth Floor

C. Related Documents listed below are included as Appendix B to this Section or elsewhere in the Bid Package. These documents are not part of the Contract Documents, but the Technical Data contained therein on which the Contractor may rely is limited to laboratory analytical reports. Contractor is not entitled to rely upon any other information and data known to or identified by Owner or Engineer.

1. Hazardous Materials Survey Report, December 2011, Fuss & O'Neill.
2. Hazardous Building Materials Assessment Report, November 2015, Tighe & Bond, Inc.
3. Hazardous Building Materials Abatement Monitoring Report, May 2017, Tighe & Bond, Inc.
4. Alternative Work Practice (AWP) Application.

1.3 PROJECT DESCRIPTION

A. The scope of work to be performed includes, but is not limited to, the proper removal, handling, and disposal of ACM proposed to be impacted by the demolition activities during the Project at the Site. Refer to Table 13281 for asbestos-containing materials scheduled to be removed.

B. It is anticipated that the entire structure will be demolished down to the basement level. All demolition waste must be removed and disposed of as mixed friable asbestos and CT DEEP Regulated PCB <50 parts per million (ppm) Waste in accordance with the CTDPH AWP. See Section 3.6 for additional information on demolition/disposal procedures.

C. Several paints were determined to contain PCBs at concentrations < 50 ppm. Refer to Section 13284 for PCB-Contaminated Building Materials Abatement. Table 13281 below indicates which items must be removed/disposed as mixed asbestos / CT DEEP Regulated PCB Waste.

D. Painted wood beams and wood ceiling decks were identified as lead hazardous waste. Refer to Section 13282 for lead-based paint management requirements.

E. The Asbestos Abatement Contractor (the "Contractor") must review related documents and drawings and conduct site visits as required to develop a comprehensive understanding of ACM removal requirements at the Site.

F. Asbestos abatement work will include, but is not limited to, the ACM located in Table 13281: Scope of Work located at the end of this Section.

1. The quantities in the tables are provided to establish the order of magnitude of the abatement project.

2. Actual quantities may vary.

3. It is the sole responsibility of the Contractor to visit the site, review the Contract Documents and determine the quantities of ACM to be removed when developing their Bid.

1.4 APPLICABLE CODES

A. The Contractor must be solely responsible for conducting this project and supervising all work in a manner that will be in conformance with all federal, state, and local regulations and guidelines pertaining to asbestos abatement. Specifically, the Contractor must comply with the requirements of the following:

1. United States Environmental Protection Agency (EPA) National Emissions for Hazardous Air Pollutants (NESHAP) Regulations (Title 40 CFR, Part 61, Subpart M)

2. Occupational Safety and Health Administration (OSHA) Asbestos Regulations (Title 29 CFR, Part 1926.1101)

3. CTDPH Standards for Asbestos Abatement (Sections 19a-332a-1 to 19a-332a-16 of the Connecticut General Statutes (CGS))

4. CTDPH Licensing and Training Requirements for Persons Engaged in Asbestos Abatement and Asbestos Engineer Services (Sections 20-440-1 to 20-440-9 and Section 20-441 of the CGS)

5. Connecticut Department of Energy and Environmental Protection (CTDEEP) Regulations (Section 22a-209-8 (I) and Section 22a-220 of the CGS)

6. International Building Code as adopted by the State of Connecticut Building Code including amendments

7. Connecticut State Fire Safety Code

8. Local health and safety codes, ordinances or regulations pertaining to asbestos remediation and all national codes and standards including American Society for Testing and Materials (ASTM), American National Standards Institute (ANSI), and Underwriter's Laboratories

1.5 EXEMPTIONS

A. This project was designed by a CTDPH licensed Asbestos Project Designer. (The "Designer")

1. Any deviation from these specifications requires the written approval and authorization from the Designer.

B. Any deviations from CTDPH Standards for Asbestos Abatement Sections 19a-332a-1 through 19a-332a-16 must be requested in writing and submitted to the CTDPH for approval. It should be noted that these deviations do not necessarily provide the Contractor with a change order.

1.6 FINAL RE-OCCUPANCY AIR CLEARANCE

A. Not applicable for this project.

1.7 WORK SITE SAFETY PLAN

A. The Contractor must establish a set of emergency procedures and must post them in a conspicuous place at the work site. The safety plan should include provisions for the following:

1. Evacuation of injured workers.

2. Emergency first aid treatment.

3. Local telephone numbers for emergency services including ambulance, fire, and police.

a. A method to notify workers in the event of a fire or other emergency requiring evacuation of the building.

4. Confined space entry program (if required based on Work).

B. The Contactor is responsible for training all workers in these procedures.

1.8 CONTROL OVER REMOVAL WORK

A. All Contractor work procedures must be monitored by the Contractor's "Competent Person" to ensure that areas outside the designated work locations do not become

contaminated. The following controls must be implemented each working day to help ensure this:

1. Prior to work on any given day, the Contractor's designated "Competent Person" must evaluate job tasks with respect to safety procedures and requirements specified to prevent contamination of the building or the employees. This includes a visual survey of the work area and the decontamination enclosure systems.

B. The Contractor must maintain control of and be responsible for access to all work areas to ensure the following requirements:

1. Nonessential personnel are prohibited from entering the area.

2. All authorized personnel entering the work area must sign the work area entry log.

3. All authorized personnel entering the work area must read the "worker protection procedures" which are posted at the entry points to the regulated work area system and must be equipped with properly fitted respirators and protective clothing.

4. All personnel who are exiting from the decontamination enclosure system must be properly decontaminated.

5. Asbestos waste that is taken out of the work area must be properly disposed of in accordance with these specifications. Asbestos waste leaving the work area must be transported off site for legal disposal.

6. Any material, equipment, or supplies that are brought out of the decontamination enclosure system must be cleaned and decontaminated by wet cleaning and/or HEPA vacuuming of all surfaces.

1.9 SITE SECURITY

A. The Contactor is responsible for the security of regulated areas.

B. Post required asbestos abatement warning signs at entrances to the regulated work area including the waste load out and worker decontamination chamber.

C. The Contractor must have a supervisor monitoring the entrance of the regulated area and worker decontamination chamber during abatement work.

1.10 PERSONNEL PROTECTION

A. Prior to commencing work, instruct all workers in all aspects of personnel protection, work procedures, emergency procedures use of equipment including procedures unique to this project.

B. Respiratory protection must meet the requirements of OSHA as required in Title 29 CFR Parts 1910.134, 1926.11, and 1926.62.

C. A formal respiratory protection program must be implemented in accordance with Title 29 CFR, Part 1926.1101 and Title 29 CFR, Part 1910.134.

D. The Contractor must conduct exposure assessment air sampling, analysis, and reporting to ensure the workers are using appropriate respiratory protection.

E. The Contractor must provide appropriate respiratory protection for each worker and ensure usage during potential asbestos exposure.

F. The Contractor must provide respirators acceptable for protection by the National Institute for Occupational Safety and Health (NIOSH) under the provisions of Title 30 CFR, Part II.

G. The Contractor must provide an adequate supply of filters for respirators in use.

H. Minimum respiratory protection must be as follows:

Air borne Asbestos Level:	Required Respirator:
Not in excess of 1 f/cc (10 x PEL)	Half mask air purifying or otherwise as required respirator other than a disposable respirator, equipped with HEPA P 100 filters
Not in excess of 5 f/cc (50 x PEL)	Full facepiece air purifying respirator equipped with HEPA P 100 filters.
Not in excess of 100 f/cc (1,000 x PEL)	Tight-fitting powered air purifying respirator equipped with HEPA P 100 filters or any supplied air respirator operated in continuous flow mode.
Not in excess of 100 f/cc (1,000 x PEL)	Full facepiece supplied air respirator operated in pressure demand mode.
Greater than 1,000 f/cc (10,000 x PEL)	Full facepiece supplied air respirator operated in pressure demand mode, equipped with an auxiliary positive pressure self-contained breathing apparatus

Note:

1. Respirators assigned for higher airborne fiber concentrations may be used at lower concentrations.
2. A high efficiency filter means a filter that is at least 99.97 percent efficient against mono-dispersed particles of 0.3 micrometers in diameter or larger.
3. In addition to the selection criteria in this section, the Contractor must provide a tight-fitting powered air purifying respirator equipped with high efficiency filters or a full facepiece supplied air respirator operated in the pressure demand mode equipped with HEPA egress cartridges or an auxiliary positive pressure self- contained breathing apparatus for all employees within the regulated area where Class I work is being performed for which a negative exposure assessment has not been produced and the exposure assessment indicates the exposure level will not exceed 1 f/cc as an 8-hour time weighted average. A full facepiece supplied air respirator operated in the pressure demand mode equipped with an auxiliary positive pressure self-contained breathing apparatus must be provided under such conditions if the exposure

assessment indicates exposure levels above 1 f/cc as an 8-hour time weighted average.

4. If compresses air is used for supplied air respirators, this air will meet the requirements for grade D breathing air as described by the Compresses Gas association commodity Specification G-7.1. The compressor will be equipped with the necessary safety devices and sorbents/filters and be situated to avoid entry of contaminated air. In addition, the compressor will be equipped with alarms to indicate failure or overheating, and additional alarms for indicating the presence of carbon monoxide. Airline couplings will be incompatible with outlets for other gas system to prevent inadvertent servicing of airline respirators with non-respirable gases.

I. The Contractor must provide and require all workers to wear protective clothing in Work Areas where asbestos fiber concentration exceed permissible limits established by the OSHA or where contamination exists. Protective clothing must include impervious coveralls with elastic wrists and ankles, head covering, gloves and foot coverings.

J. The Contractor must ensure that all authorized persons entering contaminated areas are equipped with proper respirators and protective clothing.

1.11 WORKER PROTECTION PROCEDURES

A. The Contractor must monitor airborne asbestos concentrations in the workers' breathing zone to establish conditions and work procedures for maintaining compliance with OSHA Regulations Title 29 CFR Part, 1910.1001 and Part 1926.1101.

B. The Contractor's air sampling professional must document all air sampling results and provide all air sampling reports as soon as feasible. OSHA air monitoring results must be posted at a conspicuous location at the job site.

C. All personnel air sampling must be conducted in accordance with methods described in OSHA standards Title 29 CFR 1910.1001 and 29 CFR 1926.1101.

D. The Contractor is responsible for complying with all additional OSHA regulations while performing work on this project.

1.12 WORKER QUALIFICATIONS, TRAINING, AND EDUCATION

A. Contractor is required to have a minimum OSHA Class I-certified Supervisor on-site at all times work is in progress.

B. Contractor is required to have an accredited asbestos Supervisor in each work area at all times work is in progress.

1. Supervisor must be fluent in English.

C. The Supervisor must be thoroughly familiar and experienced with asbestos abatement and related work and must enforce the use of all safety procedures and equipment. He/she must be knowledgeable of EPA, OSHA, CTDPH, and NIOSH requirements and guidelines.

D. Enforce strict discipline and good working order at all times among employees, and do not employ any person not skilled in the work assigned, nor anyone who has not received documented notice of the hazards of asbestos abatement, formal training in

the use of respirators, safety procedures, equipment, clothing, and work procedures. All workers must be licensed in accordance with applicable state regulations.

1.13 SUBMITTALS

A. The Contractor will submit the following submittals to the Engineer 10 calendar days prior to the commencement of asbestos removal work:

1. Submit copies of all notifications, permits, applications, licenses and like documents required by federal, state, or local regulations obtained or submitted in proper fashion.

2. Submit a schedule to the Owner and the Engineer that defines a timetable for executing and completing the project, including work area preparations, removal, cleanup, decontamination, and final clearance air monitoring (if applicable).

3. Submit the current valid State of Connecticut Asbestos Abatement Contractor license and certificate of insurance.

4. Submit the name and address of the waste hauling contractor and waste facility to be used. Also submit current valid operating permits and certificates of insurance for the waste transporter and waste facility.

5. Submit the plans and construction details for the construction of the decontamination systems and the isolation of the work areas as may be necessary for compliance with this specification and applicable regulations.

6. Submit the training, medical, respirator fit test records, and CTDPH license of each employee who may be on the Site.

7. If the Contractor's CTDPH-licensed Asbestos Abatement Supervisor is not conducting OSHA-required employee exposure monitoring, submit the qualifications of the air sampling professional that the Contractor proposes to use for this project for this task.

8. Submit detailed product information on all materials and equipment proposed for asbestos abatement work on this project.

9. Submit pertinent information regarding the qualifications of the Project Supervisor (competent person) for this project, as well as a list of past projects completed.

10. Submit a chain-of-command for the project.

11. Submit a site-specific Emergency Action Plan for the project. The Emergency Action Plan may include emergency procedures to be followed by Contractor personnel to evacuate the building, hospital name and phone number, most direct transportation route from the Site, emergency telephone numbers, etc. If this information is contained within an Emergency Action Plan prepared by the Site's General Contractor, a copy must be submitted for review.

12. Submit a written site-specific Respiratory Protection Program for employees for the Work, including make, model and NIOSH approval numbers of respirators to be used at the Site (if applicable).

13. Submit the proposed worker orientation plan that, at a minimum, includes a description of asbestos hazards and abatement methodologies, a review of worker protection requirements, and the outline of safety procedures.

14. Provide the Engineer draft copies of waste profiles and Waste Shipment Records (WSR) prior to Owner / accepting waste facility signing.

B. The Contractor will submit the following to the Engineer during the course of the work:

1. Daily results of all personal air sampling.

2. Certificates, training, medical, and fit-test records for new employees to start work (24 hours in advance of work).

3. Contractor site logs and containment sign-in sheets.

4. Revised Notifications, if any.

5. Copies of WSR for waste that leaves the site.

C. The following must be submitted to the Engineer within forty-five days of the completion of work:

1. Completed copies of fully executed WSR.

2. Remaining personal air sampling results and site logs.

1.14 NOTIFICATIONS, POSTINGS, SUBMITTALS, AND PERMITS

A. The Contractor must make the required written notifications as follows prior to commencement of asbestos abatement.

1. CTDPH Asbestos Abatement Notification

a. Submit Notification prior to the commencement of abatement totaling greater than or equal to ($\geq$) 10 linear feet (LF) and/or 25 square feet (SF) to the CTDPH.

b. The notification and associated fee is required 10-calendar days prior to the start of the abatement project and/or phase. The Contractor must include the notification fees in their base bid price.

c. The notification must be submitted to the following agency:

1) Connecticut Department of Public Health
410 Capital Avenue
MS #51 AIR
P.O. Box 340308
Hartford, CT 06134

d. The minimum information in the notification to the CTDPH must include:

1) Name and address of building Owner/Operator

2) Building location

3) Building size, age, and use

4) Asbestos quantity

5) Work schedule, including proposed start and completion date

6) Asbestos removal procedures to be used

7) Name and location of disposal site for generated asbestos waste, residue, and debris

2. EPA NESHAP Asbestos Abatement Notification

a. Submit Notification prior to the commencement of asbestos abatement associated with the building demolition.

b. The notification is required 10-working days (excluding weekends and federal holidays) prior to the start of the abatement project and/or phase.

c. The notification must be submitted to the following agency:

1) Asbestos NESHAP Coordinator
EPA Region 1
5 Post Office Square
Suite 100
Boston, MA 02109

d. The minimum information in the notification to the EPA must include:

1) Name and address of building Owner/Operator

2) Building location

3) Building size, age, and use

4) Asbestos quantity

5) Work schedule, including proposed start and completion date

6) Asbestos removal procedures to be used

7) Name and location of disposal site for generated asbestos waste, residue, and debris

1.15 DEFINITIONS

A. Abatement: Procedures to control fiber release from ACM; includes removal, encapsulation, and enclosure.

B. Air Monitoring: The process of measuring the total airborne fiber concentration of an area, or a person.

C. Alternative Work Practice (AWP): A variance of acceptable non-traditional asbestos abatement work practices, submitted and approved by CTDPH.

D. Amended Water: Water to which a surfactant (wetting agent) has been added.

E. Asbestos: The name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles, and includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, or any of these forms, which have been chemically-altered.

F. Asbestos Felt: A product made by saturating felted asbestos with asphalt, or other suitable bindery, such as a synthetic elastomer.

G. Asbestos Fibers: Those particles with a length greater than five (5) microns and a length to diameter ratio of 3:1 or greater.

H. Asbestos Project Designer: The State of Connecticut-licensed Asbestos Engineer – Project Designer for this project is Nathan Yergeau (License No. 000288).

I. Asbestos Work Area: A regulated area as defined by OSHA Title 29 CFR, Part 1926.1101 where asbestos abatement operations are performed, which is isolated by physical barriers to prevent the spread of asbestos dust, fibers, or debris. The regulated area must comply with requirements of regulated area for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.

J. Caulking: Resilient mastic compound often having a silicone bituminous or rubber base; used to seal cracks, fill joints, and prevent leakage. Typical applications: around windows, and doors. Caulking is at joints between two dissimilar materials. (i.e., masonry to wood, masonry to steel)

K. Clean Room: An uncontaminated area or room, which is a part of the worker decontamination enclosure with provisions for storage of worker street clothes and protective equipment.

L. Clearance Sampling: Final air sampling performed aggressively after the completion of the abatement project in a regulated area. Air samples collected by the air sampling professional having a total airborne fiber concentration of less than 0.010 fibers per cubic centimeter of air (fibers/cc) in each of five (5) samples collected inside the containment will denote acceptable clearance sampling by Phase Contrast Microscopy (PCM), or five air samples collected inside the containment by the air sampling professional having an average asbestos concentration of less than 70 structures per square millimeter (S/mm^2) of air will denote acceptable clearance sampling for Transmission Electron Microscopy (TEM).

M. Competent Person: As defined by OSHA Title 29 CFR, Part 1926.1101, a representative of the Abatement Contractor who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure. The Competent Person has authority to take prompt corrective measures, and to eliminate such hazards during asbestos removal. The Competent Person must be properly trained in accordance with EPA's Model Accreditation Plan (MAP).

N. Containment – An enclosure within the building which establishes a contaminated area and surrounds the location where ACM and/or other toxic or hazardous substance removal is conducted and establishes a Control Work Area.

O. Curtained Doorway: A device to allow ingress and egress from one area to another while permitting minimal air movement between the areas. Two curtained doorways spaced a minimum of six feet apart can form an airlock.

P. Dampproofing: Application of a water impervious material to surface (such as a wall) to prevent penetration of moisture, typically at foundation or below grade surface.

Q. Decontamination Enclosure System: A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.

R. Encapsulant: A liquid material which can be applied to ACM, which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its components together (penetrating encapsulant).

S. Engineer: Third Party Engineering/Environmental Consultant.

T. Equipment Room: Any contaminated area or a room that is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.

U. Fixed Object: Unit of equipment or furniture in the work areas that cannot be removed from the work area.

V. Friable Asbestos Materials: Any material that contains equal to or greater than 1% asbestos by weight, which can be crumbled, pulverized, or reduced to powder by hand pressure.

W. Glazing Compound: Any compound used to hold window glass in place, also referred to as putty, or glazier's putty. Is not field-applied, usually installed during manufacture of windows.

X. HEPA Filter: High Efficiency Particulate Air (HEPA) filter in compliance with ANSI Z9.2.

Y. HEPA Vacuum Equipment: Vacuum equipment fitted with a HEPA filter system for filtering the effluent air from the unit.

Z. Movable Object: Unit of equipment or furniture in the work area that can be removed from the work area.

AA. Negative Air Pressure Equipment: A portable local exhaust system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas), and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.

BB. NESHAP: National Emissions Standard for Hazardous Air Pollutants regulations enforced by the EPA.

CC. Permissible Exposure Limit (PEL): The maximum total airborne fiber concentration to which an employee is allowed to be exposed. The new limit established by OSHA Title 29 CFR, Part 1926.1101 is 0.1 fibers per cubic centimeter (fibers/cc) as an eight (8)-hour time-weighted average (TWA), and 1.0 fibers/cc averaged over a sampling period of 30 minutes as an Excursion Limit. The Contractor must be responsible for maintaining work areas in a manner that this standard is not exceeded.

DD. Project Monitor: A professional capable of conducting air monitoring and analysis of schemes. This individual should be an industrial hygienist, an environmental scientist, or an Engineer with experience in asbestos air monitoring and worker protection equipment and procedures. This individual should have demonstrated proficiency in

conducting air sample collection in accordance with OSHA Title 29 CFR, Parts 1910.1001 and 1926.1101.

EE. RCRA: The Resource Conservation and Recovery Act (EPA Title 40 CFR, Parts 260 - 265).

FF. Regulated Area: An area established by the employer to demarcate where Class I, II, and III asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate, and a work area within which total airborne fiber concentrations exceed, or there is a reasonable possibility that they may exceed the PEL.

GG. Shower Room: A room between the clean room and the equipment room in the work decontamination enclosure with hot and cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.

HH. Totally Enclosed Manner – A manner that will ensure no exposure of human beings or the environment to a concentration of asbestos.

II. Transport Vehicle – A motor vehicle or rail car used for the transportation of cargo by any mode. Each cargo-carrying body (e.g., trailer, railroad freight car) is a separate transport vehicle.

JJ. Waterproofing: Material, usually a membrane or applied compound (tar/mastic), used to make a surface impervious to water, includes concealed conditions (applications around doors, windows, and in wall cavities); sometimes combined with felts.

PART 2 MATERIALS AND EQUIPMENT

2.1 MATERIALS

A. Deliver all materials in the original packages, containers, and/or bundles bearing the name of the manufacturer, brand name, and product technical description.

B. Damaged or deteriorating materials must not be used and must be removed from the premises. Material that becomes contaminated with asbestos must be decontaminated or disposed of as asbestos waste.

C. Polyethylene sheet in a roll size to minimize the frequency of joints must be delivered to job site with factory label indicating 4 or 6 mils.

D. Polyethylene disposable bags must be true 6-mil with preprinted labels.

E. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheets to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.

F. Surfactant (wetting agent) must consist of 50 percent polyoxyethylene ether and 50 percent polyoxyethylene ester, or equivalent, and must be mixed with water to provide a concentration of one ounce surfactant to five gallons of water or as directed by manufacturer.

G. Impermeable containers are to be used to receive and retain any asbestos-containing or contaminated materials until disposal at an acceptable disposal site. (The containers

must be labeled in accordance with OSHA Standard Title 29 CFR, Part 1926.1101.) Containers must be both air and watertight.

H. Labels and signs, as required by OSHA Standard Title 29 CFR, Part 1910.1001 will be used.

I. Encapsulant must be bridging or penetrating type which has been found acceptable to the Owner. Usage must be in accordance with manufacturer's printed technical data.

J. Disposal labels must be preprinted on self-adhesive labels with the generator name, abatement site and contractor's name and address. Labels must not be photocopied and applied with spray adhesive.

2.2 TOOLS AND EQUIPMENT

A. Provide suitable tools for asbestos removal.

B. The Contractor Personnel exposure surveillance per OSHA requirements.

C. The Contractor must have available sufficient inventory on site for materials necessary for the job including protective clothing, respirators, filter cartridges, polyethylene sheeting of proper size and thickness, tape, and air filters.

D. The Owner will be responsible for hooking up temporary power before the commencement of asbestos removal.

E. The Contractor must provide temporary electrical power sources such as generators (when required).

F. The Contractor must have available shower stalls and sufficient hose length and a drain system equipped with 5-micron filters.

G. Vacuum units, of suitable size and capacities for project, must have HEPA filter(s) capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.

H. The Contractor must have available spray equipment capable of mixing a wetting agent with water and capable of generating sufficient pressure and volume and having sufficient hose length to reach all areas with asbestos.

PART 3 EXECUTION

3.1 PRE-CONSTRUCTION MEETING

A. At least one week prior to the start of work, a Pre-Construction meeting will be scheduled and must be attended by the Contractor and any Sub-Contractors. The assigned Contractor Site Supervisor must also attend this meeting.

B. The Contractor must present a detailed project schedule and project submittals at the Pre-Construction Meeting. Variations, amendments, and corrections to the presented schedule will be discussed, and the Owner and the Engineer will inform the Contractor of any scheduling adjustments for this project.

C. Following the Pre-Construction meeting, the Contractor must submit a revised schedule (if needed) no later than one week after the meeting.

3.2 REMOTE PERSONAL DECONTAMINATION SYSTEM

A. The Contractor must establish a remote personnel decontamination system where contiguous decontamination systems are not feasible. The use of a remote decontamination unit must be indicated on the State Notification of Asbestos Abatement. Access between the contaminated and uncontaminated areas must be through this decontamination enclosure only. The decontamination system must be constructed of two layers of 6-mil polyethylene sheeting. Pre-fabricated "pop-up" decontamination chambers will not be permitted on this project.

B. Access between rooms in decontamination system must be through double flap-curtained openings. Clean room, shower room and equipment room within decontamination system must be completely sealed ensuring that the sole source of air flow through this area originates from uncontaminated areas outside the work area.

C. The shower unit must be equipped with an adequate supply of warm water. A shower filtration pump containing two 5-micron sock filters or the best available technology must be installed to filter shower water. Filtered shower water must be discharged into sanitation drains and must not be discharged into storm drains or onto floor or ground surfaces.

D. The shower room must have soap and an adequate supply of drying towels. Provide an adequate number of shower units in accordance with OSHA Title 29 CFR, Part 1926.1101.

3.3 WASTE LOAD OUT SYSTEMS

A. The Contractor must safely stockpile demolition waste within regulated area prior to loading.

B. Stockpiles stored for longer than 24-hours must be covered with 6-mil polyethylene sheeting.

C. The Contractor is responsible for demarcating and monitoring truck traffic during waste loading/hauling.

D. All waste hauling trucks must be lined with 2-layers of 6-mil polyethylene sheeting and covered with impermeable bladder liners.

E. The Contractor is responsible for manifesting all waste that leaves the Site through proper waste shipment documentation.

F. Persons working inside the contaminated work area are not permitted to pass from the work area to the non-work area through the waste load out system. Persons inside the contaminated work area must not be permitted to enter into the clean area of the waste load out system.

3.4 EXTERIOR WORK PREPARATION – GENERAL

A. Where exterior friable and non-friable ACM is to be removed outdoors, post asbestos abatement warning signs and erect temporary barricades to create regulated areas. Regulated areas should be kept clear of any persons not fully trained and protected against exposure.

B. Maintain an operable remote worker decontamination system in accordance with Section 3.2 and the CTDPH AWP.

C. Maintain a work area access control log for each exterior work area.

3.5 ASBESTOS REMOVAL PROCEDURES - GENERAL

A. The Contractor must have a designated "Competent Person" on the job at all times to ensure establishment of a proper enclosure system and proper work practices throughout the project. At a minimum, the Contractor's Competent Person must perform or supervise the following duties, as applicable:

1. Ensure the integrity of the containment, enclosure, and secured work area.

2. Set up procedures to control entry to and exit from the enclosure.

3. Supervise employee exposure monitoring.

4. Ensure that employees set up, use and remove engineering controls, use work practices and personal protective equipment in compliance with applicable regulations and the technical specifications.

5. Ensure that employees use the worker decontamination facilities and observe decontamination procedures.

6. Supervise and direct abatement activities in a manner that meet the intent of this technical specification and applicable regulations.

7. Quantify asbestos waste generated during the project.

8. Perform final visual inspections in conjunction with the Asbestos Project Monitor.

B. Abatement work will not commence until all work area preparation is completed in accordance with this Specification and accepted by the Engineer.

C. Spray asbestos materials with amended water using airless spray equipment or apply approved removal wetting agent to reduce the release of fibers during removal operation. The Engineer will pre-approve use of amended water as the wetting agent.

D. Spraying of amended water must be adequate enough to allow the ACM to absorb the amended water. Actual removal or disturbance of ACM must not be allowed until all ACM has become adequately wet.

E. Fill disposal containers as removal proceeds, seal filled containers before moving to waste load out system. Wet clean each container thoroughly, double bag, drum or use other approved containerization methods, and apply a caution label before moving to holding area.

F. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris.

G. Solidify all liquid waste prior to containerization for disposal.

H. Sealed disposal containers and all equipment used in the work area must be included in the cleanup and must be removed from work areas, via the waste load out system at an appropriate time in the cleaning sequence.

I. At any time during asbestos removal, should the Project Monitor and/or competent person suspect contamination of areas outside the work area(s), all abatement work

must stop until steps to decontaminate these areas and eliminate causes of such contamination are completed. Unprotected individuals must be prohibited from entering suspected contaminated areas until air sampling and/or visual inspections certify decontamination.

3.6 ASBESTOS REMOVAL PROCEDURES – ENTIRE BUILDING DEMOLITION/DISPOSAL PROCEDURES –FRIABLE/NON-FRIABLE ACM

A. The asbestos abatement will include the demolition and disposal approach described in the AWP. Prior to demolition of the building, the Contractor must ensure that work area preparation has been conducted in accordance with the AWP.

B. This work is to be conducted in conjunction with building demolition activities under a demolition and disposal scenario. The Contractor is responsible for coordinating abatement activities with the General Contractor and for proper disposal of all materials.

C. ACM included in demolition/segregation procedures must be removed and disposed of as mixed asbestos and CT DEEP Regulated PCB Waste (<50 ppm). See Section 13284, PCB-Contaminated Building Materials Abatement for more information.

D. Minimum specific requirements for removal of ACM are as follows:

1. Prior to demolition and removal activities, the Contractor must ensure the work area is prepped in accordance with the AWP and this Section.

2. Abatement includes demolition and disposal down to the concrete slab, foundations, basement floors, walls, and includes the D Wing crawlspace.

3. Perform procedures as necessary including the application of wet methods and covering materials to ensure that release of asbestos materials is reduced to no visible emissions.

   a. Continuously mist the work area during structure demolition and disposal activities. The Contractor must utilize powered dust suppression equipment such as water cannons and/or misting machines to ensure sufficient materials saturation. Supplement powered dust suppression with “fire hoses” as needed.

   b. The Contractor is responsible for re-positioning watering equipment when necessary so that water streams are always within range to wet materials during building demolition.

   c. The Engineer may stop work at any time during the project if visible emissions is observed. The Contractor is responsible for resolving any emissions issues before work may continue.

4. All demolition waste may be stockpiled prior to loading/hauling procedures.

   a. Waste stockpiles must be adequately wetted during each work shift.

   b. Waste stockpiles must be covered with 6-mil polyethylene sheeting if stored for longer than 24 hours.

   c. Continuously wet demolition waste during truck loading/hauling process.

5. All loose asbestos debris must be immediately collected by Contractor and containerized for disposal.

6. All debris must be handled as ACM. The Engineer will conduct visual inspections of the ground surface for ACM. It is the responsibility of the contractor to ensure the ground surface outside the regulated work area is free of all ACM debris.

7. The Engineer will conduct visual inspections of segregated and decontaminated non-ACM and PCB materials deemed to be clean for disposal as general construction waste or scrap metal.

8. The Contractor is responsible for coordinating with General Contractor to ensure that ACM does not get mixed with clean demolition debris.

3.7 FINAL CLEANING

A. Upon completion of gross removal of all ACM, the Contractor must begin final cleaning of the effected work area. The final cleaning must include the following at a minimum:

1. All demolition debris must be collected and removed within the regulated work area.

B. Once all surfaces and components within the work area have been thoroughly cleaned, the Contractor's Competent Person must perform a visual inspection of all surfaces and components within the work area enclosure.

1. The Contractor's Competent Person must sign off on the work area stating that all abatement has been completed for that portion of work and that the work area has met final visual inspection requirements as outlined in ASTM E1368.

C. The Contractor's Competent Person must then request a final visual inspection to be performed by the Engineer.

1. The Engineer must visually inspect all surfaces in the work area for residual debris and or dust.

2. Additional cleaning must be performed at the Contractor's expense if the Engineer identifies visual debris and/or dust during the visual inspection.

3. Additional cleaning must be performed until the work area meets the Final Visual Inspection requirements outlined in ASTM E1368.

3.8 WASTE PACKAGING AND REMOVAL PROCEDURES

A. The Contractor must strictly adhere to the requirements of this section for ACM waste packaging and transport from the work area enclosure to the disposal dumpster.

B. Waste disposal bags and drums must be affixed with pre-printed OSHA warning labels, US Department of Transportation (DOT) labels, and NESHAP labels.

C. Each container of ACM waste must be made adequately wet prior to sealing the container. Bags must be sealed immediately following additional wetting procedures. Bags of ACM waste must not be permitted to remain unsealed while in the work area enclosure.

D. Each bag of ACM waste must be double bagged during waste load out procedures. The following waste load out procedure must be strictly adhered to:

1. Wet wipe inner bag or drum to remove all ACM contamination. Ensure the inner bag is sealed.

2. Transport bag or drum to the equipment room located in the worker decontamination enclosure.

3. One worker, equipped with personal protective equipment, must be inside the clean room of the worker decontamination enclosure.

4. The worker in the clean room of the decontamination enclosure must open a 6-mil disposal bag and hold it open inside the shower room where the inner bag containing the ACM waste must be placed.

5. The outer bag must be sealed with duct tape inside the shower room.

6. The double bagged or drummed waste must be removed from the decontamination enclosure and waste generator labels must be immediately affixed to the outer bag or drum.

7. Waste generator labels must be printed self-adhering labels and must contain the Owner's name, the site location address, and the Contractor's name.

8. The properly labeled waste must be transported directly to the lined waste container.

9. The waste container must be double-lined with 6-mil polyethylene sheeting.

10. OSHA warning signs must be secured to the waste container prior to any loading and unloading operations.

11. The waste container must be kept locked at all times other than loading and unloading.

3.9 DISPOSAL OF ASBESTOS AND ASBESTOS-CONTAMINATED WASTE

A. All disposal of asbestos-containing and or asbestos-contaminated material must be in compliance with requirements of the CTDEEP, CTDPH, and the EPA NESHAP regulations.

B. Disposal approvals must be obtained from the CTDEEP before commencing asbestos removal if waste will be disposed of in Connecticut.

C. Waste container storage locations must be pre-approved by the Owner and Engineer.

D. A copy of approved disposal authorization must be provided to the Owner and Engineer and any required federal, state or local agencies.

E. Copies of all waste facility receipts will be retained by the Engineer as part of the project file. The receipts will be signed by the waste facility operator on receipt, and the quantity of asbestos debris leaving the job site and arriving at the waste facility acknowledged.

F. All asbestos debris must be transported in covered waste hauling vehicles, which are physically isolated from the driver by an airtight barrier. All vehicles must be properly licensed to meet DOT requirements.

G. ACM waste must be placed in double-lined enclosed waste containers equipped with a lockable hasp. Waste containers must be posted with OSHA warning signs during loading and unloading.

H. All liquid waste generated during the work must be solidified. At no time will liquid wastes be permitted to be stored on site. Liquid waste generated during this project must be solidified prior to the end of each work shift.

I. Completed WSRs signed by the waste facility must be returned to the Owner and Engineer no later than 45 days from the time the waste was transported off-site. Completed waste shipment records that are not received by the Owner within 35 days must require the Contractor to begin tracking the waste. The Contractor must notify the Owner of intentions on tracking the waste.

J. The Contractor must take appropriate actions as outlined in Title 40 CFR, Part 61 NESHAP regulations when completed WSR are not forwarded to the Owner or Engineer within 45 days from the time the waste was transported off-site.

3.10 ENGINEER AIR SAMPLING RESPONSIBILITY

A. Air sampling may be conducted by the Engineer to ascertain the integrity of the controls that protect the surrounding areas from asbestos contamination. Independently, the Contractor must monitor air quality within the work area to ascertain the protection of employees, and to comply with OSHA regulations.

B. The Engineer's project monitor may collect and analyze air samples during the following period:

1. Abatement Period – The Engineer's project monitor must collect ambient air monitoring samples on a daily basis during the work period. A sufficient number of samples must be collected at the exterior regulated work area perimeters to monitor potential asbestos contamination during demolition/removal activities.

2. Samples must be analyzed by Phase Contrast Microscopy (PCM) NIOSH 7400 Method to a CTDPH guideline of 0.010 fibers per cubic centimeter of air.

3.11 ENGINEER'S INSPECTION RESPONSIBILITIES

A. The Engineer must conduct inspections throughout the progress of the abatement project. Inspections must be conducted to document the abatement work progress, as well as the procedures and practices employed by the abatement Contractor.

B. The Engineer may perform the following inspections during the abatement activities:

1. Pre-commencement Inspection. Pre-commencement inspections must be performed at the time requested by the Contractor. The Engineer must be informed 24-hours prior to the time the inspection is needed. If deficiencies are noted during the pre-commencement inspection, the Contractor must perform the necessary adjustments to obtain compliance.

2. Work Area Inspections. Work area inspections must be conducted on a daily basis at the discretion of the Engineer. During the work inspections, the Engineer must observe the Contractor's removal procedures, verify barrier integrity, monitor dust emissions, assess project progress, and if deficiencies are noted, inform the abatement Contractor of specific remedial activities.

3. Final Visual Inspection. Upon request of the abatement Contractor, the Engineer must conduct a final visual inspection of the work area. If residual dust or debris is identified during the final inspection, the Contractor must comply with the request of the Engineer to render the area “dust free.”

Table 13281- LIST OF ASBESTOS-CONTAINING MATERIALS

MATERIAL	LOCATION(S)	APPROXIMATE	COMMENTS
Pipe Fitting and/or Pipe Fitting Insulation	Entire Building – A Wing, B Wing, C Wing, and D Wing	77,000 SF Structure	The entire building, interior contents, and debris must to be demolished and disposed of as mixed asbestos / CT DEEP Regulated PCB Waste per the Alternative Work Practice (AWP). Metal components may be decontaminated and removed from the Site as scrap metal. Metal with PCB containing paints must be recycled out of State. Painted wood beams and ceiling deck from the A Wing and D Wing are to be segregated during demolition and disposed of as lead hazardous waste. First Floor slab and Crawlspace walls must also be dispsoed of as mixed friable asbestos / CT DEEP Regulated PCB Waste.
Various Floor Tile and Mastics			
Various Linoleum Flooring			
Wall Panel Adhesives			
Exterior Window Caulk			
Roofing Membranes, Field Tar, Paper and Flashing Tar Layers			

Note: The quantities are used for a rough order of magnitude to indicate the extent of materials within the building. The Contractor is expected to use the building as a whole for cost estimating under the approach that the structure will be demolished and disposed of mixed friable asbestos / PCB Buk Product Waste.

Legend
AWP = Alternative Work Practice
ppm = Parts Per Million
SF = Square Feet, LF = Linear Feet, EA = Each

Appendix A - Asbestos Laboratory Report
Appendix B – Related Documents

END OF SECTION

Tighe&Bond

APPENDIX A

EMSL Analytical, Inc.

165 Gracey Avenue Meriden, CT 06451

Tel/Fax: (203) 284-5948 / (203) 284-5978

http://www.EMSL.com / meridenlab@emsl.com

EMSL Order:	242405405
Customer ID:	TIGH62
Customer PO:	22-0817-038
Project ID:	

Attention:	Nathan Yergeau	**Phone:**	(860) 704-4760
	Tighe & Bond	**Fax:**	(860) 704-4775
	213 Court Street	**Received Date:**	10/04/2024 9:00 AM
	Suite 1100	**Analysis Date:**	10/10/2024
	Middletown, CT 06457	**Collected Date:**	10/03/2024
Project:	22-0817-038/ 116 COOK AVENUE, MERIDEN, CT		

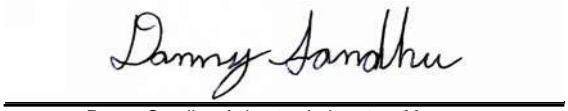
Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
24-1003-PLM-NY-01 *242405405-0001*	2nd floor- C wing - cmu wall dark gray	Gray Non-Fibrous Homogeneous		10% Quartz 90% Non-fibrous (Other)	None Detected
24-1003-PLM-NY-02 *242405405-0002*	3rd floor- A wing - cmu wall dark gray	Gray Non-Fibrous Homogeneous		8% Quartz 92% Non-fibrous (Other)	None Detected
24-1003-PLM-NY-03 *242405405-0003*	2nd floor- C wing - cmu wall mortar gray	Gray Non-Fibrous Homogeneous		8% Quartz 92% Non-fibrous (Other)	None Detected
24-1003-PLM-NY-04 *242405405-0004*	3rd floor- A wing - cmu wall mortar gray	Gray Non-Fibrous Homogeneous		8% Quartz 92% Non-fibrous (Other)	None Detected
24-1003-PLM-NY-05 *242405405-0005*	Exterior- A wing - brick siding red	Red Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
24-1003-PLM-NY-06 *242405405-0006*	Exterior- D wing - brick siding red	Red Non-Fibrous Homogeneous		5% Quartz 95% Non-fibrous (Other)	None Detected
24-1003-PLM-NY-07 *242405405-0007*	Exterior- A wing - brick siding mortar gray	Gray Non-Fibrous Homogeneous		8% Quartz 92% Non-fibrous (Other)	None Detected
24-1003-PLM-NY-08 *242405405-0008*	Exterior- D wing - brick siding mortar gray	Gray Non-Fibrous Homogeneous		8% Quartz 92% Non-fibrous (Other)	None Detected

Analyst(s)

Hailey Rangel (4)

Leslie Tetrick (4)



Danny Sandhu, Asbestos Laboratory Manager
or Other Approved Signatory

Initial report from: 10/11/2024 09:42:43

OrderID: 242405405

Tighe&Bond 242405405

213 Court Street, Suite 1100, Middletown, CT 06457 Phone 860-704-4760

SAMPLE LOG FOR ASBESTOS BULKS

Sheet 1 of 1

Project Name: 116 Cook Avenue Project No. 22-0817-038

Building: 116 Cook Avenue, Meriden, CT Project Manager: Harley Langford

Sample ID	HA #	Material Description	Color	Sample Location
24-1003-PLM-NY-01	01	CMU Wall	Dark Gray	2nd Floor – C Wing
24-1003-PLM-NY-02	01	CMU Wall	Dark Gray	3rd Floor – A Wing
24-1003-PLM-NY-03	02	CMU Wall Mortar	Gray	2nd Floor -C Wing
24-1003-PLM-NY-04	02	CMU Wall Mortar	Gray	3rd Floor – A Wing
24-1003-PLM-NY-05	03	Brick Siding	Red	Exterior – A Wing
24-1003-PLM-NY-06	03	Brick Siding	Red	Exterior – D Wing
24-1003-PLM-NY-07	04	Brick Siding Mortar	Gray	Exterior – A Wing
24-1003-PLM-NY-08	04	Brick Siding Mortar	Gray	Exterior – D Wing

TOTAL # OF SAMPLES: 8 State sample collected in: CT

Customer ID: TIGH62

Analysis Method: ☒ PLM ☐ TEM-NOB ☐ Point CT - 400 ☐ Other ☒ Stop Positive - Homogeneous Areas *(HA#)*

Turnaround Time (check one): ☐ 3-hr ☐ 6-hr ☐ 24-hr ☐ 48-hr ☐ 72-hr 96-hr ☒ 1-week ☐ 2-week

Please call the office if analyses will be late at: _____

Email Results to: NYergeau@tighebond.com **Do Not Mail Hard Copy Report**

Special Instructions: Do not layer samples unless indicated. Do Not Point Count.

Samples collected by: Nathan Yergeau **Date:** 10/03/2024 **Time:** 2:00 pm

Samples Relinquished by [signature] **Date:** 10/03/2024 **Time:** 5:15pm

Samples Received by: [signature] **Date:** 10/4/24 **Time:** 900 DDO

Shipped To: ☒ EMSL State CT ☐ Other _____

Method of Shipment: ☐ Overnight (Check one: Fed Ex / UPS) ☐ Other _____

Tighe&Bond

APPENDIX B

22-0817-24
November 6, 2015

Juliet Burdelski
Director of Economic Development
City of Meriden
142 East Main Street
Meriden, CT 06450

Re: **Supplemental Hazardous Building Material Assessment Report**
116 Cook Avenue
Meriden, CT

Dear Ms. Burdelski:

In accordance with our proposal dated February 24, 2015, Tighe & Bond has completed a supplemental Hazardous Materials Building Materials Assessment (HBMA), for the building located at 116 Cook Avenue in Meriden, Connecticut (herein referred to as "site"). Based on our conversations and observations during the walkthrough on August 22, 2014, the building has been subject to vandalism and theft of copper piping and wiring, causing damage to the ceilings and walls inside the building and resulting in piles of debris throughout the building. Tighe & Bond assessed the debris piles utilizing the existing Hazardous Materials Survey Report, previously prepared by Fuss & O'Neil (dated December 6, 2011) to the extent possible to determine if asbestos containing materials (ACM) had been disturbed and comingled with the debris observed inside the building.

Tighe & Bond also assessed the quantity, type, and condition of the HBMs identified in the Fuss & O'Neil (F&O) report and other building materials suspected to contain asbestos and/or polychlorinated biphenyls (PCBs).

Assessment Summary

The HBMA was conducted in accordance with the EPA National Emissions Standard for Hazardous Air Pollutants Act (NESHAP). The assessment included sampling of suspect ACM not identified in the F&O report, the collection of one air sample to determine if airborne asbestos fibers are present in indoor air, and sampling of various paints and caulking materials for analysis of PCBs.

Asbestos and PCB sampling was conducted by State of Connecticut licensed asbestos inspectors, Douglas Belfiore, James Webb and Justin Proto of Tighe & Bond on May 21, June 16, and September 1, 2015. Copies of inspector licenses are included in Appendix A.

Suspect Asbestos-Containing Material Sampling

Tighe & Bond collected samples of suspect ACM identified in debris found on the floors of the building on May 21, 2015. A total of 35 samples were collected of various suspect ACMs including ceiling tiles, gypsum board, joint compound, floor tile, various mastics, and other miscellaneous materials. Sampled materials are listed in Table 1 (Appendix B). Samples were submitted to EMSL Laboratories in Wallingford, Connecticut for asbestos analysis by Polarized Light Microscopy (PLM) using EPA approved protocol in accordance with accreditation of the National Institute of Standards and Technology (NIST).

During assessment activities, the locations, types of material, and quantities were recorded. Observed materials were compared to those identified as ACM in the F&O report and additional suspect ACMs were sampled for asbestos.

Air Sampling

Tighe & Bond collected one air sample on May 21, 2015 using ASTM AHERA 40 CFR, part 73 method from within the first floor corridor to determine if airborne asbestos fibers are present in the air as a result of the recent vandalism and general building deterioration. The sample was submitted to EMSL Laboratories in Wallingford, Connecticut for asbestos analysis via Transmission Electron Microscopy (TEM) using EPA approved protocol in accordance with accreditation of the National Institute of Standards and Technology (NIST).

PCB Sampling of Suspect Source Materials

Samples were collected of suspect PCB source materials including paint, caulking, and glazing compounds observed during the assessment on May 21, 2015. In addition, substrates associated with source materials containing PCBs in concentrations greater than 1 ppm were sampled on June 16, 2015 to determine the potential presence and extent of contamination by leaching. Three samples of each different type of material were collected in accordance with the EPA sampling guidelines. Samples were submitted to Phoenix Laboratories of Manchester, Connecticut for analysis of PCBs utilizing the EPA 3540C Soxhlet Extraction and SW 846 8082 analytical method.

Findings and Conclusions

Asbestos Sampling Results

A total of 23 bulk samples of suspect ACM were collected from the debris piles identified in the building on May 21, 2015. During a subsequent visit on September 1, 2015, a total of 12 bulk samples were collected of miscellaneous boiler and flooring materials not identified in the F&O report. Some materials were observed to be homogeneous within several rooms or debris piles (i.e. sheetrock, floor tile, ceiling tiles, etc.) and sampled as sets. Each sample was analyzed by PLM based on the "stop on first positive" request to the laboratory.

During the assessment the general condition of the building's interior was observed to be deteriorated and affected by copper theft and vandalism. Asbestos containing floor tiles were also observed to be damaged in several areas including a portion of Wing D where the first floor has collapsed. Asbestos containing pipe insulation is also assumed to be located in the pipe chase beneath the collapsed floor and other sections of the building and is assumed to be damaged and mixed with the underlying ground surface. Portions of the asbestos containing roof are also compromised at Wing D. Other ACMs were observed to generally be in good condition.

EPA defines any material containing more than 1% asbestos to be an asbestos containing material. Only one material analyzed was found to contain asbestos, the boiler rib rope. Analytical data represents this material to contain 12% Chrysotile. Six small boilers were also identified inside the boiler room and are assumed to contain asbestos. The boiler rib rope and assumed boilers are the only ACMs identified in the building that were not included in the F&O Report. Refer to Table 1 (Appendix B) for a summary of asbestos containing materials sampled, assumed asbestos-containing materials, and locations. Refer to Table 2 (Appendix B) for a summary of non-asbestos containing materials sampled and locations. Laboratory analytical reports for asbestos sampling are provided in Appendix C.

Tighe & Bond has also prepared a comprehensive table of ACMs, quantities, and locations identified during this assessment and those documented in the F&O report. This table and the abatement requirements for each identified ACM are included in Section 13281 and on the Asbestos Abatement Design Drawings (HM-1.1 through HM-1.5), each of which has

been provided to the City as part of the technical specification package developed for the abatement of the building.

If additional materials are encountered during abatement or renovation activities that were not previously sampled, they would either need to be sampled to determine asbestos content or should be assumed to be asbestos containing.

All regulated friable and non-friable ACM must be removed prior to starting renovation activities. A State of Connecticut Licensed Asbestos Abatement Contractor must be retained to perform removal work. Visual inspections must be performed by a State of Connecticut Licensed Asbestos Project Monitor (APM) within each abatement area at the completion of the abatement work. Abatement areas must meet final visual inspection criteria prior to starting renovation activities. Re-occupancy air monitoring also is required by an APM before entry of any person into the work area.

The Asbestos Abatement Contractor must submit a notice of asbestos abatement to the State of Connecticut Department of Health post marked or hand delivered 10 days prior to the commencement of any asbestos abatement activities involving the abatement of greater than 10 linear feet or 25 square feet of asbestos containing materials.

Air Sampling Results

One air sample was collected and submitted for asbestos analysis using TEM. Laboratory results indicate that TEM air clearance sample was below the re-occupancy standard of less than 70 structures per square millimeter (S/mm^2). The result of the air sample is provided in Appendix C.

PCB Sample Results of Suspect Source Materials, and Substrates

A total of 48 PCB bulk samples were collected from 16 different source materials for PCB analysis. Refer to Table 3 in Appendix B for a detailed list of building components sampled for PCBs. Laboratory analytical reports for PCB sampling are provided in Appendix D.

Seven of the source materials analyzed were found to contain PCB concentrations > 1 part per million (ppm). Each source material found to contain PCBs > 1 ppm was a paint. Caulking and glazing compounds were also reported to contain PCBs at concentrations above laboratory reporting limits but < 1 ppm. Source sample concentrations of PCBs ranged from < 1.0 ppm to 3.6 ppm.

PCB containing paints on drywall and on the ceiling were observed to be in deteriorated condition and have fallen onto the floor and onto the top of the drop ceiling throughout much of the building. Because of this the floor debris, carpets, drop ceilings, and much of the interior content of the building must be managed as a PCB containing waste with a concentration < 50 ppm.

Sampling was also performed on substrate materials in contact with PCB containing source materials with concentrations > 1 ppm. PCBs were not reported at concentrations greater than 1 ppm within the analyzed substrate materials, including various paints identified on brick, wood decking, and concrete masonry units (concrete block).

Materials containing PCBs at concentrations from 1 to less than 50 ppm are regulated by the Connecticut Department of Energy and Environmental Protection (CTDEEP), materials containing PCBs ≥50 ppm are regulated by CTDEEP and EPA, while materials with PCB concentrations less than 1 ppm are not regulated. Tighe & Bond recommends that the City provide notification to CTDEEP prior to the start of any PCB abatement activities.

The location, type, and abatement requirements for each identified PCB containing building material are further detailed in Section 13286 and on the PCB and Lead-Based Paint

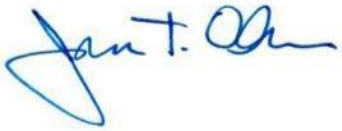
Contaminated Building Materials Abatement Design drawings (HM-2.1 through HM-2.4), each of which has been provided to the City as part of the technical specification package developed for the abatement of the building.

If you have any questions regarding this letter report please contact Jim Olsen at (860) 704-4761/JTOlsen@TigheBond.com or Harley Langford at (860) 704-4781/ HALangford@TigheBond.com.

Very truly yours,

TIGHE & BOND, INC.

Harley Langford, LEP
Project Environmental Scientist



James T. Olsen, LEP
Vice President

Enclosures:
Appendix A - Inspector Licenses
Appendix B - Table 1 – Summary of Asbestos Containing Materials
Table 2 - Summary of Non-Asbestos Containing Materials
Table 3 - Summary of PCB Analytical Results
Appendix C - EMSL Asbestos Laboratory Analytical Reports
Appendix D - PCB Laboratory Analytical Reports

Tighe&Bond

APPENDIX A

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A

ASBESTOS CONSULTANT-INSP/MGMT PLANNER

CERTIFICATE NO.
000317

JAMES T WEBB

CURRENT THROUGH
08/31/16

VALIDATION NO.
03-286592

SIGNATURE

COMMISSIONER

Certificate of Training

Awarded to

JAMES WEBB

For successful completion of a 16 Hour, 2 Day

Asbestos Management Planner

Initial Training Course

February 3-4, 2015

This training was approved and given in accordance with Regulations for Connecticut State Agencies RCSA 20-440-1-9 and meets the requirements of the EPA Revised MAP under TSCA Title II of 4/4/94.

Presented by

Mystic Air Quality Consultants, Inc.

1204 North Road, Groton, CT 06340 (800) 247-7746

Certificate Number: IMPI23722

Exam Grade: 97.5

Exam Date: 02/04/2015

Expiration Date: 02/04/2016

Christopher J. Eident, CIH, CSP, RS

George Williamson, Training Director

Richard Haffey, Training Director

CERT# A-509 - 535

CHEMSCOPE TRAINING DIVISION

ASBESTOS INSPECTOR REFRESHER

4HOUR TRAINING CERTIFICATE

Douglas Belfiore

213 Court Street, Suite 1100 , Middletown CT

Has attended an 4 hour annual refresher course on the subject discipline on

9/4/2015 and has passed a written examination.

"The person receiving this certificate has completed the requisite training required for asbestos accreditation as an inspector under TSCA Title II"

Course topics include a review and update on asbestos health hazards, functions of inspectors and management planners, building systems, planning, inspecting for asbestos, sampling and analysis, respiratory protection, government regulations and preparing the inspection report.

Examination Date: 9/4/2015

Expiration Date: 9/4/2016

This training course has been accredited by the State of Connecticut.

Ronald D. Arena
Training Manager

Chem Scope, Inc.
15 Moulthrop Street
North Haven CT 06473
(203) 865-5605

State of Connecticut

Lookup Detail View

Name

Name
DOUGLAS T BELFIORE

License Information
lookup

License Type	License Number	Expiration Date	Granted Date	License Name	License Status	Licensure Actions or Pending Charges
Asbestos Consultant-Inspector	701	12/31/2015	03/26/2008	Douglas T. Belfiore	ACTIVE	None

Generated on: 9/24/2015 9:11:58 AM

CERT# A-509 - 538

CHEMSCOPE TRAINING DIVISION

ASBESTOS INSPECTOR REFRESHER

4HOUR TRAINING CERTIFICATE

Justin F. Proto

213 Court Street, Suite 1100 , Middletown CT

Has attended an 4 hour annual refresher course on the subject discipline on

9/4/2015 and has passed a written examination.

"The person receiving this certificate has completed the requisite training required for asbestos accreditation as an inspector under TSCA Title II"

Course topics include a review and update on asbestos health hazards, functions of inspectors and management planners, building systems, planning, inspecting for asbestos, sampling and analysis, respiratory protection, government regulations and preparing the inspection report.

Examination Date: 9/4/2015

Expiration Date: 9/4/2016

This training course has been accredited by the State of Connecticut.

Ronald D. Arena
Training Manager

Chem Scope, Inc.
15 Moulthrop Street
North Haven CT 06473
(203) 865-5605

Justin F. Proto
TIGHE & BOND
213 COURT STREET SUITE 900
MIDDLETOWN, CT 06457

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification for the coming year. Should you have any questions about your license/certificate renewal, please do not hesitate to write or call:

Department of Public Health (860) 509-7603
P.O. Box 340308
M.S.#12MQA http://www.dph.state.ct.us
Hartford, CT 06134-0308

Sincerely,

JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

INSTRUCTIONS:

1. Detach and sign each of the cards on this form.
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.
4. The employer's copy is for persons who must demonstrate current licensure/certification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT

THE INDIVIDUAL NAMED BELOW IS CERTIFIED
BY THIS DEPARTMENT AS A
Asbestos Consultant-Inspector

Justin F. Proto

CERTIFICATION NO.
697
CURRENT THROUGH
03/31/2016
VALIDATION NO.
DUPLICATE

SIGNATURE
COMMISSIONER

EMPLOYER'S COPY
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
NAME
Justin F. Proto
VALIDATION NO. CERTIFICATION NO. CURRENT THROUGH
DUPLICATE 697 03/31/2016
PROFESSION
Asbestos Consultant-Inspector
SIGNATURE
COMMISSIONER

WALLET CARD
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
NAME
Justin F. Proto
VALIDATION NO. CERTIFICATION NO. CURRENT THROUGH
DUPLICATE 697 03/31/2016
PROFESSION
Asbestos Consultant-Inspector
SIGNATURE
COMMISSIONER

Tighe&Bond

APPENDIX B

TABLE 1
Summary of Asbestos Containing Materials
116 Cook Avenue
Meriden, CT

Asbestos Sampling Date: September 1, 2015

Sample ID	Material	Color	Sample Location	Approximate Quantity	Result
9-1-JW-01	Boiler Rib Rope	Brown	Boiler Room	280 LF	12% Chrysotile
9-1-JW-02	Boiler Rib Rope	Brown	Boiler Room		Not analyzed (Stop positive)
N/A	Boiler Interior Compenents	N/A	Boiler Room	6 Small Boilers	Assumed

LEGEND
Asbestos Containing Material = ≥1% Asbestos
LF = Linear Foot
SF= Square Foot

TABLE 2
Summary of Non-Asbestos Containing Materials
116 Cook Ave
Meriden, CT

Asbestos Sampling Dates: May 21 and September 1, 2015

Sample ID	Material	Color	Location(s)	Result
5-21-JW-01	2'x2' Acoustic Ceiling Tile Rough Texture	Tan	1st Floor "C" Wing Hall	None Detected
5-21-JW-02	2'x4' Hole & Fischer Acoustic Ceiling Tile	Tan	1st Floor "C" Wing Storage Room	None Detected
5-21-JW-03	Fiberglass Pipe Cover	Tan	1st Floor "C" Wing	None Detected
5-21-JW-04	Pine Wall Paper	Tan	1st Floor "C" Wing	None Detected
5-21-JW-05	Sheetrock and Joint Compound Composite	White	1st Floor "C" Wing	None Detected
5-21-JW-06	2'x4' Hole & Fischer Acoustic Ceiling Tile	Tan	1st Floor "D" Wing	None Detected
5-21-JW-07	Grey Painted Concrete	Grey	1st Floor "D" Wing Stairs	None Detected
5-21-JW-08	Sheetrock and Joint Compound Composite	Tan	1st Floor "B" Wing Stairs	None Detected
5-21-JW-09	2'x4' Pinhole Acoustic Ceiling Tile	Grey/White	2nd Floor "B" Wing	None Detected
5-21-JW-10	2'x4' Hole & Fischer Acoustic Ceiling Tile	Tan	3rd Floor "B" Wing	None Detected
5-21-JW-11	Sheetrock and Joint Compound Composite	White	3rd Floor "B" Wing	None Detected
5-21-JW-12	2'x4' Pinhole Acoustic Ceiling Tile	Tan	4th Floor "B" Wing	None Detected
5-21-JW-13	2'x4' Pinhole Acoustic Ceiling Tile	Grey	4th Floor "D" Wing	None Detected
5-21-JW-14	Sheetrock and Joint Compound Composite	Grey/White	4th Floor "B" Wing	None Detected
5-21-JW-15	Grey Wall Paper Adhesive	Grey/Beige	3rd Floor "B" Wing	None Detected
5-21-JW-16	Grey Wall Paper Adhesive	Tan	3rd Floor "B" Wing	None Detected

TABLE 2
Summary of Non-Asbestos Containing Materials
116 Cook Ave
Meriden, CT

Sample ID	Material	Color	Location(s)	Result
5-21-JW-17	Black Coating on Sheet Rock	Black	1st Floor "D" Wing	None Detected
5-21-JW-18	Black Coating on Sheet Rock	Black	1st Floor "D" Wing	None Detected
5-21-JW-19	Tan w/ Grey Streak 12 X 12 Floor Tiles	Gray	1st Floor "D" Wing	None Detected
5-21-JW-20	Tan w/ Grey Streak 12 X 12 Floor Tiles	Tan	1st Floor "D" Wing	None Detected
5-21-JW-21	Stone Pattern Vinyl Stone Flooring	Gray	1st Floor "D" Wing	None Detected
5-21-JW-22	Brown Paper on Wire	Brown	3rd Floor "D" Wing	None Detected
5-21-JW-23	Tan/Brown Adhesive	Gray/Beige	3rd Floor "D" Wing	None Detected
9-1-JW-03	Plaster Skim Coat	White	Boiler Room	None Detected
9-1-JW-04	Plaster Skim Coat	White	Boiler Room	None Detected
9-1-JW-05	Plaster Skim Coat	White	Boiler Room	None Detected
9-1-JW-06	Plaster Rough Coat	Gray	Boiler Room	None Detected
9-1-JW-07	Plaster Rough Coat	Gray	Boiler Room	None Detected
9-1-JW-08	Plaster Rough Coat	Gray	Boiler Room	None Detected
9-1-JW-09	12"x12" Vinyl Floor Tile	White/Tan	1st Floor "B" Wing	None Detected
9-1-JW-10	12"x12" Vinyl Floor Tile	White/Tan	1st Floor "B" Wing	None Detected
9-1-JW-11	Thin set (associated with Red Clay Tile)	Gray	Lobby	None Detected
9-1-JW-12	Thin set (associated with Red Clay Tile)	Gray	Lobby	None Detected

Asbestos Containing Material = > 1% Asbestos

TABLE 3
Summary of PCB Analytical Results
116 Cook Ave
Meriden, CT

PCB Sampling Date: May 21, 2015 and June 16, 2015

Sample #	Description	Location	Result (mg/kg/ppm)	Notes
5-21-PCB-01	Black Window Glazing Compound	Lobby	ND<0.79	On Front Windows
5-21-PCB-02			ND<0.60	
5-21-PCB-03			ND<0.66	
5-21-PCB-04	Brown Caulk	Lobby	ND<1.0	On Interior Windows
5-21-PCB-05			ND<0.46	
5-21-PCB-06			0.44	
5-21-PCB-07	White Paint	Wing A	ND<0.74	On Sheetrock
5-21-PCB-08			1.5	
5-21-PCB-09			2.0	
5-21-PCB-10	White/Tan Paint	Wing A	0.97	On Wood Beam Ceiling, Steel I Beams, Concrete Beams
5-21-PCB-11			0.94	
5-21-PCB-12			0.69	
5-21-PCB-13	Door Frame Caulk	Wing A	ND<0.76	Interior
5-21-PCB-14			0.77	
5-21-PCB-15			0.88	
5-21-PCB-16	White Paint	Wing A	1.0	On Door Frames
5-21-PCB-18			1.8	
5-21-PCB-19	White Paint	Stairwell - 1st Floor	3.2	Stairs
5-21-PCB-20			3.4	
5-21-PCB-21			3.0	
5-21-PCB-22	Grey Paint	2nd Floor/ Wing B	1.6	On Metal Door Frames
5-21-PCB-23			1.5	
5-21-PCB-24			1.5	
5-21-PCB-25	Brown Window Frame Caulk	2nd Floor/ Wing B	0.69	Exterior
5-21-PCB-26			ND<0.79	
5-21-PCB-27			ND<0.79	
5-21-PCB-28	Off White Paint	2nd Floor/ Wing B	ND<0.43	On Wood Deck
5-21-PCB-29			3.0	
5-21-PCB-30			3.6	
5-21-PCB-31	Grey Paint	4th Floor/ Wing D	ND<0.78	On Wood Deck
5-21-PCB-32			1.2	
5-21-PCB-33			ND<0.73	

TABLE 3
Summary of PCB Analytical Results
116 Cook Ave
Meriden, CT

Sample #	Description	Location	Result (mg/kg/ppm)	Notes
5-21-PCB-34	**White Paint**	**4th Floor/ Wing D**	**ND<0.74**	**On Sheetrock**
5-21-PCB-35			**ND<0.74**	
5-21-PCB-36			**ND<0.44**	
5-21-PCB-37	**White Paint**	**4th Floor/ Wing D**	**ND<0.32**	**On Concrete Masonry Unit**
5-21-PCB-38			**ND<0.33**	
5-21-PCB-39			**ND<0.32**	
5-21-PCB-40	**White Paint**	**4th Floor/ Wing D**	**ND<0.42**	**On Brick**
5-21-PCB-41			**ND<0.72**	
5-21-PCB-42			**ND<0.76**	
5-21-PCB-43	**Red Paint**	**Wing D/ Stairs**	**1.6**	**On Metal Components**
5-21-PCB-44			**3.0**	
5-21-PCB-45			**1.2**	
5-21-PCB-46	**Window Frame Caulk**	**Wing D**	**ND<0.78**	**Exterior**
5-21-PCB-47			**ND<0.33**	
5-21-PCB-48			**ND<0.76**	
6-16-PCB-01	**1st Floor Stairwell**	**Brick (substrate)**	**ND<0.79**	**White Paint > 1 ppm (source) on Brick**
6-16-PCB-02			**ND<0.50**	
6-16-PCB-03			**ND<0.41**	
6-16-PCB-04	**2nd Floor Wing B**	**Wood Decking (substrate)**	**ND<0.43**	**Off white Paint > 1 ppm on wood decking (source)**
6-16-PCB-05			**ND<0.50**	
6-16-PCB-06			**ND<0.47**	
6-16-PCB-07	**4th Floor Wing D**	**Wood Decking (substrate)**	**ND<0.46**	**Grey Paint > 1 ppm on wood decking (source)**
6-16-PCB-08			**ND<0.46**	
6-16-PCB-09			**ND<0.50**	
6-16-PCB-10	**1st Floor Stairwell**	**CMN(substrate)**	**ND<0.73**	**Same area as (01-03) White paint > 1 ppm (source)**
6-16-PCB-11			**ND<0.75**	
6-16-PCB-12			**ND<0.33**	

Notes

ppm = parts per million

Bold and boxed = Greater than or equal to 50 ppm

Sample locations shown on figure 2.

mg/kg = milligrams/kilograms

ND = not detected above laboratory detection limits

Bold = Greater than 1 ppm

Tighe&Bond

APPENDIX C

EMSL Analytical, Inc.
29 North Plains Highway, Unit # 4, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.EMSL.com wallingfordlab@emsl.com

EMSL Order:	241502111
CustomerID:	TIGH62
CustomerPO:	
ProjectID:	

Attn: **James Webb**
Tighe & Bond
213 Court Street
Suite 900
Middletown, CT 06457

Phone:	(860) 704-4760
Fax:	(860) 704-4775
Received:	05/21/15 3:00 PM
Analysis Date:	5/29/2015
Collected:	5/21/2015

Project: **116 COOK AVE.**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**		**% Type**
5-21 JW 01 *241502111-0001*	1st flr 'C' wing hall - 2x2 ACT rough teture	Tan Fibrous Homogeneous	80%	Min. Wool	20%	Non-fibrous (other)	**None Detected**
5-21 JW 02 *241502111-0002*	1st flr 'C' wing storage rm - 2x4 hole + fischer ACT	Tan Fibrous Homogeneous	40% 40%	Min. Wool Cellulose	20%	Non-fibrous (other)	**None Detected**
5-21 JW 03 *241502111-0003*	1st flr 'C' wing - F.G. pipe cover	Tan Fibrous Homogeneous	10% 55%	Glass Cellulose	35%	Non-fibrous (other)	**None Detected**
5-21 JW 04 *241502111-0004*	1st flr 'C' wing - pine wall paper	Tan Fibrous Homogeneous	2%	Cellulose	98%	Non-fibrous (other)	**None Detected**
5-21 JW 05 *241502111-0005*	1st flr 'C' wing - SR + JC composite	White Fibrous Homogeneous	15%	Cellulose	15% 70%	Ca Carbonate Non-fibrous (other)	**None Detected**
5-21 JW 06 *241502111-0006*	1st flr 'D' wing - 2x4 hole + fischer ACT	Tan Fibrous Homogeneous	40% 40%	Min. Wool Cellulose	20%	Non-fibrous (other)	**None Detected**
5-21 JW 07 *241502111-0007*	1st flr 'D' wing stairs - grey painted concrete	Gray Non-Fibrous Homogeneous			18% 82%	Quartz Non-fibrous (other)	**None Detected**
5-21 JW 08 *241502111-0008*	2nd flr 'B' wing - SR + JC composite	Tan Fibrous Homogeneous	30% 50%	Min. Wool Cellulose	20%	Non-fibrous (other)	**None Detected**

Sample appears to be ceiling tile.

Analyst(s)

Kristin Lopez (4)
Lauren Brennan (19)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Report Amended: 05/29/2015 14:19:57 Replaces the Inital Report 05/29/2015 10:10:26. Reason Code: Client-Change to Location

EMSL Analytical, Inc.
29 North Plains Highway, Unit # 4, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
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EMSL Order:	241502111
CustomerID:	TIGH62
CustomerPO:	
ProjectID:	

Attn: **James Webb**
Tighe & Bond
213 Court Street
Suite 900
Middletown, CT 06457

Phone:	(860) 704-4760
Fax:	(860) 704-4775
Received:	05/21/15 3:00 PM
Analysis Date:	5/29/2015
Collected:	5/21/2015

Project: **116 COOK AVE.**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**		**% Type**
5-21 JW 09 *241502111-0009*	2nd flr 'B' wing - 2x4 pinhole ACT	Gray/White Fibrous Homogeneous	10%	Cellulose	15% 75%	Ca Carbonate Non-fibrous (other)	**None Detected**
			Sample appears to be sheetrock and joint compound. This is a composite result of sheetrock and joint compound.				
5-21 JW 10 *241502111-0010*	3rd flr 'B' wing - 2x4 hole + fischer ACT	Tan Fibrous Homogeneous	40% 40%	Cellulose Min. Wool	20%	Non-fibrous (other)	**None Detected**
5-21 JW 11 *241502111-0011*	3rd flr 'B' wing - SR + JC composite	White Fibrous Homogeneous	10%	Cellulose	30% 60%	Ca Carbonate Non-fibrous (other)	**None Detected**
5-21 JW 12 *241502111-0012*	4th flr 'B' wing - 2x4 pinhole ACT	Tan Fibrous Homogeneous	30% 50%	Min. Wool Cellulose	20%	Non-fibrous (other)	**None Detected**
5-21 JW 13 *241502111-0013*	4th flr 'D' wing - 2x4 pinhole ACT	Gray Fibrous Homogeneous	45% 35%	Cellulose Min. Wool	20%	Non-fibrous (other)	**None Detected**
5-21 JW 14 *241502111-0014*	4th flr 'B' wing - SR + JC composite	Gray/White Non-Fibrous Homogeneous	10%	Cellulose	15% 75%	Ca Carbonate Non-fibrous (other)	**None Detected**
5-21 JW 15 *241502111-0015*	3rd flr 'B' wing - grey wall paper adhesive	Gray/Beige Non-Fibrous Homogeneous	2% <1%	Fibrous (other) Cellulose	98%	Non-fibrous (other)	**None Detected**
5-21 JW 16 *241502111-0016*	3rd flr 'B' wing - grey wall paper adhesive	Tan Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**

Analyst(s)

Kristin Lopez (4)
Lauren Brennan (19)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Report Amended: 05/29/2015 14:19:57 Replaces the Inital Report 05/29/2015 10:10:26. Reason Code: Client-Change to Location

EMSL Analytical, Inc.
29 North Plains Highway, Unit # 4, Wallingford, CT 06492
Phone/Fax: 203-284-5948 / (203) 284-5978
http://www.EMSL.com wallingfordlab@emsl.com

EMSL Order: 241502111
CustomerID: TIGH62
CustomerPO:
ProjectID:

Attn: **James Webb**
Tighe & Bond
213 Court Street
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Middletown, CT 06457

Phone: (860) 704-4760
Fax: (860) 704-4775
Received: 05/21/15 3:00 PM
Analysis Date: 5/29/2015
Collected: 5/21/2015

Project: **116 COOK AVE.**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**		**% Type**
5-21 JW 17 *241502111-0017*	1st flr 'D' wing - black coating on SR	Black Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
5-21 JW 18 *241502111-0018*	1st flr 'D' wing - black coating on SR	Black Non-Fibrous Homogeneous	2%	Cellulose	98%	Non-fibrous (other)	**None Detected**
5-21 JW 19 *241502111-0019*	1st flr 'D' wing - tan w/grey streak 12x12 FT	Gray Non-Fibrous Homogeneous			30% 70%	Ca Carbonate Non-fibrous (other)	**None Detected**
5-21 JW 20 *241502111-0020*	1st flr 'D' wing - tan w/grey streak 12x12 FT	Tan Non-Fibrous Homogeneous			25% 75%	Ca Carbonate Non-fibrous (other)	**None Detected**
5-21 JW 21 *241502111-0021*	1st flr 'D' wing X-ray - stone pattern VSF	Gray Fibrous Homogeneous	10% 3% 5%	Cellulose Synthetic Glass	82%	Non-fibrous (other)	**None Detected**
5-21 JW 22 *241502111-0022*	3rd flr 'D' wing - brown paper on wire	Brown Fibrous Homogeneous	100%	Cellulose	0%	Non-fibrous (other)	**None Detected**
5-21 JW 23 *241502111-0023*	3rd flr 'D' wing - tan/brown self adh 9x9 FT	Gray/Beige Non-Fibrous Homogeneous	2%	Cellulose	25% 73%	Ca Carbonate Non-fibrous (other)	**None Detected**

Analyst(s)

Kristin Lopez (4)
Lauren Brennan (19)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Report Amended: 05/29/2015 14:19:57 Replaces the Inital Report 05/29/2015 10:10:26. Reason Code: Client-Change to Location

EMSL Analytical, Inc.
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EMSL Order: 241503986
CustomerID: TIGH62
CustomerPO:
ProjectID:

Attn: **James Webb**
Tighe & Bond
213 Court Street
Suite 900
Middletown, CT 06457

Phone: (860) 704-4760
Fax: (860) 704-4775
Received: 09/01/15 2:50 PM
Analysis Date: 9/4/2015
Collected: 9/1/2015

Project: **M-0817-116 COOK ST.**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
9-1 JW 01 *241503986-0001*	Boiler rm- boiler rib rope	Brown Fibrous Homogeneous			88%	Non-fibrous (other)	**12% Chrysotile**
9-1 JW 02 *241503986-0002*	Boiler rm- boiler rib rope						**Stop Positive (Not Analyzed)**
9-1 JW 03 *241503986-0003*	Boiler rm- plaster skim coat	White Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
9-1 JW 04 *241503986-0004*	Boiler rm- plaster skim coat	White Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
9-1 JW 05 *241503986-0005*	Boiler rm- plaster skim coat	White Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
9-1 JW 06 *241503986-0006*	Boiler rm- plaster rough coat	Gray Non-Fibrous Homogeneous	<1%	Cellulose	25% 75%	Quartz Non-fibrous (other)	**None Detected**
9-1 JW 07 *241503986-0007*	Boiler rm- plaster rough coat	Gray Non-Fibrous Homogeneous	<1%	Cellulose	25% 75%	Quartz Non-fibrous (other)	**None Detected**
9-1 JW 08 *241503986-0008*	Boiler rm- plaster rough coat	Gray Non-Fibrous Homogeneous			20% 80%	Quartz Non-fibrous (other)	**None Detected**

Analyst(s)

Kristin Lopez (7)
Lauren Brennan (4)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 09/04/2015 14:57:45

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EMSL Order:	241503986
CustomerID:	TIGH62
CustomerPO:	
ProjectID:	

Attn: **James Webb**
Tighe & Bond
213 Court Street
Suite 900
Middletown, CT 06457

Phone:	(860) 704-4760
Fax:	(860) 704-4775
Received:	09/01/15 2:50 PM
Analysis Date:	9/4/2015
Collected:	9/1/2015

Project: **M-0817-116 COOK ST.**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
9-1 JW 09 *241503986-0009*	B wing 1st flr- tan 12x12 ft	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (other)	**None Detected**
9-1 JW 10 *241503986-0010*	B wing 1st flr- tan 12x12 ft	White Non-Fibrous Homogeneous		35% Ca Carbonate 65% Non-fibrous (other)	**None Detected**
9-1 JW 11 *241503986-0011*	Lobby- red clay tile thinset	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (other)	**None Detected**
9-1 JW 12 *241503986-0012*	Lobby- red clay tile thinset	Gray Non-Fibrous Homogeneous		35% Quartz 65% Non-fibrous (other)	**None Detected**

Analyst(s)

Kristin Lopez (7)
Lauren Brennan (4)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 09/04/2015 14:57:45

EMSL Analytical, Inc.
29 North Plains Highway, Unit # 4, Wallingford, CT 06492
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EMSL Order: 241502110
CustomerID: TIGH62
CustomerPO:
ProjectID:

Attn: **James Webb**
Tighe & Bond
213 Court Street
Suite 900
Middletown, CT 06457

Phone: (860) 704-4760
Fax: (860) 704-4775
Received: 05/21/15 3:00 PM
Analysis Date: 5/29/2015
Collected: 5/21/2015

Project: **116 COOK MERIDEN**

Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM)
Performed by EPA 40 CFR Part 763 Appendix A to Subpart E

Sample	Location	Volume (Liters)	Area Analyzed (mm^2)	Non Asb	Asbestos Type(s)	# Structures ≥ 0.5µ < 5µ	# Structures ≥5µ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm^2)	Asbestos Concentration (S/cc)
5-21 JP 01	1st floor hall	1235.00	0.0655	0	None Detected			0.0048	**<15.00**	**<0.0048**
241502110-0001										

Analyst(s)

William Shedrawy (1)

Gloria V. Oriol, Laboratory Manager
or other approved signatory

Initial report from 05/29/2015 11:05:18

APPENDIX D

PHOENIX
Environmental Laboratories, Inc.

Monday, June 01, 2015

Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Project ID: 116 COOK AVE MERIDEN CT
Sample ID#s: BJ20527 - BJ20542, BJ20544 - BJ20574

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20527

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	790	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1221	ND	790	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1232	ND	790	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1242	ND	790	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1248	ND	790	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1254	ND	790	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1260	ND	790	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1262	ND	790	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1268	ND	790	ug/Kg	5	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	48		%	5	05/27/15	AW	30 - 150 %
% TCMX	39		%	5	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-01

Phoenix I.D.: BJ20527

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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PCB Comment:
For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

PCB Comment:
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Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20528

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	600	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	600	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	600	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	600	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	ND	600	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	600	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	600	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	600	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	600	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	67		%	2	05/27/15	AW	30 - 150 %
% TCMX	59		%	2	05/27/15	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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PCB Comment:
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June 01, 2015
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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20529

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	660	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	660	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	660	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	660	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	ND	660	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	660	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	660	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	660	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	660	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	70		%	2	05/27/15	AW	30 - 150 %
% TCMX	65		%	2	05/27/15	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

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Comments:

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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20530

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-04

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	1000	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	1000	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	1000	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	1000	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	ND	1000	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	1000	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	1000	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	1000	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	1000	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	70		%	2	05/27/15	AW	30 - 150 %
% TCMX	64		%	2	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-04

Phoenix I.D.: BJ20530

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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PCB Comment:
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PCB Comment:
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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20531

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/28/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	460	ug/Kg	2	05/29/15	AW	SW8082A
PCB-1221	ND	460	ug/Kg	2	05/29/15	AW	SW8082A
PCB-1232	ND	460	ug/Kg	2	05/29/15	AW	SW8082A
PCB-1242	ND	460	ug/Kg	2	05/29/15	AW	SW8082A
PCB-1248	ND	460	ug/Kg	2	05/29/15	AW	SW8082A
PCB-1254	ND	460	ug/Kg	2	05/29/15	AW	SW8082A
PCB-1260	ND	460	ug/Kg	2	05/29/15	AW	SW8082A
PCB-1262	ND	460	ug/Kg	2	05/29/15	AW	SW8082A
PCB-1268	ND	460	ug/Kg	2	05/29/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	80		%	2	05/29/15	AW	30 - 150 %
% TCMX	61		%	2	05/29/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-05

Phoenix I.D.: BJ20531

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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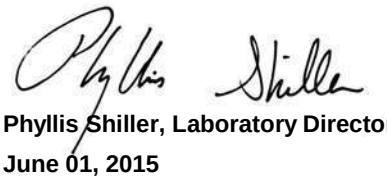

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20532

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-06

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	440	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	82		%	2	05/27/15	AW	30 - 150 %
% TCMX	64		%	2	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-06

Phoenix I.D.: BJ20532

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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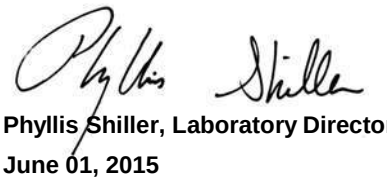

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20533

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-07

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1221	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1232	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1242	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1248	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1254	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1260	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1262	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1268	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	78		%	2	05/26/15	AW	30 - 150 %
% TCMX	76		%	2	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-07

Phoenix I.D.: BJ20533

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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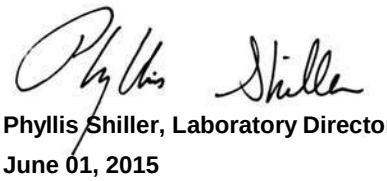

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20534

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	780	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	780	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	780	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	780	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	1500	780	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	780	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	780	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	780	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	780	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	81		%	2	05/27/15	AW	30 - 150 %
% TCMX	78		%	2	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-08

Phoenix I.D.: BJ20534

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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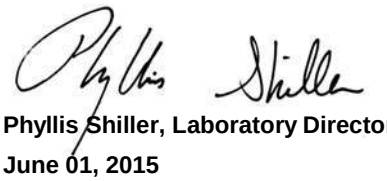

Phyllis Shiller, Laboratory Director
June 01, 2015
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Analysis Report

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Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20535

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-09

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	2000	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	89		%	2	05/27/15	AW	30 - 150 %
% TCMX	85		%	2	05/27/15	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

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Comments:

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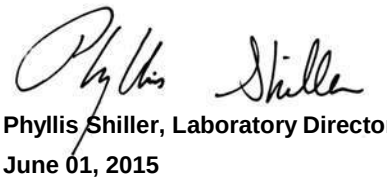

Phyllis Shiller, Laboratory Director
June 01, 2015
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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
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Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20536

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-10

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	320	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1221	ND	320	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1232	ND	320	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1242	ND	320	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1248	ND	320	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1254	ND	320	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1260	970	320	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1262	ND	320	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1268	ND	320	ug/Kg	2	05/28/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	75		%	2	05/28/15	AW	30 - 150 %
% TCMX	71		%	2	05/28/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-10

Phoenix I.D.: BJ20536

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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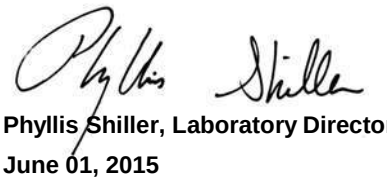

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20537

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	450	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	450	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	450	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	450	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	ND	450	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	450	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	940	450	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	450	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	450	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	91		%	2	05/27/15	AW	30 - 150 %
% TCMX	60		%	2	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-11

Phoenix I.D.: BJ20537

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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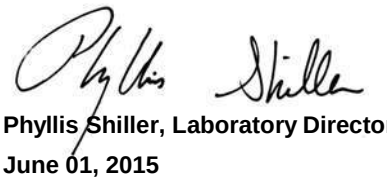

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20538

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-12

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	470	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	470	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	470	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	470	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	ND	470	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	470	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	690	470	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	470	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	470	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	83		%	2	05/27/15	AW	30 - 150 %
% TCMX	59		%	2	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-12

Phoenix I.D.: BJ20538

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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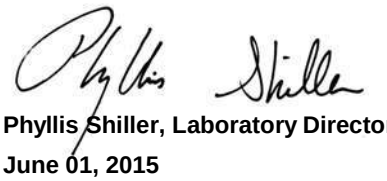

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20539

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-13

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1221	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1232	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1242	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1248	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1254	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1260	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1262	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1268	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	99		%	5	05/27/15	AW	30 - 150 %
% TCMX	84		%	5	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-13

Phoenix I.D.: BJ20539

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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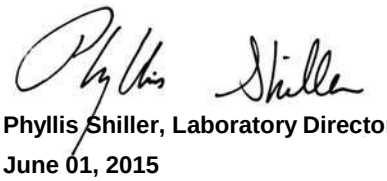

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20540

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-14

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	770	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	750	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	95		%	2	05/27/15	AW	30 - 150 %
% TCMX	69		%	2	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-14

Phoenix I.D.: BJ20540

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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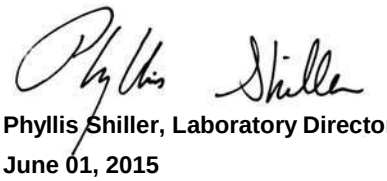

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20541

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-15

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/27/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	750	ug/Kg	1	05/28/15	AW	SW8082A
PCB-1221	ND	750	ug/Kg	1	05/28/15	AW	SW8082A
PCB-1232	ND	750	ug/Kg	1	05/28/15	AW	SW8082A
PCB-1242	ND	750	ug/Kg	1	05/28/15	AW	SW8082A
PCB-1248	880	750	ug/Kg	1	05/28/15	AW	SW8082A
PCB-1254	ND	750	ug/Kg	1	05/28/15	AW	SW8082A
PCB-1260	ND	750	ug/Kg	1	05/28/15	AW	SW8082A
PCB-1262	ND	750	ug/Kg	1	05/28/15	AW	SW8082A
PCB-1268	ND	750	ug/Kg	1	05/28/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	51		%	1	05/28/15	AW	30 - 150 %
% TCMX	44		%	1	05/28/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-15

Phoenix I.D.: BJ20541

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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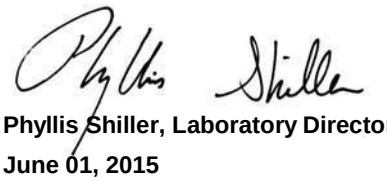

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20542

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-16

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	500	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1221	ND	500	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1232	ND	500	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1242	ND	500	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1248	1000	500	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1254	ND	500	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1260	ND	500	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1262	ND	500	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1268	ND	500	ug/Kg	1	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	66		%	1	05/27/15	AW	30 - 150 %
% TCMX	44		%	1	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-16

Phoenix I.D.: BJ20542

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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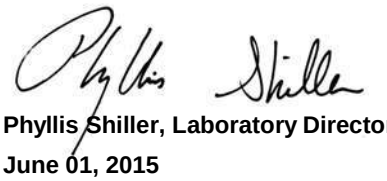

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20544

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-18

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	460	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1221	ND	460	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1232	ND	460	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1242	ND	460	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1248	*	460	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1254	*	460	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1260	ND	460	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1262	ND	460	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1268	ND	460	ug/Kg	1	05/27/15	AW	SW8082A
Total PCBs	1800	460	ug/Kg	1	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	63		%	1	05/27/15	AW	30 - 150 %
% TCMX	42		%	1	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-18

Phoenix I.D.: BJ20544

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.

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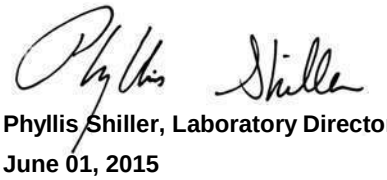

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20545

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-19

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	2000	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1221	ND	2000	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1232	ND	2000	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1242	ND	2000	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1248	ND	2000	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1254	3200	2000	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1260	ND	2000	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1262	ND	2000	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1268	ND	2000	ug/Kg	25	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	89		%	25	05/26/15	AW	30 - 150 %
% TCMX	95		%	25	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-19

Phoenix I.D.: BJ20545

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

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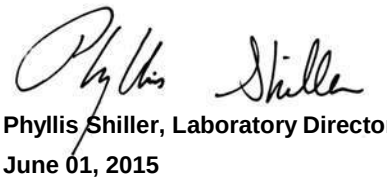

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20546

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-20

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1221	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1232	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1242	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1248	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1254	3400	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1260	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1262	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1268	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	91		%	25	05/26/15	AW	30 - 150 %
% TCMX	99		%	25	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-20

Phoenix I.D.: BJ20546

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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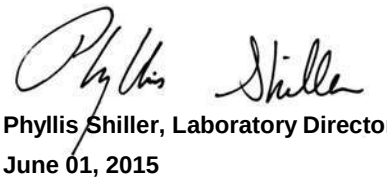

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20547

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-21

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1221	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1232	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1242	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1248	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1254	3000	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1260	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1262	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
PCB-1268	ND	1900	ug/Kg	25	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	102		%	25	05/26/15	AW	30 - 150 %
% TCMX	84		%	25	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-21

Phoenix I.D.: BJ20547

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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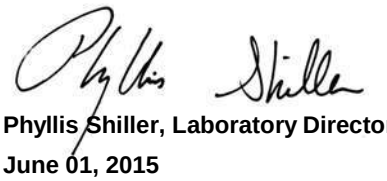

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20548

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-22

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1221	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1232	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1242	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1248	*	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1254	*	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1260	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1262	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1268	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
Total PCBs	1600	410	ug/Kg	1	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	71		%	1	05/27/15	AW	30 - 150 %
% TCMX	42		%	1	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-22

Phoenix I.D.: BJ20548

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.

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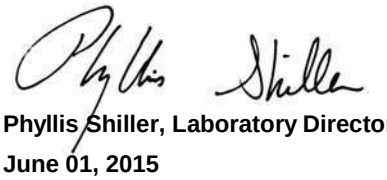

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20549

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-23

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1221	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1232	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1242	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1248	*	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1254	*	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1260	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1262	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1268	ND	410	ug/Kg	1	05/27/15	AW	SW8082A
Total PCBs	1500	410	ug/Kg	1	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	62		%	1	05/27/15	AW	30 - 150 %
% TCMX	40		%	1	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-23

Phoenix I.D.: BJ20549

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.

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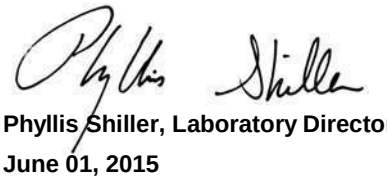

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20550

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-24

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	610	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1221	ND	610	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1232	ND	610	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1242	ND	610	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1248	*	610	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1254	*	610	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1260	ND	610	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1262	ND	610	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1268	ND	610	ug/Kg	1	05/27/15	AW	SW8082A
Total PCBs	1500	610	ug/Kg	1	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	64		%	1	05/27/15	AW	30 - 150 %
% TCMX	43		%	1	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-24

Phoenix I.D.: BJ20550

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.

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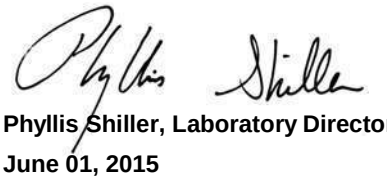

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20551

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-25

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	690	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	94		%	2	05/27/15	AW	30 - 150 %
% TCMX	75		%	2	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-25

Phoenix I.D.: BJ20551

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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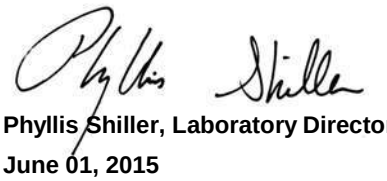

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20552

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-26

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1221	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1232	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1242	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1248	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1254	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1260	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1262	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1268	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	95		%	5	05/26/15	AW	30 - 150 %
% TCMX	90		%	5	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-26

Phoenix I.D.: BJ20552

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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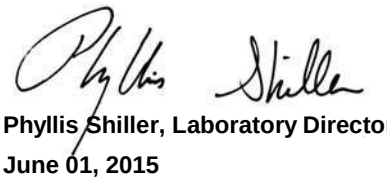

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20553

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-27

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1221	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1232	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1242	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1248	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1254	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1260	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1262	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1268	ND	790	ug/Kg	5	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	98		%	5	05/26/15	AW	30 - 150 %
% TCMX	91		%	5	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-27

Phoenix I.D.: BJ20553

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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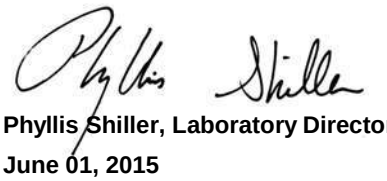

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20554

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-28

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	430	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1221	ND	430	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1232	ND	430	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1242	ND	430	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1248	ND	430	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1254	ND	430	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1260	ND	430	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1262	ND	430	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1268	ND	430	ug/Kg	2	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	75		%	2	05/26/15	AW	30 - 150 %
% TCMX	69		%	2	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-28

Phoenix I.D.: BJ20554

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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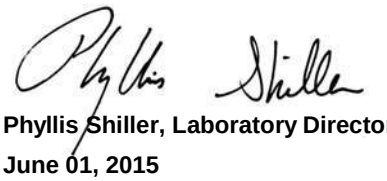

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20555

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-29

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/27/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	1600	ug/Kg	10	05/27/15	AW	SW8082A
PCB-1221	ND	1600	ug/Kg	10	05/27/15	AW	SW8082A
PCB-1232	ND	1600	ug/Kg	10	05/27/15	AW	SW8082A
PCB-1242	ND	1600	ug/Kg	10	05/27/15	AW	SW8082A
PCB-1248	*	1600	ug/Kg	10	05/27/15	AW	SW8082A
PCB-1254	*	1600	ug/Kg	10	05/27/15	AW	SW8082A
PCB-1260	*	1600	ug/Kg	10	05/27/15	AW	SW8082A
PCB-1262	ND	1600	ug/Kg	10	05/27/15	AW	SW8082A
PCB-1268	ND	1600	ug/Kg	10	05/27/15	AW	SW8082A
Total PCBs	3000	1600	ug/Kg	10	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	97		%	10	05/27/15	AW	30 - 150 %
% TCMX	86		%	10	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-29

Phoenix I.D.: BJ20555

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.

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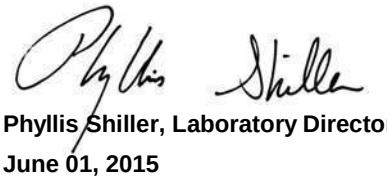

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20556

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-30

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1221	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1232	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1242	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1248	*	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1254	*	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1260	*	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1262	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1268	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
Total PCBs	3600	780	ug/Kg	5	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	88		%	5	05/27/15	AW	30 - 150 %
% TCMX	79		%	5	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-30

Phoenix I.D.: BJ20556

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.

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Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20557

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-31

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	780	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1221	ND	780	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1232	ND	780	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1242	ND	780	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1248	ND	780	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1254	ND	780	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1260	ND	780	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1262	ND	780	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1268	ND	780	ug/Kg	5	05/28/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	96		%	5	05/28/15	AW	30 - 150 %
% TCMX	63		%	5	05/28/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-31

Phoenix I.D.: BJ20557

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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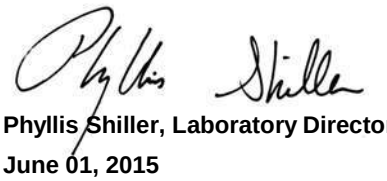

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20558

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-32

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1221	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1232	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1242	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1248	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1254	1200	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1260	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1262	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1268	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	92		%	2	05/26/15	AW	30 - 150 %
% TCMX	68		%	2	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-32

Phoenix I.D.: BJ20558

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

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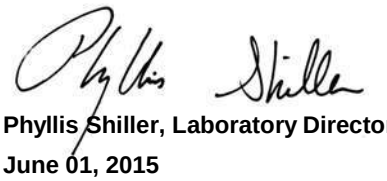

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20559

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-33

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	730	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1221	ND	730	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1232	ND	730	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1242	ND	730	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1248	ND	730	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1254	ND	730	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1260	ND	730	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1262	ND	730	ug/Kg	5	05/26/15	AW	SW8082A
PCB-1268	ND	730	ug/Kg	5	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	97		%	5	05/26/15	AW	30 - 150 %
% TCMX	72		%	5	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-33

Phoenix I.D.: BJ20559

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

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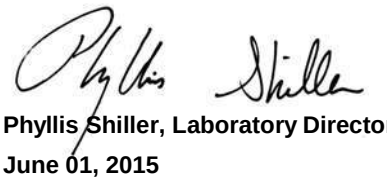

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20560

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-34

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1221	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1232	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1242	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1248	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1254	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1260	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1262	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1268	ND	740	ug/Kg	2	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	70		%	2	05/26/15	AW	30 - 150 %
% TCMX	53		%	2	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-34

Phoenix I.D.: BJ20560

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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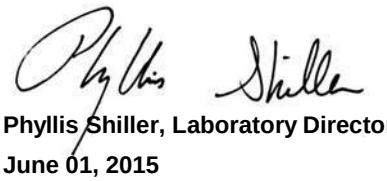

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20561

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-35

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	740	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	740	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	740	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	740	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	ND	740	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	740	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	740	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	740	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	740	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	83		%	2	05/27/15	AW	30 - 150 %
% TCMX	49		%	2	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-35

Phoenix I.D.: BJ20561

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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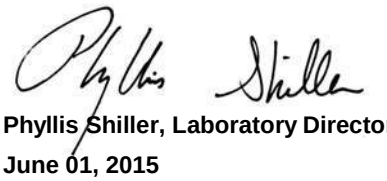

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20562

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-36

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	440	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1221	ND	440	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1232	ND	440	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1242	ND	440	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1248	ND	440	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1254	ND	440	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1260	ND	440	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1262	ND	440	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1268	ND	440	ug/Kg	1	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	54		%	1	05/27/15	AW	30 - 150 %
% TCMX	31		%	1	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-36

Phoenix I.D.: BJ20562

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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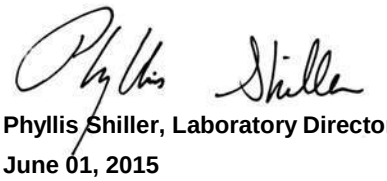

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20563

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-37

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	320	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1221	ND	320	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1232	ND	320	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1242	ND	320	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1248	ND	320	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1254	ND	320	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1260	ND	320	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1262	ND	320	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1268	ND	320	ug/Kg	2	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	63		%	2	05/26/15	AW	30 - 150 %
% TCMX	62		%	2	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-37

Phoenix I.D.: BJ20563

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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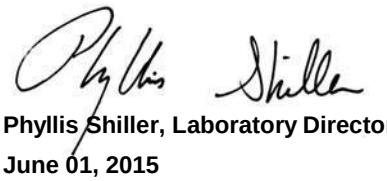

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20564

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-38

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1221	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1232	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1242	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1248	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1254	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1260	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1262	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
PCB-1268	ND	330	ug/Kg	2	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	76		%	2	05/26/15	AW	30 - 150 %
% TCMX	67		%	2	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-38

Phoenix I.D.: BJ20564

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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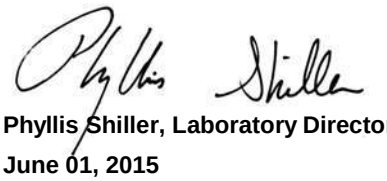

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20565

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-39

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	320	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	83		%	2	05/27/15	AW	30 - 150 %
% TCMX	54		%	2	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-39

Phoenix I.D.: BJ20565

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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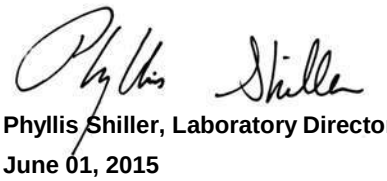

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20566

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-40

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	420	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1221	ND	420	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1232	ND	420	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1242	ND	420	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1248	ND	420	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1254	ND	420	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1260	ND	420	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1262	ND	420	ug/Kg	2	05/28/15	AW	SW8082A
PCB-1268	ND	420	ug/Kg	2	05/28/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	75		%	2	05/28/15	AW	30 - 150 %
% TCMX	68		%	2	05/28/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-40

Phoenix I.D.: BJ20566

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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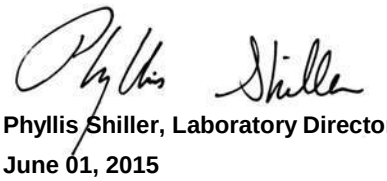

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20567

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-41

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	720	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1221	ND	720	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1232	ND	720	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1242	ND	720	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1248	ND	720	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1254	ND	720	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1260	ND	720	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1262	ND	720	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1268	ND	720	ug/Kg	5	05/28/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	93		%	5	05/28/15	AW	30 - 150 %
% TCMX	85		%	5	05/28/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-41

Phoenix I.D.: BJ20567

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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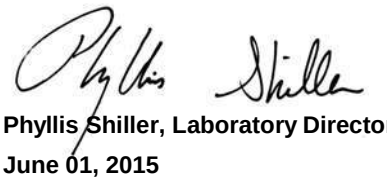

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20568

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-42

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	760	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1221	ND	760	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1232	ND	760	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1242	ND	760	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1248	ND	760	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1254	ND	760	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1260	ND	760	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1262	ND	760	ug/Kg	5	05/28/15	AW	SW8082A
PCB-1268	ND	760	ug/Kg	5	05/28/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	97		%	5	05/28/15	AW	30 - 150 %
% TCMX	84		%	5	05/28/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-42

Phoenix I.D.: BJ20568

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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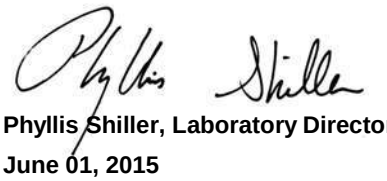

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
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Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20569

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-43

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	610	ug/Kg	1	05/26/15	AW	SW8082A
PCB-1221	ND	610	ug/Kg	1	05/26/15	AW	SW8082A
PCB-1232	ND	610	ug/Kg	1	05/26/15	AW	SW8082A
PCB-1242	ND	610	ug/Kg	1	05/26/15	AW	SW8082A
PCB-1248	ND	610	ug/Kg	1	05/26/15	AW	SW8082A
PCB-1254	1600	610	ug/Kg	1	05/26/15	AW	SW8082A
PCB-1260	ND	610	ug/Kg	1	05/26/15	AW	SW8082A
PCB-1262	ND	610	ug/Kg	1	05/26/15	AW	SW8082A
PCB-1268	ND	610	ug/Kg	1	05/26/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	67		%	1	05/26/15	AW	30 - 150 %
% TCMX	65		%	1	05/26/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-43

Phoenix I.D.: BJ20569

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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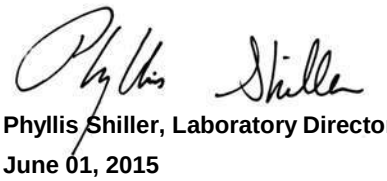


Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20570

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-44

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	1100	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1221	ND	1100	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1232	ND	1100	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1242	ND	1100	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1248	*	1100	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1254	*	1100	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1260	*	1100	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1262	ND	1100	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1268	ND	1100	ug/Kg	1	05/27/15	AW	SW8082A
Total PCBs	3000	1100	ug/Kg	1	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	58		%	1	05/27/15	AW	30 - 150 %
% TCMX	38		%	1	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-44

Phoenix I.D.: BJ20570

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

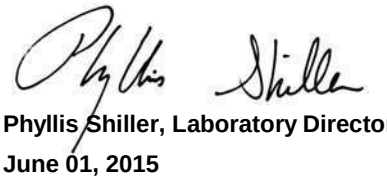
Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.



Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20571

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-45

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	430	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1221	ND	430	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1232	ND	430	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1242	ND	430	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1248	*	430	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1254	*	430	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1260	ND	430	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1262	ND	430	ug/Kg	1	05/27/15	AW	SW8082A
PCB-1268	ND	430	ug/Kg	1	05/27/15	AW	SW8082A
Total PCBs	1200	430	ug/Kg	1	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	61		%	1	05/27/15	AW	30 - 150 %
% TCMX	42		%	1	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-45

Phoenix I.D.: BJ20571

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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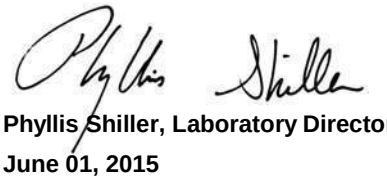

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20572

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-46

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1221	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1232	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1242	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1248	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1254	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1260	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1262	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1268	ND	780	ug/Kg	5	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	91		%	5	05/27/15	AW	30 - 150 %
% TCMX	86		%	5	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-46

Phoenix I.D.: BJ20572

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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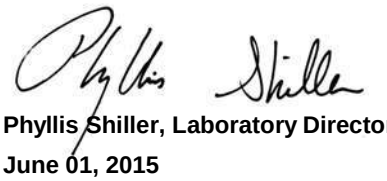

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20573

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-47

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1221	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1232	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1242	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1248	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1254	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1260	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1262	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
PCB-1268	ND	330	ug/Kg	2	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	74		%	2	05/27/15	AW	30 - 150 %
% TCMX	67		%	2	05/27/15	AW	30 - 150 %

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-47

Phoenix I.D.: BJ20573

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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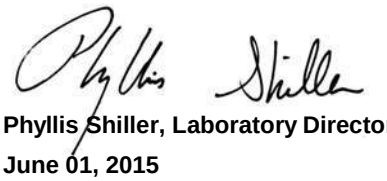

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 01, 2015

FOR: Attn: Mr James Webb
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		05/21/15	
Location Code:	TIGHE	Received by:	LK	05/22/15	11:28
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBJ20527
Phoenix ID: BJ20574

Project ID: 116 COOK AVE MERIDEN CT
Client ID: 5-21-PCB-48

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				05/22/15	PP/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1221	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1232	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1242	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1248	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1254	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1260	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1262	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
PCB-1268	ND	760	ug/Kg	5	05/27/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	96		%	5	05/27/15	AW	30 - 150 %
% TCMX	80		%	5	05/27/15	AW	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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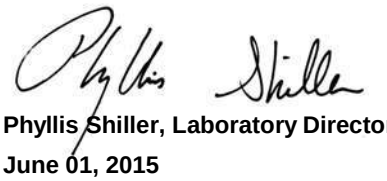

Phyllis Shiller, Laboratory Director
June 01, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

June 01, 2015

QA/QC Data

SDG I.D.: GBJ20527

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 308881 (ug/Kg), QC Sample No: BJ20334 10X (BJ20527, BJ20528, BJ20529, BJ20530, BJ20555)										
Polychlorinated Biphenyls - Solid										
PCB-1016	ND	170	85	90	5.7	92	97	5.3	40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170	87	89	2.3	87	87	0.0	40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	107	%	106	114	7.3	97	97	0.0	30 - 150	30
% TCMX (Surrogate Rec)	88	%	91	101	10.4	92	99	7.3	30 - 150	30
QA/QC Batch 308766 (ug/Kg), QC Sample No: BJ20460 10X (BJ20532, BJ20533, BJ20534, BJ20535, BJ20536)										
Polychlorinated Biphenyls - Solid										
PCB-1016	ND	170	74			89	95	6.5	40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170	82			100	103	3.0	40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	66	%	90			95	99	4.1	30 - 150	30
% TCMX (Surrogate Rec)	29	%	63			88	93	5.5	30 - 150	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 308775 (ug/Kg), QC Sample No: BJ20537 10X (BJ20537, BJ20538, BJ20539, BJ20540, BJ20541, BJ20542, BJ20544, BJ20545, BJ20546, BJ20547, BJ20548, BJ20549, BJ20550, BJ20551, BJ20552, BJ20553, BJ20554, BJ20555, BJ20556)

Polychlorinated Biphenyls - Solid

PCB-1016	ND	170	82	76	7.6				40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170	86	82	4.8				40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	87	%	90	88	2.2				30 - 150	30
% TCMX (Surrogate Rec)	73	%	79	78	1.3				30 - 150	30

QA/QC Data

SDG I.D.: GBJ20527

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Comment:										
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										
QA/QC Batch 308778 (ug/Kg), QC Sample No: BJ20557 10X (BJ20557, BJ20558, BJ20559, BJ20560, BJ20561, BJ20562, BJ20563, BJ20564, BJ20565, BJ20566, BJ20567, BJ20568, BJ20569, BJ20570, BJ20571, BJ20572, BJ20573, BJ20574)										
Polychlorinated Biphenyls - Solid										
PCB-1016	ND	170	74	74	0.0				40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170	78	77	1.3				40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	101	%	103	103	0.0				30 - 150	30
% TCMX (Surrogate Rec)	82	%	79	80	1.3				30 - 150	30
Comment:										
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										
QA/QC Batch 309138 (ug/Kg), QC Sample No: BJ22694 10X (BJ20531)										
Polychlorinated Biphenyls - Solid										
PCB-1016	ND	170	69	82	17.2	81	84	3.6	40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170	66	72	8.7	76	80	5.1	40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	77	%	65	71	8.8	72	76	5.4	30 - 150	30
% TCMX (Surrogate Rec)	90	%	83	87	4.7	90	92	2.2	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
June 01, 2015

Sample Criteria Exceedences Report

GBJ20527 - TIGHE

Criteria: None

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Reasonable Confidence Protocol
Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** Tighe & Bond

Project Location: 116 COOK AVE MERIDEN CT **Project Number:**

Laboratory Sample ID(s): BJ20527, BJ20528, BJ20529, BJ20530, BJ20531, BJ20532, BJ20533, BJ20534, BJ20535, BJ20536, BJ20537, BJ20538, BJ20539, BJ20540, BJ20541, BJ20542, BJ20544, BJ20545, BJ20546, BJ20547, BJ20548, BJ20549, BJ20550, BJ20551, BJ20552, BJ20553, BJ20554, BJ20555, BJ20556, BJ20557, BJ20558, BJ20559, BJ20560, BJ20561, BJ20562, BJ20563, BJ20564, BJ20565, BJ20566, BJ20567, BJ20568, BJ20569, BJ20570, BJ20571, BJ20572, BJ20573, BJ20574

Sampling Date(s): 5/21/2015

RCP Methods Used:

☐ 1311/1312	☐ 6010	☐ 7000	☐ 7196	☐ 7470/7471	☐ 8081	☐ EPH	☐ TO15
☑ 8082	☐ 8151	☐ 8260	☐ 8270	☐ ETPH	☐ 9010/9012	☐ VPH	

1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☑ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☐ Yes ☑ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5b.	Were these reporting limits met?	☑ Yes ☐ No ☐ NA
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☑ Yes ☐ No ☐ NA

Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: 

Date: Monday, June 01, 2015

Printed Name: Greg Lawrence

Position: Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

RCP Certification Report

June 01, 2015

SDG I.D.: GBJ20527

Temperature above 6C:
Due to the stability of the requested analyte, no significant bias is suspected.

PCB Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument: Au-ecd1 05/27/15-1 (BJ20527, BJ20528, BJ20529, BJ20530, BJ20531, BJ20532, BJ20534, BJ20535, BJ20539, BJ20555, BJ20566, BJ20573)

The initial calibration (PC520AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC520BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:
527B034 - PCB 1260 (-17%)

Printed Name Adam Werner
Position: Chemist
Date: 5/27/2015

Instrument: Au-ecd24 05/26/15-1 (BJ20533, BJ20537, BJ20558, BJ20564, BJ20569, BJ20572)

The initial calibration (PC519AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC519BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

Printed Name Adam Werner
Position: Chemist
Date: 5/26/2015

Instrument: Au-ecd29 05/26/15-1 (BJ20542, BJ20545, BJ20546, BJ20559, BJ20563)

The initial calibration (PC521AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC521BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

Printed Name Adam Werner
Position: Chemist
Date: 5/26/2015

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

June 01, 2015

SDG I.D.: GBJ20527

Instrument: Au-ecd3 05/27/15-1 (BJ20557)

The initial calibration (PC521AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC521BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

Printed Name Adam Werner
Position: Chemist
Date: 5/27/2015

Instrument: Au-ecd3 05/29/15-1 (BJ20531)

The initial calibration (PC521AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC521BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

Printed Name Adam Werner
Position: Chemist
Date: 5/29/2015

Instrument: Au-ecd5 05/26/15-1 (BJ20557, BJ20561)

The initial calibration (PC513AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC513BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

Printed Name Adam Werner
Position: Chemist
Date: 5/26/2015

Instrument: Au-ecd5 05/27/15-1 (BJ20536, BJ20537, BJ20538, BJ20540, BJ20542, BJ20544, BJ20548, BJ20549, BJ20550, BJ20551, BJ20556, BJ20557, BJ20561, BJ20562, BJ20565, BJ20567, BJ20568, BJ20570, BJ20571, BJ20574)

The initial calibration (PC513AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC513BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

Printed Name Adam Werner
Position: Chemist
Date: 5/27/2015

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

June 01, 2015

SDG I.D.: GBJ20527

Instrument: Au-ecdcart1 05/26/15-1 (BJ20537, BJ20538, BJ20540, BJ20541, BJ20544, BJ20547, BJ20548, BJ20549, BJ20550, BJ20551, BJ20552, BJ20553, BJ20554, BJ20556, BJ20560)

The initial calibration (PC520AI) RSD for the compound list was less than 20% except for the following compounds: 1260-3(21.32%)

The initial calibration (PC520BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

Printed Name Adam Werner
Position: Chemist
Date: 5/26/2015

Instrument: Au-ecdcart1 05/28/15-1 (BJ20536, BJ20541, BJ20555, BJ20566, BJ20567, BJ20568)

The initial calibration (PC520AI) RSD for the compound list was less than 20% except for the following compounds: 1260-3 (21.32%)

The initial calibration (PC520BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

Printed Name Adam Werner
Position: Chemist
Date: 5/28/2015

QC Comments: QC Batch 308766 05/22/15 (BJ20527, BJ20528, BJ20529, BJ20530, BJ20531, BJ20532, BJ20533, BJ20534, BJ20535, BJ20536)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QC Comments: QC Batch 308775 05/22/15 (BJ20537, BJ20538, BJ20539, BJ20540, BJ20541, BJ20542, BJ20544, BJ20545, BJ20546, BJ20547, BJ20548, BJ20549, BJ20550, BJ20551, BJ20552, BJ20553, BJ20554, BJ20555, BJ20556)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QC Comments: QC Batch 308778 05/22/15 (BJ20557, BJ20558, BJ20559, BJ20560, BJ20561, BJ20562, BJ20563, BJ20564, BJ20565, BJ20566, BJ20567, BJ20568, BJ20569, BJ20570, BJ20571, BJ20572, BJ20573, BJ20574)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

June 01, 2015

SDG I.D.: GBJ20527

QC (Batch Specific)

---------- Sample No: BJ20334, QA/QC Batch: 308881 ----------

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

---------- Sample No: BJ20460, QA/QC Batch: 308766 ----------

All LCS recoveries were within 40 - 140 with the following exceptions: None.

---------- Sample No: BJ20537, QA/QC Batch: 308775 ----------

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

---------- Sample No: BJ20557, QA/QC Batch: 308778 ----------

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

---------- Sample No: BJ22694, QA/QC Batch: 309138 ----------

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Temperature Narration

The samples were received at 24C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

June 01, 2015

SDG I.D.: GBJ20527

Cooler: Yes ☐ No ☑
Coolant: IPK ☐ ICE ☐ No ☑
Temp 3.4 °C Pg of

CHAIN OF CUSTODY RECORD

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Contact Options:
☐ Fax:
☐ Phone:
☐ Email:

Customer: Tighe + Bond
Address: 213 Court St. Suite 1100
Middletown, CT

Project: 116 Cook Ave Meriden, CT
Report to: James Webb
Invoice to: Same

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature

Date: 5.21.15

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Soxhlet 8082	Baggies	Soil VOA Vials [ ] methanol [ ] H2O	GL Soil container ( ) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
20527	5-21 PCB 01	SD	5-21-15	A.M.		1										
20528	5-21 PCB 02	SD														
20529	5-21 PCB 03	SD														
20530	5-21 PCB 04	SD														
20531	5-21 PCB 05	SD														
20532	5-21 PCB 06	SD														
20533	5-21 PCB 07	SD														
20534	5-21 PCB 08	SD														
20535	5-21 PCB 09	SD														
20536	5-21 PCB 10	SD														
20537	5-21 PCB 11	SD														
20538	5-21 PCB 12	SD														

Relinquished by:	Accepted by:	Date:	Time:
		5/22/15	11:20

Comments, Special Requirements or Regulations:

Reporting Limit < 1 ppm

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

State where samples were collected: CT

Data Format
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other

* SURCHARGE APPLIES

Cooler: Yes ☐ No ☑
Coolant: IPK ☐ ICE ☐ No ☑
Temp 5.4 °C Pg of

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Contact Options:
☐ Fax:
☐ Phone:
☐ Email:

Customer: [redacted] Tighe + Bond
Address: 213 Court St. Suite 1100
Middletown, CT

Project: 116 Cook Ave Meriden
Report to: James Webb
Invoice to: Same

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 5-21-15

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Soxhlet 8082	TAGGIT
20539	5-21 PCB 13	SD	5-21-15	A.M	X	1
20540	5-21 PCB 14	SD			X	
20541	5-21 PCB 15	SD			X	
20542	5-21 PCB 16	SD			X	
20543	5-21 PCB 17	SD			X	
20544	5-21 PCB 18	SD			X	
20545	5-21 PCB 19	SD			X	
20546	5-21 PCB 20	SD			X	
20547	5-21 PCB 21	SD			X	
20548	5-21 PCB 22	SD			X	
20549	5-21 PCB 23	SD			X	
20550	5-21 PCB 24	SD			X	

Soil VOA Vials [ ] methanol [ ] H2O
GL Soil container ( ) oz
GL Soil container ( ) oz
40 ml VOA Vial [ ] As is [ ] HCl
GL Amber 1000ml [ ] As is [ ] H2SO4
PL As is [ ] 250ml [ ] 500ml [ ] 1000ml
PL H2SO4 [ ] 250ml [ ] 500ml
PL HNO3 250ml
PL NaOH 250ml
Bacteria Bottle

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	5/22/15	11:25

Comments, Special Requirements or Regulations:

Reporting Limit < 1 ppm

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

State where samples were collected: CT

Data Format
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other

* SURCHARGE APPLIES

Cooler: Yes ☐ No ☑
Coolant: IPK ☐ ICE ☐ No ☑

CHAIN OF CUSTODY RECORD

Temp 24 C Pg of

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Contact Options:
☐ Fax:
☐ Phone:
☐ Email:

Customer: Tighe + Bond
Address: 213 Court St Suite 1100
Middletown, CT

Project: 116 Cook Ave Meriden
Report to: James Webb
Invoice to: Same

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: _____ Date: 5-21-15

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
OIL=Oil B=Bulk L=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Soxhlet 8082	baggies
20551	5-21 PCB 25	SD	5-21-15	P.M.		
20552	5-21 PCB 26	SD				
20553	5-21 PCB 27	SD				
20554	5-21 PCB 28	SD				
20555	5-21 PCB 29	SD				
20556	5-21 PCB 30	SD				
20557	5-21 PCB 31	SD				
20558	5-21 PCB 32	SD				
20559	5-21 PCB 33	SD				
20560	5-21 PCB 34	SD				
20561	5-21 PCB 35	SD				
20562	5-21 PCB 36	SD				

Soil VOA Vials [ ] methanol [ ] H2O
GL Soil container ( ) oz
GL Soil container ( ) oz
40 ml VOA Vial [ ] As is [ ] HCl
GL Amber 1000ml [ ] As is [ ] H2SO4
PL As is [ ] 250ml [ ] 500ml [ ] 1000ml
PL H2SO4 [ ] 250ml [ ] 500ml
PL HNO3 250ml
PL NaOH 250ml
Bacteria Bottle

Relinquished by:	Accepted by:	Date:	Time:
		5/22/15	11:25

Comments, Special Requirements or Regulations:

Reporting Limit < 1ppm

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☑ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

State where samples were collected: CT

Data Format
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuiS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other

* SURCHARGE APPLIES

Cooler: Yes ☐ No ☑
Coolant: IPK ☐ ICE ☐ No ☑
Temp 24 C Pg of

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
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Contact Options:
☐ Fax:
☐ Phone:
☐ Email:

Customer: Tighe + Bond
Address: 213 Court St. Suite 1100
Middletown, CT

Project: 116 Cook Ave Meriden
Report to: James Webb
Invoice to: Same

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature _____ Date: _____

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Soxhlet 8082	baggies
20563	S-21 PCB # 7	SD	5-21-17	P.M.	X	1
20564	S-21 PCB 38	SD			X	
20565	S-21 PCB 39	SD			X	
20566	S-21 PCB 40	SD			X	
20567	S-21 PCB 41	SD			X	
20568	S-21 PCB 42	SD			X	
20569	S-21 PCB 43	SD			X	
20570	S-21 PCB 44	SD			X	
20571	S-21 PCB 45	SD			X	
20572	S-21 PCB 46	SD			X	
20573	S-21 PCB 47	SD			X	
20574	S-21 PCB 48	SD			X	

Soil VOA Vials [ ] methanol [ ] H2O
GL Soil container ( ) oz
GL Soil container ( ) oz
40 ml VOA Vial [ ] As is [ ] HCl
GL Amber 1000ml [ ] As is [ ] H2SO4
PL As is [ ] 250ml [ ] 500ml [ ] 1000ml
PL H2SO4 [ ] 250ml [ ] 500ml
PL HNO3 250ml
PL NaOH 250ml
Bacteria Bottle

Relinquished by:	Accepted by:	Date:	Time:
		5/26	11:25

Comments, Special Requirements or Regulations:

Reporting Limit < 1 ppm

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☐ RCP Cert
☐ GW Protection
☐ SW Protection
☐ GA Mobility
☐ GB Mobility
☐ Residential DEC
☐ I/C DEC
☐ Other

MA
☐ MCP Certification
☐ GW-1
☐ GW-2
☐ GW-3
☐ S-1
☐ S-2
☐ S-3
☐ MWRA eSMART
☐ Other

State where samples were collected: CT

Data Format
☐ Excel
☐ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☐ Phoenix Std Report
☐ Other

* SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

Monday, June 22, 2015

Attn: Mr. Harley Langford
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Project ID: 116 COOK AVE.
Sample ID#s: BJ32462 - BJ32473

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2015

FOR: Attn: Mr. Harley Langford
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32462

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	790	ug/Kg	10	06/18/15	AW	SW8082A
PCB-1221	ND	790	ug/Kg	10	06/18/15	AW	SW8082A
PCB-1232	ND	790	ug/Kg	10	06/18/15	AW	SW8082A
PCB-1242	ND	790	ug/Kg	10	06/18/15	AW	SW8082A
PCB-1248	ND	790	ug/Kg	10	06/18/15	AW	SW8082A
PCB-1254	ND	790	ug/Kg	10	06/18/15	AW	SW8082A
PCB-1260	ND	790	ug/Kg	10	06/18/15	AW	SW8082A
PCB-1262	ND	790	ug/Kg	10	06/18/15	AW	SW8082A
PCB-1268	ND	790	ug/Kg	10	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	93		%	10	06/18/15	AW	30 - 150 %
% TCMX	85		%	10	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-01

Phoenix I.D.: BJ32462

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Phyllis Shiller, Laboratory Director
June 22, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2015

FOR: Attn: Mr. Harley Langford
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32463

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	500	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1221	ND	500	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1232	ND	500	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1242	ND	500	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1248	ND	500	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1254	ND	500	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1260	ND	500	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1262	ND	500	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1268	ND	500	ug/Kg	5	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	78		%	5	06/18/15	AW	30 - 150 %
% TCMX	72		%	5	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-02

Phoenix I.D.: BJ32463

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Analysis Report

June 22, 2015

FOR: Attn: Mr. Harley Langford
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32464

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	410	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1221	ND	410	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1232	ND	410	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1242	ND	410	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1248	ND	410	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1254	ND	410	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1260	ND	410	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1262	ND	410	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1268	ND	410	ug/Kg	5	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	85		%	5	06/18/15	AW	30 - 150 %
% TCMX	80		%	5	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-03

Phoenix I.D.: BJ32464

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Analysis Report

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213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32465

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-04

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	430	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1221	ND	430	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1232	ND	430	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1242	ND	430	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1248	ND	430	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1254	ND	430	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1260	ND	430	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1262	ND	430	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1268	ND	430	ug/Kg	2	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	77		%	2	06/18/15	AW	30 - 150 %
% TCMX	65		%	2	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-04

Phoenix I.D.: BJ32465

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Analysis Report

June 22, 2015

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Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32466

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-05

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1221	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1232	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1242	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1248	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1254	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1260	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1262	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1268	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	72		%	2	06/18/15	AW	30 - 150 %
% TCMX	64		%	2	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-05

Phoenix I.D.: BJ32466

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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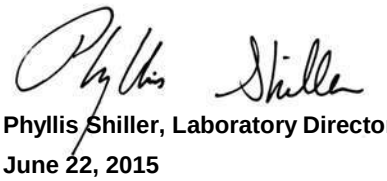

Phyllis Shiller, Laboratory Director
June 22, 2015
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Analysis Report

June 22, 2015

FOR: Attn: Mr. Harley Langford
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32467

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-06

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	470	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1221	ND	470	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1232	ND	470	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1242	ND	470	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1248	ND	470	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1254	ND	470	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1260	ND	470	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1262	ND	470	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1268	ND	470	ug/Kg	2	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	71		%	2	06/18/15	AW	30 - 150 %
% TCMX	63		%	2	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-06

Phoenix I.D.: BJ32467

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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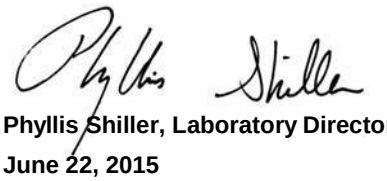

Phyllis Shiller, Laboratory Director
June 22, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2015

FOR: Attn: Mr. Harley Langford
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32468

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-07

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	460	ug/Kg	1	06/18/15	AW	SW8082A
PCB-1221	ND	460	ug/Kg	1	06/18/15	AW	SW8082A
PCB-1232	ND	460	ug/Kg	1	06/18/15	AW	SW8082A
PCB-1242	ND	460	ug/Kg	1	06/18/15	AW	SW8082A
PCB-1248	ND	460	ug/Kg	1	06/18/15	AW	SW8082A
PCB-1254	ND	460	ug/Kg	1	06/18/15	AW	SW8082A
PCB-1260	ND	460	ug/Kg	1	06/18/15	AW	SW8082A
PCB-1262	ND	460	ug/Kg	1	06/18/15	AW	SW8082A
PCB-1268	ND	460	ug/Kg	1	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	52		%	1	06/18/15	AW	30 - 150 %
% TCMX	40		%	1	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-07

Phoenix I.D.: BJ32468

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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June 22, 2015
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Analysis Report

June 22, 2015

FOR: Attn: Mr. Harley Langford
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32469

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	460	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1221	ND	460	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1232	ND	460	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1242	ND	460	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1248	ND	460	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1254	ND	460	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1260	ND	460	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1262	ND	460	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1268	ND	460	ug/Kg	2	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	76		%	2	06/18/15	AW	30 - 150 %
% TCMX	66		%	2	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-08

Phoenix I.D.: BJ32469

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Analysis Report

June 22, 2015

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Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32470

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-09

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1221	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1232	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1242	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1248	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1254	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1260	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1262	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1268	ND	500	ug/Kg	2	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	62		%	2	06/18/15	AW	30 - 150 %
% TCMX	59		%	2	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-09

Phoenix I.D.: BJ32470

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

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Analysis Report

June 22, 2015

FOR: Attn: Mr. Harley Langford
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32471

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-10

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	730	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1221	ND	730	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1232	ND	730	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1242	ND	730	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1248	ND	730	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1254	ND	730	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1260	ND	730	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1262	ND	730	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1268	ND	730	ug/Kg	5	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	80		%	5	06/18/15	AW	30 - 150 %
% TCMX	68		%	5	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-10

Phoenix I.D.: BJ32471

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
June 22, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2015

FOR: Attn: Mr. Harley Langford
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32472

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-11

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	750	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1221	ND	750	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1232	ND	750	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1242	ND	750	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1248	ND	750	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1254	ND	750	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1260	ND	750	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1262	ND	750	ug/Kg	5	06/18/15	AW	SW8082A
PCB-1268	ND	750	ug/Kg	5	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	83		%	5	06/18/15	AW	30 - 150 %
% TCMX	75		%	5	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-11

Phoenix I.D.: BJ32472

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

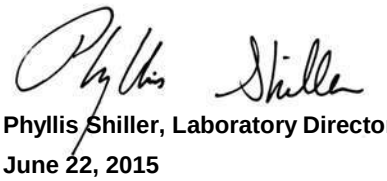
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
June 22, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

June 22, 2015

FOR: Attn: Mr. Harley Langford
Tighe & Bond
213 Court St
Suite 900
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		06/16/15	
Location Code:	TIGHE	Received by:	LB	06/17/15	15:50
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22081724				

Laboratory Data

SDG ID: GBJ32462
Phoenix ID: BJ32473

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-12

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				06/17/15	PQ/UX	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	330	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1221	ND	330	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1232	ND	330	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1242	ND	330	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1248	ND	330	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1254	ND	330	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1260	ND	330	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1262	ND	330	ug/Kg	2	06/18/15	AW	SW8082A
PCB-1268	ND	330	ug/Kg	2	06/18/15	AW	SW8082A
QA/QC Surrogates							
% DCBP	74		%	2	06/18/15	AW	30 - 150 %
% TCMX	61		%	2	06/18/15	AW	30 - 150 %

Project ID: 116 COOK AVE.
Client ID: 6-16-PCB-12

Phoenix I.D.: BJ32473

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

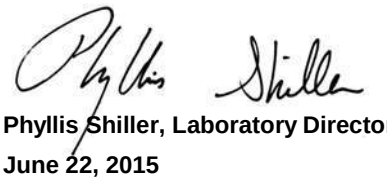
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director
June 22, 2015
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

June 22, 2015

QA/QC Data

SDG I.D.: GBJ32462

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 311159 (ug/Kg), QC Sample No: BJ32406 10X (BJ32462, BJ32463, BJ32464, BJ32465, BJ32466, BJ32467, BJ32468)										
Polychlorinated Biphenyls - Solid										
PCB-1016	ND	170	82	80	2.5	88	86	2.3	40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170	83	82	1.2	120	101	17.2	40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	88	%	98	96	2.1	96	98	2.1	30 - 150	30
% TCMX (Surrogate Rec)	78	%	94	89	5.5	94	93	1.1	30 - 150	30
QA/QC Batch 311160 (ug/Kg), QC Sample No: BJ32836 10X (BJ32469, BJ32470, BJ32471, BJ32472, BJ32473)										
Polychlorinated Biphenyls - Solid										
PCB-1016	ND	170	78	77	1.3	78	77	1.3	40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170	79	80	1.3	77	75	2.6	40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	92	%	86	87	1.2	86	83	3.6	30 - 150	30
% TCMX (Surrogate Rec)	85	%	77	77	0.0	79	80	1.3	30 - 150	30

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
June 22, 2015

Sample Criteria Exceedences Report

GBJ32462 - TIGHE

Criteria: None

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Reasonable Confidence Protocol
Laboratory Analysis QA/QC Certification Form

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** Tighe & Bond

Project Location: 116 COOK AVE. **Project Number:**

Laboratory Sample ID(s): BJ32462, BJ32463, BJ32464, BJ32465, BJ32466, BJ32467, BJ32468, BJ32469, BJ32470, BJ32471, BJ32472, BJ32473

Sampling Date(s): 6/16/2015

RCP Methods Used:

☐ 1311/1312	☐ 6010	☐ 7000	☐ 7196	☐ 7470/7471	☐ 8081	☐ EPH	☐ TO15
☑ 8082	☐ 8151	☐ 8260	☐ 8270	☐ ETPH	☐ 9010/9012	☐ VPH	

1.	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☑ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☑ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5b.	Were these reporting limits met?	☑ Yes ☐ No ☐ NA
6.	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☐ Yes ☑ No ☐ NA

Note: For all questions to which the response was "No" (with the exception of question #5a, #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: 

Date: Monday, June 22, 2015

Printed Name: Greg Lawrence

Position: Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

June 22, 2015

SDG I.D.: GBJ32462

PCB Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument: Au-ecd6 06/18/15-1 (BJ32462, BJ32463, BJ32464, BJ32465, BJ32466, BJ32467, BJ32468)

The initial calibration (PC605AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC616AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC616BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

Printed Name Adam Werner
Position: Chemist
Date: 6/18/2015

Instrument: Au-ecd8 06/18/15-1 (BJ32469, BJ32471, BJ32472, BJ32473)

The initial calibration (PC616AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC616BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

Printed Name Adam Werner
Position: Chemist
Date: 6/18/2015

Instrument: Au-ecdcart1 06/18/15-1 (BJ32470)

The initial calibration (PC604AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC604BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

Printed Name Adam Werner
Position: Chemist
Date: 6/18/2015

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

RCP Certification Report

June 22, 2015

SDG I.D.: GBJ32462

QC (Batch Specific)

---------- Sample No: BJ32406, QA/QC Batch: 311159 ----------

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

---------- Sample No: BJ32836, QA/QC Batch: 311160 ----------

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Temperature Narration

The samples were received at 6C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

PHOENIX Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Temp 6 °C Pg 1 of 1

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Email: info@phoenixlabs.com Fax (860) 645-0823
Client Services (860) 645-8726

Contact Options:
[ ] Fax:
[X] Phone:
[X] Email: Hlangford@tighebond.com

Customer: Tighe + Bond
Address: 213 Court St
Middletown, CT

Project: 116 Cook Ave
Report to: Harley Langford
Invoice to: T+B Westfield

Project P.O:

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 6-16-15

Matrix Code:
DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe
OIL=Oil B=Bulk L=Liquid

Analysis Request: PCBs 8082 w/soxhlet

Bottle columns: Bags; Soil VOA Vials [ ] methanol [ ] H2O; GL Soil container ( )oz; GL Soil container ( )oz; 40 ml VOA Vial [ ] As is [ ] HCl; GL Amber 1000ml [ ] As is [ ] H2SO4; PL As is [ ] 250ml [ ] 500ml [ ] 1000ml; PL H2SO4 [ ] 250ml [ ] 500ml; PL HNO3 250ml; PL NaOH 250ml; Bacteria Bottle

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	PCBs 8082 w/soxhlet	Bags
32462	6-16-PCB-01	SD	6-16-15		X	1
32463	6-16-PCB-02	↓	↓		X	1
32464	6-16-PCB-03	↓	↓		X	1
32465	6-16-PCB-04	↓	↓		X	1
32466	6-16-PCB-05	↓	↓		X	1
32467	6-16-PCB-06	↓	↓		X	1
32468	6-16-PCB-07	↓	↓		X	1
32469	6-16-PCB-08	↓	↓		X	1
32470	6-16-PCB-09	↓	↓		X	1
32471	6-16-PCB-10	↓	↓		X	1
32472	6-16-PCB-11	↓	↓		X	1
32473	6-16-PCB-12	↓	↓		X	1

Relinquished by:	Accepted by:	Date:	Time:
[signature]	T/B Fridge		
[signature]	Park Wan	[struck through]	13:00
Park Wan	CParadice	6/17/15	1550

Comments, Special Requirements or Regulations:
RL must be < 1 ppm

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[X] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[X] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

Data Format
[X] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[X] Phoenix Std Report
[ ] Other

State where samples were collected: CT

* SURCHARGE APPLIES

STATE USE ONLY

Date Received

Check #

Trans #

Entered

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

APPLICATION FOR ALTERNATIVE WORK PRACTICES

Please provide the following information as required by the Regulations of Connecticut State Agencies, Section 19a-332a-11. Be sure to note if there are attachments. An incomplete application will result in a delayed response. Fee for application is $200, payable to "Treasurer, State of Connecticut". Allow ten days to review application, except for emergency applications. Application may only submitted by a licensed asbestos project designer.

1. PROJECT DESIGNER INFORMATION

Date of Application 12/2/24 Inspection Date: 10/3/24

Name of Project Designer Nathan Yergeau

License # 000288 License Expiration Date 09/30/2025 Phone # (860) 852-5225

Address 213 Court Street, Suite 1100

City, State, Zip Code Middletown, CT 06457

Signature

2. PROPERTY INFORMATION

Facility Owner City of Meriden

Address 142 East Main Street, Room 210, Meriden, CT 06450

Phone (203) 630-4115 Contact Person Rawle Dummett

Address of Facility 116 Cook Avenue

City, State and Zip Code Meriden, CT 06450

3. ASBESTOS ABATEMENT CONTRACTOR INFORMATION (IF KNOWN)

Asbestos Abatement Contractor To Be Determined CT License #

Address

City, State Zip Code

Phone Contact Person

4. PROJECT SUMMARY

Nature of Abatement Renovation ☐ Demolition ☑ Both ☐

Type of Asbestos Abatement Removal ☑ Enclosure ☐ Encapsulation ☐ Spot Repair ☐

Start Date (if known)

Type and Amount of Asbestos Material Pertaining to AWP (Use additional attachment if necessary)

Floor Tile (FT²)	*Linoleum (FT²)*	*Transite (FT²)*	*Other Non-Friable (specify)*

Window Caulking (LF)	*Pipe Insulation (LF)*	*Pipe Fittings (each)*	*Other Friable (specify)*

Phone: (860) 509-7367, Fax: (860) 509-7378
Telephone Device for the Deaf (860) 509-7191
410 Capitol Avenue - MS #12-AIR
P.O. Box 340308 Hartford, CT 06134
An Equal Opportunity Employer

5. DESCRIPTION OF FACILITY

Building Data	Size	77,000	Age	104 Years	Facility Use	Former Hospital/Medical Facility
		Square Feet		*Estimate, if unknown*		

6. SPECIFIC ALTERNATIVE WORK REQUEST

Section(s) and Subsections of the Standards for Asbestos Abatement regulation for which alternative work practice(s) is/are proposed:

See attached

Description of Alternative Work Practice(s): Please provide additional information such as drawings, photographs, work plans or similar information in order to provide an accurate review. Please identify the specific work area/s of the facility.

See attached

DPH STAFF

Application Status

REVIEWED BY	DATE	APPROVED/ DENIED/ SET ASIDE

MAIL COMPLETED FORM TO:

DEPARTMENT OF PUBLIC HEALTH - EHS
410 CAPITOL AVE, MS# 12 AIR
PO BOX 340308
HARTFORD, CT 06134-0308

22-0817-038
December 2, 2024

Joanna Golos
Supervising Environmental Analyst
Asbestos Program
Division of Environmental Health
State of Connecticut Department of Public Health
410 Capitol Avenue, MS #51 AIR
P.O. Box 340308
Hartford, CT 06134-0308

Re: **Alternative Work Practice Application**
116 Cook Avenue
Meriden, Connecticut

On behalf of the City of Meriden, Tighe & Bond, Inc. is pleased to submit an Alternative Work Practice (AWP) application required to address specific asbestos abatement practices within the Former Hospital/Medical Facility located at 116 Cook Avenue, in Meriden, Connecticut (the Site).

Project Background

The property includes an abandoned building scheduled for demolition in preparation for site redevelopment (the Project). The property abuts Cooper Street to the South, Cook Avenue to the West, Harbor Brook to the East, a couple of commercial properties and Hanover Street to the North. The building is in a dilapidated state due to vandalism, fire damage, partial roof collapses, and partial interior floor collapses. There are several areas of the building, especially in the A-Wing, B-Wing, and D-Wing that are not safe to enter and has been condemned by the City of Meriden's building official. A copy of the Unsafe Structure Order from Meriden's building official is provided in Appendix A. This AWP applies to all wings of the building in their current conditions. A site plan is provided in Appendix B.

The building is a four-story brick and concrete structure and is approximately 77,000 square feet in size. The building is comprised of four "wings", the A-Wing, B-Wing, C-Wing, and D-Wing. The structure was built in 1920 and includes a concrete foundation/slab. There is a crawl space located in the D Wing, which is inaccessible due to floor collapses. The interior walls consist of gypsum board partitions and gypsum board on painted brick perimeter walls. The door and window components are of metal construction. Floors consist of various types of coverings on wood, with the exception of the 1st floor and the C Wing which are concrete. The exterior façade is unpainted brick with several window openings and the roofs are flat with partial collapses.

A photographic log depicting general site conditions and ACM is found in Appendix C.

Tighe & Bond performed a Hazardous Building Materials Assessments (HBMA) in May 2015 and October 2024 to supplement previous data collected by another environmental consultant. Several types of friable and non-friable asbestos-containing materials (ACM) were encountered at the Site. In 2016, asbestos abatement was conducted of several interior areas of flooring, breeching, pipe fitting, and boiler insulation as well as select areas of exterior caulking and cement board soffits. Abatement was conducted in accessible areas of the building only. The remaining materials, which could not be safely abated, are presented in the table below.

Modified ACM Abatement

This AWP includes modified ACM abatement procedures that includes the demolition, segregation, and disposal of the building with both friable and non-friable asbestos in place. There are substantial portions of the building that are unsafe for entry and not suitable for conventional abatement.

Site Cleanup and Disposal

Entry into substantial portions of the building is prohibited in its current state. The structure is approximately 77,000 square feet. The entire roof system is asbestos-containing and roofing debris is found in multiple areas inside the building. There is known asbestos-containing pipe insulation located in the D Wing crawlspace and is also assumed to exist in other inaccessible areas of the building. Various other types of ACM were identified throughout the structures as described in the table below. All waste generated during Site cleanup will be disposed of mixed Friable Asbestos Waste and CT DEEP Regulated PCB Waste (<50 parts per million [ppm]) due to PCB containing paints, glazing, and caulks identified throughout the buildings.

A list of ACM identified and approximate quantities for contaminated building debris at the Site are as follows:

<table>
<tr><th colspan="4">Site Cleanup & Disposal Plan</th></tr>
<tr><th>Material</th><th>Location</th><th>Quantity</th><th>Comments</th></tr>
<tr><td>Pipe and/or Pipe Fitting Insulation</td><td rowspan="8">Entire Building – A Wing, B Wing, C Wing, and D Wing</td><td rowspan="8">77,000 SF Structure</td><td rowspan="8">All building material debris is contaminated and will be removed and disposed of as Mixed Asbestos and CT DEEP Regulated PCB Waste.

Metal components may be decontaminated and removed from the Site as scrap metal.

Painted wood beams and ceiling deck from A Wing and D Wing are to be segregated during demolition and disposed of as a lead hazardous waste.</td></tr>
<tr><td>Various Floor Tile & Mastic</td></tr>
<tr><td>Various Linoleum Flooring</td></tr>
<tr><td>Wall Panel Adhesives</td></tr>
<tr><td>Exterior Window Caulk</td></tr>
<tr><td>Roofing Membranes, Field Tar, Paper, Flashing Tars layers</td></tr>
</table>

Request Exemption for Demolition of Building

In lieu of requirements of Subsection 19a-332a-5 (b through e) and 19a-332a-5 (g through i) and 19a-332a-12 (a through g), the designer requests that the following procedures be utilized for the building demolition:

1. Work area preparation

   A. The Contractor will be a State of Connecticut licensed Asbestos Abatement Contractor who will perform certain asbestos management operations during

demolition of the structure. A certified licensed asbestos competent person will always be onsite during gross material cleanup, waste loading, and final cleaning procedures.

B. Post asbestos and PCB abatement warning signs and erect temporary barricades to create a regulated area around the entire building.

C. Establish a remote worker decontamination chamber. Post asbestos and PCB abatement warning signs in accordance with OSHA 29 CFR 1926.1101.

D. Construct a staging area within the regulated area when segregating construction debris from ACM. The only construction materials that may be segregated will include clean nonporous metal, clean brick and concrete, and painted wood beams and ceiling decks (led hazardous waste). The staging area will consist of a minimum of two layers of 6-mil polyethylene sheeting. Any cleaning of the above mentioned materials must be executed in this area. The Asbestos Project Monitor (APM) will visually inspect all materials that will be disposed of as non-impacted construction debris or non-asbestos regulated waste.

E. Line and cover each waste container with two layers of 6-mil polyethylene sheeting. Post asbestos and PCB warning signs around each container during loading operations. All waste generated will be disposed of as Friable Asbestos Waste and CT DEEP Regulated PCB Waste (<50 ppm).

F. Provide and maintain water/misting equipment and hoses sufficient to adequately wet all debris during all material segregation and loading procedures.

2. Project Monitoring Requirements

A. Tighe & Bond will provide a full time State of Connecticut licensed APM to support the work for this Project.

B. Tighe & Bond will collect air samples during material removal, decontamination, disposal, and cleanup activities at upwind and downwind locations of the regulated area. A TSI Dust Trak Monitor or equivalent will also be used to monitor total particulate concentrations around the work area throughout the Project. In the event that Phase Contrast Microscopy (PCM) air samples are greater than 0.010 fibers per cubic centimeter (f/cc) or total particulate concentration exceed 150 micrograms per cubic meter ($\mu g/m^3$) over background concentrations, work will be stopped and the contractor will be instructed to correct the work practice causing the dust. If PCM samples exceed 0.010 f/cc the State of Connecticut Department of Public Health (CTDPH) will be informed and will not proceed until approved by the CTDPH.

C. Tighe & Bond will conduct a final visual inspection of the work area at the completion of abatement and decontamination work to determine if all visible debris and residues were successfully removed.

D. No re-occupancy air monitoring will be performed on this Project.

3. Abatement and Demolition Procedures

A. The Contractor will submit a Notification of Asbestos Abatement to the CTDPH and EPA.

B. The Contractor will dedicate at least one person and all necessary equipment to conduct wetting operations during the processing and loading of building debris. Designated personnel will continuously mist the cleanup areas to prevent visible dust emissions during the work. The personnel will also be responsible for ensuring that the material waste is made adequately wet once in the waste container. Care

will be taken to avoid using too much water and to prevent run off and standing puddles.

C. The equipment operator will remove and place the debris into appropriate waste containers. All waste will be disposed of as mixed Friable Asbestos Waste and CT DEEP Regulated PCB Waste (<50 ppm).

D. The Contractor will clean all gross building debris and contaminated materials from the building basement foundations and slabs before driving equipment onto the slab to avoid tracking through contaminated material. The operator shall not track over contaminated areas to reach other areas.

E. The equipment operator will remove portions of the building that are in danger of collapse.

F. Following removal of gross building debris, the Contractor will manually clean the remaining concrete slabs and surrounding area.

G. The Contractor will manually clean within the abatement areas once all heavy equipment work is completed.

H. The Contractor will implement final cleaning procedures consisting of wet-wiping and HEPA vacuuming the entire basement foundation walls and concrete slabs free of all residual debris.

I. The work will be subjected to a final visual inspection by Tighe & Bond's licensed APM.

Except as noted, all other requirements of the Standards for Asbestos Abatement will be executed.

If you have any questions, please contact me.

Tighe & Bond, Inc.

Nathan Yergeau
Project Compliance Specialist 2
Asbestos Project Designer's License (000288)
(203) 668-1739
NYergeau@tighebond.com

Enclosures: Appendix A – Unsafe Structure Order
Appendix B – Site Plan
Appendix C - Photographic Log

Tighe&Bond

APPENDIX A

DEPARTMENT OF DEVELOPMENT & ENFORCEMENT
BUILDING DIVISION – CITY HALL – ROOM 137
CITY OF MERIDEN

Date: 12/2/2024

Certified Mail#: Hand Delivered

To: City of Meriden
142 East Main St
Meriden, CT 06450

Re: 116 Cook Ave
Meriden, CT 06451

STATE BUILDING CODE §116
NOTICE OF UNSAFE STRUCTURE

Dear: Brian Daniels:

On 12/2/2024, an inspection was conducted of the premises located at 116 Cook Ave Meriden, CT for the purposes of determining compliance with the State Building Code as amended and the applicable referenced standards, adopted pursuant to the Connecticut General Statutes §29-252. The Code and said standards are available for your inspection at on the State Building Inspector's website- https://portal.ct.gov/DAS/Office-of-State-Building-Inspector/Office-of-State-Building-Inspector or this office. The inspection revealed that the structure is unsafe pursuant to State Building Code §116 due to the following conditions:

- Hazardous and unsafe conditions due to lack of maintenance and deterioration of structure 116.7, 116.1
- Structure shall immediately be demolished to safeguard public

PURSUANT TO STATE BUILDING CODE §116, YOU ARE HEREBY ORDERED TO TAKE THE PROPER CORRECTIVE ACTION TO REMOVE OR REMEDY ALL LISTED VIOLATIONS WITHIN 30 BUSINESS DAYS FROM THE DAY THAT THIS NOTICE IS RECEIVED. Construction documents in accordance with §107 for work to be done shall be submitted to this office prior to the commencement of any construction. This review of all construction documents would avoid unnecessary expense that could result from non-complying changes. Please note that the correction of certain violations may require proper permits and approval from the Building Official and other local agencies prior to any construction.

You are hereby notified that you have the right to appeal this order pursuant to Connecticut General Statutes §29-266(b) to the municipal board of appeals or Connecticut General Statute

§29-266(c) in the absence of a municipal board of appeals. Variations or exemptions from the State Building Code may be granted by the State Building Inspector where strict compliance with the code would entail practical difficulty or unnecessary hardship, or is otherwise adjudged unwarranted pursuant to Connecticut General Statutes §29-254(b), provided that the intent of the law shall be observed and public welfare and safety be assured. Any application for a variation or exemption or equivalent or alternate compliance shall be filed with the local Building Official.

This is the only order you will receive. You must immediately notify me as to whether you accept or reject the terms of this order. A copy of this order is provided to you to sign and return to me with your response.

Be advised that the Building Official is authorized to prosecute any violation of this order by requesting that legal counsel of the jurisdiction, or the Office of the State's Attorney, institute the appropriate proceeding at law. Per Connecticut General Statutes §29-254a and §29-394, and State Building Code §114.4, any person who is convicted in a court of law of violating any provision of the State Building Code or for failure to comply with the written order of a building inspector for the provision of additional exit facilities in a building, the repair or alteration of a building or the removal of a building or any portion thereof shall be fined not less than two hundred not more than one thousand dollars or imprisoned not more than six months or both.

This Office hopes to gain your cooperation and looks forward to working with you in the interest of building and life safety for a timely resolution of this serious matter. If you have any questions, please feel free to contact this office at 203-630-4094.

Sincerely,

Michael Roraback
Building Official
City of Meriden

Accepted: ☐ Rejected: ☐

Signature of owner: _____

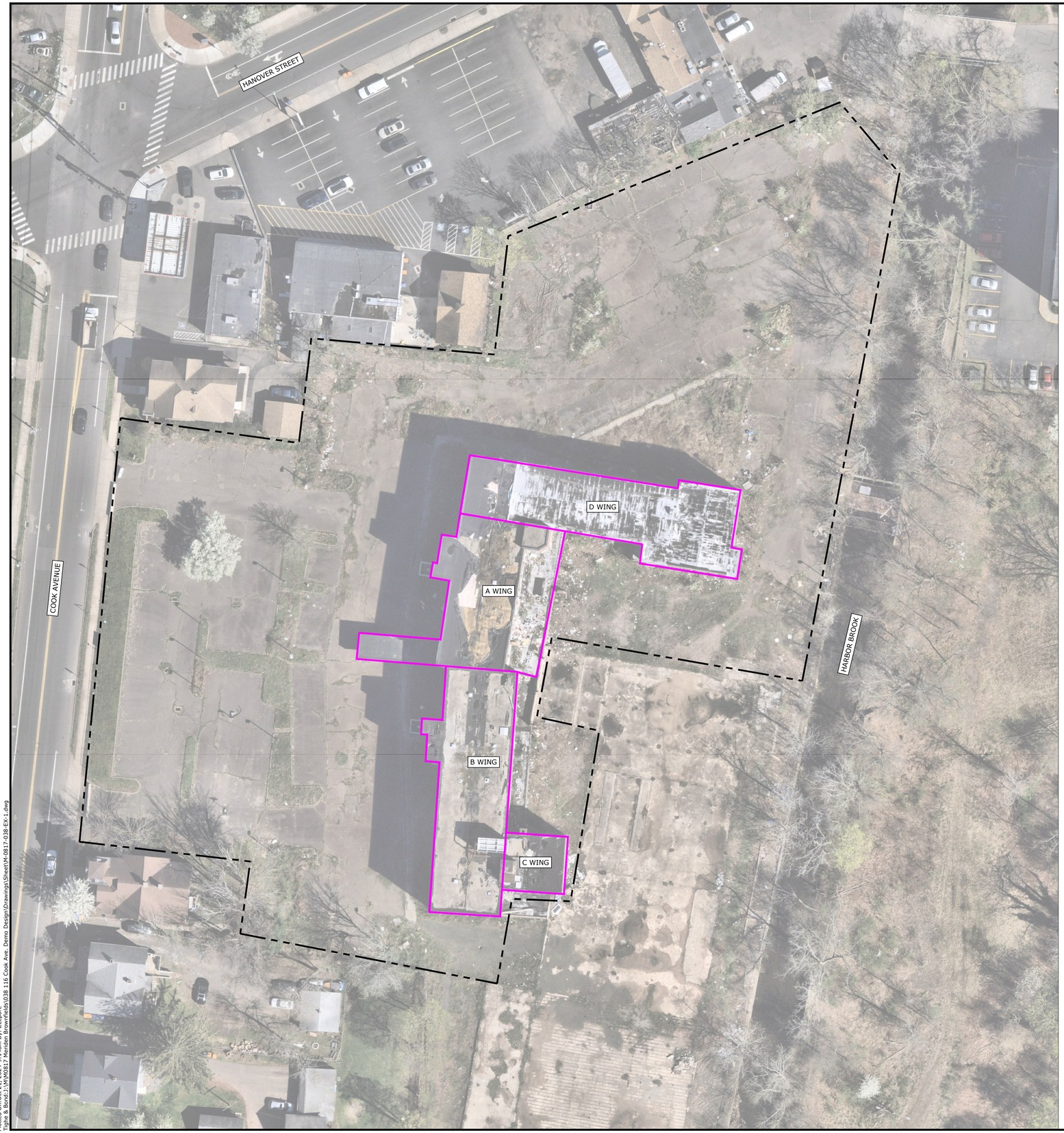
Date: _____

Signature of co-owner: _____

Date: _____

Tighe&Bond

APPENDIX B



N

LEGEND

APPROXIMATE PROPERTY BOUNDARY

EXISTING BUILDING

MAP REFERENCES

1. AERIAL FROM NEARMAP, DATED MARCH 22, 2024.

0 20' 40'

SCALE: 1" = 20'

Tighe&Bond
213 Court Street
Suite 1100
Middletown, CT 06457
(860) 704-4760

PLAN SET ISSUE TITLE

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

PROJECT NO:	22-0817-038
DATE:	10/18/2024
FILE:	M-0817-038-EX-1.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	NY
APPROVED BY:	HL

EXISTING CONDITIONS

SCALE: AS SHOWN

C-100
SHEET X OF XX

Last Saved: 10/21/2024
Plotted On: Oct 21, 2024-9:14am By: ZLepore
Tighe & Bond J:\M\M0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-EX-1.dwg

Tighe&Bond

APPENDIX C

Appendix C - Photographic Log

Client: City of Meriden **Job Number:** 22-0817-038

Site: Former Hospital/Medical Facility— 116 Cook Avenue, Meriden, CT
Alternative Work Practice

Photograph No.: 1	**Date:** October 2024	**Direction Taken:** N/A
Description: Current Site Conditions — D Wing		

Photograph No.: 2	**Date:** October 2024	**Direction Taken:** N/A
Description: Current Site Conditions — D Wing		

Appendix C - Photographic Log

Client: City of Meriden **Job Number:** 22-0817-038

Site: Former Hospital/Medical Facility— 116 Cook Avenue, Meriden, CT
Alternative Work Practice

Photograph No.: 3	**Date:** October 2024	**Direction Taken:** N/A

Description: Current Site Conditions — A Wing

Photograph No.: 4	**Date:** October 2024	**Direction Taken:** N/A

Description: Current Site Conditions—A Wing

Appendix C - Photographic Log

Client: City of Meriden **Job Number:** 22-0817-038

Site: Former Hospital/Medical Facility— 116 Cook Avenue, Meriden, CT
Alternative Work Practice

Photograph No.: 5	**Date:** October 2024	**Direction Taken:** N/A

Description: Current Site Conditions — B Wing

Photograph No.: 6	**Date:** October 2024	**Direction Taken:** N/A

Description: Current Site Conditions—B Wing

Appendix C - Photographic Log

Client: City of Meriden **Job Number:** 22-0817-038

Site: Former Hospital/Medical Facility— 116 Cook Avenue, Meriden, CT
Alternative Work Practice

Photograph No.: 7	**Date:** October 2024	**Direction Taken:** N/A
Description: Current Site Conditions — C Wing		

Photograph No.: 8	**Date:** October 2024	**Direction Taken:** N/A
Description: Current Site Conditions—C Wing		

SECTION 13282

LEAD-BASED PAINT MANAGEMENT

PART 1 GENERAL

1.1 SUMMARY OF WORK

A. The procedures referenced herein shall be utilized during work specified elsewhere in the Specifications that might impact identified lead-containing paint (identified as detectable concentrations of lead) and/or lead-based paint (identified as containing greater than or equal to [≥] 0.50% lead by weight or 1.0 mg/cm^2 of lead). Lead-based paint and/or lead-containing paint and associated building components are noted in Table 1 located at the end of this Specification.

B. Demolition work impacting lead-containing paint and lead-based paint may result in dust and debris exposing workers to levels of lead above the Occupational Safety and Health Administration's (OSHA) Action Level.

C. Worker protection, training, and engineering controls referenced herein shall be strictly adhered to, until completion of exposure assessment with results indicating exposures below the OSHA Action Level.

D. Construction activities disturbing surfaces with lead-containing or lead-based paint that are likely to be employed, such as demolition, sanding, grinding, welding, cutting and burning, have been known to expose workers to levels of lead in excess of the OSHA Permissible Exposure Limit (PEL).

E. Any construction activities including cutting, grinding, abrading, etc. which impact the lead-containing and/or lead-based painted surfaces must follow the requirements found in this Section.

1.2 RELATED INFORMATION

A. Related Sections

1. Section 01325, Health and Safety Plan
2. Section 02222 Building Demolition
3. Section 13281, Asbestos Abatement
4. Section 13283, Hazardous Materials Abatement
5. Section 13284, PCB-Containing Building Materials Abatement

B. Related Drawings

1. HBM-101 Demolition and Abatement Plan – First Floor
2. HBM-102 Demolition and Abatement Plan – Second Floor
3. HBM-103 Demolition and Abatement Plan - Third Floor
4. HBM-104 Demolition and Abatement Plan – Fourth Floor

C. Related Documents listed below are included as Appendix B to Section 13281 or elsewhere in the Bid Package. These documents are not part of the Contract Documents, but the Technical Data contained therein on which the Contractor may rely is limited to laboratory analytical reports. Contractor is not entitled to rely upon any other information and data known to or identified by Owner or Engineer.

1. Hazardous Materials Survey Report, December 2011, Fuss & O'Neill.

2. Hazardous Building Materials Assessment Report, November 2015, Tighe & Bond, Inc.

3. Hazardous Building Materials Abatement Monitoring Report, May 2017, Tighe & Bond, Inc.

4. Alternative Work Practice (AWP) Application.

1.3 DEFINITIONS

A. The following definitions relating to lead-containing or lead-based paint as used in this Section are offered:

1. ACTION LEVEL (AL): The allowable employee exposure, without regard to use of respiratory protection, to an airborne concentration of lead over an eight (8) hour time weighted average (TWA), as defined by OSHA. The current action level is thirty micrograms per cubic meter of air (30 $\mu g/m^3$).

2. AREA MONITORING: The sampling of lead concentrations, which is representative of the airborne lead concentrations that may reach the breathing zone of personnel potentially exposed to lead.

3. BIOLOGICAL MONITORING: The analysis of a person's blood and/or urine, to determine the level of lead concentration in the body.

4. CHANGE ROOM: An area provided with separate facilities for clean protective work clothing and equipment and for street clothes, which prevents cross-contamination.

5. COMPETENT PERSON: A person employed by the Contractor who is capable of identifying existing and predictable lead hazards in the surroundings or working conditions, and who has authorization to take prompt corrective measures to eliminate them as defined by OSHA.

6. ENGINEER - The third-party Engineering/Environmental consultant for the project.

7. EXPOSURE ASSESSMENT: An assessment conducted by an employer to determine if any employee may be exposed to lead at or above the action level.

8. HIGH EFFICIENCY PARTICULATE AIR (HEPA): A type of filtering system capable of filtering out particles of 0.3 microns diameter from a body of air at 99.97% efficiency or greater.

9. LEAD: Refers to metallic lead, inorganic lead compounds and organic lead soaps. Excluded from this definition are other organic lead compounds.

10. LEAD-CONTAINING PAINT: Refers to paints, glazes and other surface coverings containing detectable levels of lead.

11. LEAD WORK AREA: An area enclosed in a manner to prevent the spread of lead dust, paint chips, or debris resulting from lead-containing paint disturbance.

12. LEAD-BASED PAINT: Refers to paints, glazes and other surface coverings containing a toxic level of lead.

13. PERMISSIBLE EXPOSURE LIMIT (PEL): The maximum allowable limit of exposure to an airborne concentration of lead over an eight (8) hour time weighted average (TWA), as defined by OSHA. The current PEL is fifty micrograms per cubic meter of air (50 $\mu g/m^3$). Extended workdays lower the PEL by the formula: PEL equals 400 divided by the number of hours of work.

14. PERSONAL MONITORING: Sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration in accordance with Title 29 CFR, Part 1926.62 and Title 29 CFR, Part 1910.1025. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a sphere with a radius of 18 inches and centered at the nose or mouth of an employee.

15. RESOURCE CONSERVATION RECOVERY ACT (RCRA): RCRA establishes regulatory levels of hazardous chemicals. There are eight (8) heavy metals of concern for disposal: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Six (6) of the metals are typically found in paints, excluding selenium and silver.

16. TOXIC LEVEL OF LEAD: A level of lead, when present in dried paint or plaster, contains more than 0.50% lead by dry weight as measured by atomic absorption spectrophotometry (AAS) or 1.0 mg/cm^2 as measured by on-site testing utilizing an x-ray fluorescence analyzer. (Term is specific to State of CT regulations and HUD guidelines only)

17. TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP): The U.S. Environmental Protection Agency (USEPA) required sample preparation and analysis for determining the hazard characteristics of a waste material.

1.4 REGULATIONS AND STANDARDS

A. The following regulations, standards, and ordinances of federal, state, and local agencies are applicable and made a part of this specification by reference:

1. American National Standards Institute (ANSI) ANSI 288.2 - Respiratory Protection

2. Code of Federal Regulation (CFR)

a. Title 29 CFR, Part 1910.134 - Respiratory Protection

b. Title 29 CFR, Part 1910.1025 - Lead

c. Title 29 CFR, Part 1926.62 - Lead in Construction Interim Final Rule

d. Title 29 CFR, Part 1926.59 - Hazard Communication in Construction

e. Title 40 CFR, Part 263 - Transporters of Hazardous Waste

f. Title 40 CFR, Part 268 - Lead Disposal Restrictions

3. State of Connecticut Department of Energy and Environmental Protection (CTDEEP)

a. Guidance for the management and disposal of lead-contaminated materials generated in the lead abatement renovation and demolition industries.

4. Underwriters Laboratories, Inc. (UL)

a. UL586 - High Efficiency Particulate Air Filter Units

1.5 QUALITY ASSURANCE

A. Hazard Communication Program

1. The Contractor shall establish and implement a Hazard Communication Program as required by Title 29 CFR, Part 1926.59.

B. Compliance Plan (Site Specific)

1. The Contractor shall establish a written compliance plan, which is specific to the project site, to include the following:

a. A description of work activity involving lead including equipment used, material included, controls in place, crew size, employee job responsibilities, operating procedures, and maintenance practices.

b. Methods of engineering controls to be used to control lead exposure.

c. The proposed technology the Contractor will implement in meeting the OSHA PEL.

d. Air monitoring data documenting the source of lead emissions.

e. A detailed schedule for implementing the program, including documentation of appropriate supply of equipment, etc.

f. Proposed work practice which establishes proper protective work clothing, housekeeping methods, hygiene facilities, and practices.

g. Worker rotation schedule, if proposed, to reduce TWA.

h. A description of methods for informing workers of potential lead exposure.

C. Medical Examinations

1. Before exposure to lead contaminated dust, provide workers with a comprehensive medical examination as required by Title 29 CFR, Part 1910.1025 and Title 29 CFR, Part 1926.62.

2. The examination shall not be required if adequate records show that employees have been examined as required by Title 29 CFR Part 1926.62 within the last year.

3. Medical examination shall include, at a minimum, approval to wear respiratory protection and biological monitoring.

D. Training

1. The Contractor shall ensure that workers are trained to perform lead-containing or lead-based paint disturbing activities and disposal operations prior to the start of work in accordance with Title 29 CFR, Part 1926.62.

E. Respiratory Protection Program

1. The Contractor shall furnish each employee required to wear a negative pressure respirator with a respirator fit test at the time of initial fitting and at least once every 12 months thereafter as required by Title 29 CFR, Part 1926.62.

2. The Contractor shall establish a Respiratory Protection Program in accordance with ANSI Z88.2, Title 29 CFR, Part 1910.134, and Title 29 CFR, Part 1926.62.

1.6 SUBMITTALS

A. The Contractor shall submit to the Engineer the following submittals prior to start of work:

1. Copies of all notifications, permits, applications, licenses and like documents required by federal, state and local regulations obtained or submitted in proper fashion.

2. Copies of medical records for each employee to be used on the project, including copies of each workers' initial blood lead level and zinc protoporphyrin level.

3. Record of successful respirator fit testing performed by a qualified individual within the previous year, for each employee to be used on this project with the employee's name and social security number with each record.

4. Proposed respiratory protection program for employees throughout all phases of the job, including make, model and National Institute of Occupational Safety and Health (NIOSH) approval numbers of respirators to be used.

5. Written description, for the Engineer's review and acceptance, of all proposed procedures, methods or equipment to be utilized including those that differ from the Contract Specifications. Include manufacturers' specifications on any equipment not specified for use by this Section; in all instances, the Contractor must comply with all applicable federal, state and local regulations.

6. List of all supervisors and workers intended to be assigned to the project and current certificates of training.

7. The name and address of Contractor's blood lead testing lab, OSHA-CDC listing, and Certification in the State of Connecticut.

8. The name and address of Contractor's personal air monitoring and waste disposal lead testing laboratories including certification(s) of American Industrial Hygiene Association (AIHA) accreditation for heavy metal analysis and listing of relevant experience in air and debris lead analysis.

9. Safety Data Sheets (SDS) on all materials and chemicals to be used on the project.

10. Name, address, and ID number of the hazardous waste hauler, and proposed disposal site.

11. Name, address, and ID number of the proposed construction debris site.

B. The Contractor shall submit to the Engineer the following submittals during the job:

1. Daily results from personal air samples.

2. Medicals, certificates, and fit test 24 hours in advance of any new employee starting on the project.

3. Copies of laboratory analysis for waste characterization sampling conducted prior to disposal.

C. The Contractor shall submit to the Engineer the following submittals upon completion of the work:

1. Copies of manifests and receipts acknowledging disposal of all hazardous and non-hazardous waste material generated by the Contractor from the project showing delivery date, quantity, and appropriate signature of landfill's authorized representative.

1.7 PERSONAL PROTECTION

A. Exposure Assessment

1. The Contractor shall determine if any worker will be exposed to lead at or above the OSHA Action Level.

2. The exposure assessment shall identify the level of exposure a worker would be subjected to without respiratory protection.

3. The exposure assessment shall be achieved by obtaining personal monitoring samples representative of a full shift of at least 8-hour TWA.

4. During the period of the exposure assessment, the Contractor shall institute the following procedures for protection of workers:

a. Protective clothing shall be utilized.

b. Respiratory protection.

c. Change areas shall be provided.

d. Hand washing facilities and shower.

e. Biological monitoring.

f. Training of workers.

B. Respiratory Protection

1. The Contractor shall furnish appropriate respirators approved by NIOSH/MSHA for use in atmospheres containing lead dust.

2. Respirators shall comply with the requirements of Title 29 CFR, Part 1926.62.

3. Workers shall be instructed in all aspects of respiratory protection.

4. The Contractor shall have an adequate supply of HEPA filter elements and spare parts on site for all types of respirators in use.

5. The minimum respirator protection for use during paint removal or demolition of components and surfaces with lead-containing or lead-based paint shall be the 1/2 mask air purifying respirator with high efficiency filters for exposures (not in excess of 500 $\mu g/m^3$ or 10 x PEL).

C. Protective Clothing

1. Personal protective clothing shall be provided for all workers, supervisors, and authorized visitors entering the work area.

2. Each worker shall be provided with a minimum of two (2) complete disposable coverall suits.

3. Removal workers shall not be limited to two (2) suits, and the Contractor shall supply additional suits, as necessary.

4. Under no circumstances shall anyone entering the lead removal area be allowed to re-use a contaminated disposable suit.

5. Disposable coveralls, such as TYVEK® suits, and other personal protective equipment (PPE) shall be donned prior to entering the lead control area. A change room shall be provided for workers to put on suits and other personal protective equipment with separate areas to store their street clothes.

6. Eye protection for personnel engaged in lead operations shall be furnished when the use of a full-face respirator is not required.

7. Goggles with side shields shall be worn when working with power tools or a material that may splash or fragment, or if protective eye wear is specified on the Safety Data Sheet (SDS) for a particular product to be used on the project.

1.8 PERSONAL MONITORING

A. General. The Contractor is required to perform the personal air sampling activities during lead-containing or lead-based paint disturbing work. The results of such sampling shall be posted, provided to individual workers and submitted to the Owner on a daily basis, as described herein.

B. Sampling. Samples shall be taken for the duration of the work shift or for eight hours, whichever is less. Personal samples need not be taken every day after the first day if working conditions remain unchanged but must be taken every time there is a change in

removal operations, either in terms of the location or the type of work. Sampling will be used to determine eight-hour TWA. The Contractor is responsible for personal sampling as outlined in OSHA Standard Title 29 CFR, Part 1926.62 and Title 29 CFR, Part 1910.1025.

C. Sampling Results. Air sampling results shall be reported to individual workers in written form no more than 48 hours after the completion of a sampling cycle. The reporting document shall list each sample's result, sampling time and date, personnel monitored and their social security numbers, flow rate, sample duration, sample yield, cassette size, and analysts' name and company, and shall include an interpretation of the results. Air sample analysis results will be reported in micrograms/cubic meter ($\mu g/m^3$).

D. Testing Laboratory. The Contractor's testing lab shall be participating in AIHA's Environmental Lead Laboratory Accreditation Program (ELLAP). The Contractor shall submit to the Engineer for review and acceptance, the name and address of the laboratory, certification(s) of AIHA participation, a listing of relevant experience in air lead analysis, and presentation of a documented Quality Assurance and Quality Control Program.

PART 2 PRODUCTS

2.1 GENERAL

A. Any substitution in materials, equipment, or methods to those specified shall be approved by the Engineer prior to use. Any requests for substitution shall be provided in writing to the Engineer. The request shall clearly state the rationale for the substitution.

2.2 MATERIALS AND PRODUCTS

A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.

B. Damaged or deteriorating materials shall not be used and shall be removed from the premises.

C. The Contractor shall have available sufficient inventory or dated purchase orders for materials necessary for the job including protective clothing, respirators, filter cartridges, polyethylene sheeting of proper size and thickness, tape, and air filters.

D. Materials

1. Polyethylene sheet in a roll size to minimize the frequency of joints shall be delivered to job site with factory label indicating 6-mil. A minimum of one layer of 6-mil polyethylene sheeting shall be used for ALL lead removal work areas.

2. Polyethylene disposable bags shall be six (6) mil. Tie wraps for bags shall be plastic, five (5) inches long (minimum), pointed and looped to secure filled plastic bags.

3. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheet to finished or unfinished surfaces

of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.

4. Impermeable containers are to be used to receive and retain any lead containing or contaminated materials until disposal at an acceptable disposal site. (The containers shall be labeled in accordance with EPA and DOT standards.)

2.3 TOOLS AND EQUIPMENT

A. Provide suitable tools for all lead disturbing operations.

B. The Contractor shall have available power cables or sources such as generators (where required).

PART 3 EXECUTION

3.1 WORKER PROTECTION/TRAINING

A. The Contractor shall provide appropriate training, respiratory and other personal protection, and biological monitoring for each worker and ensure proper usage during potential lead exposure and the initial exposure assessment.

B. Workers who will perform lead abatement procedures must have training in accordance with the requirements of OSHA Title 29 CFR, Part 1926.62.

C. Prepare the work areas according to the following general sequence of procedures to ensure that proper dust containment and protection systems are installed before any work which could generate lead dust.

D. Plastic Sheeting shall be polyethylene or equivalent with a thickness of at least 6 mil for all applications.

E. Erect barricades, post access restriction signs, and maintain a Decontamination Facility.

F. Obtain formal approval from Engineer of all preparation work and containment areas before commencing removal of items containing lead-based paint. Engineer shall be given at least 48 hours notification of the intent to start removal work in any work area.

3.2 CONTRACTOR'S RESPONSIBILITIES

A. The Contractor is responsible for establishing and maintaining controls referenced within this section.

B. The Contractor is also responsible for conducting work in accordance with applicable federal, state, and local regulations as referenced herein.

3.3 WORKER HYGIENE PRACTICES

A. Required during initial exposure assessment and if results of air sampling are above OSHA Action Level.

B. Work Area Entry.

1. Workers shall don personal protective equipment prior to entering work area, including at a minimum, disposable coveralls, gloves, eye protection, and proper footwear.

C. Work Area Departure.

1. While in the work area, workers shall remove all gross contamination, debris, and dust from disposable coveralls and proceed to Decontamination Facility for implementation of proper worker decontamination.

D. Hand washing Facilities.

1. All workers must wash their hands and faces upon leaving the work area.

E. Equipment.

1. All equipment used by workers inside the work area shall be wet wiped or bagged for later decontamination before removal from the work area.

F. Prohibited Activities.

1. Under no circumstances shall workers eat, drink, smoke, chew gum, or tobacco in the work area.

G. Shock Hazards.

1. The Contractor is responsible for using safe procedures to avoid electrical hazards. All temporary electrical wiring will be protected by ground fault circuit interrupters (GFCI).

3.4 LEAD WORK AREA

A. Required during initial exposure assessment and if results of air sampling are above OSHA Action Level.

B. The Contractor shall place warning signs at all entrances and exits from the work area. Signage shall be a minimum of 20" x 14" and shall state the following:

DANGER

LEAD WORK AREA

MAY DAMAGE FERTILITY OR THE UNBORN CHILD

CAUSES DAMAGED TO THE

CENTRAL NERVOUS SYSTEM

DO NOT EAT, DRINK OR SMOKE IN THIS AREA

C. The Contractor shall designate a change room as specified in this Section. The change room shall be adjacent to the lead work area and Decontamination Facility. The change room shall have separate storage facilities for street clothes to avoid cross contamination.

D. The Contractor shall provide potable water for hand and face washing and provide a portable shower unit.

E. The Contractor shall place six-mil polyethylene drop cloths on floor/ ground surfaces prior to beginning removal work to facilitate clean-up.

3.5 WORK AREA CLEAN UP

A. The Contractor shall remove all loose chips and debris from floor surfaces and place in waste disposal bags.

B. The Contractor shall HEPA vacuum adjacent surfaces to remove dust and debris. Polyethylene sheeting shall be properly disposed of.

3.6 WASTE DISPOSAL

A. Caution Note for Contractors: All materials, whether hazardous or non-hazardous, shall be disposed of in accordance with all laws and the provisions of any or all applicable federal, state, county, or local regulations and guidelines. It shall be the sole responsibility of the Contractor to assure compliance with all laws and regulations relating to this disposal.

B. Metal components with lead-containing or lead-based paint can be recycled at an approved recycling facility unless paint is assumed or confirmed to contain PCBs at levels that preclude recycling of this material under state or federal regulation.

C. All waste materials generated during abatement and demolition which involves lead-based paint in the waste shall have characterization sampling via TCLP method performed by the Engineer.

1. Results shall be furnished to the Owner and Contractor.

D. Disposal of hazardous lead bearing material must be in compliance with the requirements of, and authorized by, the State of Connecticut Department of Energy and Environmental Protection, Office of Solid Waste Management and with the requirements of the Resource Conservation and Recovery Act (RCRA).

E. The following materials are likely to leach lead at hazardous levels in excess of 5 mg/liter. The Contractor shall segregate, containerize and dispose of the following materials as hazardous lead waste at an EPA approved treatment, storage, and disposal facility (if characterization sampling indicates waste is hazardous).

1. Painted wooden beams and ceiling deck from throughout all floors of the A Wing and D Wing.

2. Associated Paint chips.

3. Associated Paint dust.

4. Dust from HEPA filters and from damp sweeping.

5. Rags, sponges, mops, HEPA filters, respirator cartridges, scrapers, and other materials used for testing, removal, and clean up.

6. Disposable work clothes and respirator filters.

7. Contents of HEPA vacuums used on this project.

F. The cost of the above disposal of hazardous waste is to be borne by the Contractor and provided at no additional cost to the Owner.

G. Contractor shall wipe the following materials clean of all dust, dirt and debris and dispose of the material as construction debris:

1. Polyethylene sheeting used in removal activities other than chemical removal.

H. Contractor shall collect the wash water generated by the worker shower and wash facilities in 55-gallon drums and filter the water using a 2-stage filtration system composed of:

1. 5-micron porosity in-line cartridge particulate filter followed by activated carbon filter in-line cartridge

2. Hold the filtered water for testing prior to discharge to the sanitary sewer. Contractor shall test the water and verify lead levels below 0.1 parts per million (ppm) and pH between 6 and 8 prior to discharge. Water that fails the testing criteria shall be treated with sodium hydroxide, pH adjusted, and retested. If the second test does not meet the site-specific lead level, the Contractor shall filter wastewater by reverse osmosis prior to testing and discharge to the sanitary sewer.

I. All hazardous lead waste shall be containerized in accordance with Title 49 CFR, Part 178. Label and placard each container in accordance with Title 40 CFR, Part 1926.62 and Title 40 CFR, Part 172 to identify the type of waste and the date the container was filled.

J. Lead Waste must be removed from the site within 30 days of generation.

K. The Contractor may not store containerized hazardous lead waste (only) on the job site for in excess of 180 calendar days from the accumulation start date and may not store it past the date of project completion.

L. Contractor shall utilize a certified transporter for hazardous waste in compliance with DOT Title 49 CFR, Part 172.

1. Contractor shall submit the completed Uniform Hazardous Waste Manifest, EPA Form 8700-22 for each load of hazardous waste within 30 calendar days following the date the waste leaves the site. Copies of all landfill receipts will be retained by the Engineer as part of the project file. The receipts will be signed by the landfill operator upon delivery, and the quantity of lead-containing debris leaving the job site and arriving at the landfill acknowledged.

TABLE 1 - LIST OF PAINTED ITEMS WITH LEAD-BASED PAINT

Material	Component	Location	Quantity	Result via XRF (mg/cm^2)	Comments
Various Colors of Paint	**Metal Support Beam/Columns**	**Throughout Building**	**N/A**	**1.0**	**Metal components may be decontaminated and removed from the Site as scrap metal.**
Various Colors of Paint*	**Metal Door Casings**		**N/A**	**1.1**	**Metal components may be decontaminated and removed from the Site as scrap metal. Must be recycled out of State.**
Various Colors of Paint*	**Brick Walls**		**50,000 SF**	**3.4**	**Material to be included in Lead Waste Characterization Samples Collected During Demolition**
Various Colors of Paint*	**Wood Beams and Ceilings**	**A Wing and D Wing – All Floors**	**55,000 SF**	**>9.9**	**Materials to be segregated during demolition and disposed of as lead hazardous waste.**

Legend

* Material also contains PCB concentrations <50 ppm.

Bolded concentrations indicate lead-based paint per EPA and CTDPH standards (≥ 1.0 mg/cm^2).

Appendix A – Lead TCLP Laboratory Reports

END OF SECTION

Tighe&Bond

APPENDIX A

PHOENIX
Environmental Laboratories, Inc.

Tuesday, October 08, 2024

Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: **116 COOK AVENUE**
SDG ID: **GCR79018**
Sample ID#s: CR79018 - CR79019

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

October 08, 2024

SDG I.D.: GCR79018

Project ID: 116 COOK AVENUE

Client Id	Lab Id	Matrix
24-1003-LCLP-NY-01	CR79018	BULK
24-1003-LCLP-NY-02	CR79019	BULK

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 08, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79018
Phoenix ID: CR79018

Project ID: 116 COOK AVENUE
Client ID: 24-1003-LCLP-NY-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TCLP Lead	15.8	0.10	mg/L	1	10/07/24	CPP	SW846 1311/6010
TCLP Metals Digestion	Completed				10/07/24	AK/AK	SW3010A
TCLP Extraction for Metals	Completed				10/04/24	AK	SW1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
October 08, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 08, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79018
Phoenix ID: CR79019

Project ID: 116 COOK AVENUE
Client ID: 24-1003-LCLP-NY-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TCLP Lead	< 0.10	0.10	mg/L	1	10/07/24	CPP	SW846 1311/6010
TCLP Metals Digestion	Completed				10/07/24	AK/AK	SW3010A
TCLP Extraction for Metals	Completed				10/04/24	AK	SW1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
October 08, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

QA/QC Report

October 08, 2024

QA/QC Data

SDG I.D.: GCR79018

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 752427 (mg/L), QC Sample No: CR74933 (CR79018, CR79019)													
ICP Metals - TCLP Extraction													
Lead	BRL	0.10	0.93	0.82	12.6	97.7	96.8	0.9	99.9			80 - 120	20

Comment:

Additional Criteria: LCS acceptance range is 80-120% for aqueous and for soils the acceptance range is set by vendor limits. MS acceptance range 75-125%.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD	-	Relative Percent Difference
LCS	-	Laboratory Control Sample
LCSD	-	Laboratory Control Sample Duplicate
MS	-	Matrix Spike
MS Dup	-	Matrix Spike Duplicate
NC	-	No Criteria
Intf	-	Interference
(ISO)	-	Isotope Dilution

Phyllis Shiller, Laboratory Director
October 08, 2024

Tuesday, October 08, 2024

Criteria: None

State: CT

Sample Criteria Exceedances Report

GCR79018 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CR79018	TCLP-PB	TCLP Lead	EPA / 40 CFR 261.24 / Toxicity Characteristics	15.8	0.10	5	5	mg/L

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

Bureau of Water Protection and Land Reuse
Remediation Division

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

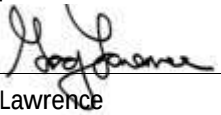
Laboratory Name Phoenix Environmental Labs, Inc.	Client Name Tighe & Bond
Project Location 116 COOK AVENUE	Project No.
Sampling Date(s) 10/3/2024	Laboratory Sample ID(s): CR79018, CR79019

LIST RCP METHODS USED (e.g., 8260,8270, etc.) 1311/1312, 6010

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method-specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (see respective RCPs)	☐ Yes ☐ No ☑ NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (≤6° C)? *If samples were received by the laboratory on the same day of collection and were stored and transported to the laboratory on ice, cooler temperatures above 6ºC are acceptable.*	☑ Yes ☐ No ☐ NA
4	Were all QA/QC performance criteria specified in the CT DEEP Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5	Were reporting limits / limits of quantitation specified or referenced on the chain-of-custody?	☐ Yes ☑ No
5a	Were these reporting limits / limits of quantitation met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☐ Yes ☑ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set for applicable RCPs?	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence." This form may not be altered, and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature:  Position: Assistant Lab Director

Printed Name: Greg Lawrence Date: Tuesday, October 08, 2024

Name of Laboratory Phoenix Environmental Laboratory, Inc.

This certification form is to be used for RCP methods only.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

RCP Certification Report

October 08, 2024

SDG I.D.: GCR79018

SDG Comments

Metals Analysis:
The client requested a shorter list of elements than the 6010 RCP list. Only Lead is reported as requested on the chain of custody.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS-4 10/07/24 09:10 Cindy Pearce, Chemist 10/07/24

CR79018, CR79019

The initial calibration met criteria and the linear range is defined daily by the calibration range.
The Low-Level Calibration Verification (LLCV) met criteria.
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.
The following Initial Calibration Blank (ICB) compounds did not meet criteria: None.
The following Spectral Interference Check compounds did not meet criteria: None.
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.
The following Continuing Calibration Blank (CCB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 752427 (CR74933)

CR79018, CR79019

All LCS recoveries were within 80 - 120 with the following exceptions: None.
All LCSD recoveries were within 80 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
Additional Criteria: LCS acceptance range is 80-120% for aqueous and for soils the acceptance range is set by vendor limits. MS acceptance range 75-125%.

Temperature Narration

The samples were received at 2.5C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

LEAD TCLP SAMPLING LOG

Tighe&Bond

2-SWUP

Project Number: 22-0817-038	Date: 10/03/2024
Project Name: 116 Cook Avenue	Page 1 of 1
Site Address: 116 Cook Avenue, Meriden, CT	
Project Manager: Harley Langford	

Sample ID	Sample Location/ Building	Material Type
79018 24-1003-LCLP-NY-01	A Wing and D Wing	Brick, CMU, Gypsum Board, Ceiling Tiles, Painted Wood, and Unpainted Wood
79019 24-1003-LCLP-NY-02	B Wing and C Wing	Brick, CMU, Gypsum Board, Ceiling Tiles, Painted Wood, and Unpainted Wood

Laboratory: Phoenix
Analysis Method: TCLP Lead

Turnaround Time 1 Week

Email Results To: NYergeau@tighebond.com

Special Instructions: _____

Samples Collected By: Nathan Yergeau Date: 10/03/2024 Time: 2:00 pm
Samples Rec'd/Sent By: [illegible] Date: 10/03/2024 Time: 4:50pm
Samples Received By: DG Date: 10/4 Time: 10:30
DG

Shipped To: ☐ _____ 10/4/24 11:25 ☐ Other _____

Method of Shipment: ☐ Fed Ex. ☐ UPS Overnight ☐ UPS Ground ☐ Other _____

213 Court Street • Middletown, CT 06457 • Tel 860.704.4760 • Fax 860.704.4775

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/10/24	
Location Code:	TIGHE	Received by:	B	10/10/24	15:35
Rush Request:	48 Hour	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR83405
Phoenix ID: CR83405

Project ID: 116 COOK AVENUE
Client ID: 24-1010-LCLP-NY-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TCLP Lead	2.07	0.10	mg/L	1	10/11/24	CPP	SW846 1311/6010
TCLP Metals Digestion	Completed				10/11/24	//MQ/MQ/(	SW3010A
TCLP Extraction for Metals	Completed				10/10/24	GW	SW1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
October 14, 2024
Official Report Release To Follow

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/10/24	
Location Code:	TIGHE	Received by:	B	10/10/24	15:35
Rush Request:	48 Hour	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR83405
Phoenix ID: CR83406

Project ID: 116 COOK AVENUE
Client ID: 24-1010-LCLP-NY-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TCLP Lead	< 0.10	0.10	mg/L	1	10/11/24	CPP	SW846 1311/6010
TCLP Metals Digestion	Completed				10/11/24	//MQ/MQ/(	SW3010A
TCLP Extraction for Metals	Completed				10/10/24	GW	SW1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
October 14, 2024
Official Report Release To Follow

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/10/24	
Location Code:	TIGHE	Received by:	B	10/10/24	15:35
Rush Request:	48 Hour	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR83405
Phoenix ID: CR83407

Project ID: 116 COOK AVENUE
Client ID: 24-1010-LCLP-NY-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TCLP Lead	8.09	0.10	mg/L	1	10/11/24	CPP	SW846 1311/6010
TCLP Metals Digestion	Completed				10/11/24	//MQ/MQ/(	SW3010A
TCLP Extraction for Metals	Completed				10/10/24	GW	SW1311

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
October 14, 2024
Official Report Release To Follow

Sample Criteria Exceedances Report

GCR83405 - TIGHE

Criteria: None

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CR83407	TCLP-PB	TCLP Lead	EPA / 40 CFR 261.24 / Toxicity Characteristics	8.09	0.10	5	5	mg/L

1.6° WCTP

LEAD TCLP SAMPLING LOG

Tighe&Bond

Project Number: 22-0817-038	Date: 10/10/2024
Project Name: 116 Cook Avenue	Page 1 of 1
Site Address: 116 Cook Avenue, Meriden, CT	
Project Manager: Harley Langford	

Sample ID	Sample Location/ Building	Material Type
S3405 24-1010-LCLP-NY-01	D Wing	Brick, CMU, Gypsum Board, Fiberboard, Ceiling Tiles, Painted Wood, and Unpainted Wood
S3406 24-1010-LCLP-NY-02	A Wing	Brick, CMU, Gypsum Board, Fiberboard, Ceiling Tiles, Painted Wood, and Unpainted Wood
S3407 24-1010-LCLP-NY-03	A Wing and D Wing	Brick, CMU, Gypsum Board, Fiberboard, Ceiling Tiles, Painted Wood, and Unpainted Wood

Laboratory: Phoenix
Analysis Method: TCLP Lead

Turnaround Time 48 Hour

Email Results To: NYergeau@tighebond.com

Special Instructions: _____

Samples Collected By: Nathan Yergeau Date: 10/10/2024 Time: 9:00 am
Samples Rec'd/Sent By: MPS Date: / Time: /
Samples Received By: _____ Date: _____ Time: _____

Shipped To: ☐ _____ ☐ Other _____

Method of Shipment: ☐ Fed Ex. ☐ UPS Overnight ☐ UPS Ground ☐ Other _____

TCLP FRIDGE Austin Jewett 10.10.24 2:30
Austin Jewett 10/10/24 15:35

SECTION 13283
HAZARDOUS MATERIALS MANAGEMENT

PART 1 GENERAL

1.1 RELATED INFORMATION

A. Related Sections

1. Section 01350 Health and Safety
2. Section 02222 Building Demolition
3. Section 13281 Asbestos Abatement
4. Section 13282, Lead-Based Paint Management
5. Section 13284 PCB-Containing Building Materials Abatement

B. Related Drawings

1. HBM-101 Demolition and Abatement Plan – First Floor
2. HBM-102 Demolition and Abatement Plan – Second Floor
3. HBM-103 Demolition and Abatement Plan - Third Floor
4. HBM-104 Demolition and Abatement Plan – Fourth Floor

C. Related Documents listed below are included as Appendix B to Section 13281 or elsewhere in the Bid Package. These documents are not part of the Contract Documents, but the Technical Data contained therein on which the Contractor may rely is limited to laboratory analytical reports. Contractor is not entitled to rely upon any other information and data known to or identified by Owner or Engineer.

1. Hazardous Materials Survey Report, December 2011, Fuss & O'Neill.
2. Hazardous Building Materials Assessment Report, November 2015, Tighe & Bond, Inc.
3. Hazardous Building Materials Abatement Monitoring Report, May 2017, Tighe & Bond, Inc.
4. Alternative Work Practice (AWP) Application

1.2 GENERAL PROVISIONS

A. The removal and reclamation of hazardous materials as defined by the State of Connecticut Department of Energy and Environmental Protection (CTDEEP) is to be performed prior to and in conjunction with demolition activities which will disturb the items. Due to the building's dilapidated condition some hazardous waste will not be accessible prior to demolition. Such wastes shall be segregated from the demolition debris to the extents reasonably possible.

1.3 PROJECT DESCRIPTION

A. The Contractor shall furnish and pay of all labor, materials, facilities, equipment, services, employee training and testing, permits and agreements, and waste transport, incineration, and reclamation necessary to perform the Work.

B. The Work shall be performed in accordance with these specifications and the requirements of the Unites States Environmental Protection Agency (EPA), Occupation Safety and Health Administration (OSHA), and State of Connecticut regulations.

1. Whenever there is a conflict or overlap of the above references, the most stringent provisions are applicable.

C. The building has been condemned by the City of Meriden Building Department. As such, access to the interior portions of the building is restricted. Remove and/or stabilize all hazards necessary to safely enter the building, prior to commencing work inside the building. Where hazards cannot be stabilized, selectively demolish parts of the structure to gain safe access for removal of the equipment, fixtures, and other items and wastes specified in this Section.

1. Approximate quantities and locations of Universal Wastes and other regulated building wastes are provided in Table 1 at the end of this Section.

1.4 LOCATION OF WORK AREAS

A. The approximate locations of known universal/regulated building wastes, descriptions, estimated types and quantities of waste materials are described in Table 1 at the end of this Section.

B. If additional wastes are encountered that were not previously identified, notify Engineer.

C. The quantities presented in Table 1 are provided for general guidance and may not correspond exactly to the amount of waste to be removed. Contractor shall assume that quantities of each waste stream may fluctuate plus or minus (+/-) ten percent (10%) for bidding purposes.

D. Costs associated with handling and disposal of all wastes identified in this Section are to be included in the Bid. If the actual amount of waste encountered within the work area limits is greater than 10% more or less than the quantities provided in this Section costs for handling and disposal of those wastes will be paid for as a Change in Work in accordance with the unit prices proposed under Section 01220 Unit Prices.

1.5 REFERENCES

A. The Contractor is advised to thoroughly review the documents referenced in this Section. Strict adherence to these requirements is required.

1. Code of Federal Regulations

a. Title 29 CFR Part 1910, “Occupational Safety and Health Standards” (General Industry Standards)

b. Title 29 CFR Part 1910.20, “Access to Employee Exposure and Medical Records”

c. Title 29 CFR Part 1910.134, “Respiratory Protection”

d. Title 29 CFR Part 1910.146, “Permit Required Confined Space”

e. Title 29 CFR Part 1910.1200, “Hazard Communication”

f. Title 29 CFR Part 1926, "Safety and Health Regulations for Construction" (Construction Industry Standards)

g. Title 40 CFR Part 50, "National Primary and Secondary Ambient Air Quality Standards

h. Title 40 CFR Part 60, "Standards of Performance for New Stationary Sources," Appendix B, "Test Methods"

i. Title 40 CFR Part 117, "Determination of Reportable Quantities for Hazardous Substances"

j. Title 40 CFR 122, "EPA Administered Permit Program: The National Pollutant Discharge Elimination System"

k. Title 40 CFR 172, "Hazardous Waste Transportation"

l. Title 40 CFR 261, "Identification and Listing of Hazardous Waste"

m. Title 40 CFR 262, "Standards Applicable to Generators of Hazardous Waste"

n. Title 40 CFR 263, "Standards Applicable to Transporters of Hazardous Waste"

o. Title 40 CFR 268, "Land Disposal Restrictions"

p. Title 40 CFR 273, “Standards for Universal Waste Management”

q. Title 40 CFR 300, "National Oil and Hazardous Substances Pollution Contingency Plan"

r. Title 40 CFR 302, "Designation, Reportable Quantities, and Notification"

s. Title 40 CFR 745, “Renovation, Repair and Repainting Program”

2. EPA Publications

a. SW-846, Test Methods for Evaluating Solid Waste - Physical/Chemical Methods

b. EPA Method 3050, "Acid Digestion of Sediments, Sludges, and Soils"

3. Connecticut Applicable Regulations

a. CGS Title 22a – Environmental Protection

b. CGS Section 22a-114 to 22a-134z Hazardous Waste Regulations

c. CGS Section 22a-416 to 22a-599 Water Pollution Control

d. CGS Section 22a-207 to 22a-256ee Solid Waste Management

e. CGS Section 22a-170 to 22a-206 Air Pollution Control

f. CGS Section 22a-67 through 76 Noise Pollution Control

B. Local Town, City or County bylaws, rules and regulations

1.6 SUBMITTALS

A. Prior to removal of Wastes identified in this Section, submit a Waste Handling and Disposal Plan, including means and methods for all waste characterization, management, handling, and disposal activities. Identify the proposed waste haulers and disposal facilities including copies of all applicable licenses, registrations and approvals.

B. Submit copies of all worker certifications associated with OSHA 40 Hour Hazardous Waste Site Health and Safety Training in accordance with Title 29 CFR 1910.120.

C. After completion of the Waste removal activities, submit a final report documenting removal, transportation and disposal of all wastes generated during the Work. This shall include copies of manifests, shipping slips, permits and licenses for this project.

1.7 DEFINITIONS:

A. BALLAST: a passive component used in an electric circuit to moderate changes in current. A light ballast regulates the current to the lamps and provides sufficient voltage to start the lamps. Ballasts manufactured prior to 1979 may contain PCBs. Ballasts manufactured between 1979 and 1991 may contain Di(2-ethylhexyl) phthalate (DEHP).

B. CAPACITOR: a device used to store an electric charge, consisting of one or more pairs of conductors separated by an insulator. May contain PCBs. Capacitors are commonly used in electronic equipment including HVAC Units, pumps, etc.

C. DEHP: Di(2-ethylhexyl) phthalate; manufactured chemical typically added to plastics to make them flexible. May be found in lighting ballasts manufactured between 1979 and 1991. Probable human carcinogen per U.S. EPA. Reasonably anticipated to be a human carcinogen per CDC.

D. HANDLER: The Contractor removing the universal/hazardous waste product.

E. LARGE QUANTITY GENERATOR: a handler can accumulate 5,000 kilograms or more of universal waste at any time.

F. MERCURY: A silvery-white poisonous metallic element, liquid at room temperature and used in thermometers, barometers, vapor lamps, and batteries and in the preparation of chemical pesticides. Mercury is known to have many different types of health effects particularly with the nervous, digestive and urinary systems.

G. POLYCHLORINATED BIPHENYLS (PCBs) – Any of several compounds that are produced by replacing hydrogen atoms in biphenyl with chlorine, have various industrial applications, and are toxic environmental pollutants which tend to accumulate in animal tissues. Probable human carcinogen per U.S. EPA. Reasonably anticipated to be a human carcinogen per CDC.

H. SMALL QUANTITY GENERATOR: a handler can accumulate not more than 5,000 kilograms or more of universal waste at any time.

I. UNIVERSAL WASTE: batteries, Mercury-containing thermostats, certain pesticides, lamps (including but not limited to fluorescent, neon and mercury vapor lamps), and used electronics.

1.8 GENERAL REQUIREMENTS

A. The Contractor is subject to approval by the Engineer and all regulatory agencies with jurisdiction over this work and may be rejected based on criteria established.

B. Workers handling wastes identified in this Section must be informed by their employer of the proper handling and emergency procedures appropriate to the type(s) of waste to be handled.

C. All Work must be completed in accordance with the site-specific Health and Safety Plan to be developed by the Contractor as specified in Section 01350.

D. Contractor shall have on hand, spill prevention, containment, and response materials and equipment necessary to address spillage that may occur during the Work. Provide appropriate polyethylene sheeting to protect concrete floor and other surfaces from any spillage.

E. Prepare all waste transportation and disposal documents as required. Provide fully executed waste shipping and disposal documents as proof of disposal when available and before completion of the project.

PART 2 PRODUCTS

2.1 TRANSPORTATION AND STORAGE CONTAINERS AND LABELING

A. All waste storage/shipping containers must be closed, structurally sound, compatible with the contents of the waste, and must be capable of preventing leakage, spillage or damage that could cause leakage.

B. All waste containers must be labeled in accordance with local, State, and Federal requirements.

C. All waste storage/shipping containers and labeling must comply with applicable United States Department of Transportation (DOT), USEPA, Connecticut DOT regulations and other regulations of all affected states.

PART 3 EXECUTION

3.1 EXISTING CONDITIONS

A. The building is in dilapidated condition and has been condemned by the City of Meriden. All work shall be done in a safe manner and in accordance with the Health and Safety Plan, State and local requirements.

B. Remove and/or stabilize all hazards necessary to safely enter the building, prior to commencing work inside the building. Where hazards cannot be stabilized, selectively demolish parts of the structure to gain safe access.

3.2 BALLAST REMOVAL

A. Accessible light fixtures and electrical motors shall be disassembled and inspected by the contractor. All resulting lamps and electrical motor capacitors shall be immediately packaged for reclamation.

B. If ballasts or capacitors are found to be leaking, contaminated light fixtures, lenses and electrical motors shall be disposed of as PCB-contaminated materials.

C. All protective equipment (gloves, suits) and materials contaminated during any cleanup shall be disposed of as PCB- contaminated waste along with the ballasts and fixtures.

D. All Ballasts and fixture components shall be placed in DOT-approved barrels for subsequent transport immediately upon removal. Barrels will be labeled with the following yellow PCB caution label:

CAUTION
CONTAINS
PCBs
(Polychlorinated Biphenyls)
A toxic environmental contaminant
Requiring special handling and
Disposal in accordance with U.S.
Environmental Protection Agency
Regulations 40 CFR 761 - For
Disposal Information contact the
Nearest U.S. EPA Office.

In case of accident or spill, call toll
Free the U.S. Coast Guard National
Response Center:
800-424-8802

E. Separate ballasts, capacitors and fixture components into separate drums. Leaking ballasts and capacitors shall be separate from all other items.

F. Use new 17C 55-gallon open head steel drums that have been approved for transporting hazardous materials. Used or reconditioned drums may be used only if they have been properly cleaned, tested, and labeled.

G. Drums shall be prepared by placing one to three inches of absorbent material in the bottom of the drum.

H. Drums shall be packed so as to not exceed a total weight of 900 pounds. If proper handling equipment is not available, half fill the drums so that manual handling is possible.

I. Ballasts and contaminated light fixture components shall be transported to an approved Recycling/Incineration facility in accordance with any waste hauler special requirements. CTDEEP regulations prohibit disposal at landfills.

J. All drums and bulk items shall contain a material profile which includes the name, address, and telephone number of the waste generator; the date on which the materials were removed; a description of the materials, (i.e., discarded light ballasts); and the new DOT Shipping Description, (RQ, Polychlorinated Biphenyl, 9, UN2316, PGII).

K. Provide a Bill of Lading for reclamation; Connecticut Department of Environmental Protection (CTDEEP) Hazardous Waste Manifest; and/or federal Uniform Hazardous Waste Manifest, as appropriate with each shipment.

L. Drums and bulk items shall be transported by a Connecticut licensed hazardous waste hauler, unless leaking ballasts are involved, in which case a registered PCB hauler shall be utilized.

M. Drums and bulk items shall be transported from the work site immediately upon completion of removal and packing. No materials are to be stored at the site.

3.2 MERCURY VAPOR LAMP AND FIXTURE REMOVAL

A. Accessible light fixtures shall be disassembled and inspected by the contractor. All resulting lamps shall be immediately packaged for reclamation.

B. Carefully remove fluorescent lighting and place directly into boxes or barrels specifically designed for the transport of fluorescent lighting. Package lighting and ballast in accordance with the recycling facilities requirements. Broken glass and residual dust shall be HEPA vacuum and disposed of as Mercury contaminated materials.

3.3 BATTERIES AND FIRE EXTINGUISHERS

A. In accordance with State and Federal regulations, many batteries and fire extinguishers must be managed as hazardous wastes when disposed. These include, but are not limited to, all types of fire extinguishers, lead acid batteries, nickel cadmium batteries, lithium batteries, and older alkaline batteries containing mercury. The following protocol shall be followed for the disposal of all such fire extinguishers and batteries:

1. Collection, characterization, and proper disposal of all fire extinguishers and batteries found throughout the facility.

2. Provide waste shipment documentation or recycling records and incorporate in the final report.

3.4 MANIFESTING AND TRANSPORTING PCB MATERIALS

A. All drums and bulk items shall contain a material profile which includes the name, address, and telephone number of the waste generator; the date on which the materials were removed; a description of the materials, (i.e., discarded light ballasts); and the new DOT Shipping Description, (RQ, Polychlorinated Biphenyl, 9, UN2316, PGII).

B. Provide a Bill of Lading for reclamation; Connecticut Department of Environmental Protection (CTDEEP) Hazardous Waste Manifest; and/or federal Uniform Hazardous Waste Manifest, as appropriate with each shipment.

C. Drums and bulk items shall be transported by a licensed hazardous waste hauler, unless leaking ballasts are involved, in which case a registered PCB hauler shall be utilized.

D. Drums and bulk items shall be transported from the work site immediately upon completion of removal and packing. No materials are to be stored at the site.

3.5 PCB MATERIAL INCINERATION

A. Ballasts and contaminated light fixture components shall be transported to an approved Recycling/Incineration facility in accordance with any waste hauler special requirements. CTDEEP regulations prohibit disposal at landfills.

B. Provide waste shipment records and waste manifests confirming the proper handling of PCB-containing light ballast, PCB-contaminated light fixture components and Mercury vapor lighting.

3.6 FINAL CLEANING

A. Waste removal and Demolition activities shall be conducted in a manner that prevents tracking of contaminated materials and debris to areas outside the immediate work zone. Cleaning of building slabs and ground surfaces will be required prior to operating heavy equipment on top of building slabs or ground surfaces where hazardous or PCB containing materials are identified or observed.

B. Upon completion of the removal of hazardous or PCB containing material in any given work area, cleaning will be performed by the Contractor. In general, cleaning shall be performed at the end of each workday to prevent the migration of dusts or debris to areas beyond the work limits.

C. A thorough final cleaning shall be performed on all remaining building slabs and ground surfaces using HEPA filter-equipped vacuums or other approved vacuum equipment. Wet cleaning methods shall also be used for final cleaning of building slabs. Contractor shall clean all remaining building slabs and ground surfaces until all visual signs of contamination are removed including debris, staining, and oil sheens to the satisfaction of the Engineer.

D. Any water used for final cleaning shall be containerized, managed, and disposed by the Contractor as required by law. Decontamination water may also need to be disposed of as PCB Remediation waste greater than 50 ppm depending on its source. Disposal of such wastewater shall be included in Contractor’s base bid line items and no separate pay item will be authorized.

E. Final cleaning includes removal of any contaminated material, equipment or debris (including polyethylene sheeting) from the work area and removal of all visible dusts located on surfaces. All collected polyethylene sheeting, personal protection equipment, or other disposable equipment or materials in contact with hazardous and/or PCB containing waste shall be packaged for disposal as a hazardous and/or PCB waste.

F. Special attention shall be given to personal hygiene and cleaning of supplies and/or equipment.

3.7 CLOSEOUT DOCUMENTS

A. Submit to the Owner/ Engineer, final completed copies of the waste manifests or bills of lading signed by all transporters and the designated disposal site owner/operator.

B. Submit to the Engineer copies of all Contractor's logs and all worker certifications.

C. Submit to the Engineer copies of all OSHA personal air monitoring results.

D. Final payment will be withheld until receipt of all the above documentations to Owner’s/ Engineer’s satisfaction.

TABLE 1 – LIST OF HAZARDOUS BUILDING WASTES					
Material	**Waste Type**	**Container Type & Size**	**Quantity**	**Location**	**Comments**
Fluorescent Light Bulbs	Mercury Vapor	2'- 8' Glass Tubes	980 EA	Interior of Building	
Fluorescent Light Ballasts	PCBs or DEHP	Metal	225 EA		Presumed PCBs or DEHP

EA = Each
CO_2 = Carbon Dioxide
PCB = Polychlorinated biphenyl
DEHP = Diethylhexl Phthalate
N/A = Not Applicable

END OF SECTION

SECTION 13284

PCB-CONTAMINATED BUILDING MATERIALS ABATEMENT

PART 1 GENERAL

1.1 SUMMARY

A. This Section establishes requirements for the removal, segregation, management, and disposal of Polychlorinated Biphenyl (PCB)-containing building materials.

B. The intent of this Section is to identify applicable regulations the Contractor must comply with to perform abatement and demolition activities for this project related to PCB-containing building materials including, but not limited to, the following:

1. Health and safety procedures
2. Worker training
3. Abatement, demolition, and removal procedures
4. Disposal requirements

C. The Contractor is solely responsible for health and safety procedures related to their work.

D. This Section specifies requirements for the removal, management, and disposal of the following PCB-containing wastes:

1. CTDEEP Regulated PCB Waste (>1 ppm, but <50 ppm PCBs)

E. This Section specifies requirements for the abatement and management of PCB-contaminated building materials.

F. Certain building materials slated for demolition also contain asbestos $>1\%$. The Contractor must follow the requirements of Section 13281 – Asbestos Abatement for proper removal and disposal of asbestos-containing materials in addition to those requirements listed in this Section.

G. Certain building materials slated for demolition are also coated with lead-based or lead containing paint. The Contractor must follow the requirements of Section 13282 – Lead-Based Paint Management for proper removal and disposal of lead containing materials in addition to those requirements listed in this Section.

1.2 RELATED DOCUMENTATION

A. Related Sections

1. Section 01350, Health & Safety Plan
2. Section 02222, Building Demolition
3. Section 13281, Asbestos Abatement
4. Section 13282, Lead Paint Awareness
5. Section 13283, Hazardous Materials Management

B. Related Drawings

1. HBM-101 Demolition and Abatement Plan – First Floor
2. HBM-102 Demolition and Abatement Plan – Second Floor
3. HBM-103 Demolition and Abatement Plan - Third Floor
4. HBM-104 Demolition and Abatement Plan – Fourth Floor

C. Related Documents listed below are included as Appendix B to Section 13281 or elsewhere in the Bid Package. These documents are not part of the Contract Documents, but the Technical Data contained therein on which the Contractor may rely is limited to laboratory analytical reports. Contractor is not entitled to rely upon any other information and data known to or identified by Owner or Engineer.

1. Hazardous Materials Survey Report, December 2011, Fuss & O'Neill.
2. Hazardous Building Materials Assessment Report, November 2015, Tighe & Bond, Inc.
3. Hazardous Building Materials Abatement Monitoring Report, May 2017, Tighe & Bond, Inc.
4. Alternative Work Practice (AWP) Application

1.3 DESCRIPTION OF WORK

A. In general, the following work involving PCB-contaminated building materials is anticipated during this Project:

1. Structure demolition includes multiple types of paints and caulks as PCB-contaminated building materials. The buildings are anticipated to be demolished, handled, and disposed of as mixed friable Asbestos / CTDEEP Regulated PCB Waste.
2. If dust-generating operations are performed by grinding, cutting, media-blasting, etc., negative pressure polyethylene sheeting containments will be required.
3. Wastes, personal protective equipment (PPE), liquids, etc. generated as a part of the PCB remediation must be disposed as PCB Remediation Waste. Liquid wastes must be separated and stored in leak-tight containers (e.g., 55-gallon steel drums). All waste generated during PCB abatement must be labeled in accordance with Title 40 CFR, Part 761.

B. PCB-Contaminated Building Materials Abatement work must include, but not be limited to, the materials identified in Table 13284 located at the end of this Section.

1. The quantities in Table 13284 are provided to establish the order of magnitude of the abatement project. Actual quantities may vary.

2. It is the sole responsibility of the Contractor to visit the site, review the Contract Documents and determine the quantities of materials to be removed when developing their Bid.

C. Contractor must mitigate dust-generating activities in accordance with the requirements of this Section, Section 02222 Building Demolition, and Section 13281 Asbestos Abatement.

D. As further detailed in this Section, no sampling and/or analysis by the Contractor or affiliates of the Contractor (subcontractors, subconsultants, etc.) for total PCBs may be performed at any point during the performance of the work, except as specifically authorized in writing by the Owner and the Engineer.

1. The Contractor may collect representative samples of the waste stream if needed for PCB analysis via the Toxicity Characteristic Leaching Procedure (TCLP) for waste disposal purposes only.

2. The Contractor is responsible for selecting disposal and recycling facilities that can accept PCB wastes without total PCB analysis other than such data that is included with the Contract Documents.

3. If the Contractor or affiliates of the Contractor (subcontractors, subconsultants, etc.) take unauthorized samples and analyze them for total PCBs, then the contractor will be responsible for the cost of any resulting removal required under state and federal regulations triggered by their sampling and analysis.

4. The Owner and the Engineer must specifically review and approve in writing a proposed PCB sampling and analysis plan prior to samples being submitted for laboratory analysis.

E. In general, the following activities are minimum requirements of this Section and affect the demolition performed on building components identified to contain PCBs:

1. No torch cutting of PCB-contaminated building materials may be performed.

2. No demolition activities may occur that can reasonably be expected to increase the worker's exposure above the Permissible Exposure Limits (PEL) for PCBs unless certain worker protection is implemented.

3. Workers must be informed of the PCB-contaminated building materials to be removed.

4. At a minimum, worker protection must comply with applicable Occupational Safety and Health Administration (OSHA) standards. Worker Right to Know and Health and Safety Standards of Title 29 CFR, Part 1926 must also apply to the work of this Section.

5. Unprotected, untrained workers or trades must not perform any related work within or adjacent to work areas involving PCB-contaminated building materials.

1.4 SUBMITTALS

A. Prior to the start of the work, prepare and submit the following items. Do not commence work activities until submittals are approved.

1. Work schedule two weeks prior to commencement of work.

2. Written Contractor Work Plan that summarizes the Contactor's means and methods related to the demolition, containment, management, and disposal of PCB-contaminated building materials and wastes.

    a. The Work Plan must include management and disposal of CTDEEP Regulated PCB Waste, Mixed Friable Asbestos, and Solid / Liquid PCB Remediation Waste.

    b. The Work Plan must include information on how and where wastes will be stored, marked, and disposed of, and how field equipment will be decontaminated.

    c. A description of the waste load-out process and route to disposal containers must also be included.

    d. The plan must also address PPE, worker health and safety training, and decontamination procedures.

    e. The Work Plan must include type of materials, equipment, machines, vehicles, etc. anticipated to be used during demolition and/or segregation and general summary of the processes.

    f. Copies of PCB awareness training for all workers and supervisors involved with PCB-containing building materials removal. Awareness training must cover the following at a minimum:

        1) Dangers inherent in handling PCBs and proper work procedures, worker protective measures, dust suppression methods, waste containerization, and disposal requirements.

    g. The Contractor Work Plan must be reviewed and accepted by the Engineer.

        1) Review of Contractor's Work Plan does not constitute approval of any specified means, methods and health and safety measures to be implemented.

        2) The review will be for general compliance with this specification and associated applicable State and Federal PCB regulations.

3. Certification signed by the Contractor stating that the Contractor will comply with all State of Connecticut and Toxic Substances Control Act (TSCA) requirements for PCB removal and disposal.

4. Pertinent information relating to the transportation and disposal of PCB-containing materials.

    a. This includes names of transporters and disposal facilities to be used including proof of permit, license, or authorization to transport and dispose of PCB-containing materials in all affected states.

    b. The Contractor must include information related to disposal facilities' ability to accept waste containing PCBs and other contaminants known to be part of the waste stream.

c. The Contractor must provide the Engineer draft copies of all waste profiles and manifests for review prior to Owner / disposal facility signature.

B. Contract Closeout Submittals (throughout project and prior to authorization of final payment):

1. Records of the amounts of waste generated, by waste type.

2. Evidence of lawful disposal of all PCB wastes generated.

1.5 REGULATORY REQUIREMENTS

A. CGS 22a-463 through 22a-469 as it relates to the generation, staging, labeling, removal, and off-site management of PCB Waste.

B. Title 40 CFR Part 761 also known as TSCA, as it pertains to PCB-contaminated materials remediation, waste disposal, and all other management requirements included within the regulations.

C. Contractor is solely responsible for obtaining permits or approvals which may be required to perform the work of this Section, including all costs, fees and taxes required or levied.

D. Comply with all applicable federal, state, and local environmental, safety and health requirements regarding the demolition of structures and other site features and recycling or disposal of demolition debris, as applicable.

E. All workers involved with PCB-containing building materials removal activities must have attended a PCB awareness class.

1.6 DEFINITIONS

A. ABATEMENT - Procedures to control dust/debris release from PCB-contaminated materials; includes removal, encapsulation, and enclosure.

B. AUTHORIZED VISITOR - Any person authorized by the Owner to enter the building and/or Site.

C. BUILDING OWNER - For this Contract only, the building Owner is the City of Meriden, Connecticut.

D. COMPETENT PERSON - A representative of the Contractor who can identify a PCB hazard and who has the authority to take prompt corrective measures to eliminate the hazard during PCB removal.

E. DECONTAMINATION ENCLOSURE SYSTEM - A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.

F. ENGINEER – Third Party Engineering/Environmental Consultant.

G. EPA – U.S. Environmental Protection Agency.

H. EXCLUDED PCB PRODUCTS - Materials that contain PCB concentrations less than 50 ppm as further defined in TSCA.

I. FACILITY - Any private or public building or structure including but not limited to those used for institutional, residential (including single family homes), commercial or industrial purposes and vessels while ashore or in dry-dock.

J. HAZARDOUS WASTE MANIFEST - a form required by EPA and the Department of Transportation for all generators who transport, or offer for transport, hazardous waste for off-site treatment, recycling, storage, or disposal.

K. HEPA FILTER - A high efficiency particulate air (HEPA) filter in compliance with ANSI Z9.2.

L. HEPA VACUUM EQUIPMENT - Vacuum equipment with a HEPA filter system for filtering the effluent air from the unit.

M. NEGATIVE AIR FILTRATION EQUIPMENT - A portable local exhaust system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas) and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.

N. OWNER'S REPRESENTATIVE -The PCB Consultant/Engineer for the project.

O. PCB ABATEMENT WORKER - Any employee of a Contractor who engages in PCB abatement.

P. PCB CONTROL AREA - An area where PCB abatement operations are performed which is isolated by physical boundaries to prevent the spread of PCB dust or debris.

Q. PLASTICIZE - To cover floors and walls with plastic sheeting as specified herein.

R. POLYCHLORINATED BIPHENYLS (PCBS) - Any of several compounds that are produced by replacing hydrogen atoms in biphenyl with chlorine, which have various industrial applications, and are toxic environmental pollutants which tend to accumulate in animal tissues. Probable human carcinogen per U.S. EPA.

S. WET CLEANING - The process of reducing PCB contamination from building surfaces and objects by using cloths, mops, or other cleaning tools, which have been dampened by amended water or other cleaning fluids, and by then disposing of these cleaning items as PCB-contaminated waste.

T. WORK AREA - Designated rooms, spaces, or areas of the project in which PCB abatement actions are occurring and which may become contaminated as a result of such abatement actions. The work area must be totally self-contained by sealing, plasticizing, and equipping the area with a decontamination enclosure system.

U. WORK STOPPAGE CLEANUP PROCEDURE - A process following the issuance of a written stop work order, whereby the Contractor thoroughly cleans and decontaminates the work area, the decontamination enclosure system, and any other areas of the building affected by the removal project, to the satisfaction of the Engineer.

V. WORK ZONE - The area of the decontamination enclosure system where PCB-contaminated items are being removed.

Additional terms used in this Section are defined in Title 40 CFR Part 761 also known as TSCA. Contractor is responsible for familiarizing themselves with the content of and terms defined in Title 40 CFR Part 761 prior to submitting bids for this project.

PART 2 PRODUCTS

2.1 ABATEMENT PRODUCTS

A. All materials must be delivered in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name.

B. Disposal Drums: Metal or fiberboard with locking ring tops with warning labels as required by Department of Transportation (DOT), OSHA and/or Environmental Protection Agency (EPA).

C. Respirators:

1. Type: Approved by the Mine Safety and Health Administration (MSHA), Department of Labor, or the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services.

D. Vacuum Cleaners:

1. Type: Vacuums equipped with HEPA filters.

E. Polyethylene Sheeting:

1. Type: Minimum 6-mil, opaque, fire-retardant polyethylene sheets.

2. Floor Protective Layer (when applicable): Minimum 10-mil, reinforced polyethylene sheets.

F. Cleaning Products:

1. All such products must be utilized in accordance with the manufacturer's specifications as intended. Contractor must ensure appropriate use and disposal associated with use in accordance with the SDS sheets for each product utilized.

2. It is incumbent upon the Contractor to determine the need for use of specialty products to meet required cleaning verification levels established herein and in accordance with the Work Plan.

G. HEPA-Filtered Exhausts

1. Air inside negative pressure enclosures must be exhausted through a High Efficiency Particulate Air (HEPA) filter.

2. Commercially manufactured HEPA-filtered exhaust units, with specification plates intact, must be provided for each work area to attain, at a minimum, four air volume changes per hour and an inward flow of clean air into each work area at the Decontamination Facility of at least 100 feet per minute.

3. The HEPA filter must be preceded by replaceable pre-filters and the unit must be designed so that it cannot be operated unless all filters are in place.

4. The purpose of the containment system is to capture fugitive particulate while removing PCB-contaminated items using mechanical means and/or methods which generate potential PCB-contaminated dust.

H. Warning Signs

1. Warning signs must be in English and the language of any workers onsite who do not speak English, and be of sufficient size to be clearly legible and display the following or similar language in accordance with Title 29 CFR, Part 1910.1200:

WARNING
HAZARDOUS WASTE WORK AREA
PCBs-POISON
NO SMOKING, EATING OR DRINKING
AUTHORIZED PERSONNEL ONLY
PROTECTIVE CLOTHING IS REQUIRED IN THIS AREA

2.2 PERSONNEL PROTECTION

A. Safety equipment as specified in the Contractor's Health and Safety Plan (e.g., hard hats meeting the requirements of ANSI Standard Z89.1, eye protection meeting the requirements of ANSI Standard Z87.1, safety shoes meeting the requirements of ASTM Standard F2412/F2413, disposable PVC gloves or other work gloves), must be provided to all workers and authorized visitors.

B. Non-skid footwear must be provided to all abatement workers. Disposable clothing must be adequately sealed to the footwear to prevent body contamination.

C. If containments are necessary with dust-generating operations, the contactor must include the following products:

1. Plastic Sheeting ("Poly") - must be polyethylene or equivalent with two layers with a thickness of at least 6-mil for all applications.

2. Tape and Glue – Must be capable of sealing plastic joints and attaching plastic to finished surfaces. The bonding strength and resulting seal integrity must not be affected by mist or water, wetting agent, or any other materials to be used in the work area.

PART 3 EXECUTION

3.1 PROJECT MEETINGS

A. Pre-Construction Meeting

1. At least one week prior to the start of work a Pre-Construction Meeting will be scheduled and must be attended by the Contractor and any Sub-Contractors.

2. The assigned Contractor Site Supervisor is also required to attend this meeting.

3. The Contractor must present a detailed project schedule, work plan, and project submittals at the Pre-Construction Meeting.

4. Variations, amendments, and corrections to the presented schedule will be discussed and the Owner and Engineer will inform the Contractor of any scheduling adjustments for this project.

5. Following the Pre-Construction Meeting, the Contractor must submit a revised schedule (if needed) no later than one week after the meeting.

3.2 WORK AREAS AND ZONES

A. The Contractor must lay-out and clearly identify work areas in the field. Access by equipment, site personnel, and the public to the work areas must be limited as follows:

1. Abatement Zone:

a. The Abatement Zone(s) must consist of all exterior areas where removal of PCBs and other Hazardous Substances and waste handling and staging activities are on-going and the immediately surrounding locale or other areas where contamination could occur.

b. The Abatement Zone for purposes of exterior removal of PCB materials or other Hazardous Substances for disposal must be performed within a regulated area (refer to section 3.6) to identify work areas from non-work areas.

c. The work area must be visibly delineated with appropriate warning signs at all approaches to the Abatement Zone (including a PCB M_L marker) and be restricted from access by all persons except those directly necessary for the completion of the respective abatement tasks.

d. The Abatement Zone must be located and delineated as necessary to limit access to the abatement area and to minimize risk of exposure to site workers and the general public.

e. Access must be controlled at the periphery of the Abatement Zone to regulate the flow of personnel and equipment into and out of the zone and to help verify that proper procedures for entering and exiting are followed.

f. All persons within the Abatement Zone must wear the appropriate level of protection established in the health and safety plan (HASP) required in Section 01350.

2. Decontamination Zone:

a. The Decontamination Zone is the transition zone between the abatement area and the clean support zone of the project site and is intended to reduce the potential for contaminants from being dispersed from the Abatement Zone to clean areas of the site.

b. The Decontamination Zone must consist of a buffer area surrounding the Abatement Zone through which the transfer of equipment, materials, personnel and containerized waste products will occur and in which decontamination of equipment, personnel, and clothing will occur.

c. The Decontamination Zones must be constructed as a remote three chamber decontamination unit for workers and a decontamination area for large equipment and trucks as detailed in Section 3.8.

d. All emergency response and first aid equipment must be readily maintained in this Zone.

e. All protective equipment and clothing must be removed or decontaminated in the Decontamination Zone prior to exiting the Support Zone.

3. Support Zone:

a. The Support Zone will consist of the area outside the Decontamination Zone and the remainder of the project site.

B. Administrative and other support functions and any activities that by nature need not be conducted in the Abatement or Decontamination Zone related to the project must occur in the Support Zone, Access to the Abatement and Decontamination Zones must be controlled by the Health and Safety Officer and limited to those persons necessary to complete the abatement work and which have reviewed and signed the HASP.

3.3 ABATEMENT, DEMOLITION, AND REMOVAL METHODS REQUIREMENTS

A. Abatement and demolition activities must be conducted in a manner that prevents the release of potential PCB-contaminated dusts to areas outside the immediate work zone.

1. Mechanical means and/or methods for abatement which generate potential PCB-contaminated dust must be conducted within negative pressure enclosures.

2. The sole use of guards and/or HEPA-vacuums on mechanical equipment is not sufficient.

3. All demolition activities must be completed using means and methods which minimize dust generation, including but not limited to the use of water misting, controlled wrecking and materials management, routine cleaning of ground surfaces, etc. Dust control required during demolition is further specified in Section 02222 Building Demolition.

B. Non-PCB contaminated demolition debris (if any) must be segregated from PCB-contaminated demolition debris and disposed of in accordance with this Section.

1. Additional disposal costs resulting from cross-contamination of these materials caused by Contractor mismanagement will be the responsibility of the Contractor.

C. Feasible engineering controls (i.e., misters, ventilation with HEPA filtration) must be implemented by the Contractor to minimize the possibility of contamination of areas adjacent to the work area.

D. Workers must be informed of the building components to be removed that have been identified as containing PCBs and must implement appropriate personal protection (respiratory, dermal, etc.)

E. All proposed demolition and removal methods must be included in the Contractor Work Plan.

3.4 WORKER PROTECTION

A. The Contractor is solely responsible for the health and safety of workers employed by the Contractor, any subcontractor and anyone directly or indirectly employed by any of them. The Engineer is not responsible for health and safety procedures related to the Contractors work.

B. The Contractor must be responsible for ensuring OSHA compliance for all personnel working with PCB items, including providing appropriate PPE and training to use such protective equipment.

C. During demolition activities, Contractor must ensure that workers are not exposed to any listed contaminant in excess of the PEL. If exposure cannot be reduced to or below the PEL using engineering controls or revised work practices, the Contractor must provide the appropriate level of PPE including, but not limited to, respiratory and dermal protection.

D. Contractor personnel involved in the removal or disturbance of PCB-contaminated building materials must be advised of all hazards associated with the work.

E. Contractor is advised that certain PCB building materials may also contain lead, asbestos, and/or other contaminants.

F. PPE must be worn in areas where any disturbance of PCB materials is performed. This includes but is not limited to removal and cleaning.

G. Marking of PCB work areas and PCB storage areas must be in accordance with 40 CFR 761 and CGS 22a-463 through 22a-469.

3.5 WORKER HYGIENE PRACTICES

A. Work Area Entry

1. Workers must don PPE prior to entering work area, including respiratory protection, disposable coveralls, gloves, headgear, and footwear.

B. Work Area Departure

1. While leaving respirators on, workers must remove all gross contamination, debris, and dust from disposable coveralls and proceed to change room and remove coveralls and footwear and place in hazardous waste disposal container.

C. Hand washing Facilities

1. All workers must wash their hands and faces upon leaving the work area.

D. Equipment

1. All equipment used by workers inside the work area must be wet wiped or bagged for later decontamination before removal from the work area.

E. Prohibited Activities

1. Under no circumstances shall workers eat, drink, smoke, chew gum, or tobacco, or remove their respirators in the work area.

F. Shock Hazards

1. The Contractor is responsible for using safe procedures to avoid electrical hazards. All temporary electrical wiring will be protected by ground fault circuit interrupters (GFCI).

3.6 GENERAL WORK AREA PREPARATION

A. A Competent Person must be on the job at all times to ensure the establishment of proper separation of the work area from non-work areas, and proper work practices are followed through project completion.

B. Where necessary, shut down electrical power. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All installations are to be made by a Connecticut licensed electrician.

C. Shut down and/or isolate heating, cooling, and ventilation air systems or zones to prevent contamination and fiber dispersal to other areas of the structure. During the work, vents around the work area must be sealed with duct tape and polyethylene sheeting.

D. Install and secure ground cover in place consisting of one layer of 6-mil re-enforced poly covered with ¾ inch plywood, extending out a minimum of 15 feet from the building perimeter.

E. Install yellow caution tape at the perimeter of the ground protection to establish the limit of the work area.

3.7 WORK AREA PREPARATION FOR NEGATIVE PRESSURE ENCLOSURES (IF REQUIRED)

A. Negative pressure enclosures must be utilized by the Contractor during removal means and/or methods other than demolition which generate potential PCB-contaminated dust.

1. Negative pressure enclosures must be utilized during all removal activities involving mechanical equipment whether equipment is equipped with HEPA-vacuums or not.

B. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All temporary installations are to be made by a licensed electrician, installed outside work areas, and permitted as required.

C. Seal off all openings, including but not limited to windows, corridors, doorways, skylights, ducts, grills, diffuser, and any other penetration of the work areas, with polyethylene sheeting minimum of 6-mil thick sealed with duct tape. This includes doorways and corridors which will not be used for passage during work areas and occupied areas. Install five-micron water filtration socks in all floor drains prior to sealing.

D. Install two layers of 6-mil polyethylene wall sheeting over all wall surfaces where work will not occur and critical barriers. All overlaps must be sealed with tape or spray adhesive.

E. Cover all floors in the work area with two layers of 6-mil polyethylene sheeting.

1. Extend the polyethylene flooring a minimum of 12 inches up the walls. Ensure that the wall sheeting overlaps the floor sheeting from the top.

F. Where containments extend above suspended or fixed ceilings, remove the ceiling as necessary to perform installation of isolation barriers and wall sheeting above ceiling. Wall sheeting must extend to the top of each wall in ceiling plenum areas.

G. Maintain emergency and fire exits from the work area or establish alternative exits satisfactory to fire officials.

H. Create pressure differential between work areas and non-work areas by the use of acceptable negative air pressure equipment.

1. Negative air pressure must be obtained throughout the containment and the total volume of air within the work area must be changed every 15 minutes.

2. Install one or more portable HEPA-filtered exhausts to maintain negative air pressure to each individual work where containment procedures are utilized.

3. The exhaust(s) must be capable of providing at least an inward velocity through any unsealed openings of at least 100 fpm, and four full air changes per hour throughout the work area.

4. All exhaust air must pass through a HEPA-filter before being discharged outside the building.

5. The exhaust system must be operated constantly during active disturbance of PCB-containing materials.

I. Post all approaches to each work area with warning signs. Warning signs must be of size and type that are easily readable and are visible from all approaches to the work areas and adhere to regulatory requirements.

J. Establish a work area access control log at the entrance to each work area. Authorized personnel entering the work area must sign in upon entering the area and sign out upon exiting the area.

K. Establish airless spray equipment within each work area. Airless spray equipment must be capable of reaching all areas within each work area.

3.8 DECONTAMINATION SYSTEM

A. Worker Decontamination

1. The Contractor must establish on-site, a decontamination enclosure consisting of equipment room, shower room, and clean room in series. Decontamination unit must be contiguous to the work area for negative pressure enclosure work procedures. Component removal work areas must have a minimum wash station (contiguous or remote).

2. Access between rooms in the decontamination system must be through double flap-curtained openings. The clean room, shower and equipment rooms within the decontamination enclosure must be completely sealed.

3. Construct the decontamination system with plastic, wood, or metal framing and cover both sides with a double layer of 6-mil poly, completely sealed with spray adhesive and tape at the joints.

4. The Contractor and the Engineer must visually inspect barriers routinely to assure effective seal; the Contractor must repair defects immediately.

B. Equipment Decontamination

1. The Contractor must establish on-site, a decontamination area large enough to decontaminate large equipment, such as excavators, trucks, etc., consisting of rubber membrane sheeting.

2. The edges of the membrane must be constructed to stop liquid migration.

3.9 GENERAL WORK PROCEDURES

A. The Contractor's Site Supervisor, as the OSHA Competent Person must be at the site at all times during the performance of the work.

B. All workers and authorized persons must enter and leave the work area through remote decontamination unit, leaving contaminated protective clothing in the airlock for disposal as PCB Remediation Waste.

C. The Contractor must employ methods to remove PCB-contaminated materials in a manner which minimizes the generation of dust and spread of PCB contamination.

D. Mechanical cutting or grinding of PCB materials is not permitted unless the equipment has factory-equipped HEPA filtered exhaust and is done in a negative pressure enclosure with HEPA filtration exhaust.

E. In order to minimize the PCB concentrations inside the work area, the Contractor must remove the materials in manageable sections. In addition, PCB materials removed from any elevated level must be carefully lowered to the floor.

F. Paint removal using paint stripper must be done using alkaline-based paint removing products. No methylene chloride products are allowed.

G. The Contractor must properly decontaminate scaffolding, ladders, extension cords, hoses, and other equipment inside the work area via DOUBLE WASH/RINSE METHOD and HEPA vacuuming.

H. Excavators, trucks, and other construction vehicles must be washed down within the decontamination area constructed by the Contractor.

I. The Contractor must remove and containerize all visible accumulations of PCB Waste and/or PCB-contaminated debris from within the work areas.

J. Remove and dispose of any suspect materials observed on the ground.

3.10 PCB REMOVAL PROCEDURES – PAINTED COMPONENT REMOVAL

A. The Contractor's Site Supervisor, as the OSHA Competent Person must be at the site at all times during the performance of the abatement work.

B. Painted metal components to be impacted by the project must be handled as CTDEEP Regulated PCB materials.

C. The Contractor must remove all metal equipment and components as PCB materials with concentrations $<$ 50 ppm and transport for scrap / recycling at an approved facility legally capable of receiving and managing painted metal components with PCB concentrations $<$50 ppm.

D. The Contractor must employ methods to remove PCB-contaminated wastes in a manner which minimizes the generation of dust and spread of PCB contamination to the ground surface. The Contractor is responsible for all costs associated with decontamination and remediation in the case of improper handling, reckless demolition activities, or general mismanagement of PCB-containing material.

E. Mechanical cutting or grinding of PCB materials is not permitted unless the equipment has factory-equipped HEPA filtered exhaust and is done in a negative air enclosure with HEPA filtration exhaust.

F. All identified non-porous PCB coated materials (i.e., metal) must be scrapped / recycled in accordance with state and federal regulations.

3.11 PCB REMOVAL PROCEDURES – PAINTED POROUS SURFACES

A. PCB painted porous surfaces to be removed are listed in Table 13284. PCB-contaminated painted porous surfaces to be removed include paint on brick walls, concrete floors/walls/ceilings, gypsum board walls, plaster walls, and CMU walls.

B. Painted porous surfaces that contain PCBs and will be impacted by the Project are to be removed and disposed of as CTDEEP Regulated PCB Waste.

C. The Contractor must remove and dispose of the entire substrate system with the paint attached if the component is scheduled for demolition and remove all paint if the component is scheduled to remain.

D. Due to its dilapidated condition, it is anticipated that the entire structure will be demolished including the concrete slab, foundation components, basement walls and floors, and crawlspaces. All demolition waste must be removed and disposed of as mixed friable asbestos and CT DEEP Regulated PCB <50 parts per million (ppm) Waste in accordance with the CTDPH AWP. See Section 13281 Asbestos Abatement for additional information on demolition/disposal procedures.

3.12 DUST CONTROL

A. See Section 02220 – Demolition for required dust control measures and sampling provided by Engineer.

3.13 DOUBLE WASH/RINSE CLEANING METHOD

A. The Double Wash/Rinse Cleaning Method is defined in Part 40 CFR 761 Subpart S. The method described below provides a summary of the procedure. Contractor is responsible for ensuring that all decontamination procedures are completed in accordance with Part 40 CFR 761 Subpart S.

B. First wash. Cover the entire surface with CAPSUR C/S®, an aqueous based solvent system developed specifically for the extraction of PCBs from solid surfaces, follow all manufacturer's instructions for product use. Contain and collect any runoff solvent for disposal. Scrub rough surfaces with a scrub brush or disposable scrubbing pad and solvent such that each 900 cm^2 (1 square foot) of the surface is consistently wet for 1 minute. Wipe smooth surfaces with a solvent-soaked, disposable absorbent pad such that each 900 cm^2 (1 square foot) is wiped for 1 minute. Any surface <1 square foot must also be wiped for 1 minute. Wipe, mop, and/or sorb the solvent using absorbent material until no visible traces of the solvent remain.

C. First rinse. Wet the surface with clean rinse solvent such that the entire surface is consistently wet for 1 minute. Drain and contain the solvent from the surface. Wipe the residual solvent off the drained surface using a clean, disposable, absorbent pad until no liquid is visible on the surface.

D. Second wash. Repeat the procedures in paragraph (B) of this section. The rinse solvent from the first rinse paragraph (C) of this section may be used.

E. Second rinse. Repeat the procedures in paragraph (C) of this section.

3.14 CLEANING PROCEDURES

A. After removal of PCB-contaminated building material in any given work area, cleaning will be performed by the Contractor.

1. Cleaning must also be performed at the end of each workday to prevent the migration of dust or debris to areas beyond work limits.

B. A thorough final cleaning must be performed on all surfaces using the cleaning method described in this Section and HEPA filter-equipped vacuums.

C. Exterior ground surfaces in demolition work areas must be cleaned at the end of each day using wet sweeping or other non-dust generating cleaning procedures.

D. Final cleaning includes removal of any contaminated material, equipment, or debris (including polyethylene sheeting) from the work area and removal of all visible dusts on surfaces. All polyethylene sheeting must be packaged for disposal as a PCB Remediation Waste.

E. Special attention must be given to personal hygiene and cleaning of supplies and/or equipment.

3.15 DECONTAMINATION OF TOOLS AND EQUIPMENT

A. The Contractor must construct and maintain an equipment and vehicle decontamination station in a location acceptable to the Engineer. All equipment, vehicles / tires, and tools must be decontaminated within the decontamination station prior to leaving the project site.

B. The initial decontamination step must include dry removal of accumulated debris and dust, and collection and disposal of residuals generated during the dry removal process. Wet removal via pressure washers or hoses must not be implemented unless the dry removal process yields unacceptable results.

C. The Contractor must decontaminate all equipment (excavators, grapples, shears, etc.), vehicles / tires, and tools that have been in contact with PCB-contaminated building materials and debris in accordance with Title 40 CFR Part 761.79(c)(2)(i), by swabbing non-porous surfaces with a non-chlorinated organic solvent or use of the Double Wash/Rinse procedure.

D. Swabbing materials and tools used in the dry removal process (brooms, brushes, etc.) must be disposed as a solid PCB Remediation Waste.

E. Liquid wastes associated with PCB removal and/or decontamination must be disposed of as a liquid PCB Remediation Waste.

F. Contractor must properly containerize, label, and store all wastes generated during the decontamination process in a location acceptable to the Engineer.

3.16 ONSITE MANAGEMENT OF PCB WASTES

A. All solid waste material, used PPE, and other solid wastes generated during the work, must be placed directly in appropriate waste receptacles immediately upon removal from its in-situ position. Suitable waste receptacles may consist of roll-off containers or DOT-approved 55-gallon drums. PCB contaminated demolition debris may be stockpiled and then loaded into trucks.

B. The Contractor is responsible for all packaging, labeling, transport, disposal, and recordkeeping associated with mixed asbestos / CTDEEP Regulated PCB Waste, and PCB Remediation Waste, in accordance with all federal, state, and local regulations.

C. Roll-off containers and truck beds used to contain/haul PCB waste must comply with the following requirements:

1. All roll-off containers or other similar vessels utilized must be watertight and lined with 6-mil poly or equivalent impermeable lining and equipped with a secured and impermeable cover.

2. The impermeable cover must remain securely in place at all times when material is not being actively placed in the vessels. The Contractor must be responsible for ensuring that the cover remains securely intact until the container is removed from the Site.

D. 55-gallon drums utilized for waste containerization must be DOT-approved, watertight, and free of corrosion, perforations, punctures, or other damage. All drums must be securely covered and sealed at the conclusion of each workday.

E. The waste containers must remain staged at the site with a secure impermeable cover in-place until the materials are transported from the site to be delivered to the designated waste disposal facility.

F. Waste roll-off and barrel staging area must be designated prior to initiation of the abatement work and approved by the Engineer.

G. Non-liquid cleaning materials, PPE and similar materials resulting from decontamination are to be disposed of in accordance with TSCA requirements.

H. PCB-contaminated liquids generated during decontamination must be decontaminated in accordance with TSCA requirements.

I. All such materials must be collected, packaged, and labeled by the Contractor for off-site disposal as PCB Waste under a waste manifest and/or bill of lading.

J. The following materials must be collected, packaged, and labeled by the Contractor for off-site disposal as PCB Remediation Waste.

1. HEPA-vacuum bags and filters containing PCB dusts/debris.

2. Respirator cartridges, scrapers, tarpaulins, suits, polyethylene sheeting, and other materials used for PCB removal.

3. Decontamination and cleaning waste (i.e., rags, swabbing materials, etc.).

K. The Contactor is responsible for additional analytical testing via the TCLP only to support off-site disposal of PCB waste materials generated during the project.

1. No sampling and/or analysis by the Contractor or affiliates of the Contractor (subcontractors, subconsultants, etc.) for total PCBs may be performed at any point during the performance of the work, except as specifically authorized in writing by the Owner and Engineer.

2. The Contractor is responsible for selecting disposal facilities that can accept PCB wastes with this restriction.

3. Only those disposal facilities that will accept waste based on TCLP analysis may be used.

4. If the Contractor or affiliates of the Contractor (subcontractors, subconsultants, etc.) take unauthorized samples and analyze them for total PCBs, then the contractor will be responsible for the cost of any resulting removal required under existing state and federal regulations triggered by their sampling and analysis.

L. Provide evidence that all PCB wastes have been received at a legal disposal, recycle, reuse or salvage location.

M. The means for such proof must be truck weight slips/signed shipping documents from an approved disposal facility.

N. Transport of all materials off site must be in accordance with applicable DOT Regulations.

O. All materials leaving the site must become the responsibility of the Contractor.

3.17 MARKING AND DISPOSAL OF PCB WASTES

A. All waste containers must be marked with the name of the waste contained, the date on which the first material was placed in the vessel, and the last date at which addition of waste occurred. All waste containers must be marked with a large PCB M_L marker.

B. All waste containers containing CTDEEP Regulated PCB Waste and PCB Remediation Waste in the form of waste and contaminated debris, used PPE, personal and equipment wash water and decontamination fluids, or other wastes generated during the abatement work must be labeled as follows:

DOT Class 9 UN3432 (solid)
Or UN2315 (liquid) PCB Waste
RQ Waste for Disposal
Federal law prohibits improper disposal.
If found, contact the nearest police or public safety authority or
The U.S. Environmental Protection Agency.
Generator's Information: _____
Manifest Tracking No.: _____
Accumulation Start Date: _____
EPA ID No.: _____
EPA Waste No.: _____
Total Weight: _____
Container No.: _____
HANDLE WITH CARE

C. In addition, these containers must be marked with a PCB ML marker.

D. Such marking must be durable, in English and printed on, or affixed to the surface of the package, or on a label, tag or sign, and displayed on a background of sharply contrasting color, is unobscured by labels or attachments, and located away from any other marking (such as advertising) that could substantially reduce its effectiveness.

E. The Contractor is responsible for all packaging, labeling, transport, disposal, and recordkeeping associated with PCB Bulk Product Waste and PCB Remediation Waste in accordance with all federal, state, and local regulations.

F. The Contractor must ensure that the person transporting the waste holds a valid permit issued in accordance with appropriate federal, state, and local regulations.

G. The Contractor must provide to the transporter at the time of transfer appropriate shipping records or uniform waste manifests as required by the federal, state, and local regulations with a copy to the Owner and Engineer.

H. The Contractor must maintain proper follow-up procedures to assure that waste materials have been received by the designated waste site in a timely manner, and in accordance with all federal, state, and local regulations.

I. All PCB waste must be removed from the site within 30 days of generation.

J. CTDEEP Regulated PCB Waste

1. CTDEEP Regulated PCB Waste will be removed and transported off-site for disposal in accordance with CGS 22a-463 to 22a-469a. CTDEEP Regulated PCB Waste will be disposed in a solid waste facility permitted to accept CTDEEP Regulated PCB Waste.

K. Solid PCB Remediation Waste

1. Solid PCB Remediation Waste includes solid waste generated during PCB remediation including, but not limited to, containment barriers, PPE, cleaning supplies, etc.

2. Solid PCB Remediation Waste will be removed and transported off-site for disposal in accordance with Title 40 CFR, Part 761.61(a)(5)(i)(B)(2) at a permitted facility. The disposal facility selected will be permitted as one of the following:

a. Hazardous waste facility permitted by EPA under section 3004 of RCRA

b. State authorized under section 3006 of RCRA

c. A chemical waste facility approved under Title 40 CFR Part 761.75

L. Liquid PCB Remediation Waste

1. Liquid PCB Remediation Waste for this project is liquid waste generated during PCB remediation including, but not limited to, cleaning wastewater and/or liquid, equipment decontamination wastewater and/or liquid, personal decontamination wastewater and/or liquid, etc.

2. Liquid PCB Remediation Waste will be removed and transported off-site for disposal in accordance with Title 40 CFR Part 761.60(a).

M. The Owner will be the generator and will sign all waste profiles, bills of lading, and if appropriate and allowed under this specification, a hazardous waste manifest. Draft waste profiles and manifests must be reviewed by Engineer prior to Owner review.

N. The Contactor is responsible for additional analytical testing via the TCLP only to support off-site disposal of PCB waste materials generated during the project.

O. Provide evidence that all PCB wastes have been received at a legal disposal, recycle, reuse or salvage location. The means for such proof must be truck weight slips/signed shipping documents from an approved disposal facility. Transportation of all materials off site must be in accordance with applicable DOT Regulations. All materials leaving the site must become the responsibility of the Contractor.

P. When the specifications call for the measurement of PCB-contaminated materials for unit pricing, the materials must be segregated from other materials unless otherwise authorized in writing by the Owner and Engineer.

Q. All contaminated waste must be carefully loaded on trucks or other appropriate vehicles for transport. Before and during transport, care must be exercised to ensure that no unauthorized persons have access to the waste materials.

R. Waste transporters are prohibited from “back hauling” any freight after the PCB waste disposal, until decontamination of the vehicle and/or trailer is assured.

3.18 ENGINEER'S INSPECTION RESPONSIBILITIES

A. The Engineer will conduct inspections throughout the project to document the progress of the work as well as the procedures and practices employed by the Contractor.

B. The Engineer will perform the following inspections:

1. Pre-commencement Inspection. Pre-commencement inspections will be performed at the time requested by the Contractor. The Engineer will be informed a minimum of 24 hours prior to the time the inspection is needed. If, during the course of the pre-commencement inspection, deficiencies are found, the Contractor must make the necessary adjustments in order to obtain compliance.

2. Work Area Inspections. Work area inspections will be conducted at the discretion of the Engineer. During the course of the work inspections, the Engineer will observe the Contractor's removal means and/or methods, verify barrier integrity, monitor negative air filtration devices, assess project progress, and inform the Contractor of specific remedial activities if deficiencies are noted.

3. Final Visual Inspection. The Engineer will conduct the final visual inspection following the request of the Contractor. The Engineer must be informed a minimum of 24 hours prior to the time the inspection is needed. The final visual inspection must be conducted after completion of the final cleaning procedures. The final visual inspection will verify that all PCB-containing materials and residual debris have been removed from the work area. If, during the course of the inspection, the Engineer identifies residual dust or debris, the Contractor must comply with the request of the Engineer in order to render the area “dust free”.

TABLE 13284 - LIST OF PCB-CONTAMINATED BUILDING MATERIALS

PCB-Containing Material	Location(s)	PCB RESULT (PPM)	Approximate Quantity*	Comments
White Paint on Gypsum Board Walls	Entire Building – A Wing, B Wing, C Wing, and D Wing	**1.5 – 2.0**	77,000 SF Structure	The entire building, interior contents, and debris must to be demolished and disposed of as mixed friable asbestos / CT DEEP Regulated PCB Waste per the Alternative Work Practice (AWP). Metal components may be decontaminated and removed from the Site as scrap metal. Metal with PCB containing paint must be recycled out of State. Painted wood beams and ceiling deck from the A Wing and D Wing are to be segregated during demolition and disposed of as lead hazardous waste. Concrete slab and crawlspace walls must also be disposed as mixed friable asbestos / CT DEEP Regulated PCB Waste.
White/Gray/Yellow Paint on Metal Door Frames		**1.0 -1.8**		
White Paint on Concrete Stair Components		**3.0 – 3.2**		
Off White/Gray/Pink Paint on Wood Ceiling Deck^		**1.0 – 3.6**		
Red Paint on Metal Stair Components		**1.2 – 3.0**		
White/Pink/Gray Paint on Brick Walls^		**1.3 – 3.6**		

* Approximate quantities included in this Table are provided to establish an order of magnitude for the amount of material that must be abated. Actual quantities may vary. It is the sole responsibility of the Contractor to visit the site, review the Contract Documents and determine the quantities of materials to be removed when developing their Bid.

Legend
PPM = Parts per million
SF = Square Feet; CY = Cubic Yards
Bold result indicates materials >1 ppm; regulated by CTDEEP
^Material also contains Lead-Based Paint.

END OF SECTION

Tighe&Bond

APPENDIX A

PHOENIX
Environmental Laboratories, Inc.

Monday, October 14, 2024

Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Project ID: **116 COOK AVENUE**
SDG ID: **GCR79020**
Sample ID#s: CR79020 - CR79045

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

October 14, 2024

SDG I.D.: GCR79020

Project ID: 116 COOK AVENUE

Client Id	Lab Id	Matrix
24-1003-PSRC-NY-01	CR79020	BULK
24-1003-PSRC-NY-02	CR79021	BULK
24-1003-PSRC-NY-03	CR79022	BULK
24-1003-PSRC-NY-04	CR79023	BULK
24-1003-PSRC-NY-05	CR79024	BULK
24-1003-PSRC-NY-06	CR79025	BULK
24-1003-PSRC-NY-07	CR79026	BULK
24-1003-PSRC-NY-08	CR79027	BULK
24-1003-PSRC-NY-09	CR79028	BULK
24-1003-PSRC-NY-10	CR79029	BULK
24-1003-PSRC-NY-11	CR79030	BULK
24-1003-PSRC-NY-12	CR79031	BULK
24-1003-PSRC-NY-13	CR79032	BULK
24-1003-PSRC-NY-14	CR79033	BULK
24-1003-PSRC-NY-15	CR79034	BULK
24-1003-PSRC-NY-16	CR79035	BULK
24-1003-PSRC-NY-17	CR79036	BULK
24-1003-PSRC-NY-18	CR79037	BULK
24-1003-PSRC-NY-19	CR79038	BULK
24-1003-PSRC-NY-20	CR79039	BULK
24-1003-PSRC-NY-21	CR79040	BULK
24-1003-PSRC-NY-22	CR79041	BULK
24-1003-PSRC-NY-23	CR79042	BULK
24-1003-PSRC-NY-24	CR79043	BULK
24-1003-PSRC-NY-25	CR79044	BULK
24-1003-PSRC-NY-26	CR79045	BULK

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79020

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-01

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1221	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1232	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1242	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1248	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1254	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1260	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1262	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1268	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
Total PCBs	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	51		%	1	10/07/24	SC	30 - 150 %
% DCBP (Confirmation)	57		%	1	10/07/24	SC	30 - 150 %
% TCMX	47		%	1	10/07/24	SC	30 - 150 %
% TCMX (Confirmation)	58		%	1	10/07/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79021

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-02

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	460	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1221	ND	460	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1232	ND	460	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1242	ND	460	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1248	ND	460	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1254	ND	460	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1260	ND	460	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1262	ND	460	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1268	ND	460	ug/Kg	1	10/08/24	SC	SW8082A
Total PCBs	ND	460	ug/Kg	1	10/08/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	52		%	1	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	57		%	1	10/08/24	SC	30 - 150 %
% TCMX	47		%	1	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	58		%	1	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79022

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-03

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1221	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1232	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1242	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1248	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1254	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1260	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1262	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1268	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
Total PCBs	ND	420	ug/Kg	1	10/07/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	37		%	1	10/07/24	SC	30 - 150 %
% DCBP (Confirmation)	50		%	1	10/07/24	SC	30 - 150 %
% TCMX	35		%	1	10/07/24	SC	30 - 150 %
% TCMX (Confirmation)	49		%	1	10/07/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79023

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-04

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed					10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)								
PCB-1016	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1221	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1232	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1242	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1248	*	*	490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1254	1900	*	490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1260	*	*	490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1262	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1268	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
Total PCBs	1900		490	ug/Kg	1	10/08/24	SC	SW8082A
QA/QC Surrogates								
% DCBP	55			%	1	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	49			%	1	10/08/24	SC	30 - 150 %
% TCMX	51			%	1	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	41			%	1	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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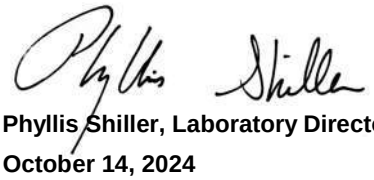

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79024

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-05

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed					10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)								
PCB-1016	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1221	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1232	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1242	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1248	*	*	450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1254	2100	*	450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1260	*	*	450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1262	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1268	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
Total PCBs	2100		450	ug/Kg	1	10/08/24	SC	SW8082A
QA/QC Surrogates								
% DCBP	61			%	1	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	53			%	1	10/08/24	SC	30 - 150 %
% TCMX	58			%	1	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	47			%	1	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

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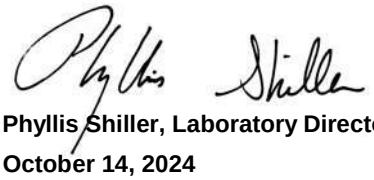

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79025

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-06

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed					10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)								
PCB-1016	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1221	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1232	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1242	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1248	*	*	490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1254	3600	*	490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1260	*	*	490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1262	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1268	ND		490	ug/Kg	1	10/08/24	SC	SW8082A
Total PCBs	3600		490	ug/Kg	1	10/08/24	SC	SW8082A
QA/QC Surrogates								
% DCBP	59			%	1	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	51			%	1	10/08/24	SC	30 - 150 %
% TCMX	54			%	1	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	42			%	1	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

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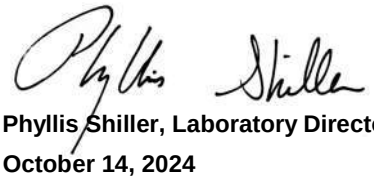

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79026

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-07

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1221	ND	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1232	ND	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1242	ND	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1248	ND	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1254	2300	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1260	ND	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1262	ND	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1268	ND	430	ug/Kg	1	10/07/24	SC	SW8082A
Total PCBs	2300	430	ug/Kg	1	10/07/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	43		%	1	10/07/24	SC	30 - 150 %
% DCBP (Confirmation)	55		%	1	10/07/24	SC	30 - 150 %
% TCMX	40		%	1	10/07/24	SC	30 - 150 %
% TCMX (Confirmation)	53		%	1	10/07/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79027

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-08

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	410	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1221	ND	410	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1232	ND	410	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1242	ND	410	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1248	ND	410	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1254	2700	410	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1260	ND	410	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1262	ND	410	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1268	ND	410	ug/Kg	1	10/07/24	SC	SW8082A
Total PCBs	2700	410	ug/Kg	1	10/07/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	43		%	1	10/07/24	SC	30 - 150 %
% DCBP (Confirmation)	57		%	1	10/07/24	SC	30 - 150 %
% TCMX	40		%	1	10/07/24	SC	30 - 150 %
% TCMX (Confirmation)	54		%	1	10/07/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79028

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-09

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed					10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)								
PCB-1016	ND		420	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1221	ND		420	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1232	ND		420	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1242	ND		420	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1248	*	*	420	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1254	1700	*	420	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1260	*	*	420	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1262	ND		420	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1268	ND		420	ug/Kg	1	10/08/24	SC	SW8082A
Total PCBs	1700		420	ug/Kg	1	10/08/24	SC	SW8082A
QA/QC Surrogates								
% DCBP	63			%	1	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	56			%	1	10/08/24	SC	30 - 150 %
% TCMX	62			%	1	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	50			%	1	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

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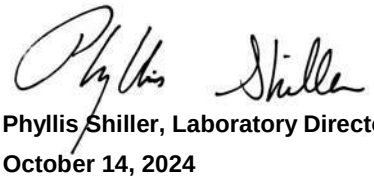

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79029

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-10

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed					10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)								
PCB-1016	ND		430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1221	ND		430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1232	ND		430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1242	ND		430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1248	*	*	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1254	2400	*	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1260	*	*	430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1262	ND		430	ug/Kg	1	10/07/24	SC	SW8082A
PCB-1268	ND		430	ug/Kg	1	10/07/24	SC	SW8082A
Total PCBs	2400		430	ug/Kg	1	10/07/24	SC	SW8082A
QA/QC Surrogates								
% DCBP	57			%	1	10/07/24	SC	30 - 150 %
% DCBP (Confirmation)	49			%	1	10/07/24	SC	30 - 150 %
% TCMX	55			%	1	10/07/24	SC	30 - 150 %
% TCMX (Confirmation)	44			%	1	10/07/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

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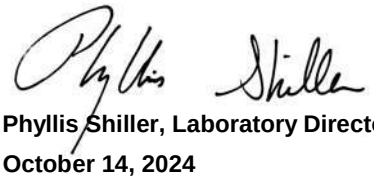

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79030

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-11

Parameter	Result		RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed					10/04/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)								
PCB-1016	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1221	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1232	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1242	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1248	*	*	450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1254	1300	*	450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1260	*	*	450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1262	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
PCB-1268	ND		450	ug/Kg	1	10/08/24	SC	SW8082A
Total PCBs	1300		450	ug/Kg	1	10/08/24	SC	SW8082A
QA/QC Surrogates								
% DCBP	51			%	1	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	57			%	1	10/08/24	SC	30 - 150 %
% TCMX	44			%	1	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	54			%	1	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
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Comments:

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PCB Comment:
* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1254 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1254.

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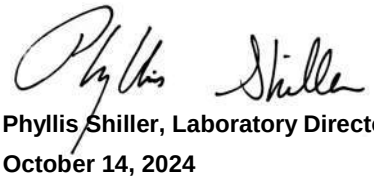

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79031

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-12

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	850	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1221	ND	850	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1232	ND	850	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1242	ND	850	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1248	ND	850	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1254	1700	850	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1260	ND	850	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1262	ND	850	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1268	ND	850	ug/Kg	2	10/08/24	SC	SW8082A
Total PCBs	1700	850	ug/Kg	2	10/08/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	78		%	2	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	89		%	2	10/08/24	SC	30 - 150 %
% TCMX	73		%	2	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	76		%	2	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

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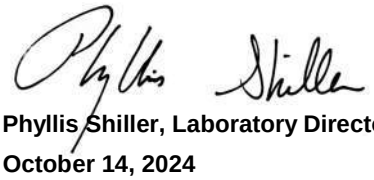

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79032

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-13

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	820	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1221	ND	820	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1232	ND	820	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1242	ND	820	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1248	ND	820	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1254	ND	820	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1260	ND	820	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1262	ND	820	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1268	ND	820	ug/Kg	2	10/08/24	SC	SW8082A
Total PCBs	ND	820	ug/Kg	2	10/08/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	78		%	2	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	75		%	2	10/08/24	SC	30 - 150 %
% TCMX	75		%	2	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	78		%	2	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

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Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79033

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-14

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	950	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1221	ND	950	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1232	ND	950	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1242	ND	950	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1248	ND	950	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1254	ND	950	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1260	ND	950	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1262	ND	950	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1268	ND	950	ug/Kg	2	10/08/24	SC	SW8082A
Total PCBs	ND	950	ug/Kg	2	10/08/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	74		%	2	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	77		%	2	10/08/24	SC	30 - 150 %
% TCMX	72		%	2	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	78		%	2	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79034

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-15

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1221	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1232	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1242	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1248	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1254	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1260	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1262	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1268	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
Total PCBs	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	79		%	2	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	83		%	2	10/08/24	SC	30 - 150 %
% TCMX	76		%	2	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	84		%	2	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79035

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-16

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	940	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1221	ND	940	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1232	ND	940	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1242	ND	940	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1248	ND	940	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1254	1700	940	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1260	ND	940	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1262	ND	940	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1268	ND	940	ug/Kg	2	10/09/24	SC	SW8082A
Total PCBs	1700	940	ug/Kg	2	10/09/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	79		%	2	10/09/24	SC	30 - 150 %
% DCBP (Confirmation)	88		%	2	10/09/24	SC	30 - 150 %
% TCMX	70		%	2	10/09/24	SC	30 - 150 %
% TCMX (Confirmation)	70		%	2	10/09/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79036

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-17

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	920	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1221	ND	920	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1232	ND	920	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1242	ND	920	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1248	ND	920	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1254	1000	920	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1260	ND	920	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1262	ND	920	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1268	ND	920	ug/Kg	2	10/09/24	SC	SW8082A
Total PCBs	1000	920	ug/Kg	2	10/09/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	70		%	2	10/09/24	SC	30 - 150 %
% DCBP (Confirmation)	74		%	2	10/09/24	SC	30 - 150 %
% TCMX	64		%	2	10/09/24	SC	30 - 150 %
% TCMX (Confirmation)	65		%	2	10/09/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79037

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-18

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	870	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1221	ND	870	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1232	ND	870	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1242	ND	870	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1248	ND	870	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1254	1100	870	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1260	ND	870	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1262	ND	870	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1268	ND	870	ug/Kg	2	10/08/24	SC	SW8082A
Total PCBs	1100	870	ug/Kg	2	10/08/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	75		%	2	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	81		%	2	10/08/24	SC	30 - 150 %
% TCMX	63		%	2	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	61		%	2	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79038

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-19

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	970	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1221	ND	970	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1232	ND	970	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1242	ND	970	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1248	ND	970	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1254	ND	970	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1260	ND	970	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1262	ND	970	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1268	ND	970	ug/Kg	2	10/09/24	SC	SW8082A
Total PCBs	ND	970	ug/Kg	2	10/09/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	85		%	2	10/09/24	SC	30 - 150 %
% DCBP (Confirmation)	76		%	2	10/09/24	SC	30 - 150 %
% TCMX	63		%	2	10/09/24	SC	30 - 150 %
% TCMX (Confirmation)	65		%	2	10/09/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79039

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-20

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	950	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1221	ND	950	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1232	ND	950	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1242	ND	950	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1248	ND	950	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1254	ND	950	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1260	ND	950	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1262	ND	950	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1268	ND	950	ug/Kg	2	10/09/24	SC	SW8082A
Total PCBs	ND	950	ug/Kg	2	10/09/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	64		%	2	10/09/24	SC	30 - 150 %
% DCBP (Confirmation)	63		%	2	10/09/24	SC	30 - 150 %
% TCMX	56		%	2	10/09/24	SC	30 - 150 %
% TCMX (Confirmation)	59		%	2	10/09/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

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QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79040

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-21

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	960	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1221	ND	960	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1232	ND	960	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1242	ND	960	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1248	ND	960	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1254	ND	960	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1260	ND	960	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1262	ND	960	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1268	ND	960	ug/Kg	2	10/09/24	SC	SW8082A
Total PCBs	ND	960	ug/Kg	2	10/09/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	55		%	2	10/09/24	SC	30 - 150 %
% DCBP (Confirmation)	55		%	2	10/09/24	SC	30 - 150 %
% TCMX	47		%	2	10/09/24	SC	30 - 150 %
% TCMX (Confirmation)	48		%	2	10/09/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

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Comments:

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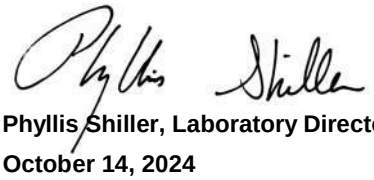

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79041

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-22

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1221	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1232	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1242	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1248	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1254	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1260	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1262	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1268	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
Total PCBs	ND	1000	ug/Kg	2	10/08/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	80		%	2	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	76		%	2	10/08/24	SC	30 - 150 %
% TCMX	74		%	2	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	79		%	2	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

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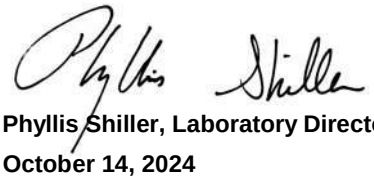

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79042

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-23

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	890	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1221	ND	890	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1232	ND	890	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1242	ND	890	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1248	1200	890	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1254	ND	890	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1260	ND	890	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1262	ND	890	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1268	ND	890	ug/Kg	2	10/09/24	SC	SW8082A
Total PCBs	1200	890	ug/Kg	2	10/09/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	64		%	2	10/09/24	SC	30 - 150 %
% DCBP (Confirmation)	70		%	2	10/09/24	SC	30 - 150 %
% TCMX	58		%	2	10/09/24	SC	30 - 150 %
% TCMX (Confirmation)	59		%	2	10/09/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

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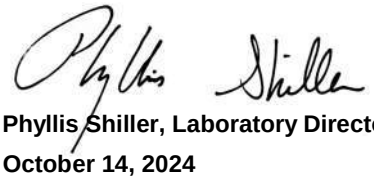

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79043

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-24

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	910	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1221	ND	910	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1232	ND	910	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1242	ND	910	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1248	ND	910	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1254	ND	910	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1260	ND	910	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1262	ND	910	ug/Kg	2	10/09/24	SC	SW8082A
PCB-1268	ND	910	ug/Kg	2	10/09/24	SC	SW8082A
Total PCBs	ND	910	ug/Kg	2	10/09/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	62		%	2	10/09/24	SC	30 - 150 %
% DCBP (Confirmation)	67		%	2	10/09/24	SC	30 - 150 %
% TCMX	55		%	2	10/09/24	SC	30 - 150 %
% TCMX (Confirmation)	56		%	2	10/09/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79044

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-25

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	900	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1221	ND	900	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1232	ND	900	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1242	ND	900	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1248	ND	900	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1254	ND	900	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1260	ND	900	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1262	ND	900	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1268	ND	900	ug/Kg	2	10/08/24	SC	SW8082A
Total PCBs	ND	900	ug/Kg	2	10/08/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	91		%	2	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	84		%	2	10/08/24	SC	30 - 150 %
% TCMX	82		%	2	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	83		%	2	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

Analysis Report

October 14, 2024

FOR: Attn: Harley Langford
Tighe & Bond
213 Court St, Suite 1100
Middletown, CT 06457

Sample Information		Custody Information		Date	Time
Matrix:	BULK	Collected by:	NY	10/03/24	14:00
Location Code:	TIGHE	Received by:	SR1	10/04/24	11:25
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	22-0817-038				

Laboratory Data

SDG ID: GCR79020
Phoenix ID: CR79045

Project ID: 116 COOK AVENUE
Client ID: 24-1003-PSRC-NY-26

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				10/07/24	R/RB	SW3540C
PCB (Soxhlet SW3540C)							
PCB-1016	ND	930	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1221	ND	930	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1232	ND	930	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1242	ND	930	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1248	ND	930	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1254	ND	930	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1260	ND	930	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1262	ND	930	ug/Kg	2	10/08/24	SC	SW8082A
PCB-1268	ND	930	ug/Kg	2	10/08/24	SC	SW8082A
Total PCBs	ND	930	ug/Kg	2	10/08/24	SC	SW8082A
QA/QC Surrogates							
% DCBP	83		%	2	10/08/24	SC	30 - 150 %
% DCBP (Confirmation)	97		%	2	10/08/24	SC	30 - 150 %
% TCMX	81		%	2	10/08/24	SC	30 - 150 %
% TCMX (Confirmation)	89		%	2	10/08/24	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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Phyllis Shiller, Laboratory Director
October 14, 2024
Reviewed and Released by: Greg Lawrence, Assistant Lab Director

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102

QA/QC Report

October 14, 2024

QA/QC Data

SDG I.D.: GCR79020

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 752256 (ug/Kg), QC Sample No: CR79008 10X (CR79020, CR79021, CR79022, CR79023, CR79024, CR79025, CR79026, CR79027, CR79028, CR79029, CR79030)										
Polychlorinated Biphenyls - Bulk										
PCB-1016	ND	170	100	101	1.0				40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170	97	98	1.0				40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	103	%	101	100	1.0				30 - 150	30
% DCBP (Surrogate Rec) (Confirm	116	%	113	111	1.8				30 - 150	30
% TCMX (Surrogate Rec)	104	%	103	101	2.0				30 - 150	30
% TCMX (Surrogate Rec) (Confirm	104	%	102	100	2.0				30 - 150	30
Comment:										
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										
QA/QC Batch 752510 (ug/Kg), QC Sample No: CR79031 10X (CR79031, CR79032, CR79033, CR79034, CR79035, CR79036, CR79037, CR79038, CR79039, CR79040, CR79041, CR79042, CR79043, CR79044, CR79045)										
Polychlorinated Biphenyls - Bulk										
PCB-1016	ND	170	115	110	4.4				40 - 140	30
PCB-1221	ND	170							40 - 140	30
PCB-1232	ND	170							40 - 140	30
PCB-1242	ND	170							40 - 140	30
PCB-1248	ND	170							40 - 140	30
PCB-1254	ND	170							40 - 140	30
PCB-1260	ND	170	116	106	9.0				40 - 140	30
PCB-1262	ND	170							40 - 140	30
PCB-1268	ND	170							40 - 140	30
% DCBP (Surrogate Rec)	109	%	116	109	6.2				30 - 150	30
% DCBP (Surrogate Rec) (Confirm	119	%	127	120	5.7				30 - 150	30
% TCMX (Surrogate Rec)	107	%	114	110	3.6				30 - 150	30
% TCMX (Surrogate Rec) (Confirm	107	%	111	109	1.8				30 - 150	30
Comment:										
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										

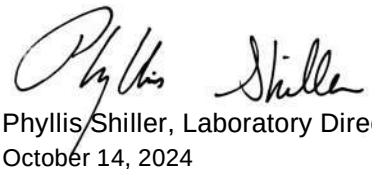
QA/QC Data

SDG I.D.: GCR79020

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference
(ISO) - Isotope Dilution



Phyllis Shiller, Laboratory Director
October 14, 2024

Monday, October 14, 2024

Criteria: None

State: CT

Sample Criteria Exceedances Report

GCR79020 - TIGHE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CR79023	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	1900	490	1000	1000	ug/Kg
CR79023	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1900	490	1000	1000	ug/Kg
CR79024	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	2100	450	1000	1000	ug/Kg
CR79024	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	2100	450	1000	1000	ug/Kg
CR79025	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	3600	490	1000	1000	ug/Kg
CR79025	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	3600	490	1000	1000	ug/Kg
CR79026	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	2300	430	1000	1000	ug/Kg
CR79026	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	2300	430	1000	1000	ug/Kg
CR79027	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	2700	410	1000	1000	ug/Kg
CR79027	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	2700	410	1000	1000	ug/Kg
CR79028	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	1700	420	1000	1000	ug/Kg
CR79028	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1700	420	1000	1000	ug/Kg
CR79029	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	2400	430	1000	1000	ug/Kg
CR79029	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	2400	430	1000	1000	ug/Kg
CR79030	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	1300	450	1000	1000	ug/Kg
CR79030	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1300	450	1000	1000	ug/Kg
CR79031	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	1700	850	1000	1000	ug/Kg
CR79031	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1700	850	1000	1000	ug/Kg
CR79035	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	1700	940	1000	1000	ug/Kg
CR79035	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1700	940	1000	1000	ug/Kg
CR79037	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	1100	870	1000	1000	ug/Kg
CR79037	$PCB_SOXR	PCB-1254	CT / Requested PCB RL /	1100	870	1000	1000	ug/Kg
CR79042	$PCB_SOXR	Total PCBs	CT / Requested PCB RL /	1200	890	1000	1000	ug/Kg
CR79042	$PCB_SOXR	PCB-1248	CT / Requested PCB RL /	1200	890	1000	1000	ug/Kg

Bureau of Water Protection and Land Reuse
Remediation Division

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name Phoenix Environmental Labs, Inc.	Client Name Tighe & Bond
Project Location 116 COOK AVENUE	Project No.
Sampling Date(s) 10/3/2024	Laboratory Sample ID(s): CR79020-CR79045

LIST RCP METHODS USED (e.g., 8260,8270, etc.) 8082

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEEP method-specific Reasonable Confidence Protocol documents?	☑ Yes ☐ No
1A	Were the method-specified preservation and holding time requirements met?	☑ Yes ☐ No
1B	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (see respective RCPs)	☐ Yes ☐ No ☑ NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (≤6° C)? *If samples were received by the laboratory on the same day of collection and were stored and transported to the laboratory on ice, cooler temperatures above 6ºC are acceptable.*	☑ Yes ☐ No ☐ NA
4	Were all QA/QC performance criteria specified in the CT DEEP Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5	Were reporting limits / limits of quantitation specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5a	Were these reporting limits / limits of quantitation met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set for applicable RCPs?	☐ Yes ☑ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A, or #1B is "No", the data package does not meet the requirements for "Reasonable Confidence." This form may not be altered, and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: _____ Position: Assistant Lab Director

Printed Name: Greg Lawrence Date: Monday, October 14, 2024

Name of Laboratory Phoenix Environmental Laboratory, Inc.

This certification form is to be used for RCP methods only.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

October 14, 2024

SDG I.D.: GCR79020

PCB Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-ECD1 10/07/24-1 Saadia Chudary, Chemist 10/07/24

CR79020 (1X), CR79021 (1X), CR79024 (1X), CR79029 (1X)

The initial calibration (PC1001AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC1001BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

AU-ECD1 10/08/24-1 Saadia Chudary, Chemist 10/08/24

CR79023 (1X), CR79025 (1X), CR79028 (1X), CR79030 (1X), CR79032 (2X), CR79033 (2X), CR79034 (2X), CR79041 (2X)

The initial calibration (PC1001AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC1001BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

AU-ECD24 10/08/24-1 Saadia Chudary, Chemist 10/08/24

CR79035 (2X), CR79037 (2X), CR79038 (2X), CR79044 (2X)

The initial calibration (PC0909AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0909BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:
Samples: CR79037, CR79044
Preceding CC O08A031 - PCB 1260 -36%L (%)
Succeeding CC O08A044 - None.
Samples: CR79037, CR79044
Preceding CC O08B031 - PCB 1260 31%H (%)
Succeeding CC O08B044 - PCB 1260 31%H (%)
Samples: CR79035, CR79038
Preceding CC O08B044 - PCB 1260 31%H (%)
Succeeding CC O08B052 - PCB 1260 34%H (%)

AU-ECD29 10/07/24-1 Saadia Chudary, Chemist 10/07/24

CR79022 (1X), CR79026 (1X), CR79027 (1X)

The initial calibration (PC0918AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0918BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:
Samples: CR79022, CR79026, CR79027
Preceding CC O07B028 - DCBP SURR -29%L (20%)
Succeeding CC O07B041 - DCBP SURR -21%L (20%)

AU-ECD29 10/09/24-1 Saadia Chudary, Chemist 10/09/24

CR79039 (2X), CR79040 (2X)

The initial calibration (PC0918AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0918BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

AU-ECD5 10/08/24-1 Saadia Chudary, Chemist 10/08/24

CR79031 (2X, 10X), CR79045 (2X)

The initial calibration (PC0829AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0829BI) RSD for the compound list was less than 20% except for the following compounds: None.

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

NY # 11301

RCP Certification Report

October 14, 2024

SDG I.D.: GCR79020

PCB Narration

The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

AU-ECD7 10/09/24-1 Saadia Chudary, Chemist 10/09/24

CR79036 (2X), CR79042 (2X), CR79043 (2X)

The initial calibration (PC1003AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC1003BI) RSD for the compound list was less than 20% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

QC (Batch Specific):

Batch 752256 (CR79008)

CR79020, CR79021, CR79022, CR79023, CR79024, CR79025, CR79026, CR79027, CR79028, CR79029, CR79030

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Batch 752510 (CR79031)

CR79031, CR79032, CR79033, CR79034, CR79035, CR79036, CR79037, CR79038, CR79039, CR79040, CR79041, CR79042, CR79043, CR79044, CR79045

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Temperature Narration

The samples were received at 2.5C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

PCB SOURCE SAMPLE CHAIN OF CUSTODY

Tighe&Bond

Project Number: 22-0817-038 Date: 10/3/2024
Project Name: 116 Cook Avenue 1 of 2
Site Address: 116 Cook Avenue, Meriden, CT
Project Manager: Harley Langford

Sample ID	Material	Color	Substrate	Sample Location	Date Collected	Notes
24-1003-PSRC-NY-01	Wall	White	CMU	3rd Floor - B Wing	10/3/2024	79020
24-1003-PSRC-NY-02	Wall	White	CMU	2nd Floor - B Wing	10/3/2024	79021
24-1003-PSRC-NY-03	Wall	White	CMU	3rd Floor - A Wing	10/3/2024	79022
24-1003-PSRC-NY-04	Wall	White	Brick	1st Floor - A Wing	10/3/2024	79023
24-1003-PSRC-NY-05	Wall	White	Brick	2nd Floor - B Wing	10/3/2024	79024
24-1003-PSRC-NY-06	Wall	White	Brick	2nd Floor - C Wing	10/3/2024	79025
24-1003-PSRC-NY-07	Wall	Pink	Brick	2nd Floor - D Wing	10/3/2024	79026
24-1003-PSRC-NY-08	Wall	Pink	Brick	2nd Floor - D Wing	10/3/2024	79027
24-1003-PSRC-NY-09	Wall	Pink	Brick	2nd Floor - D Wing	10/3/2024	79028
24-1003-PSRC-NY-10	Wall	Gray	Brick	4th Floor - D Wing	10/3/2024	79029
24-1003-PSRC-NY-11	Wall	Gray	Brick	2nd Floor - B Wing	10/3/2024	79030
24-1003-PSRC-NY-12	Wall	Gray	Brick	1st Floor - A Wing	10/3/2024	79031
24-1003-PSRC-NY-13	Wall	Pink	Gypsum Board	3rd Floor - D Wing	10/3/2024	79032
24-1003-PSRC-NY-14	Wall	Pink	Gypsum Board	2nd Floor - D Wing	10/3/2024	79033
24-1003-PSRC-NY-15	Wall	Pink	Gypsum Board	2nd Floor - D Wing	10/3/2024	79034
24-1003-PSRC-NY-16	Ceiling	Pink	Wood	3rd Floor - D Wing	10/3/2024	79035
24-1003-PSRC-NY-17	Ceiling	Pink	Wood	3rd Floor - D Wing	10/3/2024	79036
24-1003-PSRC-NY-18	Ceiling	Pink	Wood	2nd Floor - D Wing	10/3/2024	79037
24-1003-PSRC-NY-19	Door Frame	Pink	Metal	2nd Floor - D Wing	10/3/2024	79038
24-1003-PSRC-NY-20	Door Frame	Pink	Metal	2nd Floor - B Wing	10/3/2024	~~79039~~ 79039
24-1003-PSRC-NY-21	Door Frame	Blue	Metal	4th Floor - A Wing	10/3/2024	~~79040~~ 79040
24-1003-PSRC-NY-22	Door Frame	Blue	Metal	4th Floor - A Wing	10/3/2024	~~79041~~ 79041
24-1003-PSRC-NY-23	Door Frame	Yellow	Metal	3rd Floor - A Wing	10/3/2024	~~79042~~ 79042
24-1003-PSRC-NY-24	Door Frame	Yellow	Metal	3rd Floor - B Wing	10/3/2024	~~79043~~ 79043
24-1003-PSRC-NY-25	Wall	White	Plaster	1st Floor - C Wing	10/3/2024	Boiler Room ~~79044~~ 79044

PCB SOURCE SAMPLE CHAIN OF CUSTODY

Tighe&Bond

Project Number: 22-0817-038 Date: 10/3/2024

Project Name: 116 Cook Avenue 2 of 2

Site Address: 116 Cook Avenue, Meriden, CT

Project Manager: Harley Langford

Sample ID 79045	Material	Color	Substrate	Sample Location	Date Collected	Notes
24-1003-PSRC-NY-26	Wall	White	Plaster	1st Floor - C Wing	10/3/2024	Boiler Room

Analysis Method: EPA Method 3500B/3540C (extraction), EPA Method 8082 (analysis) **Laboratory:** Phoenix **Turnaround Time:** 1 Week

Email PDF of Results to: NYergeau@tighebond.com **Reporting Limit:** <1 ppm

Special Instructions:

Samples Collected By: Nathan Yergeau **Date:** 10/3/2024 **Time:** 2:00 PM

Relinquished [By][To]:[ ] [ ] **Time:**

Relinquished [By][To]:[ ] [DG] **Date:** 10/03/2024 **Time:** 4:50pm

Relinquished [By][To]:[DG] [ ] **Date:** **Time:** 10:30

10/4/24 11:25 · 2.5 wwip

213 Court Street • Middletown, CT 06457 • Tel 860.704.4760 • Fax 860.704.4775

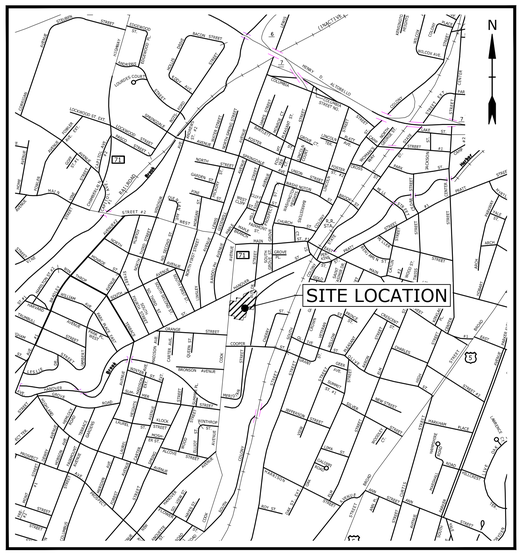
HAZARDOUS BUILDING MATERIALS ABATEMENT AND DEMOLITION

116 COOK AVENUE

MERIDEN, CONNECTICUT

CITY PROJECT #B025-01

LIST OF DRAWINGS	
SHEET NO.	DRAWING TITLE
	COVER SHEET
C-100	GENERAL NOTES, STANDARD ABBREVIATIONS, AND LEGEND PLAN
C-101	SITE SURFACE DEMOLITION PLAN
C-102	SITE UTILITY DEMOLITION PLAN
C-201	SITE GRADING, DRAINAGE AND SEDIMENTATION PLAN
C-202	SEDIMENTATION AND EROSION CONTROL DETAILS
C-301	CITY OF MERIDEN STANDARD DETAILS
C-302	SITE DETAILS
ENV-101	EXISTING CONDITIONS
HBM-100	FIRST FLOOR
HBM-102	SECOND FLOOR
HBM-103	THIRD FLOOR
HBM-104	FOURTH FLOOR



LOCATION MAP
SCALE: 1" = 1000'

PREPARED BY:

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STATE OF CONNECTICUT · CHARLES J. CROCE · 20374 · LICENSED PROFESSIONAL ENGINEER · 12/03/2024

CHARLES J. CROCE, PE

STATE OF CONNECTICUT · PATRICK A. READY · 32536 · LICENSED PROFESSIONAL ENGINEER · 12/03/2024

PATRICK A. READY, PE

PREPARED FOR:
CITY OF MERIDEN, CT
142 EAST MAIN STREET
MERIDEN CT 06450

COMPLETE SET 12 SHEETS

Last Saved: 12/3/2024
Plotted On: Dec 03, 2024 - 10:22am By: PAReady
Tighe & Bond: J:\MM0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-G-COVER.dwg

GENERAL NOTES

1. UTILITY, STRUCTURE AND FACILITY LOCATIONS SHOWN HEREON WERE PLOTTED FROM INFORMATION SUPPLIED BY RESPECTIVE UTILITY COMPANIES AND DATA OBTAINED FROM FIELD SURVEYS AND AS-BUILT DRAWINGS. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS IS NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE FOR HIMSELF, THE LOCATIONS AND ELEVATIONS OF ALL UTILITIES WHICH MAY AFFECT HIS CONSTRUCTION OPERATIONS. THE CONTRACTOR MUST ADEQUATELY PROTECT AND SUPPORT UTILITIES AND HE SHALL BE RESPONSIBLE FOR ALL DAMAGE INCURRED AT NO EXPENSE TO THE OWNER. ANYONE USING UTILITY INFORMATION AND DATA PROVIDED HEREIN SHALL CONTACT "CALL BEFORE YOU DIG", 1-800-922-4455 OR WWW.CBYD.COM, 72 HOURS IN ADVANCE TO VERIFY THE LOCATION OF UTILITIES PRIOR TO STARTING CONSTRUCTION.
2. REFERENCE IS MADE TO PLAN ENTITLED "116 COOK AVENUE, MERIDEN, CT EXISTING CONDITION PLAN" PREPARED FOR THE CITY OF, MERIDEN, CT BY EAGLE ENVIRONMENTAL, INC. DATED NOVEMBER 15, 2011.
3. IT IS THE RESPONSIBILITY OF EACH BIDDER IN EVALUATING THESE PLANS TO MAKE EXAMINATIONS IN THE FIELD BY VARIOUS METHODS AND OBTAIN NECESSARY INFORMATION FROM AVAILABLE RECORDS, UTILITY COMPANIES, AND INDIVIDUALS AS TO THE LOCATION OF SUBSURFACE STRUCTURES.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE DRAWINGS, SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE OWNER'S REPRESENTATIVE SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL REGULATIONS AND CODES.
5. AT ALL LOCATIONS WHERE THE CONTRACTOR IS REQUIRED TO REMOVE EXISTING PAVEMENT AREAS (WHICH ARE NOT TO BE RECONSTRUCTED) FOR THE INSTALLATION OF THE PROPOSED UTILITIES, THE PAVEMENT SHALL BE REPAIRED AS SHOWN ON THE CONTRACT DRAWINGS.
6. AS CONSTRUCTION IS COMPLETED, THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL, DEBRIS, ETC. AND RESTORE OR REPLACE ANY DAMAGE TO LANDSCAPING.
7. AREAS OUTSIDE THE PROJECT LIMIT LINE DISTURBED BY CONSTRUCTION SHALL BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER AND SHALL BE GRADED TO MEET PROPOSED CONSTRUCTION AS DIRECTED BY THE OWNER'S REPRESENTATIVE. COST FOR THIS WORK SHALL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
8. THE CONTRACTOR SHALL PROCURE ALL THE NECESSARY PERMITS AND LICENSES, AT THE TIME REQUIRED, PAY ALL THE CHARGES AND FEES, AND GIVE NOTICES AS NECESSARY AND DUE IN CONNECTION WITH THE LAWFUL EXECUTION OF THE WORK AT NO ADDITIONAL COST TO THE OWNER.
9. ALL UTILITY BOXES, FRAMES, AND GRATES, ETC. AFFECTED BY THE CONSTRUCTION ACTIVITIES AND THAT ARE NOT BEING DEMOLISHED OR ABANDONED SHALL BE RESET/RECONSTRUCTED TO THE PROPER GRADE. ALL COST RELATED TO SUCH WORK SHALL BE CONSIDERED INCLUDED IN THE BID PRICE.
10. EXCAVATION OF ANY TYPE SHALL BE ACCOMPLISHED IN SUCH A MANNER THAT UNDERGROUND UTILITIES OR STRUCTURES ARE NOT DAMAGED. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY FOR ANY DAMAGED INCURRED DURING EXCAVATION OPERATIONS. ALL EXCAVATION SHALL BE IN CONFORMANCE WITH THE LATEST OSHA REQUIREMENTS.
11. ALL DRIVEWAYS, ROADS, STAIRS, SIDEWALKS, AND ANY OTHER STRUCTURES DISTURBED BY THE CONSTRUCTION OUTSIDE THE PROJECT LIMIT LINE SHALL BE RETURNED TO THEIR ORIGINAL CONDITION OR BETTER AND SHALL BE GRADED TO MEET THE PROPOSED CONSTRUCTION AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
12. THE CONTRACTOR SHALL SUFFICIENTLY COVER ALL DISTURBED AREAS AT THE END OF EACH WORK DAY TO AVOID ANY RISK OF INJURY TO PEDESTRIAN OR VEHICULAR TRAFFIC. THE CONTRACTOR SHALL INSTALL TEMPORARY SUPPORT SYSTEMS OVER TRENCH EXCAVATIONS THAT ARE TAMPER RESISTANT AND SAFE FOR VEHICULAR AND PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL INSTALL BARRICADES TO PROTECT AGAINST PEDESTRIAN ACCESS. THE CONTRACTOR SHALL OBTAIN APPROVAL OF THE TEMPORARY SAFETY MEASURES BY THE OWNER'S REPRESENTATIVE. ALL MAINTENANCE AND PROTECTION OF BOTH PEDESTRIAN AND VEHICULAR TRAFFIC ARE INCLUDED IN THE LUMP SUM BID PRICE FOR THIS PROJECT.
13. THE STANDARD SPECIFICATIONS (FOR SITE /CIVIL WORK) SHALL BE THE STATE OF CONNECTICUT, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 818, 2004, INCLUDING ALL SUPPLEMENTS THERETO. FORM 818 IS AVAILABLE FOR VIEWING ON THE CTDOT WEBSITE WWW.CT.GOV.DOT/SITE UNDER THE "PUBLICATIONS" TAB.
14. ALL DISTURBED AREAS NOT PROVIDED WITH SPECIFIC SITE IMPROVEMENTS (PAVING, CONCRETE SIDEWALK, LANDSCAPING, ETC.) SHALL HAVE TOPSOIL INSTALLED AND TURF ESTABLISHED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
15. THE CONTRACTOR SHALL RECORD THE LOCATIONS OF ALL UNDERGROUND UTILITIES INSTALLED OR FOUND DURING CONSTRUCTION. THE UTILITIES SHALL BE MEASURED FROM PERMANENT SURFACE FEATURES AND COMPILED BY THE CONTRACTOR ON RECORD DRAWINGS. AN AS-BUILT SURVEY, SHALL BE PREPARED BY A SURVEYOR LICENSED IN THE STATE OF CONNECTICUT AND IN ACCORDANCE TO PROJECT CLOSE OUT REQUIREMENTS, AND SUBMITTED TO THE OWNER AND ENGINEER FOR REVIEW AND APPROVAL 2 WEEKS PRIOR TO APPLYING FOR CERTIFICATE OF OCCUPANCY.
16. THE CONTRACTOR SHALL COMPLETE ALL WORK SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER, WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN, OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER, THE DAMAGED MATERIALS SHALL BE REPLACED TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE EXPENSE OF THE CONTRACTOR.
17. AFTER CONSTRUCTION IS COMPLETED, THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL, DEBRIS, EQUIPMENT, ETC. AND RESTORE OR REPAIR ANY DAMAGE TO LANDSCAPING AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
18. THE CONTRACTOR SHALL ANTICIPATE IN HIS BID THAT THE AREA OF HIS PROPOSED WORK MAY BE ENCUMBERED BY UTILITY COMPANIES FOR THE REMOVAL/RELOCATION/ADJUSTMENT/CONSTRUCTION OF UTILITIES. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIRED NOTIFICATIONS. THE CONTRACTOR SHALL COORDINATE ALL ASPECTS OF HIS WORK WITH SAID UTILITY COMPANIES.
19. THE CONTRACTOR SHALL EXCAVATE AND LEGALLY DISPOSE OF OFF-SITE ANY EXCESS PAVEMENT AND/OR BASE. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR THE PROJECT AND AT NO ADDITIONAL COST TO THE OWNER.
20. ALL PROPOSED WORK MAY BE VARIED IN THE FIELD BY THE OWNER'S REPRESENTATIVE TO MEET EXISTING CONDITIONS.
21. THE CONTRACTOR SHALL PROCURE THE SERVICES OF A SURVEYOR LICENSED IN THE STATE OF CONNECTICUT TO PERFORM AN AS-BUILT SURVEY OF THE PROJECT SITE ONCE ALL DEMOLITION, RE-GRADING AND SITE RESTORATION ACTIVITIES HAVE BEEN COMPLETED AND PRIOR TO PROJECT CLOSE-OUT. THE SURVEY SHALL MEET THE REQUIREMENTS OF AN A-2 BOUNDARY AND A T-2 TOPOGRAPHIC SURVEY WITH A 1 FOOT CONTOUR INTERVAL. THE LICENSED SURVEYOR PERFORMING THE WORK SHALL PROVIDE THE ENGINEER WITH A SIGNED AND SEALED COPY OF THE PROJECT SURVEY IN FULL SIZE PAPER AND IN DIGITAL PDF FORMAT. AN AUTOCAD COPY OF THE SURVEY SHALL ALSO BE PROVIDED TO THE ENGINEER."
23. CONTAMINATED SUBSURFACE SOIL IS KNOWN TO BE PRESENT WITHIN THE PROJECT LIMITS INCLUDING AREAS ADJACENT TO AND ABUTTING THE BUILDING FOUNDATIONS. CONTRACTOR MUST MAKE ALL REASONABLE EFFORTS TO MINIMIZE DISTURBANCE OF THESE SOILS INCLUDING COMMINGLING OF SOIL AND DEMOLITION WASTES.
24. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

STANDARD ABBREVIATIONS

@	AT
ABDN('D)	ABANDON(ED)
AC	ACRE/AIR CONDITIONING
AOBE	AS ORDERED BY THE ENGINEER
BSMT	BASEMENT
BCLC	BITUMINOUS CONCRETE LIP CURBING
BOW	BACK OF WALK
BL	BASELINE
BW	BOTTOM OF WALL
BIT	BITUMINOUS
BC	BOTTOM OF CURB
BLDG	BUILDING
BOT	BOTTOM
CATV	CABLE TELEVISION
CIP	CAST IRON PIPE
CB	CATCH BASIN
CL	CENTERLINE
CLF	CHAIN LINK FENCE
CL&P	CONNECTICUT LIGHT & POWER
CTDEEP	CONNECTICUT DEPT. OF ENERGY & ENV. PROTECTION
CTDOT	CONNECTICUT DEPT. OF TRANSPORTATION
CONC	CONCRETE
CO	CLEAN-OUT
CPP	CORRUGATED POLYETHYLENE PIPE
CY	CUBIC YARDS
DIP	DUCTILE IRON PIPE
DWG	DRAWING
E	EAST/ELECTRIC
EOP	EDGE OF PAVEMENT
ELEC	ELECTRIC
EL/ELEV	ELEVATION
EMH	ELECTRIC MANHOLE
EX/EXIST	EXISTING
EG	EXISTING GRADE
FF	FIRST FLOOR
G	GAS
GEN	GENERATOR
GG	GAS GATE
GRC	GALVANIZED RIGID CONDUIT
HC	HANDICAP
HYD	HYDRANT
IN	INCHES
INC	INCORPORATED
INV	INVERT
L	LENGTH OF CURVE
LT	LEFT
LOC	LOCATION
LP	LIGHT POLE
MAX	MAXIMUM
MIN	MINIMUM
MH	MANHOLE
MISC	MISCELLANEOUS
MON	MONUMENT
NIC	NOT IN CONTRACT
N	NORTH
CATV	CABLE TELEVISION
NTS	NOT TO SCALE
N/A	NOT APPLICABLE
N/F	NOW OR FORMERLY
OH	OVERHEAD
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PCPP	PERFORATED CORRUGATED POLYETHYLENE
PED	PEDESTRIAN
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PRC	POINT OF REVERSE CURVATURE
PS	PARKING SPACES
PVC	POLYVINYL CHLORIDE
R	RADIUS
REV	REVISION
ROW	RIGHT OF WAY
RT	RIGHT
SAN	SANITARY
SCH	SCHEDULE
SF	SQUARE FEET
S	SOUTH
STA	STATION
STD	STANDARD
STRM	STORM
T	TANGENT LENGTH/TEL-DATA
TEL	TEL-DATA
TF	TOP OF FRAME
TYP	TYPICAL
TC	TOP OF CURB
TW	TOP OF WALL
W	WATER
WG/WV	WATER GATE/VALVE
XFMR	TRANSFORMER
&	AND

LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
PROJECT LIMIT LINE		
REMOVE TREE		
ABANDON PIPE/STRUCTURE		
REMOVE PIPE/STRUCTURE/TREE		
REMOVE BIT CONC PAVEMENT		
REMOVE CONCRETE WALK, WALLS, AND LOADING DOCK		
SILT SACK		S.S.
HAYBALE INLET PROTECTION		
STONE CHECKDAM		
GEOTEXTILE SILT FENCE		
HAYBALE BARRIER		
EROSION CONTROL BLANKET		
SOIL STOCKPILE AREA		Silt Fence Haybale Berm
CONSTRUCTION ENTRANCE		
CONSTRUCTION FENCE		
CONSTRUCTION GATE		
FLOOD PLAIN		
MINOR CONTOUR	115	115
MAJOR CONTOUR	120	120
SPOT ELEVATION	x 23.6	
TREES		
TREE LINE		
EDGE OF ROAD		
EDGE OF ROAD (CURBED)		
RETAINING WALL	Ex. Ret. Wall	
CONCRETE WALK		
HANDICAP RAMP		
EXTERIOR STAIRS		
BUILDING		
BOLLARD	Ex. Bollards	
HANDICAP PARKING		
PARKING PAINT LINE		
STORM SEWER	Ex. 15" RCP	
CATCH BASIN		
YARD DRAIN		
SANITARY SEWER	Ex. 8"San. Sewer Main	
SANITARY LATERAL		
SANITARY MANHOLE	S	
WATER MAIN	Ex. 6" Water Main	
WATER VALVE	WV	
HYDRANT		
GAS MAIN		
GAS GATE	GV	
ELECTRIC - BURIED		
ELECTRIC - OVERHEAD	Ex. OH Cable	
EXISTING TRANSFORMER	Ex. Transformer	
UTILITY POLE		
LIGHT POLE		
MONITORY WELL		
BORING LOCATION		

Tighe&Bond
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STATE OF CONNECTICUT
PATRICK A. REILLY
32538
LICENSED PROFESSIONAL ENGINEER
12/03/2024

ISSUED FOR CONSTRUCTION

STATE OF CONNECTICUT
CHARLES J. CRUCE
20374
LICENSED PROFESSIONAL ENGINEER
12/03/2024

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

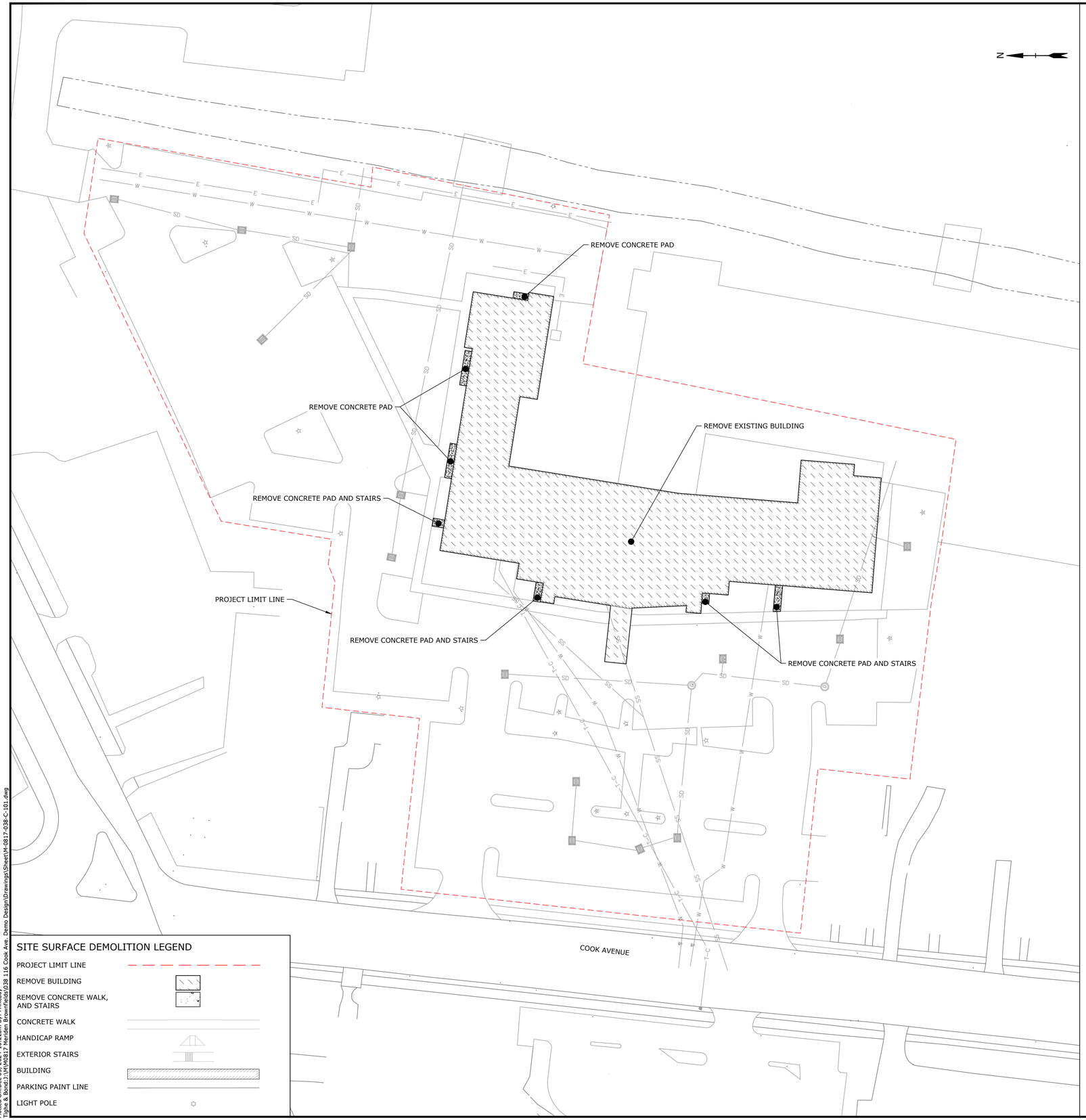
PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-C-100-GN.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

GENERAL NOTES, STANDARD ABBREVIATIONS, AND LEGEND PLAN

SCALE: NO SCALE

C-100
SHEET 1 OF 12

Last Saved: 12/3/2024
Plotted On:Dec 03, 2024-10:22am By: PAReady
Tighe & Bond:\\MW0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-C-100-GN.dwg



SITE SURFACE DEMOLITION PLAN NOTES

1. UTILITY, STRUCTURE AND FACILITY LOCATIONS SHOWN HEREON WERE PLOTTED FROM INFORMATION SUPPLIED BY RESPECTIVE UTILITY COMPANIES AND DATA OBTAINED FROM FIELD SURVEYS AND AS-BUILT DRAWINGS. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS IS NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE FOR HIMSELF, THE LOCATIONS AND ELEVATIONS OF ALL UTILITIES WHICH MAY AFFECT HIS CONSTRUCTION OPERATIONS. THE CONTRACTOR MUST ADEQUATELY PROTECT AND SUPPORT UTILITIES AND HE SHALL BE RESPONSIBLE FOR ALL DAMAGE INCURRED AT NO EXPENSE TO THE OWNER. ANYONE USING UTILITY INFORMATION AND DATA PROVIDED HEREIN SHALL CONTACT "CALL BEFORE YOU DIG", 1-800-922-4455 OR WWW.CBYD.COM, 72 HOURS IN ADVANCE TO VERIFY THE LOCATION OF UTILITIES PRIOR TO STARTING CONSTRUCTION.
2. REFERENCE IS MADE TO PLAN ENTITLED "116 COOK AVENUE, MERIDEN, CT EXISTING CONDITION PLAN" PREPARED FOR THE CITY OF, MERIDEN, CT BY EAGLE ENVIRONMENTAL, INC. DATED NOVEMBER 15, 2011.
3. THE CONTRACTOR SHALL OBTAIN A CITY OF MERIDEN STREET OPENING PERMIT AND SEWER CAP PERMIT PRIOR TO ANY WORK BEING PERFORMED WITHIN CITY RIGHT-OF-WAY.
4. ANY AND ALL WORK PERFORMED ON THE CITY OF MERIDEN RIGHT-OF-WAY SHALL BE REQUIRED TO MEET THE CITY STANDARDS.
5. THE CONTRACTOR SHALL TAKE EXTREME CARE TO PROTECT ALL EXISTING STRUCTURES, SURFACE IMPROVEMENTS, LANDSCAPING, ETC. OUTSIDE THE PROJECT LIMIT LINE AND SHALL RESTORE ANY DAMAGE TO THESE ITEMS TO PRE-DAMAGE CONDITION OR BETTER.
6. CONTRACTOR SHALL SAWCUT EXISTING PAVEMENT AND SIDEWALK AREAS AS REQUIRED BY THE CONTRACT DRAWINGS OR THE OWNER'S REPRESENTATIVE PRIOR TO THE START OF ANY EXCAVATION AND AT ALL LOCATIONS WHERE THE PROPOSED PAVEMENT/CONCRETE WALK MEET EXISTING PAVEMENT/CONCRETE WALK.
7. CONTRACTOR SHALL DEMOLISH, REMOVE, AND LEGALLY DISPOSE OF OFF-SITE CHAIN LINK FENCING, GATES, FOOTINGS, SITE LIGHTING, CONCRETE SIDEWALK, CONCRETE WALK, CONCRETE STAIRS, GUARDRAIL, TRANSFORMER PADS AND FOOTINGS, METAL RAILING, CONCRETE LOADING DOCKS, BOLLARDS, CONCRETE PADS, AND ALL ITEMS INDICATED TO BE REMOVED WITHIN PROJECT LIMIT LINE.
8. THE CONTRACTOR SHALL PROTECT EXISTING UTILITY STRUCTURES NOT IDENTIFIED FOR REMOVAL DURING UTILITY AND SURFACE DEMOLITION OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INCURRED TO EXISTING UTILITY STRUCTURES AND SHALL REPAIR OR REPLACE THE EXISTING UTILITY STRUCTURES TO PRE-DAMAGED CONDITION OR BETTER TO THE SATISFACTION OF THE OWNER AND AT NO ADDITIONAL COST TO THE OWNER.
9. THE PLAN IS PROVIDED TO SHOW THE GENERAL EXTENT OF THE SITE UTILITY REMOVAL AND DEMOLITION. NOT ALL ITEMS REQUIRING REMOVAL MAY BE SHOWN OR CALLED OUT. THE CONTRACTOR IS RESPONSIBLE TO REMOVE AND PROPERLY DISPOSE OF ALL ITEMS ON THE SITE (ABOVE GROUND OR BELOW GROUND) WHICH ARE NOT REQUIRED TO BE SAVED OR PROTECTED AND WHICH WILL NOT BE INCORPORATED INTO THE FINAL CONSTRUCTION.
10. THE PROVISIONS OF WORKER SAFETY AND/OR HEALTH PROTOCOLS THAT ADDRESS COMPLIANCE WITH THE RULES, LAWS AND REGULATIONS PERTAINING TO CONSTRUCTION SAFETY AND/OR THE POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE SPECIFIC PHYSICAL OR CHEMICAL HAZARDS POSED TO THE CONTRACTOR'S EMPLOYEES IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. REFER TO APPLICABLE HEALTH AND SAFETY SPECIFICATIONS
11. PRIOR TO DEMOLITION WORK OF ANY UTILITY, THE CONTRACTOR SHALL CONTACT THE RESPECTIVE UTILITY COMPANY. THE CONTRACTOR SHALL COORDINATE ANY REMOVAL OF EXISTING UTILITIES WITH THE RESPECTIVE UTILITY COMPANY.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES NOT IDENTIFIED FOR REMOVAL OR ABANDONMENT. COORDINATE WITH PROPOSED UTILITY WORK, SEE SHEET C-102.
13. SAWCUT LIMITS FOR UTILITY CONNECTIONS ARE APPROXIMATE IN NATURE. ACTUAL SAWCUT LIMITS, PAVEMENT/CONCRETE REMOVAL AND REPLACEMENT, SHALL BE DETERMINED IN THE FIELD PRIOR TO CONSTRUCTION. SAWCUT, REMOVAL, AND REPLACEMENT LIMITS SHALL COINCIDE WITH THE NEAREST JOINT IN CONCRETE WALK REQUIRED TO INSTALL THE PROPOSED WORK.
14. ALL ITEMS IDENTIFIED FOR REMOVAL/DEMOLITION SHALL BE DISPOSED OF LEGALLY OFF-SITE. ALL COSTS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE.
15. CONTRACTOR TO COMPLY WITH THE REQUIREMENTS FOR EROSION AND SEDIMENTATION CONTROL, SEE C-201 AND C-202.
16. REMOVAL OF SITE LIGHTING SHALL INCLUDE LIGHT FIXTURE, POLE, FOUNDATION, CONDUITS, WIRING, AND APPURTENANCES.
17. CONTRACTOR SHALL PROTECT ALL CONCRETE SIDEWALKS, APRONS, CURBING, BITUMINOUS CONCRETE PAVEMENT, PEDESTRIAN RAMPS, DRAINAGE STRUCTURES, MANHOLES, PIPING, ETC., OUTSIDE PROJECT LIMIT LINE, AND WITHIN CITY ROADWAY RIGHT-OF-WAY.
18. CONTRACTOR SHALL COORDINATE EXACT BUILDING UTILITY SERVICES (WATER, SEWER, STORM, GAS, ELECTRIC, TEL-DATA, CATV) CUT-OFF AND ABANDONMENT REQUIREMENTS WITH THE RESPECTIVE UTILITY COMPANY. THE EXACT NUMBER AND LOCATIONS OF UTILITY SERVICE ABANDONMENTS SHALL BE COORDINATED AND CONFIRMED WITH THE RESPECTIVE UTILITY COMPANY.
19. AN APPLICATION OF INTENT TO DEMOLISH MUST BE FILED WITH THE CITY OF MERIDEN BUILDING DEPARTMENT, WITHIN 14 DAYS OF THE INITIAL APPLICATION SUBMISSION. A STATEMENT VERIFIED UNDER OATH CERTIFYING COMPLIANCE WITH THE APPLICATION REQUIREMENTS MUST BE FILED WITH THE CHIEF BUILDING OFFICIAL. IF NO WRITTEN OBJECTION TO THE ISSUANCE OF A DEMOLITION PERMIT IS FILED WITH THE CHIEF BUILDING OFFICIAL, THE PERMIT MAY BE ISSUED 21 DAYS AFTER THE CERTIFICATION STATEMENT IS FILED. IF WRITTEN OBJECTION IS FILED WITH THE CHIEF BUILDING OFFICIAL, THE PERMIT WILL NOT BE ISSUED UNTIL 90 DAYS AFTER THE APPLICATION IS DEEMED FILED.
20. INSTALL CONSTRUCTION SIGNS, CONSTRUCTION FENCING AND OTHER TEMPORARY CONTROLS AS REQUIRED PRIOR TO INITIATING DEMOLITION ACTIVITIES.
21. COMPLETE BUILDING ABATEMENT ACTIVITIES IN CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS. DEMOLITION WORK SHALL NOT PROCEED ON ANY STRUCTURE UNTIL ABATEMENT OF ASBESTOS OR OTHER HAZARDOUS MATERIALS HAS BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER.
22. BUILDING DEMOLITION SHALL BE CONDUCTED IN CONFORMANCE WITH ABATEMENT AND DEMOLITION SPECIFICATIONS, INCLUDING ALL REGULATORY AND REPORTING REQUIREMENTS. DISPOSE OF ALL MATERIALS IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS AND IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS.
23. CONTAMINATED SUBSURFACE SOIL IS KNOWN TO BE PRESENT WITHIN THE PROJECT LIMITS INCLUDING AREAS ADJACENT TO AND ABUTTING THE BUILDING FOUNDATIONS. CONTRACTOR MUST MAKE ALL REASONABLE EFFORTS TO MINIMIZE DISTURBANCE OF THESE SOILS INCLUDING COMMINGLING OF SOIL AND DEMOLITION WASTES.
17. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

0 30' 60'
SCALE: 1" = 30'

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
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STATE OF CONNECTICUT
PATRICK A. READY
32538
LICENSED PROFESSIONAL ENGINEER
12/03/2024

ISSUED FOR CONSTRUCTION

STATE OF CONNECTICUT
CHARLES J. CRUCE
20374
LICENSED PROFESSIONAL ENGINEER
12/03/2024

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

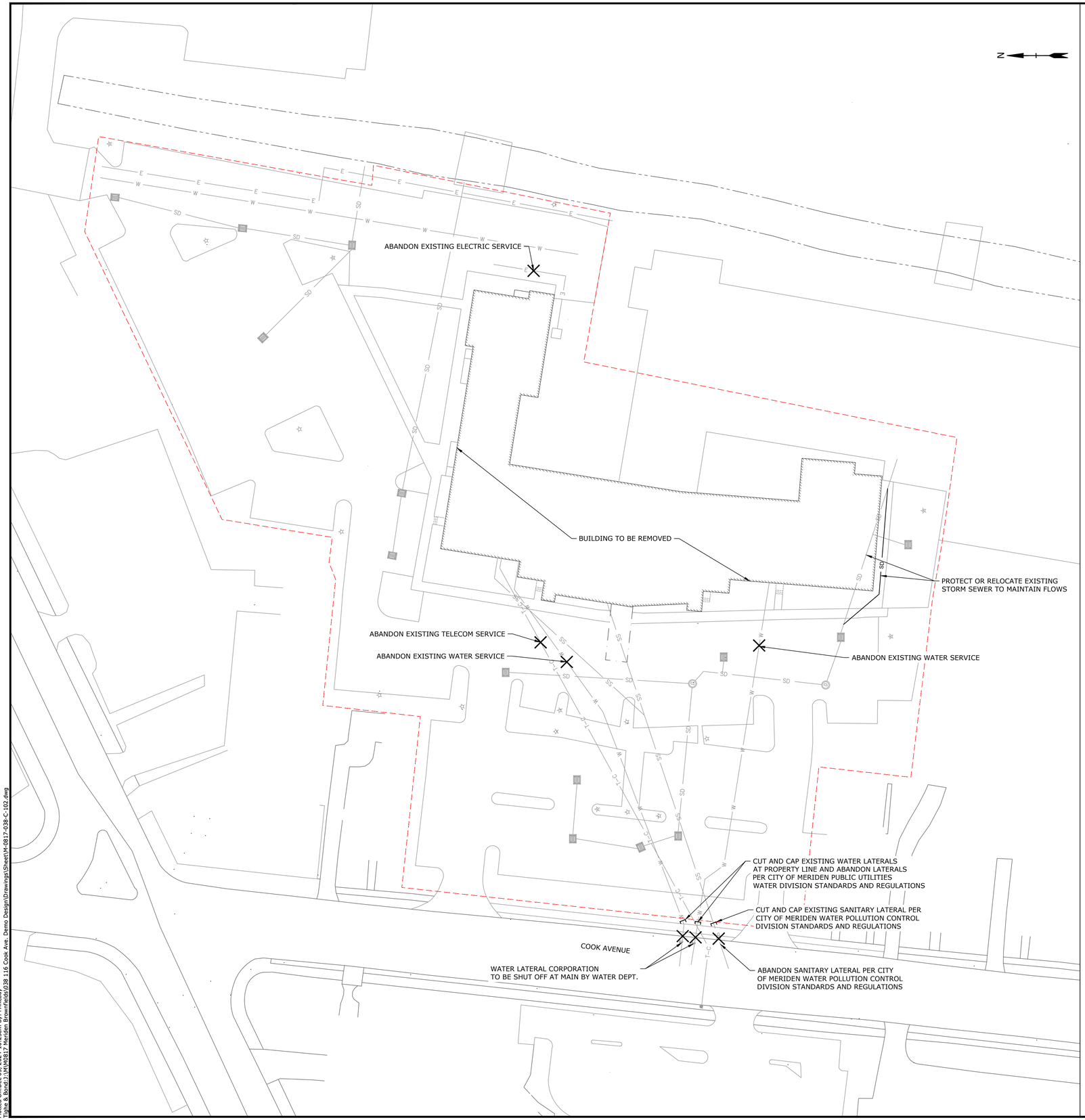
PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-C-101.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

SITE SURFACE DEMOLITION PLAN

SCALE: AS SHOWN

C-101
SHEET 2 OF 12

Last Saved: 12/3/2024
Plotted On:Dec 03, 2024-10:22am By: PAReady
Tighe & Bond:J:\VM\0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-C-101.dwg



SITE UTILITY DEMOLITION NOTES

1. UTILITY, STRUCTURE AND FACILITY LOCATIONS SHOWN HEREON WERE PLOTTED FROM INFORMATION SUPPLIED BY RESPECTIVE UTILITY COMPANIES AND DATA OBTAINED FROM FIELD SURVEYS AND RECORD DRAWINGS. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION SHOWN ON THESE DRAWINGS IS NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE FOR HIMSELF, THE LOCATIONS AND ELEVATIONS OF ALL UTILITIES WHICH MAY AFFECT HIS CONSTRUCTION OPERATIONS. THE CONTRACTOR MUST ADEQUATELY PROTECT AND SUPPORT UTILITIES AND HE SHALL BE RESPONSIBLE FOR ALL DAMAGE INCURRED AT NO EXPENSE TO THE OWNER. ANYONE USING UTILITY INFORMATION AND DATA PROVIDED HEREIN SHALL CONTACT "CALL BEFORE YOU DIG", 1-800-922-4455 OR WWW.CBYD.COM, 72 HOURS IN ADVANCE TO VERIFY THE LOCATION OF UTILITIES PRIOR TO STARTING CONSTRUCTION.
2. REFERENCE IS MADE TO PLAN ENTITLED "116 COOK AVENUE, MERIDEN, CT EXISTING CONDITION PLAN" PREPARED FOR THE CITY OF, MERIDEN, CT BY EAGLE ENVIRONMENTAL, INC. DATED NOVEMBER 15, 2011.
3. THE CONTRACTOR SHALL OBTAIN A CITY OF MERIDEN STREET OPENING PERMIT PRIOR TO ANY WORK BEING PERFORMED WITHIN CITY RIGHT-OF-WAY.
4. ANY AND ALL WORK PERFORMED ON THE CITY OF MERIDEN RIGHT-OF-WAY SHALL BE REQUIRED TO MEET THE CITY STANDARDS.
5. THE CONTRACTOR SHALL TAKE EXTREME CARE TO PROTECT ALL EXISTING STRUCTURES, SURFACE IMPROVEMENTS, LANDSCAPING, ETC. OUTSIDE THE PROJECT LIMIT LINE AND SHALL RESTORE ANY DAMAGE TO THESE ITEMS TO PRE-DAMAGE CONDITION OR BETTER.
6. CONTRACTOR TO DEMOLISH, REMOVE, AND LEGALLY DISPOSE OF OFFSITE EXISTING CATCH BASINS, TRENCH DRAINS, YARD DRAINS, STORM SEWERS, STORM MANHOLES, SANITARY SEWERS, SANITARY MANHOLES, DUCTBANK, VALVES, VALVE BOXES AND COVERS, WIRING, PIPING, MONITORING WELLS, TRANSFORMERS, AND ALL OTHER ITEMS INDICATED TO BE REMOVED.
7. THE CONTRACTOR SHALL PROTECT EXISTING UTILITY STRUCTURES NOT IDENTIFIED FOR REMOVAL DURING UTILITY AND SURFACE DEMOLITION OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INCURRED TO EXISTING UTILITY STRUCTURES AND SHALL REPAIR OR REPLACE THE EXISTING UTILITY STRUCTURES TO PRE-DAMAGED CONDITION OR BETTER TO THE SATISFACTION OF THE OWNER AND AT NO ADDITIONAL COST TO THE OWNER.
8. THIS PLAN IS PROVIDED TO SHOW THE GENERAL EXTENT OF THE SITE UTILITY DEMOLITION. NOT ALL ITEMS REQUIRING REMOVAL MAY BE SHOWN OR CALLED OUT. THE CONTRACTOR IS RESPONSIBLE TO REMOVE AND PROPERLY DISPOSE OF ALL ITEMS ON THE SITE (ABOVE GROUND OR BELOW GROUND) WHICH ARE NOT REQUIRED TO BE SAVED OR PROTECTED AND WHICH WILL NOT BE INCORPORATED INTO THE FINAL CONSTRUCTION.
9. EXISTING SANITARY PIPES CALLED OUT TO BE ABANDONED SHALL BE ABANDONED IN ACCORDANCE WITH CITY OF MERIDEN WATER POLLUTION CONTROL DIVISION'S STANDARDS AND REGULATIONS.
10. EXISTING WATER LATERALS PIPES CALLED OUT TO BE ABANDONED SHALL BE ABANDONED IN ACCORDANCE WITH CITY OF MERIDEN PUBLIC UTILITIES WATER DIVISION'S STANDARDS AND REGULATIONS.
11. EXISTING GAS LATERALS PIPES CALLED OUT TO BE ABANDONED SHALL BE ABANDONED IN ACCORDANCE WITH EVERSOURCE ENERGY'S STANDARDS AND REQUIREMENTS.
12. EXISTING ELECTRICAL SERVICE AND EQUIPMENTS CALLED OUT TO BE ABANDONED AND/OR REMOVED SHALL BE ABANDONED AND/OR REMOVED IN ACCORDANCE WITH EVERSOURCE ENERGY'S STANDARDS AND REQUIREMENTS.
13. CONTRACTOR SHALL PROTECT ALL CONCRETE SIDEWALKS, APRONS, CURBING, BITUMINOUS CONCRETE PAVEMENT, PEDESTRIAN RAMPS, DRAINAGE STRUCTURES, MANHOLES, PIPING, ETC., OUTSIDE PROJECT LIMIT LINE, AND WITHIN CITY ROADWAY RIGHT-OF-WAY.
14. CONTRACTOR SHALL COORDINATE EXACT BUILDING UTILITY SERVICES (WATER, SEWER, STORM, GAS, ELECTRIC, TEL-DATA, CATV) CUT-OFF AND ABANDONMENT REQUIREMENTS WITH THE RESPECTIVE UTILITY COMPANY. THE EXACT NUMBER AND LOCATIONS OF UTILITY SERVICE ABANDONMENTS SHALL BE COORDINATED AND CONFIRMED WITH THE RESPECTIVE UTILITY COMPANY.
15. FIRE HYDRANTS CANNOT BE USED TO SUPPLY WATER TO THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING WATER DURING CONSTRUCTION. A WATER FILLING STATION IS LOCATED AT PARKER AVENUE WATER DEPARTMENT.
16. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY SHUTOFF, CAPPING, ABANDONING, BACKFILLING, COMPACTION, AND PAVEMENT REPAIR. COORDINATE WITH RESPECTIVE UTILITY COMPANIES.
17. THE CONTRACTOR SHALL MAINTAIN EXISTING STORM SEWER FLOWS BY PUMPING OR OTHER MEANS APPROVED BY THE OWNER'S REPRESENTATIVE DURING BUILDING DEMOLITION IN LOCATIONS WHERE STORM SEWER IS BEING REPLACED OR RELOCATED.
18. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

SITE UTILITY DEMOLITION LEGEND

- PROJECT LIMIT LINE
- ABANDON PIPE/STRUCTURE
- REMOVE PIPE/STRUCTURE
- CUT AND CAP PIPE
- CUT AND PROTECT PIPE
- STORM SEWER (Ex. 15" RCP)
- CATCH BASIN
- YARD DRAIN
- SANITARY SEWER (Ex. 8"San. Sewer Main)
- SANITARY LATERAL
- SANITARY MANHOLE
- WATER MAIN (Ex. 6" Water Main)
- WATER VALVE (WV)
- HYDRANT
- GAS MAIN
- GAS GATE (GV)
- ELECTRIC - BURIED
- ELECTRIC - OVERHEAD
- EXISTING TRANSFORMER (Ex. Transformer)
- UTILITY POLE
- LIGHT POLE
- MONITORY WELL
- BORING LOCATION

0 30' 60'
SCALE: 1" = 30'

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STATE OF CONNECTICUT · PATRICK A. REVAY · 32536 · LICENSED PROFESSIONAL ENGINEER · 12/03/2024

ISSUED FOR CONSTRUCTION

STATE OF CONNECTICUT · CHARLES J. CRUCE · 20374 · LICENSED PROFESSIONAL ENGINEER · 12/03/2024

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

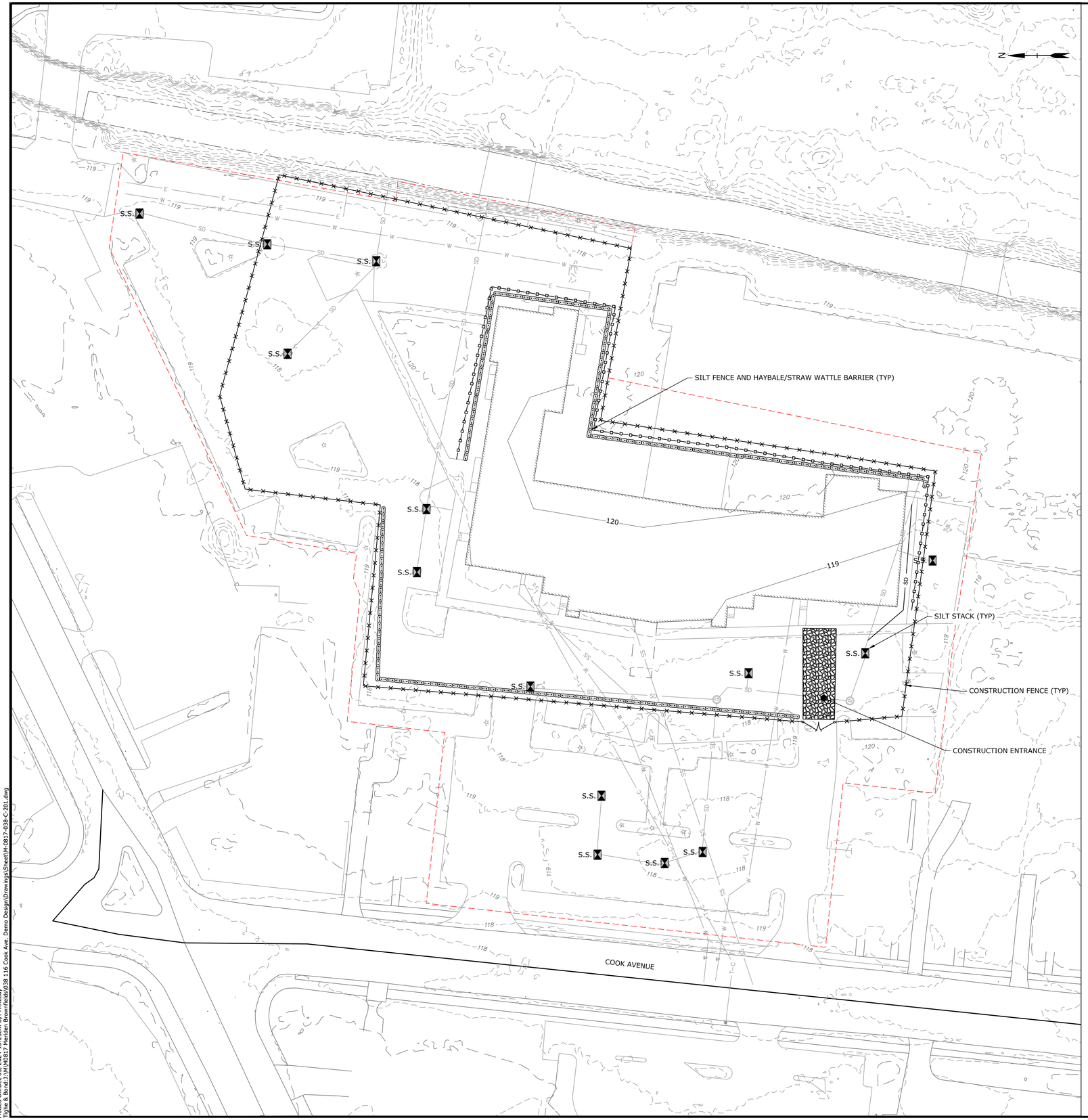
PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-C-102.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

SITE UTILITY DEMOLITION PLAN

SCALE: AS SHOWN

C-102
SHEET 3 OF 12

Last Saved: 12/3/2024
Plotted On:Dec 03, 2024-10:23am By: PAReady
Tighe & Bond-3:\M\M0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-C-102.dwg



SITE GRADING, DRAINAGE AND SEDIMENTATION CONTROL PLAN NOTES

1. REFERENCE IS MADE TO PLAN ENTITLED "116 COOK AVENUE, MERIDEN, CT EXISTING CONDITION PLAN" PREPARED FOR THE CITY OF MERIDEN BY EAGLE ENVIRONMENTAL, INC.
2. CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" (1-800-922-4455) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATION.
3. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND OTHER DATA SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES, GOVERNMENTAL AGENCIES AND/OR OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH DATA MAY EXIST ON SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO TIGHE & BOND. THE EXISTENCE, SIZE AND LOCATION OF ALL SUCH FEATURES MUST BE DETERMINED AND VERIFIED IN THE FIELD BY APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION @ CALL-BEFORE-YOU-DIG 1-800-922-4455.
4. ALL SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" DEP BULLETIN NO 34, AND ALL AMENDMENTS AND ADDENDA THERETO AS PUBLISHED BY THE CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION.
5. LAND DISTURBANCE SHALL BE KEPT TO THE MINIMUM NECESSARY FOR CONSTRUCTION.
6. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND ELSEWHERE AS ORDERED BY THE OWNER'S REPRESENTATIVE, OR THE CITY OF MERIDEN.
7. ALL CATCH BASINS SHALL BE PROTECTED WITH SILT SACKS, HAYBALE RING, SILT FENCE OR BLOCK AND STONE INLET PROTECTION THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
8. WHEREVER POSSIBLE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION.
9. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING CONSTRUCTION PERIOD AS ORDERED BY THE OWNER'S REPRESENTATIVE, OR THE CITY OF MERIDEN.
10. SEDIMENT REMOVED SHALL BE DISPOSED OF LEGALLY OFFSITE.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.
12. THE CONTRACTOR SHALL MAINTAIN A SUPPLY OF SILT FENCE/HAYBALES AND ANTI-TRACKING CRUSHED STONE ON-SITE FOR EMERGENCY REPAIRS.
13. THE CONTRACTOR SHALL UTILIZE APPROVED METHODS/MATERIALS FOR PREVENTING THE BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES ONTO ADJACENT PROPERTIES AND SITE AREAS.
14. ALL DRAINAGE STRUCTURES SHALL BE INSPECTED WEEKLY BY THE CONTRACTOR AND CLEANED TO PREVENT THE BUILD-UP OF SILT.
15. THE CONTRACTOR SHALL CAREFULLY COORDINATE THE PLACEMENT OF EROSION CONTROL MEASURES WITH THE PHASING OF CONSTRUCTION.
16. KEEP ALL PAVED ROADWAYS CLEAN. SWEEP BEFORE FORECASTED STORMS OR WEEKLY AS NECESSARY OR AS DIRECTED BY THE CITY.
17. TREAT ALL UNPAVED SURFACES WITH 4" MINIMUM OF TOPSOIL AND SEEDING PRIOR TO FINAL STABILIZATION.
18. HAYBALE BARRIERS AND SILT FENCING SHALL BE INSTALLED ALONG THE TOE OF CRITICAL CUT AND FILL SLOPES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE OR THE CITY OF MERIDEN.
19. ALL TRUCKS LEAVING THE SITE MUST BE COVERED.
20. DISTURBED SLOPES SHALL BE TREATED WITH AN EROSION CONTROL SLURRY CONSISTING OF A MIXTURE OF WOOD FIBER MULCH, PLANT SEED AND 3 GALLONS/ACRE OF SILT STOP 640 LIQUID FLOCCULENT. THE FLOCCULENT IS PROVIDED BY HYDROGRASS TECHNOLOGIES, OXFORD MASSACHUSETTS.
21. ALL SEDIMENTATION AND EROSION CONTROLS SHALL BE CHECKED WEEKLY AND AFTER EACH RAINFALL EVENT. NECESSARY REPAIRS SHALL BE MADE WITHOUT DELAY.
22. PRIOR TO ANY FORECASTED RAINFALL, EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED AND REPAIRED AS NECESSARY.
23. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, EROSION CONTROLS MAY BE REMOVED ONCE AUTHORIZATION TO DO SO HAS BEEN SECURED FROM THE CITY OF MERIDEN. DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
24. CONTRACTOR IS TO COMPLY WITH THE REQUIREMENTS OF THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN.
25. PROPOSED SITE GRADING IS INTENDED TO SHOW THE GENERAL GRADING SCHEME AND SLOPING OF THE SITE. PROPOSED GRADING MAY BE VARIED IN THE FIELD BY THE ENGINEER TO ACCOUNT FOR UNKNOWN CONDITIONS SUCH AS DEPTH TO ROCK, GROUNDWATER, UNSUITABLE OR UNSTABLE SOILS, UNSTABLE SLOPING, ETC.
26. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

SITE UTILITY AND GRADING PLAN LEGEND

- PROPERTY LINE
- PROJECT LIMIT LINE
- MINOR CONTOUR — 119
- MAJOR CONTOUR — 120
- PROPOSED MAJOR CONTOUR — 120
- PROPOSED MINOR CONTOUR — 119
- SILT SACK — S.S.
- HAYBALE INLET PROTECTION
- GEOTEXTILE SILT FENCE
- HAYBALE/STRAW WATTLE BARRIER
- SOIL STOCKPILE AREA — See Plan/Note
- CONSTRUCTION ENTRANCE
- CONSTRUCTION FENCE
- CONSTRUCTION GATE

0 30' 60'
SCALE: 1" = 30'

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STATE OF CONNECTICUT · PATRICK A. READY · 32538 · LICENSED PROFESSIONAL ENGINEER · 12/03/2024

ISSUED FOR CONSTRUCTION

STATE OF CONNECTICUT · CHARLES J. CROCE · 20374 · LICENSED PROFESSIONAL ENGINEER · 12/03/2024

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

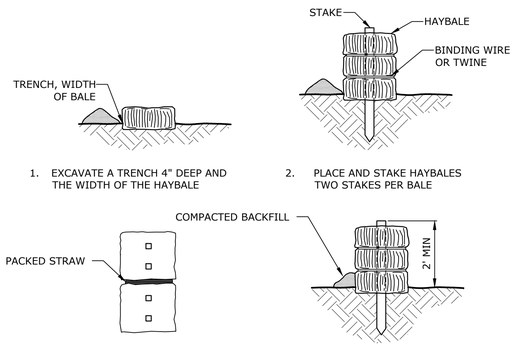
PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-C-201.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

SITE GRADING, DRAINAGE, AND SEDIMENTATION CONTROL PLAN

SCALE: AS SHOWN

C-201
SHEET 4 OF 12

Last Saved: 12/3/2024
Plotted On:Dec 03, 2024-10:23am By: PAReady
Tighe & Bond:J:\WM0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-C-201.dwg



PLACEMENT AND CONSTRUCTION OF HAYBALE BARRIER
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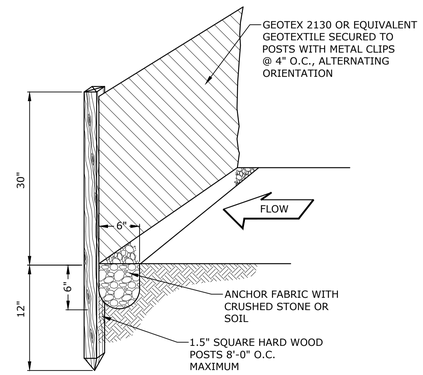

SILT FENCE
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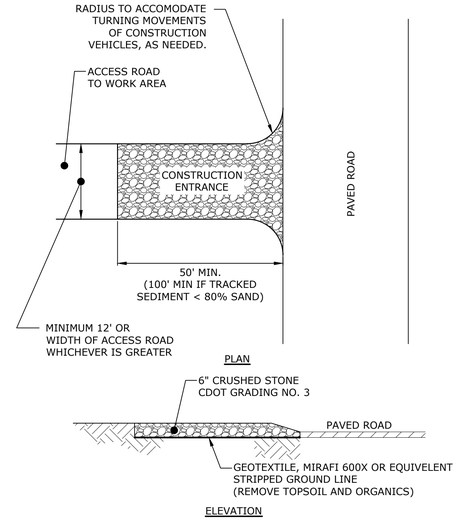

CONSTRUCTION ENTRANCE
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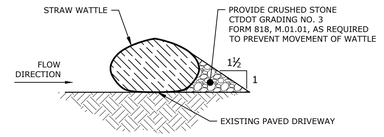

STRAW WATTLE
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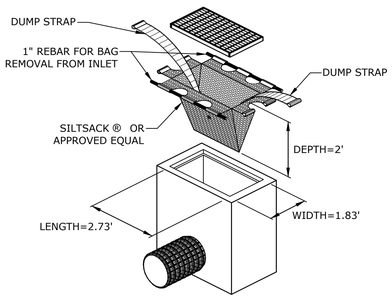
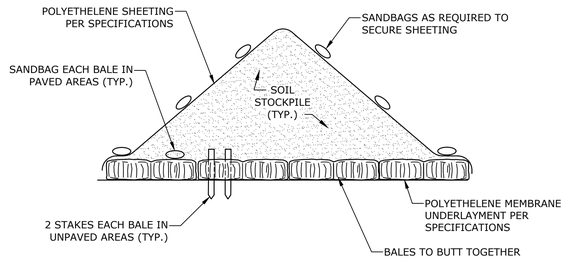


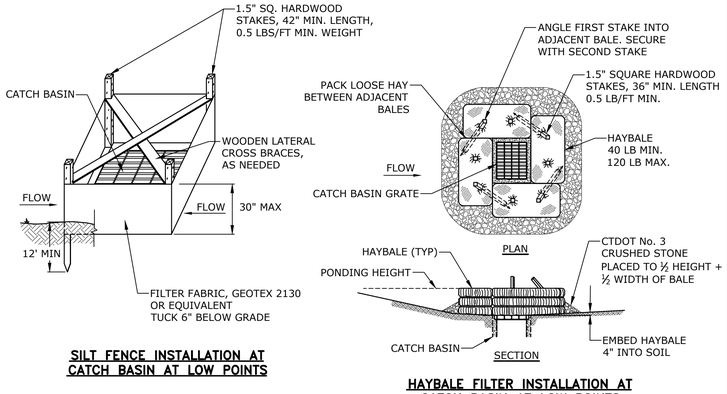
SILTSACK MANUFACTURED BY:
ACF ENFIRONMENTAL
2831 CARDWELL ROAD
RICHMOND, VIRGINIA 23237

SILTSACK®
NO SCALE



NOTE: DIMENSIONS AS SHOWN ON PLANS.

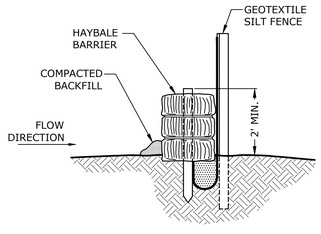
TEMPORARY CONTROLLED STOCKPILE AREA
NO SCALE



SILT FENCE INSTALLATION AT CATCH BASIN AT LOW POINTS

HAYBALE FILTER INSTALLATION AT CATCH BASIN AT LOW POINTS

CATCH BASIN EROSION CONTROL
NO SCALE



BACKFILL AND COMPACT THE EXCAVATED SOIL AS SHOWN ON THE UPHILL SIDE OF THE BARRIER TO PREVENT PIPING.

SILT FENCE AND HAYBALE COMBINED BARRIER
NO SCALE

SESC NARRATIVE

THE CITY OF MERIDEN IS PROPOSING TO DEMOLISH ONE BUILDING LOCATED AT 116 COOK AVENUE IN MERIDEN, CT.

THE PROJECT WILL INCLUDE THE DEMOLITION OF THE EXISTING BUILDING, DEMOLITION OF THE SURFACE FEATURES WITHIN FOOTPRINT REQUIRED FOR BUILDING DEMOLITION AND FOUNDATION REMOVAL, AS WELL AS ABANDONING BUILDING UTILITY SERVICES.

THE DISTURBED AREAS ARE PROPOSED TO BE RESTORED WITH TURF ESTABLISHMENT, AND GRADED TO DRAIN SIMILAR TO EXISTING DRAINAGE PATTERNS.

THE PROJECT IS PROPOSED TO BE PERFORMED IN A SINGLE PHASE. FOR DEMOLITION OF THE BUILDING, IT IS ANTICIPATED THAT APPROXIMATELY 0.75 ACRES WILL BE DISTURBED.

ANTICIPATED PROJECT CONSTRUCTION START: SPRING 2025
ANTICIPATED PROJECT CONSTRUCTION END: SUMMER 2025

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL CONFORM TO THE STANDARDS OUTLINED IN THE CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION (CTDEEP), "2023 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL", LATEST REVISION.

CONSTRUCTION SEQUENCE

1. FLAG THE LIMITS OF CONSTRUCTION NECESSARY TO FACILITATE THE PRECONSTRUCTION MEETING.
2. HOLD PRECONSTRUCTION MEETING. (NOTIFY CALL BEFORE YOU DIG 1-800-922-4455).
3. FLAG REMAINDER OF THE LIMITS OF CONSTRUCTION .
4. INSTALL THE CONSTRUCTION ENTRANCE.
5. INSTALL CONSTRUCTION FENCE GATE AND TEMPORARY 6' HIGH CHAIN LINK FENCE TO SECURE THE WORK AREA(S).
6. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS IN ACCORDANCE WITH THE SESC PLAN.
7. ESTABLISH CONTRACTOR'S STAGING AREA.
8. DISCONNECT UTILITIES/COORDINATE WITH CITY AND RESPECTIVE UTILITY COMPANIES. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS.
9. ABATE ASBESTOS-CONTAINING MATERIAL FROM EACH BUILDING.
10. DEMOLISH EXISTING BUILDING.
11. REMOVE AND/OR ABANDON SURFACE FEATURES AND UTILITIES AS IDENTIFIED IN THE CONTRACT DOCUMENTS.
12. MAKE ALL REMAINING CUTS AND FILLS REQUIRED.
13. INSTALL SOIL AND SLOPE STABILIZATION MEASURES.
14. FINE GRADE, RAKE, SEED AND MULCH.
15. AFTER SITE IS STABILIZED, INCLUDING CLEARING OF CONTRACTOR STAGING/STORAGE AREA AND ANY OTHER REQUIRED RESTORATIONS, REMOVE TEMPORARY EROSION AND SEDIMENT CONTROLS (E.G. GEOTEXTILE SILT FENCES).

NOTE

1. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

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City of Meriden

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MARK	DATE	DESCRIPTION

PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-C-202.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

SEDIMENTATION AND EROSION CONTROL DETAILS

SCALE: NO SCALE

C-202
SHEET 5 OF 12

Last Saved: 12/3/2024
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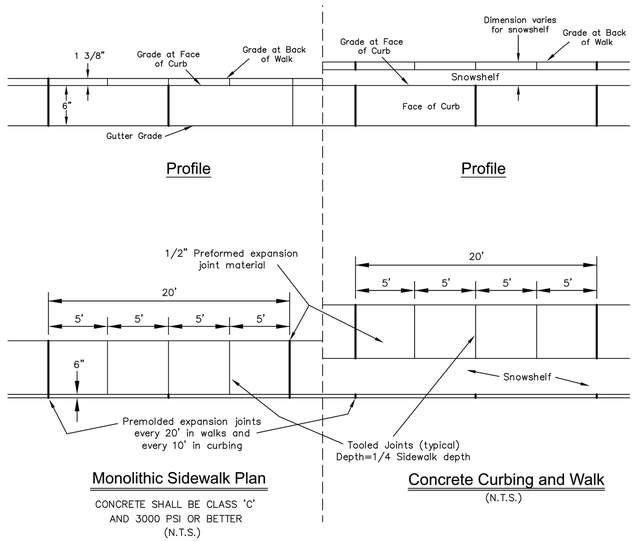
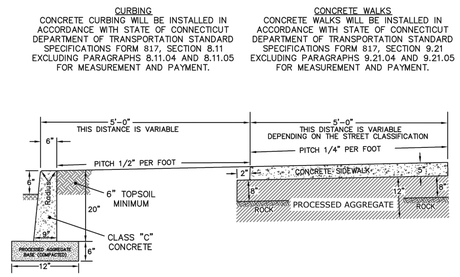
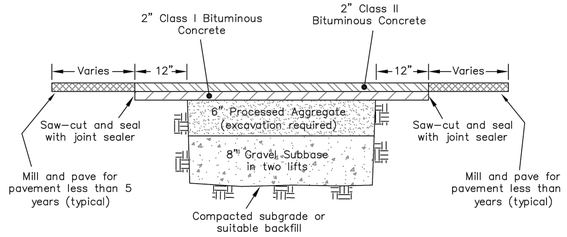
Tighe & Bond:J:\M\M0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-C-202.dwg





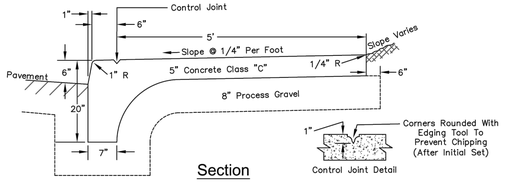
Typical Curb & Sidewalk



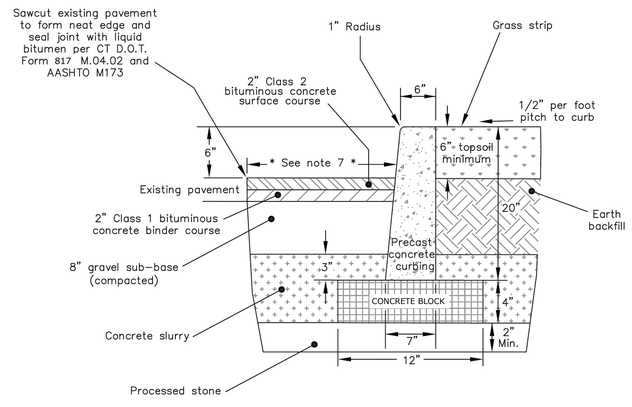
Permanent Pavement Repair Detail

Not to scale

NOTE: Match existing pavement thickness up to 9" with Class I bituminous concrete in 3" maximum lifts within the processed aggregate and gravel subbase layers.

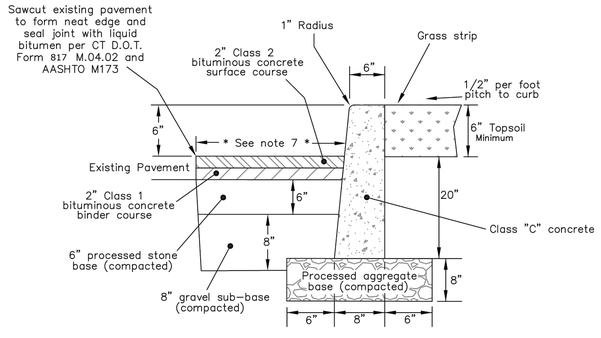


Typical Monolithic Curb & Sidewalk



Precast Concrete Curb Detail

Not to scale



Poured in Place Concrete Curb Detail

Not to scale

NOTE

1. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STATE OF CONNECTICUT PATRICK A. REGAN 32538 LICENSED PROFESSIONAL ENGINEER 12/03/2024

ISSUED FOR CONSTRUCTION

STATE OF CONNECTICUT CHARLES J. CROCE 20374 LICENSED PROFESSIONAL ENGINEER 12/03/2024

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

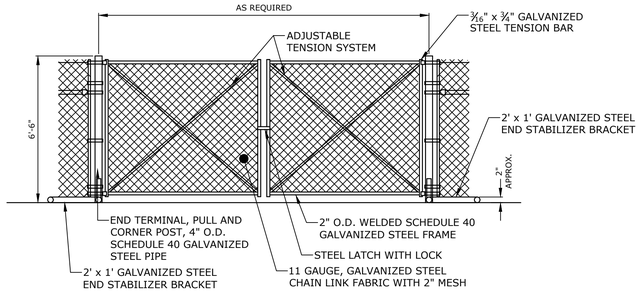
PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-C-301.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

CITY OF MERIDEN STANDARD DETAILS

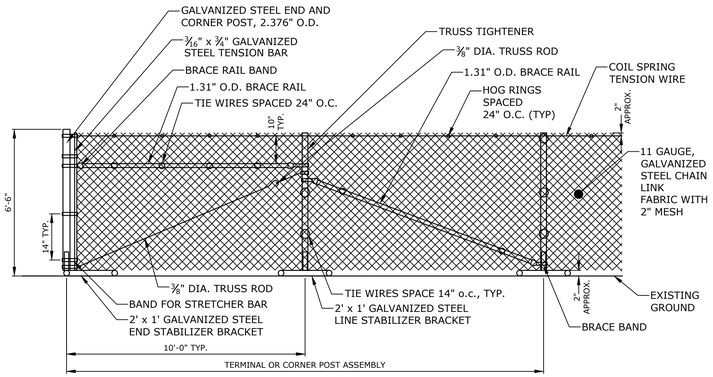
SCALE: NO SCALE

C-301
SHEET 6 OF 12

Last Saved: 12/3/2024
Plotted On:Dec 03, 2024-10:23am By: PAReady
Tighe & Bond:J:\M\M0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-C-301.dwg



6' TEMPORARY CHAIN LINK CONSTRUCTION GATE
NO SCALE



6' TEMPORARY CHAIN LINK CONSTRUCTION FENCE
NO SCALE

NOTE

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Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

STATE OF CONNECTICUT
PATRICK A. READY
32536
LICENSED
PROFESSIONAL ENGINEER
12/03/2024

ISSUED FOR CONSTRUCTION

STATE OF CONNECTICUT
CHARLES J. CROCE
20374
LICENSED
PROFESSIONAL ENGINEER
12/03/2024

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

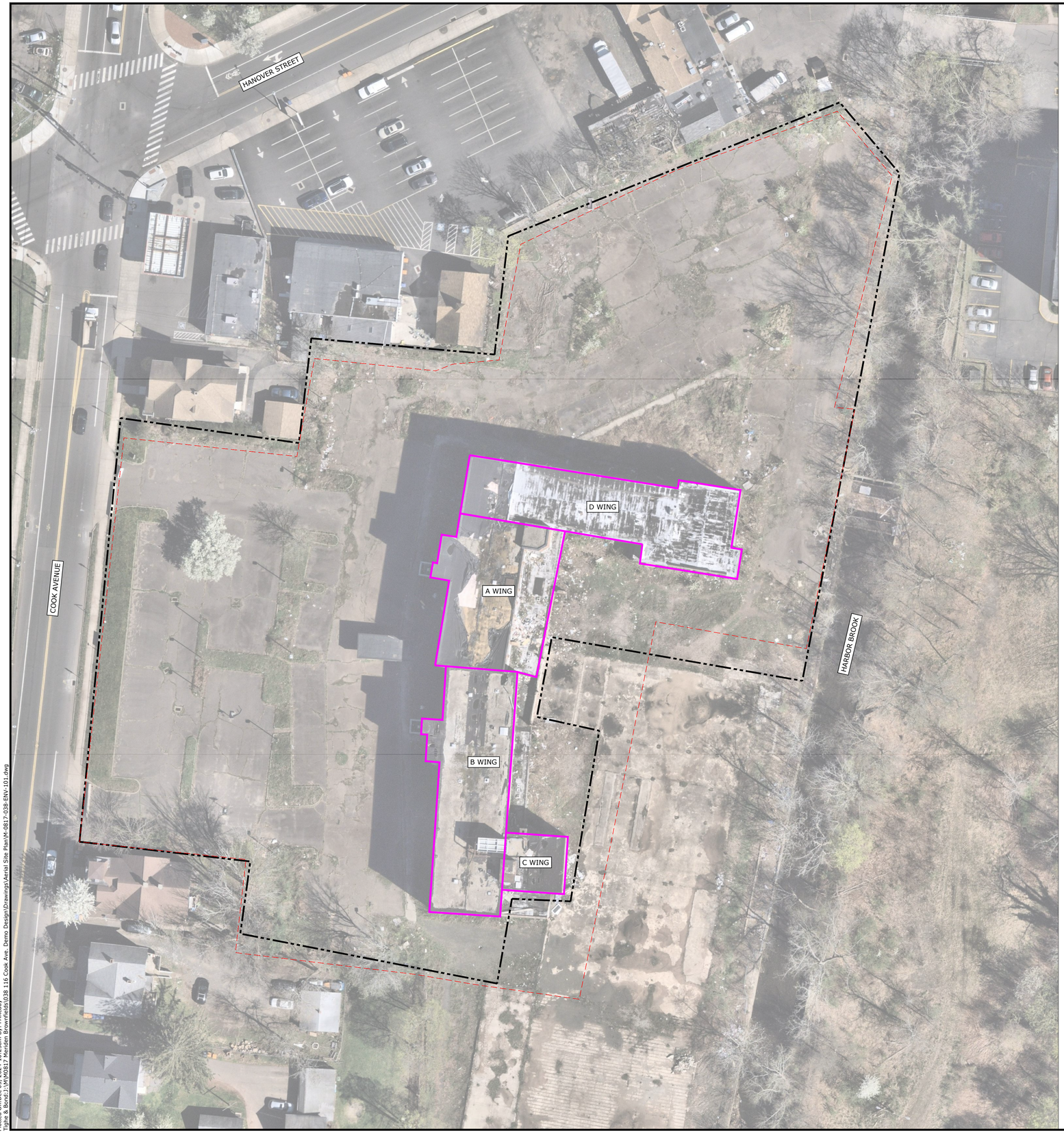
PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-C-302.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

SITE DETAILS

SCALE: NO SCALE

C-302
SHEET 7 OF 12

Last Saved: 12/3/2024
Plotted On:Dec 03, 2024-10:23am By: PAReady
Tighe & Bond:J:\M\M0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-C-302.dwg



N

LEGEND

APPROXIMATE PROPERTY BOUNDARY

PROJECT LIMIT LINE

EXISTING BUILDING

NOTE

1. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

MAP REFERENCES

1. AERIAL FROM NEARMAP, DATED MARCH 22, 2024.

0 20' 40'
SCALE: 1" = 20'

Tighe&Bond

ISSUED FOR CONSTRUCTION

Limited HBM Assessment & Demolition Design Services

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

PROJECT NO:	22-0817-038
DATE:	11/19/2024
FILE:	M-0817-038-ENV-101.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	NY
APPROVED BY:	HL

EXISTING CONDITIONS

SCALE: AS SHOWN

ENV-101
SHEET 8 OF 12

GENERAL NOTES

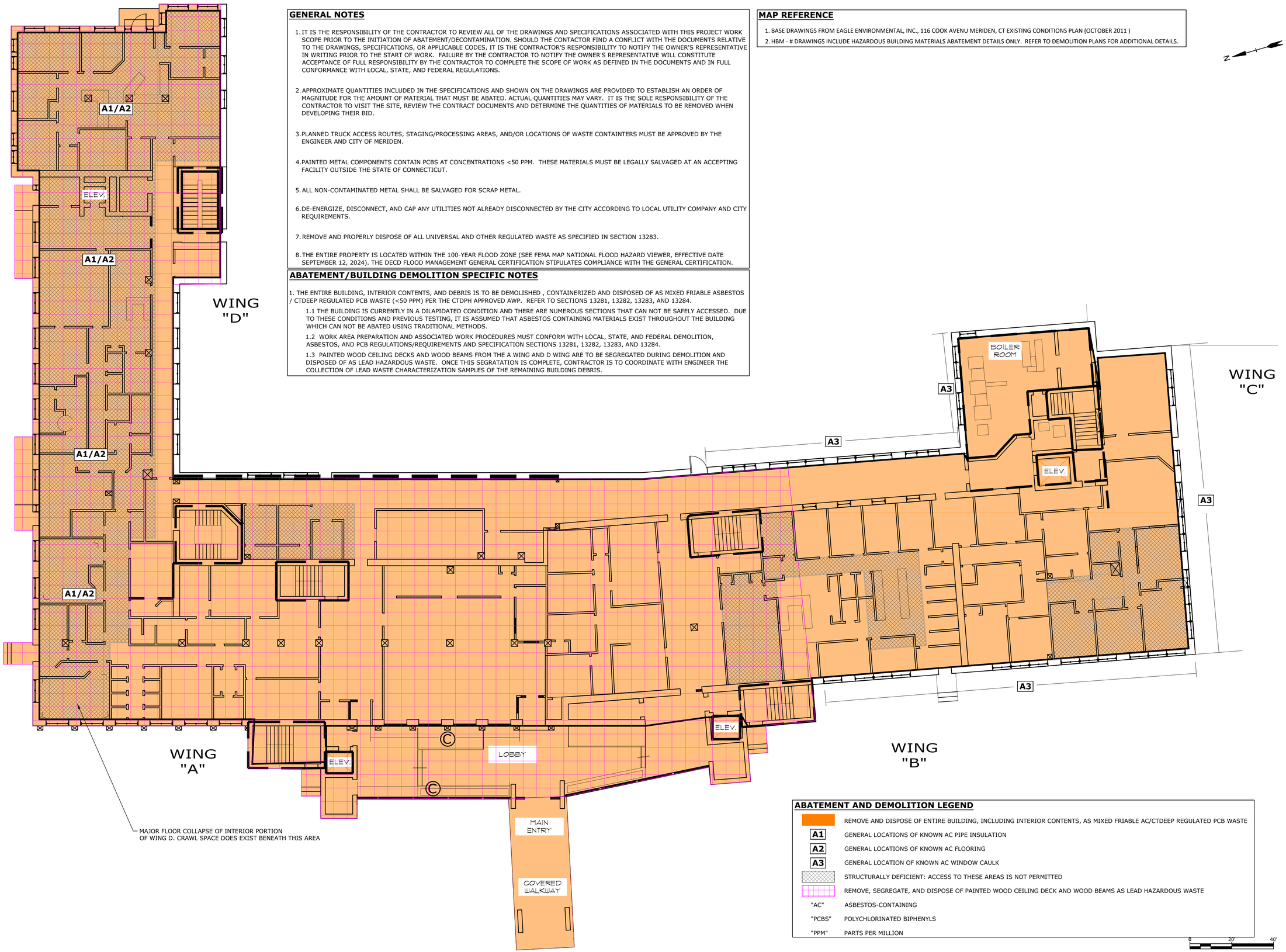
1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT WORK SCOPE PRIOR TO THE INITIATION OF ABATEMENT/DECONTAMINATION. SHOULD THE CONTACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE DRAWINGS, SPECIFICATIONS, OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IN WRITING PRIOR TO THE START OF WORK. FAILURE BY THE CONTRACTOR TO NOTIFY THE OWNER'S REPRESENTATIVE WILL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED IN THE DOCUMENTS AND IN FULL CONFORMANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
2. APPROXIMATE QUANTITIES INCLUDED IN THE SPECIFICATIONS AND SHOWN ON THE DRAWINGS ARE PROVIDED TO ESTABLISH AN ORDER OF MAGNITUDE FOR THE AMOUNT OF MATERIAL THAT MUST BE ABATED. ACTUAL QUANTITIES MAY VARY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE, REVIEW THE CONTRACT DOCUMENTS AND DETERMINE THE QUANTITIES OF MATERIALS TO BE REMOVED WHEN DEVELOPING THEIR BID.
3. PLANNED TRUCK ACCESS ROUTES, STAGING/PROCESSING AREAS, AND/OR LOCATIONS OF WASTE CONTAINTERS MUST BE APPROVED BY THE ENGINEER AND CITY OF MERIDEN.
4. PAINTED METAL COMPONENTS CONTAIN PCBS AT CONCENTRATIONS <50 PPM. THESE MATERIALS MUST BE LEGALLY SALVAGED AT AN ACCEPTING FACILITY OUTSIDE THE STATE OF CONNECTICUT.
5. ALL NON-CONTAMINATED METAL SHALL BE SALVAGED FOR SCRAP METAL.
6. DE-ENERGIZE, DISCONNECT, AND CAP ANY UTILITIES NOT ALREADY DISCONNECTED BY THE CITY ACCORDING TO LOCAL UTILITY COMPANY AND CITY REQUIREMENTS.
7. REMOVE AND PROPERLY DISPOSE OF ALL UNIVERSAL AND OTHER REGULATED WASTE AS SPECIFIED IN SECTION 13283.
8. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

ABATEMENT/BUILDING DEMOLITION SPECIFIC NOTES

1. THE ENTIRE BUILDING, INTERIOR CONTENTS, AND DEBRIS IS TO BE DEMOLISHED , CONTAINERIZED AND DISPOSED OF AS MIXED FRIABLE ASBESTOS / CTDEEP REGULATED PCB WASTE (<50 PPM) PER THE CTDPH APPROVED AWP. REFER TO SECTIONS 13281, 13282, 13283, AND 13284.
   - 1.1 THE BUILDING IS CURRENTLY IN A DILAPIDATED CONDITION AND THERE ARE NUMEROUS SECTIONS THAT CAN NOT BE SAFELY ACCESSED. DUE TO THESE CONDITIONS AND PREVIOUS TESTING, IT IS ASSUMED THAT ASBESTOS CONTAINING MATERIALS EXIST THROUGHOUT THE BUILDING WHICH CAN NOT BE ABATED USING TRADITIONAL METHODS.
   - 1.2 WORK AREA PREPARATION AND ASSOCIATED WORK PROCEDURES MUST CONFORM WITH LOCAL, STATE, AND FEDERAL DEMOLITION, ASBESTOS, AND PCB REGULATIONS/REQUIREMENTS AND SPECIFICATION SECTIONS 13281, 13282, 13283, AND 13284.
   - 1.3 PAINTED WOOD CEILING DECKS AND WOOD BEAMS FROM THE A WING AND D WING ARE TO BE SEGREGATED DURING DEMOLITION AND DISPOSED OF AS LEAD HAZARDOUS WASTE. ONCE THIS SEGRATATION IS COMPLETE, CONTRACTOR IS TO COORDINATE WITH ENGINEER THE COLLECTION OF LEAD WASTE CHARACTERIZATION SAMPLES OF THE REMAINING BUILDING DEBRIS.

MAP REFERENCE

1. BASE DRAWINGS FROM EAGLE ENVIRONMENTAL, INC., 116 COOK AVENU MERIDEN, CT EXISTING CONDITIONS PLAN (OCTOBER 2011)
2. HBM - # DRAWINGS INCLUDE HAZARDOUS BUILDING MATERIALS ABATEMENT DETAILS ONLY. REFER TO DEMOLITION PLANS FOR ADDITIONAL DETAILS.



ABATEMENT AND DEMOLITION LEGEND

	REMOVE AND DISPOSE OF ENTIRE BUILDING, INCLUDING INTERIOR CONTENTS, AS MIXED FRIABLE AC/CTDEEP REGULATED PCB WASTE
A1	GENERAL LOCATIONS OF KNOWN AC PIPE INSULATION
A2	GENERAL LOCATIONS OF KNOWN AC FLOORING
A3	GENERAL LOCATION OF KNOWN AC WINDOW CAULK
	STRUCTURALLY DEFICIENT: ACCESS TO THESE AREAS IS NOT PERMITTED
	REMOVE, SEGREGATE, AND DISPOSE OF PAINTED WOOD CEILING DECK AND WOOD BEAMS AS LEAD HAZARDOUS WASTE
"AC"	ASBESTOS-CONTAINING
"PCBS"	POLYCHLORINATED BIPHENYLS
"PPM"	PARTS PER MILLION

0 20' 40'
SCALE: 1" = 20'

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

ISSUED FOR CONSTRUCTION

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-HBM-101.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

FIRST FLOOR

SCALE: AS SHOWN

HBM-101
SHEET 9 OF 12

Last Saved: 12/3/2024
Plotted On:Dec 03, 2024-10:24am By: PAReady
Tighe & Bond:J:\WM0817 Meriden Brownfield\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-HBM-101.dwg

GENERAL NOTES

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7. REMOVE AND PROPERLY DISPOSE OF ALL UNIVERSAL AND OTHER REGULATED WASTE AS SPECIFIED IN SECTION 13283.
8. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

ABATEMENT/BUILDING DEMOLITION SPECIFIC NOTES

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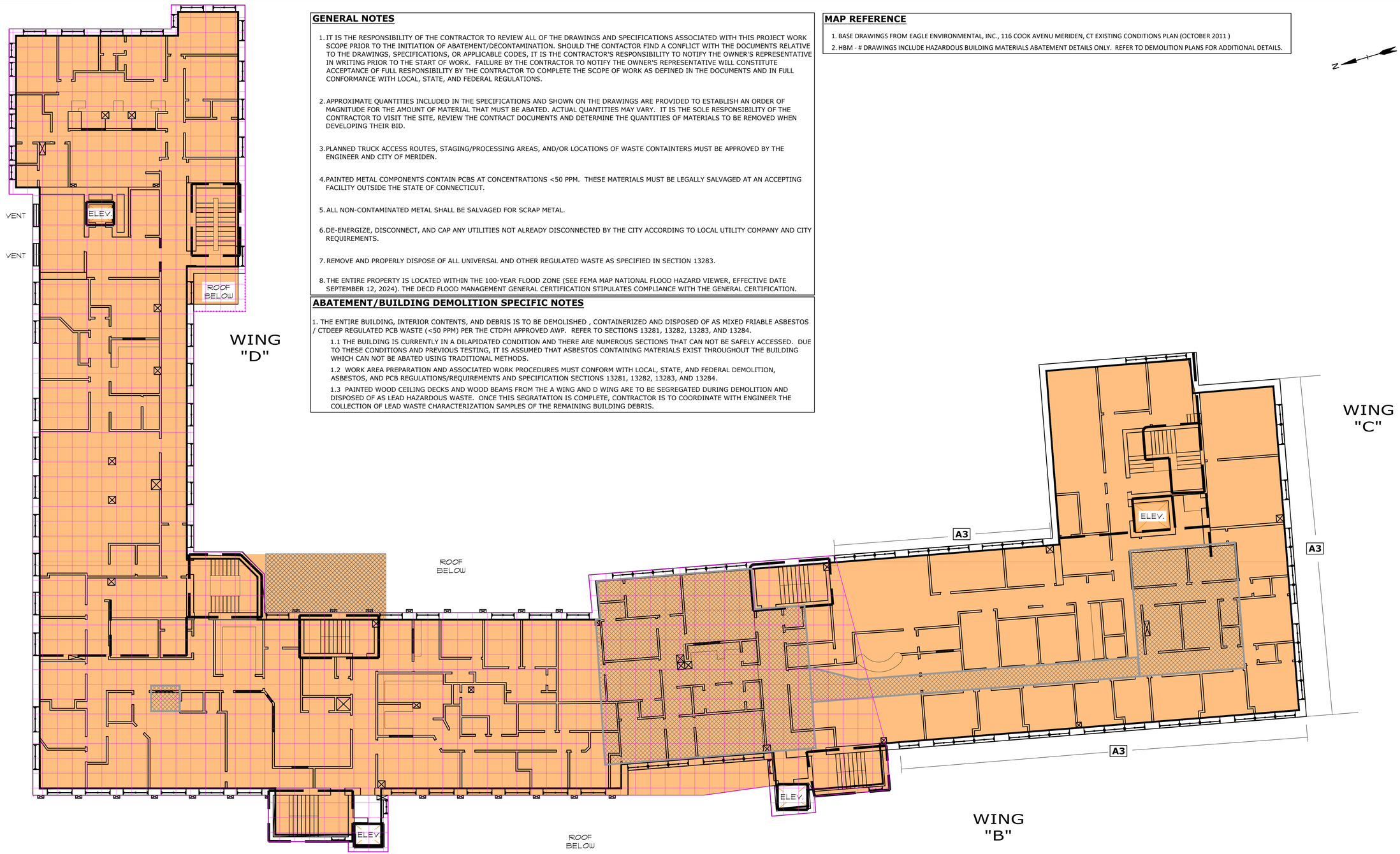
MAP REFERENCE

1. BASE DRAWINGS FROM EAGLE ENVIRONMENTAL, INC., 116 COOK AVENU MERIDEN, CT EXISTING CONDITIONS PLAN (OCTOBER 2011)
2. HBM - # DRAWINGS INCLUDE HAZARDOUS BUILDING MATERIALS ABATEMENT DETAILS ONLY. REFER TO DEMOLITION PLANS FOR ADDITIONAL DETAILS.



ABATEMENT AND DEMOLITION LEGEND

	REMOVE AND DISPOSE OF ENTIRE BUILDING, INCLUDING INTERIOR CONTENTS, AS MIXED FRIABLE AC/CTDEEP REGULATED PCB WASTE
A3	GENERAL LOCATION OF KNOWN AC WINDOW CAULK
	STRUCTURALLY DEFICIENT: ACCESS TO THESE AREAS IS NOT PERMITTED
	REMOVE, SEGREGATE, AND DISPOSE OF PAINTED WOOD CEILING DECK AND WOOD BEAMS AS LEAD HAZARDOUS WASTE
"AC"	ASBESTOS-CONTAINING
"PCBS"	POLYCHLORINATED BIPHENYLS
"PPM"	PARTS PER MILLION

0 20' 40'
SCALE: 1" = 20'

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

ISSUED FOR CONSTRUCTION

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-HBM-102.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

SECOND FLOOR

SCALE: AS SHOWN

HBM-102
SHEET 10 OF 12

Last Saved: 12/3/2024
Plotted On:Dec 03, 2024-10:24am By: PAReady
Tighe & Bond:J:\M\M0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-HBM-102.dwg

GENERAL NOTES

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7. REMOVE AND PROPERLY DISPOSE OF ALL UNIVERSAL AND OTHER REGULATED WASTE AS SPECIFIED IN SECTION 13283.
8. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

ABATEMENT/BUILDING DEMOLITION SPECIFIC NOTES

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MAP REFERENCE

1. BASE DRAWINGS FROM EAGLE ENVIRONMENTAL, INC., 116 COOK AVENU MERIDEN, CT EXISTING CONDITIONS PLAN (OCTOBER 2011)
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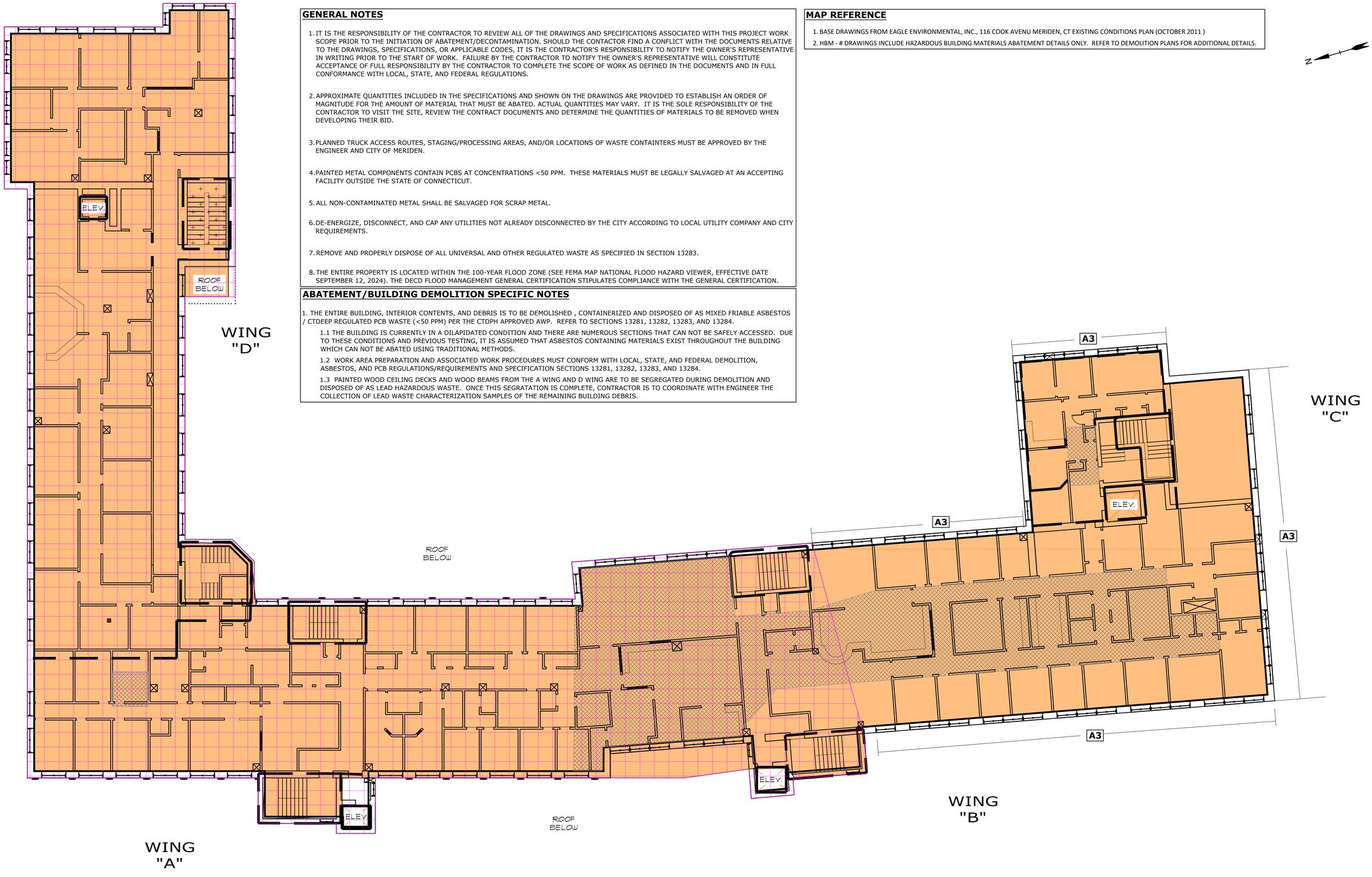

ABATEMENT AND DEMOLITION LEGEND

	REMOVE AND DISPOSE OF ENTIRE BUILDING, INCLUDING INTERIOR CONTENTS, AS MIXED FRIABLE AC/CTDEEP REGULATED PCB WASTE
A3	GENERAL LOCATION OF KNOWN AC WINDOW CAULK
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0 20' 40'
SCALE: 1" = 20'

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

ISSUED FOR CONSTRUCTION

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-HBM-103.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

THIRD FLOOR

SCALE: AS SHOWN

HBM-103
SHEET 11 OF 12

Last Saved: 12/3/2024
Plotted On:Dec 03, 2024-10:24am By: PAReady
Tighe & Bond:J:\MW\M0817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-HBM-103.dwg

GENERAL NOTES

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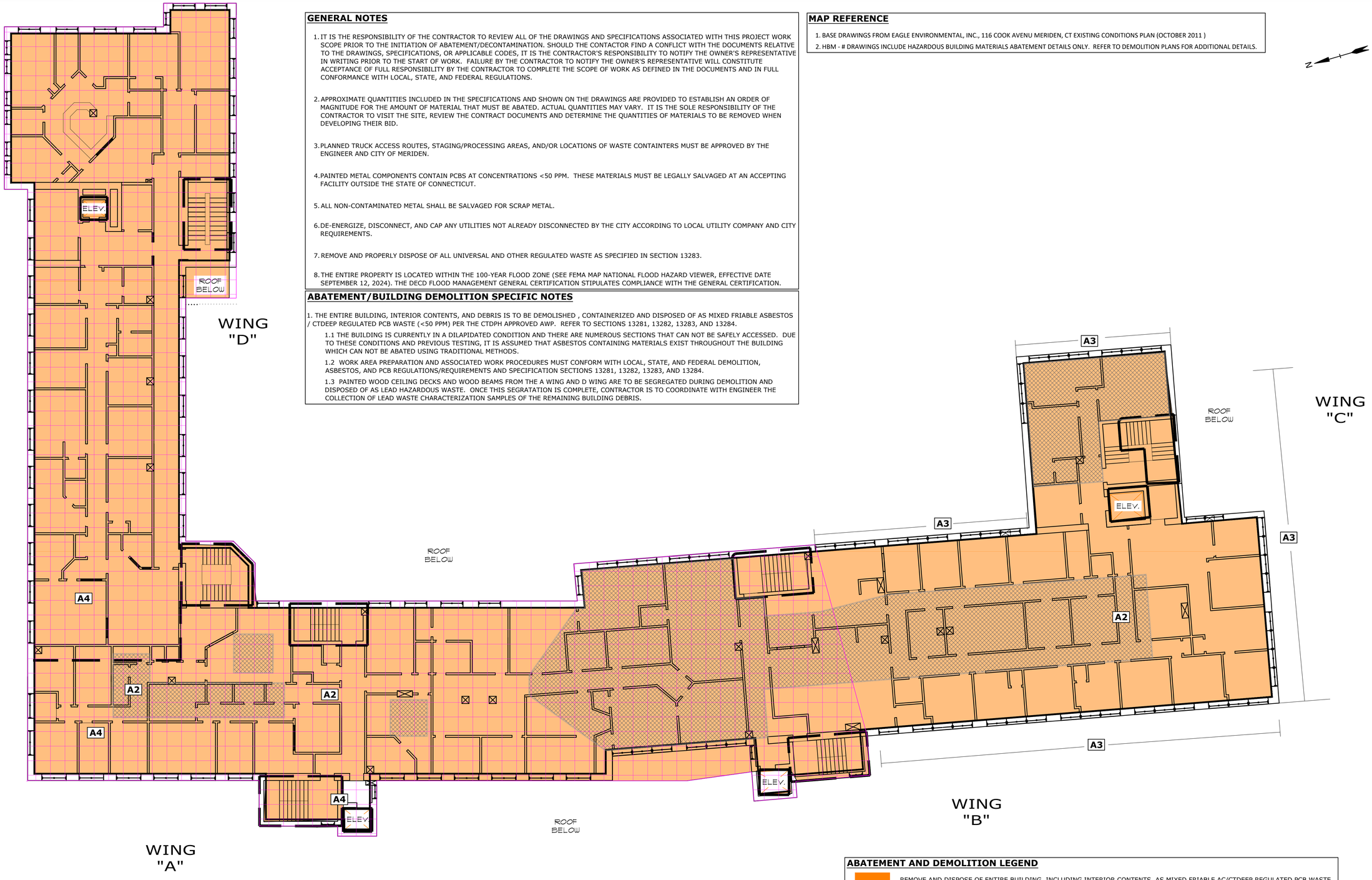
8. THE ENTIRE PROPERTY IS LOCATED WITHIN THE 100-YEAR FLOOD ZONE (SEE FEMA MAP NATIONAL FLOOD HAZARD VIEWER, EFFECTIVE DATE SEPTEMBER 12, 2024). THE DECD FLOOD MANAGEMENT GENERAL CERTIFICATION STIPULATES COMPLIANCE WITH THE GENERAL CERTIFICATION.

ABATEMENT/BUILDING DEMOLITION SPECIFIC NOTES

1. THE ENTIRE BUILDING, INTERIOR CONTENTS, AND DEBRIS IS TO BE DEMOLISHED , CONTAINERIZED AND DISPOSED OF AS MIXED FRIABLE ASBESTOS / CTDEEP REGULATED PCB WASTE (<50 PPM) PER THE CTDPH APPROVED AWP. REFER TO SECTIONS 13281, 13282, 13283, AND 13284.
   - 1.1 THE BUILDING IS CURRENTLY IN A DILAPIDATED CONDITION AND THERE ARE NUMEROUS SECTIONS THAT CAN NOT BE SAFELY ACCESSED. DUE TO THESE CONDITIONS AND PREVIOUS TESTING, IT IS ASSUMED THAT ASBESTOS CONTAINING MATERIALS EXIST THROUGHOUT THE BUILDING WHICH CAN NOT BE ABATED USING TRADITIONAL METHODS.
   - 1.2 WORK AREA PREPARATION AND ASSOCIATED WORK PROCEDURES MUST CONFORM WITH LOCAL, STATE, AND FEDERAL DEMOLITION, ASBESTOS, AND PCB REGULATIONS/REQUIREMENTS AND SPECIFICATION SECTIONS 13281, 13282, 13283, AND 13284.
   - 1.3 PAINTED WOOD CEILING DECKS AND WOOD BEAMS FROM THE A WING AND D WING ARE TO BE SEGREGATED DURING DEMOLITION AND DISPOSED OF AS LEAD HAZARDOUS WASTE. ONCE THIS SEGRATATION IS COMPLETE, CONTRACTOR IS TO COORDINATE WITH ENGINEER THE COLLECTION OF LEAD WASTE CHARACTERIZATION SAMPLES OF THE REMAINING BUILDING DEBRIS.

MAP REFERENCE

1. BASE DRAWINGS FROM EAGLE ENVIRONMENTAL, INC., 116 COOK AVENU MERIDEN, CT EXISTING CONDITIONS PLAN (OCTOBER 2011)
2. HBM - # DRAWINGS INCLUDE HAZARDOUS BUILDING MATERIALS ABATEMENT DETAILS ONLY. REFER TO DEMOLITION PLANS FOR ADDITIONAL DETAILS.



ABATEMENT AND DEMOLITION LEGEND

	REMOVE AND DISPOSE OF ENTIRE BUILDING, INCLUDING INTERIOR CONTENTS, AS MIXED FRIABLE AC/CTDEEP REGULATED PCB WASTE
A2	GENERAL LOCATION OF KNOWN AC FLOORING
A3	GENERAL LOCATION OF KNOWN AC WINDOW CAULK
A4	GENERAL LOCATION OF KNOWN AC ROOFING INSIDE BUILDING
	STRUCTURALLY DEFICIENT: ACCESS TO THESE AREAS IS NOT PERMITTED
	REMOVE, SEGREGATE, AND DISPOSE OF PAINTED WOOD CEILING DECK AND WOOD BEAMS AS LEAD HAZARDOUS WASTE
"AC"	ASBESTOS-CONTAINING
"PCBS"	POLYCHLORINATED BIPHENYLS
"PPM"	PARTS PER MILLION

0 20' 40'
SCALE: 1" = 20'

Tighe&Bond
1000 Bridgeport Avenue
Suite 320
Shelton, CT 06484
(203) 712-1100

ISSUED FOR CONSTRUCTION

Demolition and Waste Management at 116 Cook Avenue

City of Meriden

Meriden, Connecticut

MARK	DATE	DESCRIPTION

PROJECT NO:	M-0817-038
DATE:	11/04/2024
FILE:	M-0817-038-HBM-104.dwg
DRAWN BY:	ZJL
DESIGNED/CHECKED BY:	PAR
APPROVED BY:	HAL

FOURTH FLOOR

SCALE: AS SHOWN

HBM-104
SHEET 12 OF 12

Last Saved: 12/3/2024
Plotted On:Dec 03, 2024-10:24am By: PAReady
Tighe & Bond:J:\WM\M817 Meriden Brownfields\038 116 Cook Ave. Demo Design\Drawings\Sheet\M-0817-038-HBM-104.dwg

SIGN-IN SHEET
RFP025-01 Cook Ave Demo
City of Meriden–December 3, 2024 @ 10 am

	Company Name/Your Name	Address City/State	Phone	E-Mail Contact
1	Stamford Wrecking Randy Taylor	30 Nutmeg Drive Trumbull, CT	203-380-8300	estimators@ demolitionservices.com
2	Red technologies LLC Jonathon Fraser	873 Pickering St Portland CT	860 342-1022	JFraser@redtechllc.com
3	Town of Durham City	—	203-630-4115	—
4	Spectrum Environmental Keith Goodreau James Dipreta	16 Hamilton West Haven CT	860 8782155	Kgodreau@spectrum-env.com JDipreta@spectrum-env.com
5	Manafort Brothers Sarah Sanchez	414 New Britain Ave Plainville CT	860.793.6415	mbrandon@manafort.com estimating@manafort.com
6	NEWS LLC Vaughan Gaither	159 N Mountain Rd Newington CT	8606571-3500	IMF@NEWSLLC.NET
7	Tighe & Bond Harley Langford	213 Court St Middletown CT	860-704-4781	HALangford@Tighebond.com
8	Tighe & Bond Nathan Yergeau	213 Court St. Middletown, CT	203-668-1139	NYergeau@tighebond.com

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City of Meriden–December 3, 2024 @ 10 am

Sheet #2

	Company Name/Your Name	Address City/State	Phone	E-Mail Contact
1	American Environmental Grey Gray	18 W Canal St Holyoke MA 01040	5188648257	ggray@amerenviro.com
2	Bestech James Newbury	25 Pinnacle St Ellington, CT	860-896-1003	BNEWBURY@BESTECHCT.com
3	SRC Construction LLC	200 Pratt Street Meriden, CT	860-918-7506	Connor Vogel@SRCconstructs.com
4	Enco Environmental	70 W Liberty St Waterbury, CT 06706	203-627-5344	Richard shultz@ sbcglobal.net
5	Strategic Environmental	362 Putnam Hill Rd Sutton, MA 01590	508-865-8231	bmaddocks@strategic-es.com
6	LaRosa Const. Brian Gombotz	1415 N. Colony Rd Meriden, CT	475-414-6033	Brian@LaRosacc.com
7	Wiese Construction Natalia Wiese	282 Franklin St. Norwich, CT	860 889 4973	nataliae@wiese-construction.com
8	J and S	200 Pratt Street meriden CT	2035372017	Johnny.Carabetta@Carabetta.com

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RFP025-01 Cook Ave Demo
City of Meriden–December 3, 2024 @ 10 am

	Company Name/Your Name	Address City/State	Phone	E-Mail Contact
9	Strategic Env. Services Paul Saccenta	89 Stenmall Rd Newington, CT	860-571-1140	psaccenta@strategic-es.com
10				
11				
12				
13				
14				
15				
16				